Pulse
a YAGEO company

CHILISIN ELECTRONICS CORP.

Total Solution Provider for Power, EMI and RF.

Inductors
SMD Components

BSCQ Series

BSCQ Series supports miniaturized devices. Its low inductance, high precision and high Q enables easy impedance matching at both RF and IF circuits and compact high frequency circuit designing.

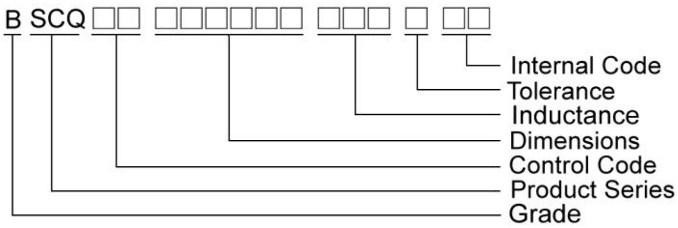
Features

- Excellent high frequency application
- High Q factor and SRF value
- Miniaturization
- Tight tolerance
- Wide inductance range

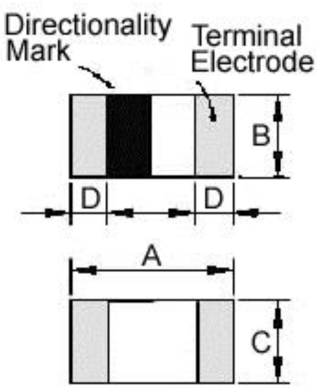
Applications

- RF matching circuit requiring Q value
- Bluetooth, WLAN, UWB, digital TV tuners and high-frequency circuit and module

Product Identification



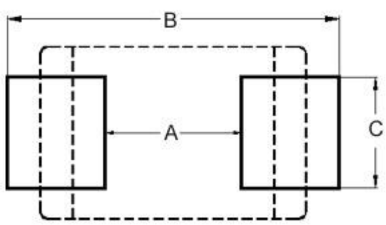
Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D
BSCQ00060303	0.6±0.03	0.3±0.03	0.3±0.03	0.15±0.05

Recommended Pattern



Dimensions in mm

TYPE	A	B	C
BSCQ00060303	0.3	0.75 ~ 1.05	0.3

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Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Min	Test Freq. (MHz)	Q Typical 500 MHz	800 MHz	1.8 GHz	2.0 GHz	2.4 GHz	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCQ000603030N6□00	0.6	±0.1nH/±0.2nH/±0.3nH	14	500	>24	>32	>54	>57	>65	10000	0.06	900
BSCQ000603030N7□00	0.7	±0.1nH/±0.2nH/±0.3nH	14	500	>24	>32	>54	>57	>65	10000	0.06	900
BSCQ000603030N8□00	0.8	±0.1nH/±0.2nH/±0.3nH	14	500	>24	>32	>54	>57	>65	10000	0.06	900
BSCQ000603030N9□00	0.9	±0.1nH/±0.2nH/±0.3nH	14	500	>24	>32	>54	>57	>65	10000	0.06	900
BSCQ000603031N0□00	1.0	±0.1nH/±0.2nH/±0.3nH	14	500	23	32	54	57	65	10000	0.07	850
BSCQ000603031N1□00	1.1	±0.1nH/±0.2nH/±0.3nH	14	500	22	26	45	47	55	10000	0.07	850
BSCQ000603031N2□00	1.2	±0.1nH/±0.2nH/±0.3nH	14	500	22	25	43	44	52	10000	0.08	800
BSCQ000603031N3□00	1.3	±0.1nH/±0.2nH/±0.3nH	14	500	19	25	40	42	47	10000	0.09	760
BSCQ000603031N4□00	1.4	±0.1nH/±0.2nH/±0.3nH	14	500	19	24	339	41	47	10000	0.12	640
BSCQ000603031N5□00	1.5	±0.1nH/±0.2nH/±0.3nH	14	500	19	24	39	41	46	10000	0.15	600
BSCQ000603031N6□00	1.6	±0.1nH/±0.2nH/±0.3nH	14	500	19	24	39	41	46	10000	0.19	510
BSCQ000603031N7□00	1.7	±0.1nH/±0.2nH/±0.3nH	14	500	19	24	39	41	46	10000	0.11	680
BSCQ000603031N8□00	1.8	±0.1nH/±0.2nH/±0.3nH	14	500	19	24	39	41	46	10000	0.12	640
BSCQ000603031N9□00	1.9	±0.1nH/±0.2nH/±0.3nH	14	500	18	24	38	40	45	10000	0.13	620
BSCQ000603032N0□00	2.0	±0.1nH/±0.2nH/±0.3nH	14	500	17	24	38	39	44	10000	0.15	600
BSCQ000603032N1□00	2.1	±0.1nH/±0.2nH/±0.3nH	14	500	17	24	37	39	44	10000	0.16	550
BSCQ000603032N2□00	2.2	±0.1nH/±0.2nH/±0.3nH	14	500	17	24	38	40	43	10000	0.20	500
BSCQ000603032N3□00	2.3	±0.1nH/±0.2nH/±0.3nH	14	500	17	24	37	39	43	10000	0.24	460
BSCQ000603032N4□00	2.4	±0.1nH/±0.2nH/±0.3nH	14	500	17	23	36	38	42	10000	0.26	430
BSCQ000603032N5□00	2.5	±0.1nH/±0.2nH/±0.3nH	14	500	17	23	35	36	40	10000	0.28	415
BSCQ000603032N6□00	2.6	±0.1nH/±0.2nH/±0.3nH	14	500	17	22	34	35	39	10000	0.30	405
BSCQ000603032N7□00	2.7	±0.1nH/±0.2nH/±0.3nH	14	500	17	22	34	35	39	10000	0.32	400
BSCQ000603032N8□00	2.8	±0.1nH/±0.2nH/±0.3nH	14	500	17	22	34	35	39	9500	0.20	500
BSCQ000603032N9□00	2.9	±0.1nH/±0.2nH/±0.3nH	14	500	17	22	34	35	39	9300	0.22	480
BSCQ000603033N0□00	3.0	±0.1nH/±0.2nH/±0.3nH	14	500	17	22	34	35	39	9100	0.24	460
BSCQ000603033N1□00	3.1	±0.1nH/±0.2nH/±0.3nH	14	500	17	22	34	35	39	8900	0.25	450
BSCQ000603033N2□00	3.2	±0.1nH/±0.2nH/±0.3nH	14	500	17	22	33	35	39	8700	0.28	415
BSCQ000603033N3□00	3.3	±0.1nH/±0.2nH/±0.3nH	14	500	18	23	34	36	40	8600	0.28	415
BSCQ000603033N4□00	3.4	±0.1nH/±0.2nH/±0.3nH	14	500	17	23	33	35	39	8400	0.29	410
BSCQ000603033N5□00	3.5	±0.1nH/±0.2nH/±0.3nH	14	500	17	23	33	35	39	8200	0.30	405
BSCQ000603033N6□00	3.6	±0.1nH/±0.2nH/±0.3nH	14	500	16	23	33	35	39	8100	0.32	400
BSCQ000603033N7□00	3.7	±0.1nH/±0.2nH/±0.3nH	14	500	16	23	33	35	38	8000	0.36	370
BSCQ000603033N8□00	3.8	±0.1nH/±0.2nH/±0.3nH	14	500	16	22	33	35	38	7800	0.40	355
BSCQ000603033N9□00	3.9	±0.1nH/±0.2nH/±0.3nH	14	500	16	22	33	35	38	7700	0.41	350

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , S=±0.3nH , H=±3% , J=±5%

- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0.48nH
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent 16197A

  SRF：Agilent E4991A or HP19196C

  RDC：HP4338B or CHEN HWA 502

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Min	Test Freq. (MHz)	Q Typical 500 MHz	800 MHz	1.8 GHz	2.0 GHz	2.4 GHz	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCQ000603034N3□00	4.3	±0.2nH/±0.3nH	14	500	16	21	32	34	37	6500	0.48	320
BSCQ000603034N7□00	4.7	±0.2nH/±0.3nH	14	500	16	22	33	35	38	6400	0.42	350
BSCQ000603035N1□00	5.1	±0.2nH/±0.3nH	14	500	17	22	34	36	38	6100	0.45	330
BSCQ000603035N6□00	5.6	±0.2nH/±0.3nH	14	500	16	21	33	34	37	5500	0.47	325
BSCQ000603036N2□00	6.2	±0.2nH/±0.3nH	14	500	18	23	34	35	37	5100	0.52	305
BSCQ000603036N8□00	6.8	3 / 5	14	500	17	22	32	33	35	4800	0.55	305
BSCQ000603037N5□00	7.5	3 / 5	14	500	16	21	31	33	34	4600	0.55	305
BSCQ000603038N2□00	8.2	3 / 5	14	500	16	21	31	32	34	4300	0.57	290
BSCQ000603039N1□00	9.1	3 / 5	14	500	16	20	30	31	32	4000	0.65	270
BSCQ0006030310N□00	10	3 / 5	14	500	16	20	28	29	31	3800	0.85	230
BSCQ0006030312N□00	12	3 / 5	12	500	16	20	27	28	28	3300	0.85	230
BSCQ0006030315N□00	15	3 / 5	12	500	15	19	24	24	23	2600	0.89	220
BSCQ0006030318N□00	18	3 / 5	12	500	15	19	23	24	22	2300	1.05	205
BSCQ0006030322N□00	22	3 / 5	12	500	15	19	22	23	20	1900	1.29	190

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , S=±0.3nH , H=±3% , J=±5%

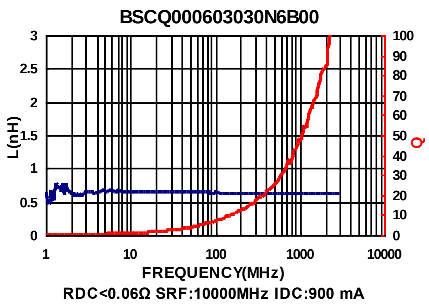
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0.48nH
- Measure Equipment：

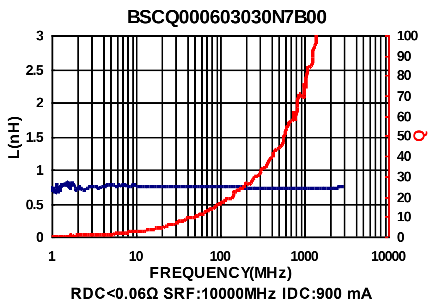
  L & Q：Agilent E4991A+Agilent 16197A

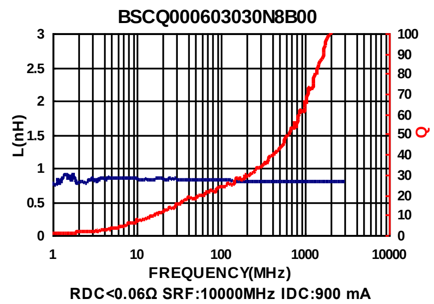
  SRF：Agilent E4991A or HP19196C

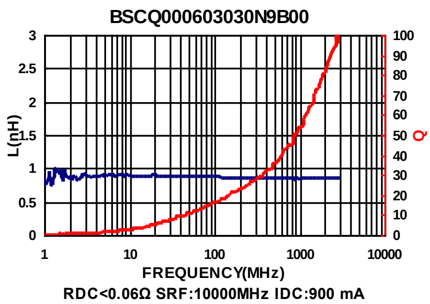
  RDC：HP4338B or CHEN HWA 502

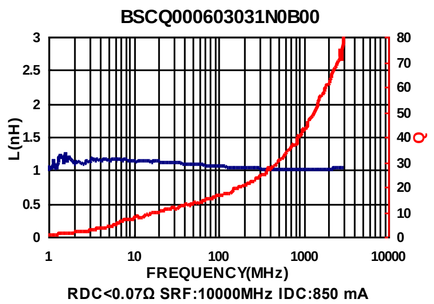
Test Instruments：Agilent E4991A Material/Impedance Analyzer

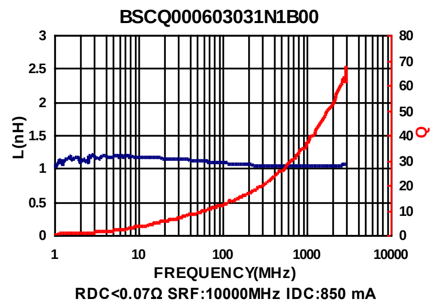












Test Instruments：Agilent E4991A Material/Impedance Analyzer

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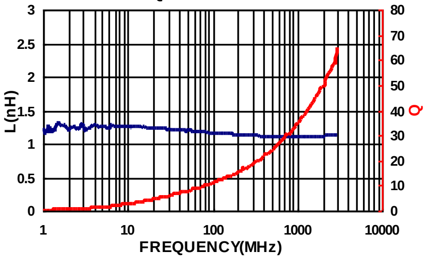

RDC<0.08Ω SRF:10000MHz IDC:800 mA

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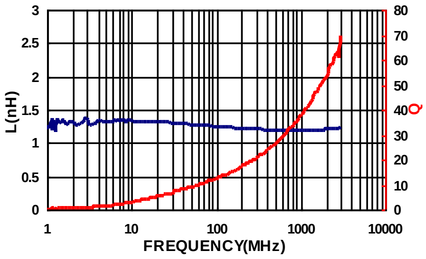

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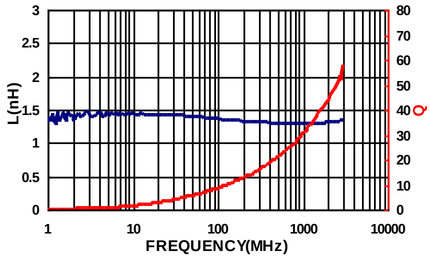

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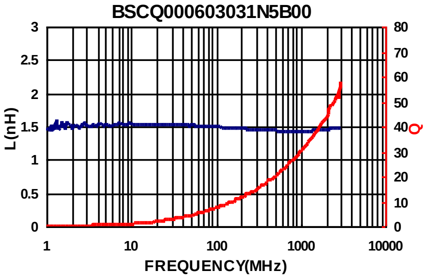

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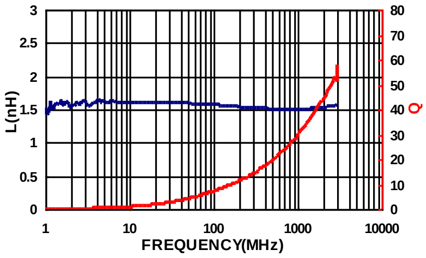

RDC<0.19Ω SRF:10000MHz IDC:510 mA

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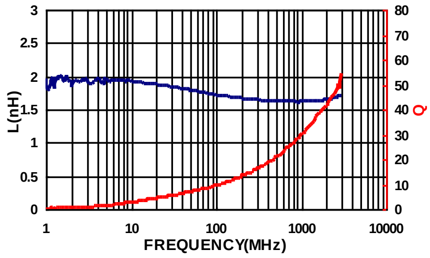

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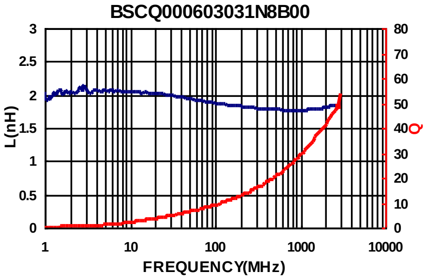

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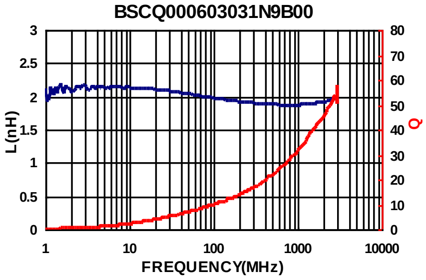

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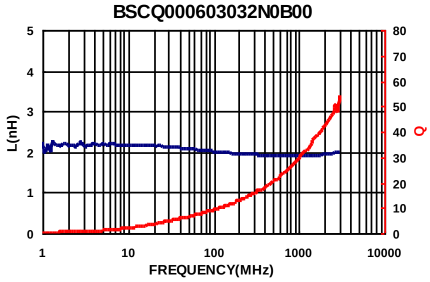

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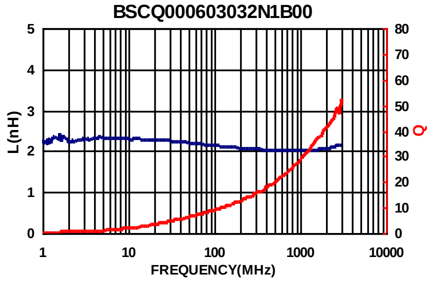

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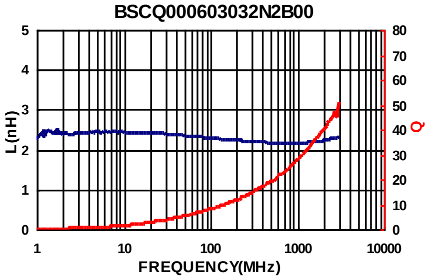

RDC<0.2Ω SRF:10000MHz IDC:500 mA

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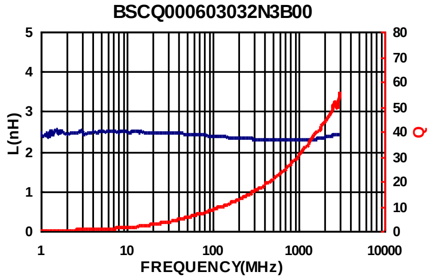

RDC<0.24Ω SRF:10000MHz IDC:460 mA

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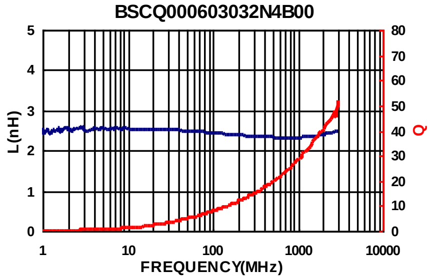

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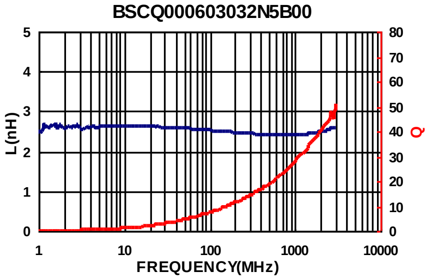

RDC<0.28Ω SRF:10000MHz IDC:415 mA

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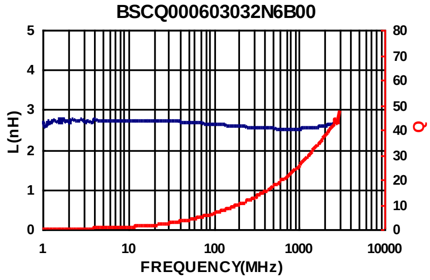

RDC<0.3Ω SRF:10000MHz IDC:405 mA

Test Instruments：Agilent E4991A Material/Impedance Analyzer

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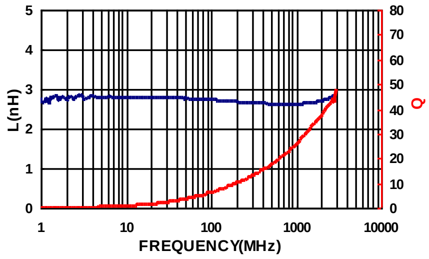

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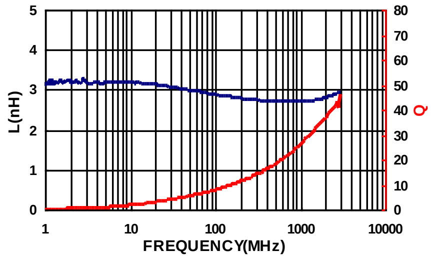

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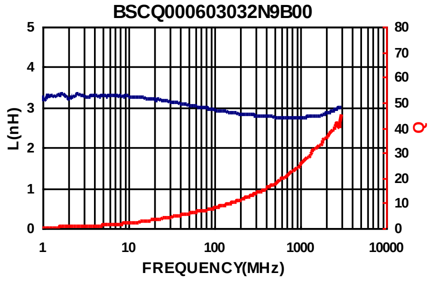

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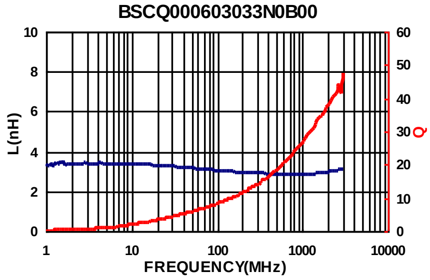

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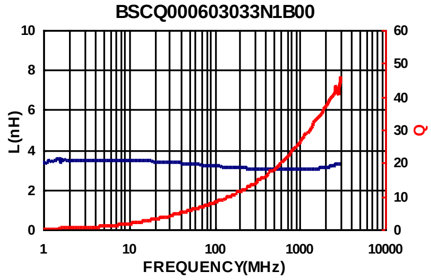

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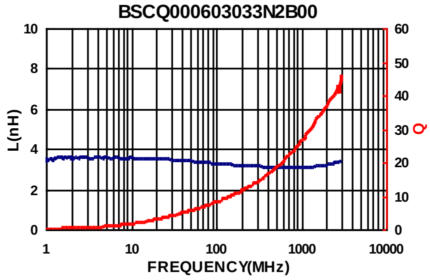

RDC<0.28Ω SRF:8700MHz IDC:415 mA

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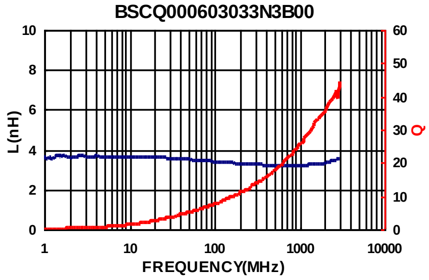

RDC<0.28Ω SRF:8600MHz IDC:415 mA

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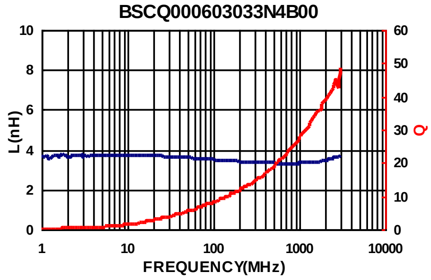

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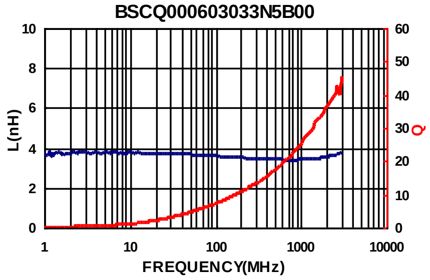

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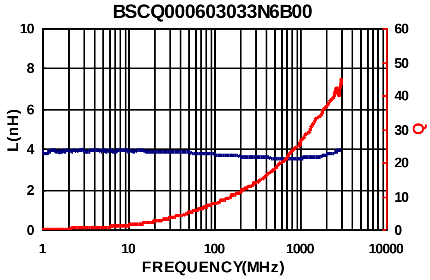

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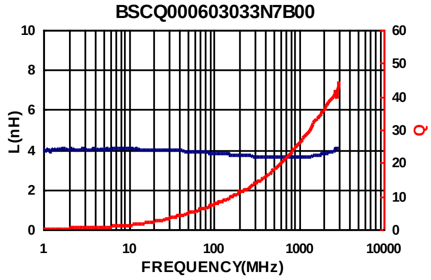
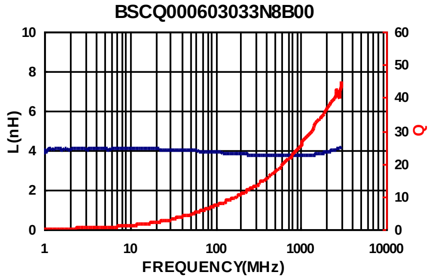


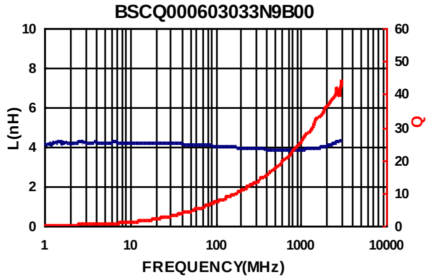
RDC<0.36Ω SRF:8000MHz IDC:370 mA

BSCQ000603033N8B00



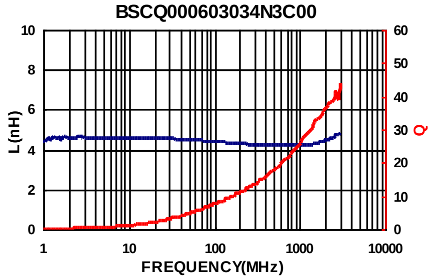
RDC<0.4Ω SRF:7800MHz IDC:355 mA

BSCQ000603033N9B00



RDC<0.41Ω SRF:7700MHz IDC:350 mA

BSCQ000603034N3C00



RDC<0.48Ω SRF:6500MHz IDC:320 mA

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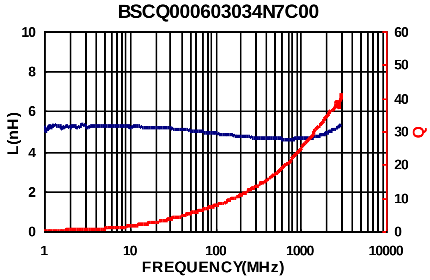

RDC<0.42Ω SRF:6400MHz IDC:350 mA

Test Instruments： Agilent E4991A Material/Impedance Analyzer

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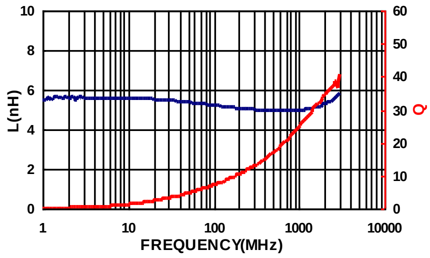

RDC<0.45Ω SRF:6100MHz IDC:330 mA

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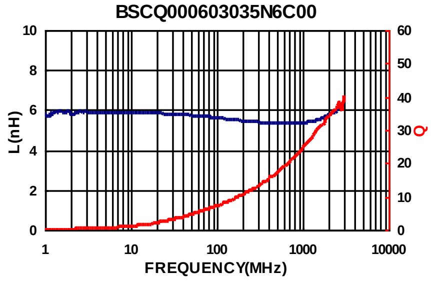

RDC<0.47Ω SRF:5500MHz IDC:325 mA

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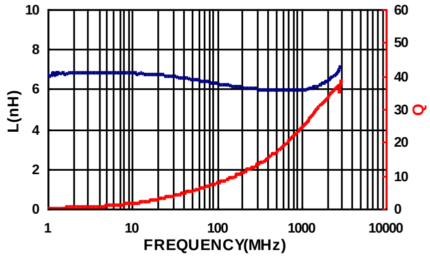

RDC<0.52Ω SRF:5100MHz IDC:305 mA

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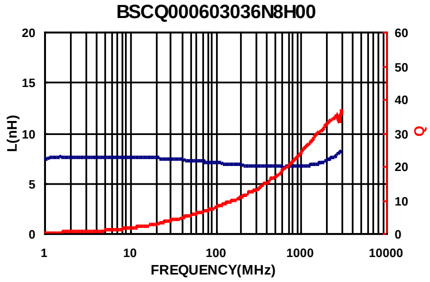
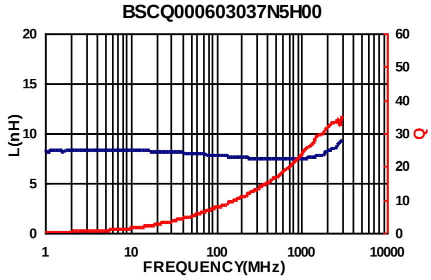


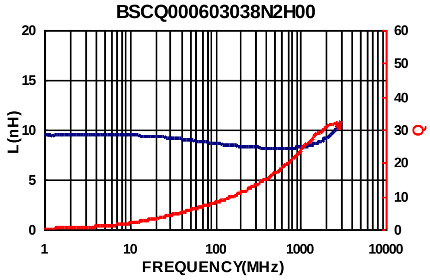
RDC<0.55Ω SRF:4800MHz IDC:305 mA

BSCQ000603037N5H00



RDC<0.55Ω SRF:4600MHz IDC:305 mA

BSCQ000603038N2H00



RDC<0.57Ω SRF:4300MHz IDC:290 mA

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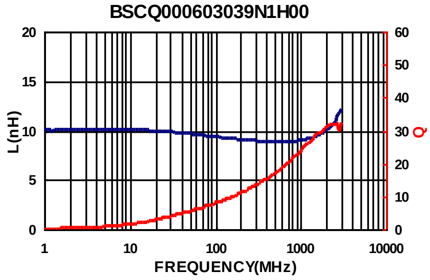

RDC<0.65Ω SRF:4000MHz IDC:270 mA

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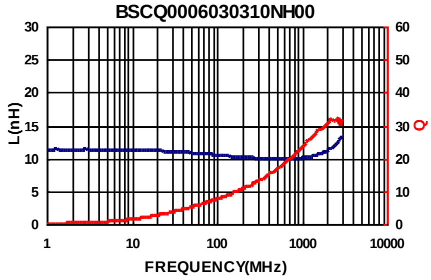
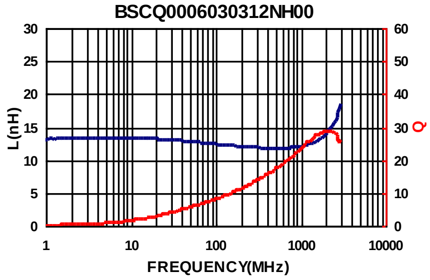


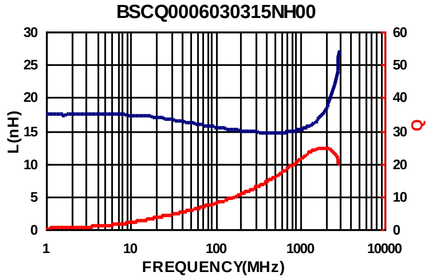
RDC<0.85Ω SRF:3800MHz IDC:230 mA

BSCQ0006030312NH00



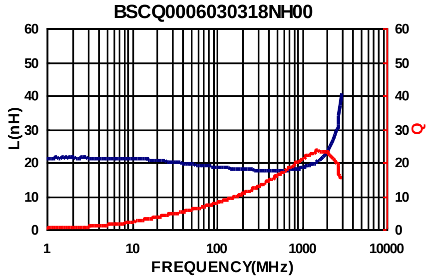
RDC<0.85Ω SRF:3300MHz IDC:230 mA

BSCQ0006030315NH00



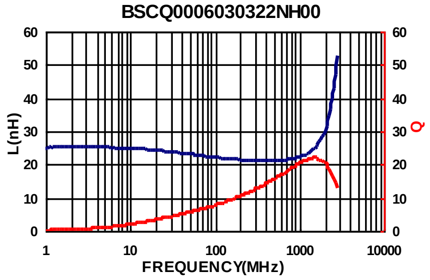
RDC<0.89Ω SRF:2600MHz IDC:220 mA

BSCQ0006030318NH00



RDC<1.05Ω SRF:2300MHz IDC:205 mA

BSCQ0006030322NH00



RDC<1.29Ω SRF:1900MHz IDC:190 mA

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCQ000603030N1□HR	0.1	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.06	900
BSCQ000603030N2□HR	0.2	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.06	900
BSCQ000603030N3□HR	0.3	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.06	900
BSCQ000603030N4□HR	0.4	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.06	900
BSCQ000603030N5□HR	0.5	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.07	850
BSCQ000603030N6□HR	0.6	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.07	850
BSCQ000603030N7□HR	0.7	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.08	800
BSCQ000603030N8□HR	0.8	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.09	760
BSCQ000603030N9□HR	0.9	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.12	640
BSCQ000603031N0□HR	1.0	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.15	600
BSCQ000603031N1□HR	1.1	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.19	510
BSCQ000603031N2□HR	1.2	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.11	680
BSCQ000603031N3□HR	1.3	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.12	640
BSCQ000603031N4□HR	1.4	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.13	620
BSCQ000603031N5□HR	1.5	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.15	600
BSCQ000603031N6□HR	1.6	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.16	550
BSCQ000603031N7□HR	1.7	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.20	500
BSCQ000603031N8□HR	1.8	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.24	460
BSCQ000603031N9□HR	1.9	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.26	430
BSCQ000603032N0□HR	2.0	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.28	415
BSCQ000603032N1□HR	2.1	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.30	405
BSCQ000603032N2□HR	2.2	±0.1nH/±0.2nH/±0.3nH	14	500	10000	0.32	400
BSCQ000603032N3□HR	2.3	±0.1nH/±0.2nH/±0.3nH	14	500	9500	0.20	500
BSCQ000603032N4□HR	2.4	±0.1nH/±0.2nH/±0.3nH	14	500	9300	0.22	480
BSCQ000603032N5□HR	2.5	±0.1nH/±0.2nH/±0.3nH	14	500	9100	0.24	460
BSCQ000603032N6□HR	2.6	±0.1nH/±0.2nH/±0.3nH	14	500	8900	0.25	450
BSCQ000603032N7□HR	2.7	±0.1nH/±0.2nH/±0.3nH	14	500	8700	0.28	415
BSCQ000603032N8□HR	2.8	±0.1nH/±0.2nH/±0.3nH	14	500	8600	0.28	415
BSCQ000603032N9□HR	2.9	±0.1nH/±0.2nH/±0.3nH	14	500	8400	0.29	410
BSCQ000603033N0□HR	3.0	±0.1nH/±0.2nH/±0.3nH	14	500	8200	0.30	405
BSCQ000603033N1□HR	3.1	±0.1nH/±0.2nH/±0.3nH	14	500	8100	0.32	400
BSCQ000603033N2□HR	3.2	±0.1nH/±0.2nH/±0.3nH	14	500	8000	0.36	370

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , S=±0.3nH , H=±3% , J=±5%

- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0nH
- Measure Equipment：
  L & Q：Agilent E4991A+Agilent 16197A
  SRF：Agilent E4991A or HP19196C
  RDC：HP4338B or CHEN HWA 502

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCQ000603033N3□HR	3.3	±0.1nH/±0.2nH/±0.3nH	14	500	7800	0.40	355
BSCQ000603033N4□HR	3.4	±0.1nH/±0.2nH/±0.3nH	14	500	7700	0.41	350
BSCQ000603033N5□HR	3.5	±0.1nH/±0.2nH/±0.3nH	14	500	7700	0.41	350
BSCQ000603033N6□HR	3.6	±0.1nH/±0.2nH/±0.3nH	14	500	6500	0.48	320
BSCQ000603033N7□HR	3.7	±0.1nH/±0.2nH/±0.3nH	14	500	6500	0.48	320
BSCQ000603033N8□HR	3.8	±0.1nH/±0.2nH/±0.3nH	14	500	6500	0.48	320
BSCQ000603033N9□HR	3.9	±0.1nH/±0.2nH/±0.3nH	14	500	6500	0.48	320
BSCQ000603034N3□HR	4.3	±0.2nH/±0.3nH	14	500	6400	0.42	350
BSCQ000603034N7□HR	4.7	±0.2nH/±0.3nH	14	500	6100	0.45	330
BSCQ000603035N1□HR	5.1	±0.2nH/±0.3nH	14	500	5500	0.47	325
BSCQ000603035N6□HR	5.6	±0.2nH/±0.3nH	14	500	5100	0.52	305
BSCQ000603036N2□HR	6.2	±0.2nH/±0.3nH	14	500	4800	0.55	305
BSCQ000603036N8□HR	6.8	3 / 5	14	500	4600	0.55	305
BSCQ000603037N5□HR	7.5	3 / 5	14	500	4300	0.57	290
BSCQ000603038N2□HR	8.2	3 / 5	14	500	4000	0.65	270
BSCQ000603039N1□HR	9.1	3 / 5	14	500	3800	0.85	230
BSCQ0006030310N□HR	10	3 / 5	14	500	3800	0.85	230
BSCQ0006030312N□HR	12	3 / 5	12	500	3300	0.85	230
BSCQ0006030315N□HR	15	3 / 5	12	500	2600	0.89	220
BSCQ0006030318N□HR	18	3 / 5	12	500	2300	1.05	205
BSCQ0006030322N□HR	22	3 / 5	12	500	1900	1.29	190

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , S=±0.3nH , H=±3% , J=±5%

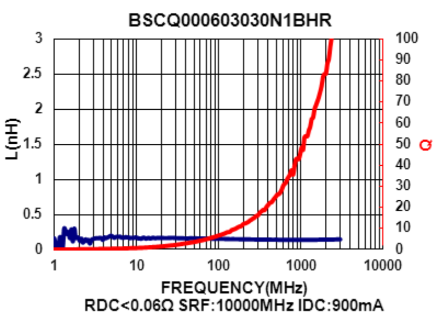
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0nH
- Measure Equipment：

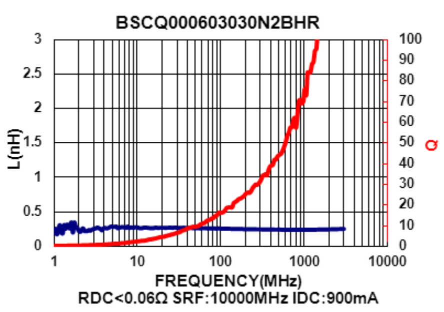
  L & Q：Agilent E4991A+Agilent 16197A

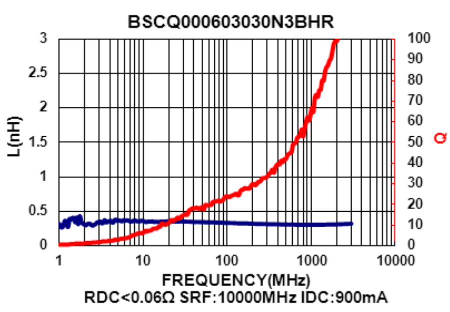
  SRF：Agilent E4991A or HP19196C

  RDC：HP4338B or CHEN HWA 502

Test Instruments：Agilent E4991A Material/Impedance Analyzer







Test Instruments： Agilent E4991A Material/Impedance Analyzer

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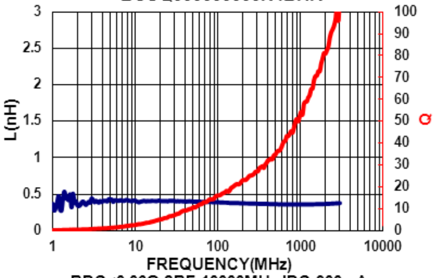

RDC<0.06Ω SRF:10000MHz IDC:900mA

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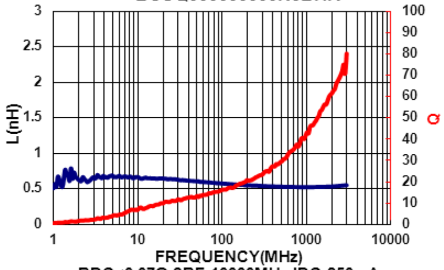

RDC<0.07Ω SRF:10000MHz IDC:850mA

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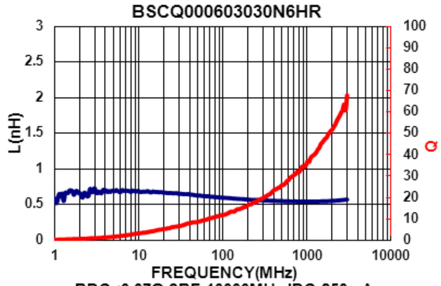

RDC<0.07Ω SRF:10000MHz IDC:850mA

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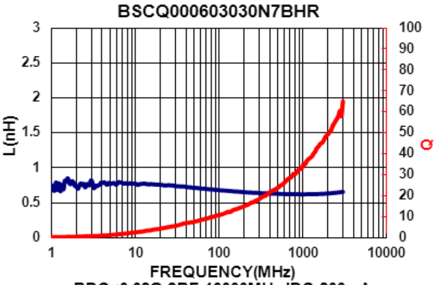

RDC<0.08Ω SRF:10000MHz IDC:800mA

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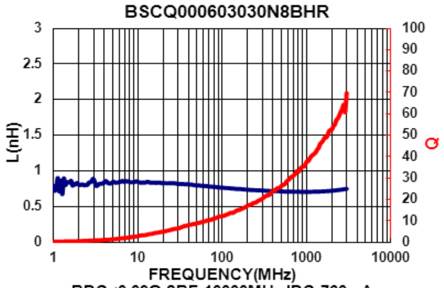

RDC<0.09Ω SRF:10000MHz IDC:760mA

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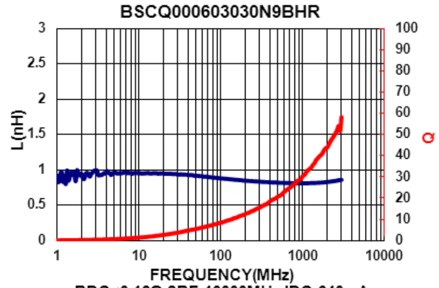

RDC<0.12Ω SRF:10000MHz IDC:640mA

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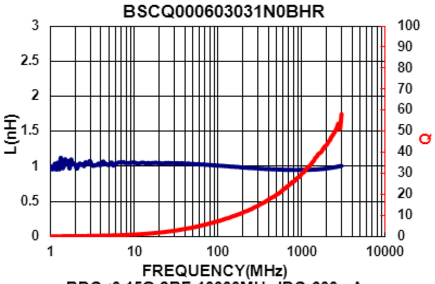

RDC<0.15Ω SRF:10000MHz IDC:600mA

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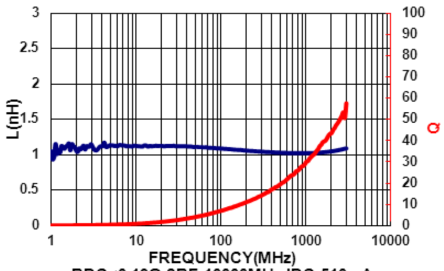

RDC<0.19Ω SRF:10000MHz IDC:510mA

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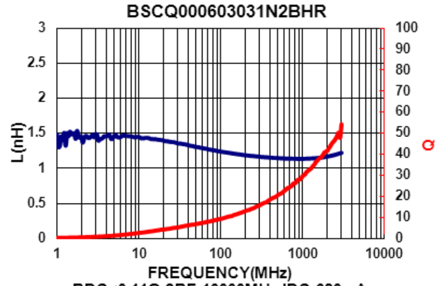

RDC<0.11Ω SRF:10000MHz IDC:680mA

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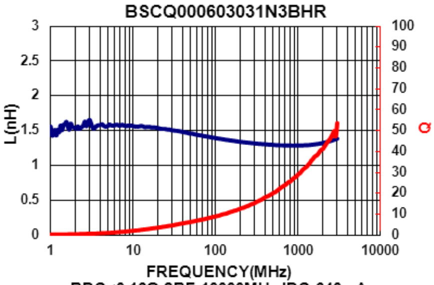

RDC<0.12Ω SRF:10000MHz IDC:640mA

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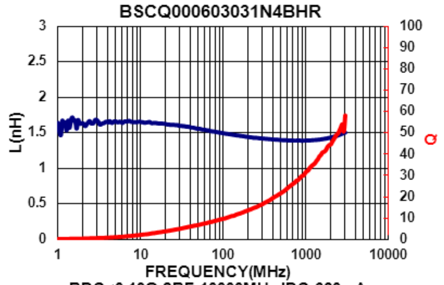

RDC<0.13Ω SRF:10000MHz IDC:620mA

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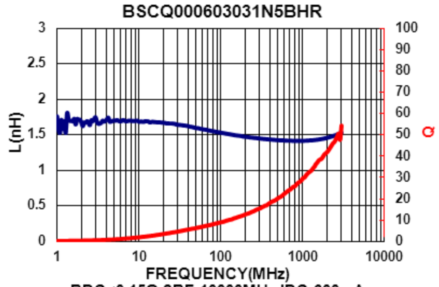

RDC<0.15Ω SRF:10000MHz IDC:600mA

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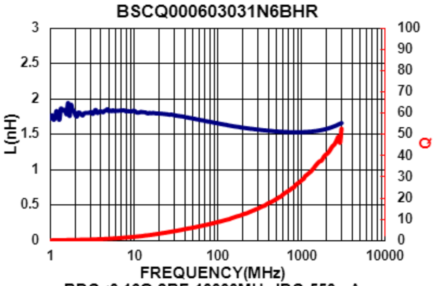

RDC<0.16Ω SRF:10000MHz IDC:550mA

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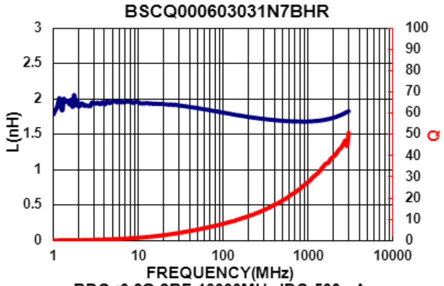

RDC<0.2Ω SRF:10000MHz IDC:500mA

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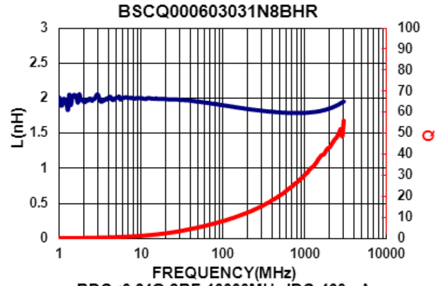

RDC<0.24Ω SRF:10000MHz IDC:460mA

Test Instruments：Agilent E4991A Material/Impedance Analyzer

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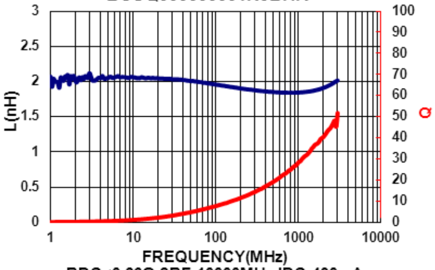

RDC<0.26Ω SRF:10000MHz IDC:430mA

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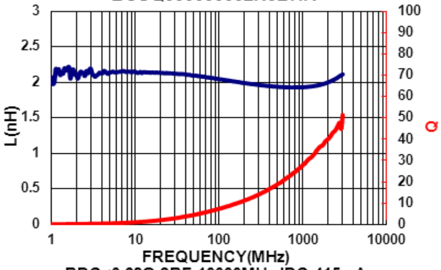

RDC<0.28Ω SRF:10000MHz IDC:415mA

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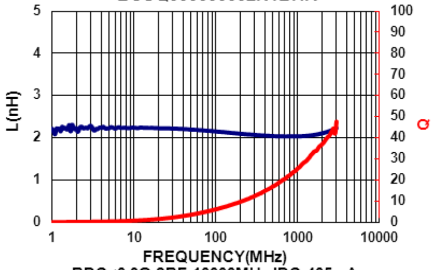
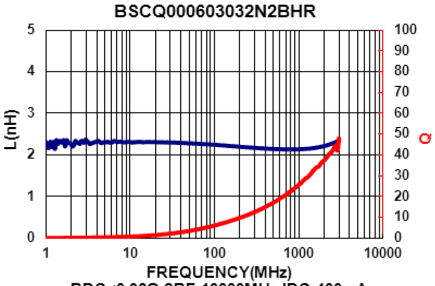


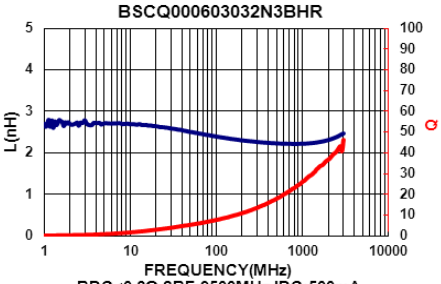
RDC<0.3Ω SRF:10000MHz IDC:405mA

BSCQ000603032N2BHR



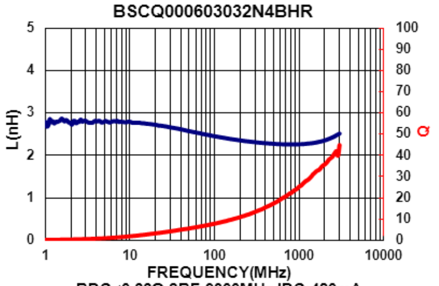
RDC<0.32Ω SRF:10000MHz IDC:400mA

BSCQ000603032N3BHR



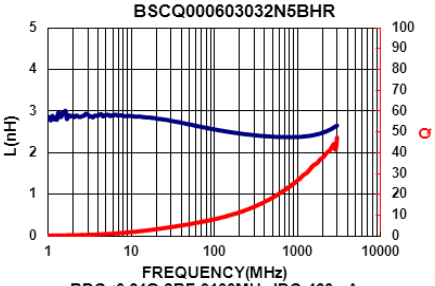
RDC<0.2Ω SRF:9500MHz IDC:500mA

BSCQ000603032N4BHR



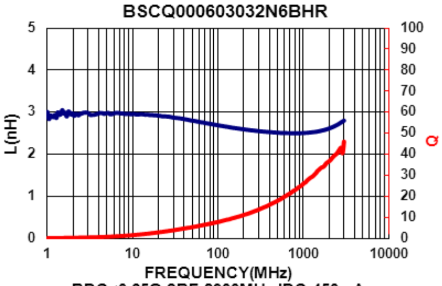
RDC<0.22Ω SRF:9300MHz IDC:480mA

BSCQ000603032N5BHR



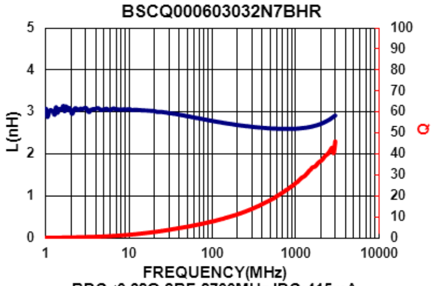
RDC<0.24Ω SRF:9100MHz IDC:460mA

BSCQ000603032N6BHR



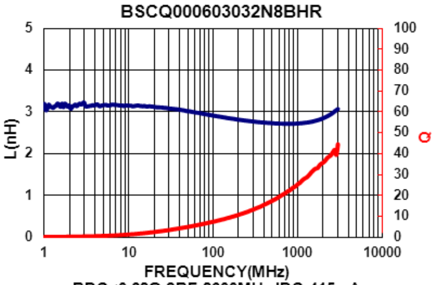
RDC<0.25Ω SRF:8900MHz IDC:450mA

BSCQ000603032N7BHR



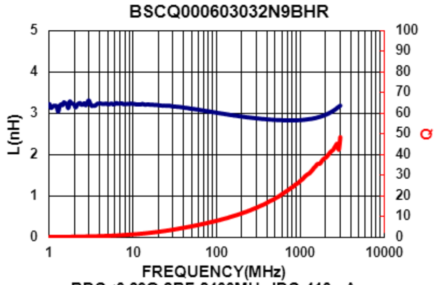
RDC<0.28Ω SRF:8700MHz IDC:415mA

BSCQ000603032N8BHR



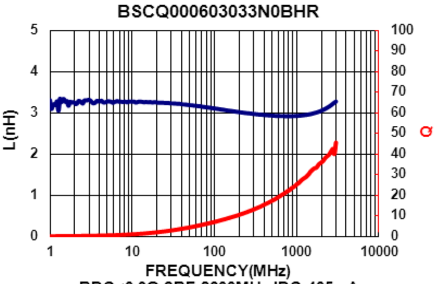
RDC<0.28Ω SRF:8600MHz IDC:415mA

BSCQ000603032N9BHR



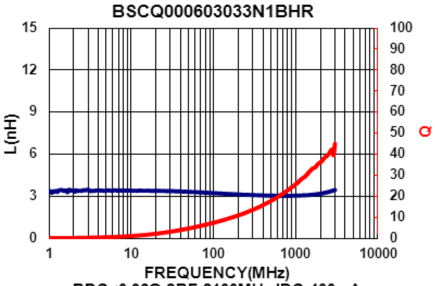
RDC<0.29Ω SRF:8400MHz IDC:410mA

BSCQ000603033N0BHR



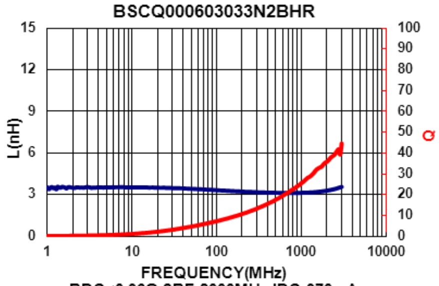
RDC<0.3Ω SRF:8200MHz IDC:405mA

BSCQ000603033N1BHR



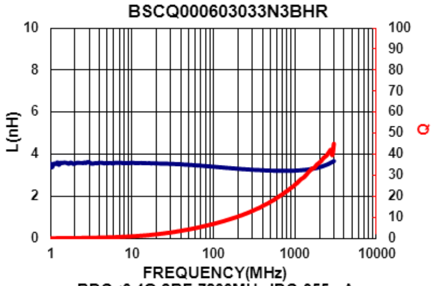
RDC<0.32Ω SRF:8100MHz IDC:400mA

BSCQ000603033N2BHR



RDC<0.36Ω SRF:8000MHz IDC:370mA

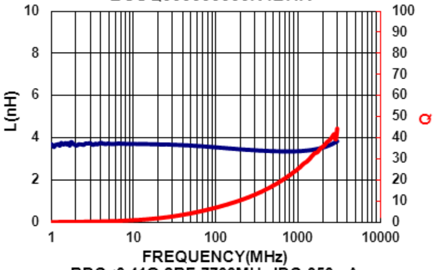
BSCQ000603033N3BHR



RDC<0.4Ω SRF:7800MHz IDC:355mA

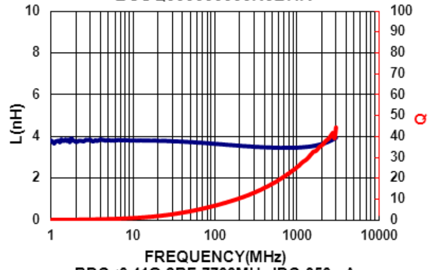
Test Instruments：Agilent E4991A Material/Impedance Analyzer

BSCQ000603033N4BHR



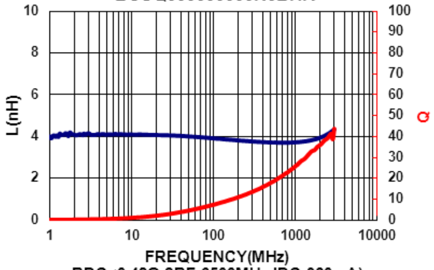
RDC<0.41Ω SRF:7700MHz IDC:350mA

BSCQ000603033N5BHR



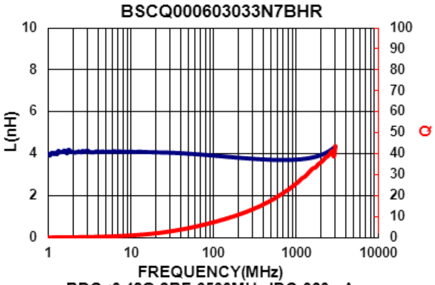
RDC<0.41Ω SRF:7700MHz IDC:350mA

BSCQ000603033N6BHR



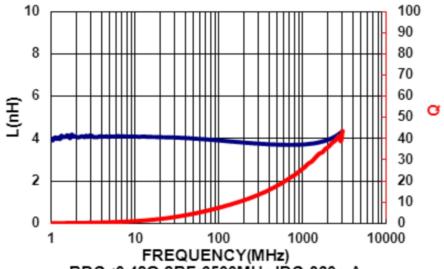
RDC<0.48Ω SRF:6500MHz IDC:320mA)

BSCQ000603033N7BHR



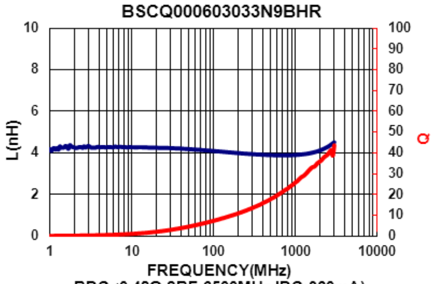
RDC<0.48Ω SRF:6500MHz IDC:320mA

BSCQ000603033N8BHR



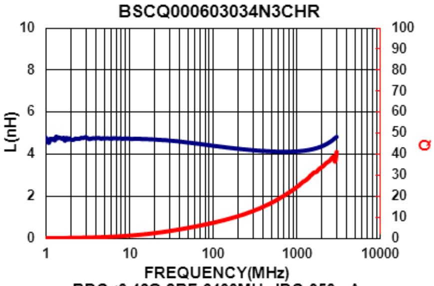
RDC<0.48Ω SRF:6500MHz IDC:320mA

BSCQ000603033N9BHR



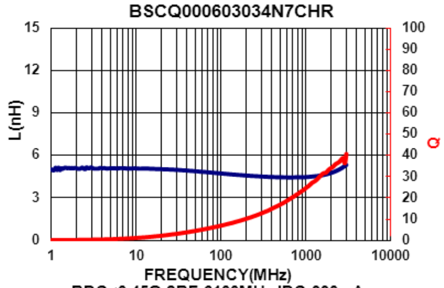
RDC<0.48Ω SRF:6500MHz IDC:320mA)

BSCQ000603034N3CHR



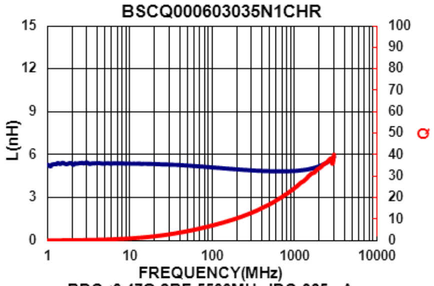
RDC<0.42Ω SRF:6400MHz IDC:350mA

BSCQ000603034N7CHR



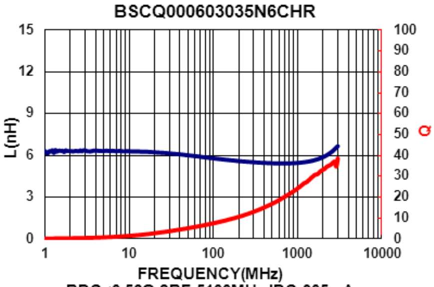
RDC<0.45Ω SRF:6100MHz IDC:330mA

BSCQ000603035N1CHR



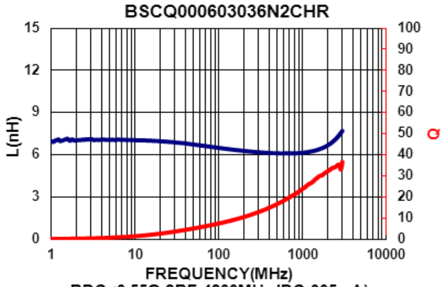
RDC<0.47Ω SRF:5500MHz IDC:325mA

BSCQ000603035N6CHR



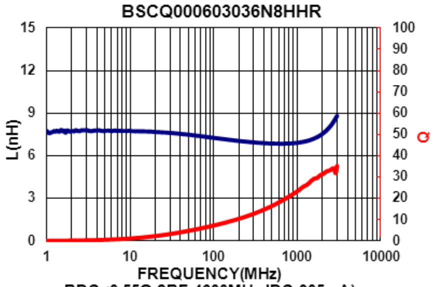
RDC<0.52Ω SRF:5100MHz IDC:305mA

BSCQ000603036N2CHR



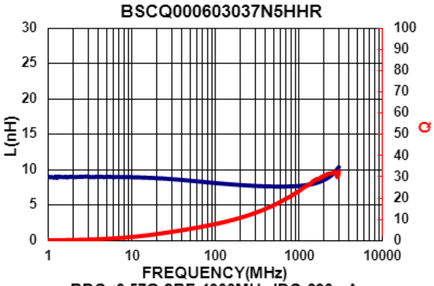
RDC<0.55Ω SRF:4800MHz IDC:305mA)

BSCQ000603036N8HHR



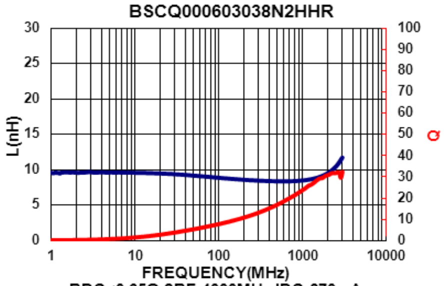
RDC<0.55Ω SRF:4600MHz IDC:305mA)

BSCQ000603037N5HHR



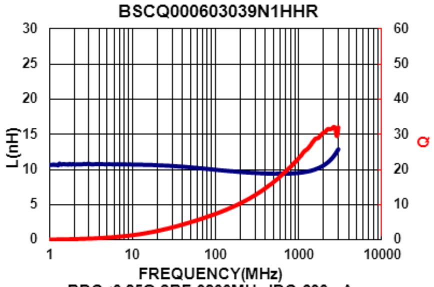
RDC<0.57Ω SRF:4300MHz IDC:290mA

BSCQ000603038N2HHR



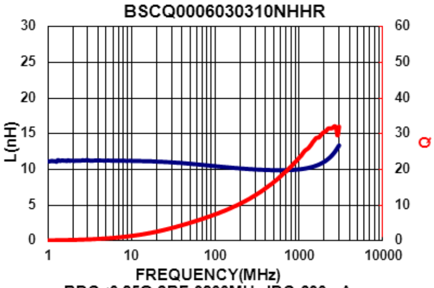
RDC<0.65Ω SRF:4000MHz IDC:270mA

BSCQ000603039N1HHR

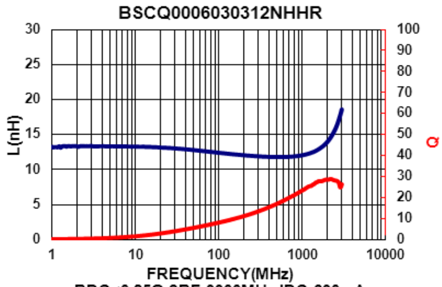


RDC<0.85Ω SRF:3800MHz IDC:230mA

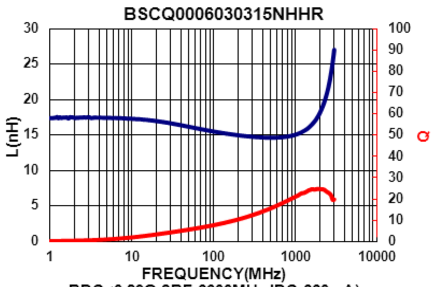
Test Instruments：Agilent E4991A Material/Impedance Analyzer



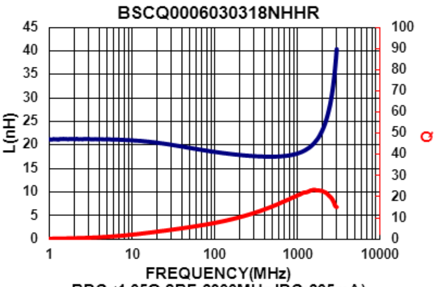
RDC<0.85Ω SRF:3800MHz IDC:230mA



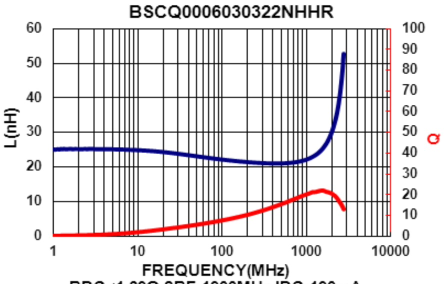
RDC<0.85Ω SRF:3300MHz IDC:230mA



RDC<0.89Ω SRF:2600MHz IDC:220mA)



RDC<1.05Ω SRF:2300MHz IDC:205mA)

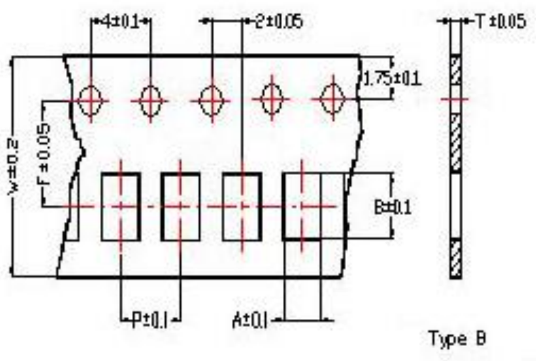


RDC<1.29Ω SRF:1900MHz IDC:190mA

Packaging Specifications

Tape Dimensions

Figure A



Tape Material

Figure A

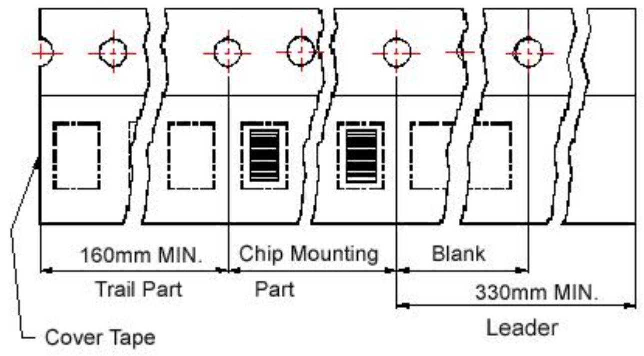
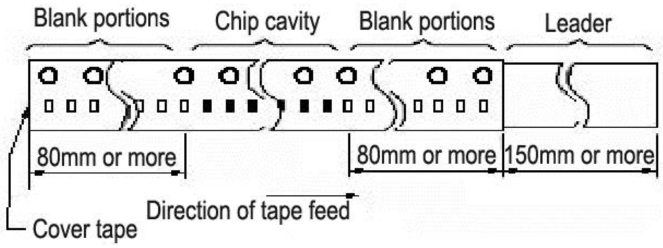
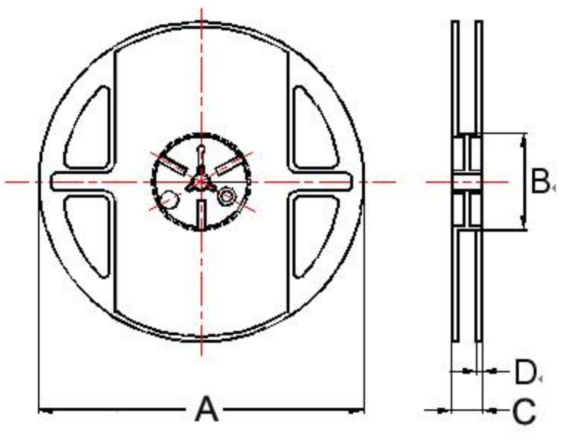


Figure B





Dimensions in mm

TYPE	Tape Dimensions							Tape	Reel Dimensions				Quantity
	A	B	T	W	P	F	Tape	Material	A	B	C	D	PCS / Reel
BSCQ00060303	0.37	0.67	0.42	8	2	3.5	A	B	180	60	13	1.5	15000

BSCH Series

The BSCH Series is a type of ceramic chip inductor produced using the multilayer technology. The series provides excellent Q factor and SRF characteristics and is suitable for high frequency applications.

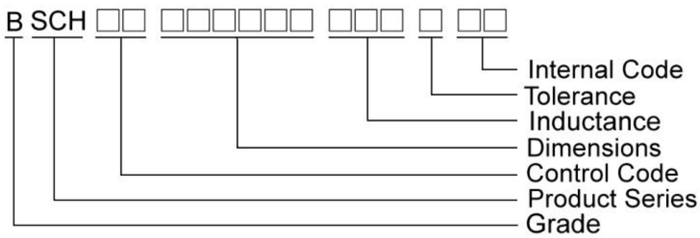
Features

- RoHS compliant
- Excellent Q factor and SRF characteristics
- Small size of 1005/1608 is suitable for small portable devices
- Supports operating frequency up to 6GHz with nominal inductance values from 1.0nH to 470nH.

Applications

- RF resonance and impedance matching circuit
- RF and wireless communication
- Information technology equipment, computers, telecommunications, radar detectors, automotive electronics, cellular phones, pagers, PDAs, keyless remote systems
- L-C filter configurations

Product Identification



- Product series identification:

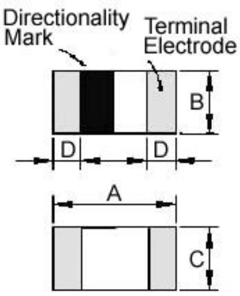
BSCH00060303 Top side half mark.

BSCH00100505 Top side full mark.

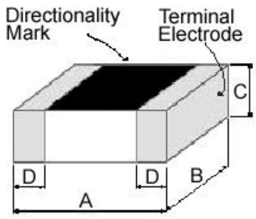
BSCH00160808 Top side full mark.

Shape and Dimensions

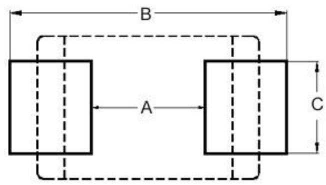
BSCH00060303



BSCH00100505 / 160808



Recommended Pattern



Dimensions in mm

TYPE	A	B	C	D
BSCH00060303	0.6±0.03	0.3±0.03	0.3±0.03	0.15±0.05
BSCH00100505	1.0±0.10	0.5±0.10	0.5±0.10	0.25±0.10
BSCH00160808	1.6±0.15	0.8±0.15	0.8±0.15	0.3±0.2

Dimensions in mm

TYPE	A	B	C
BSCH00060303	0.3	0.75 ~ 1.05	0.3
BSCH00100505	0.4	1.2 ~ 1.4	0.5
BSCH00160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Min	RDC (Ω) Max	Rated Current (mA) Max
BSCH000603031N0□00	1.0	±0.3nH	100	4	>10000	0.11	470
BSCH000603031N2□00	1.2	±0.3nH	100	4	>10000	0.12	450
BSCH000603031N5□00	1.5	±0.3nH	100	4	>10000	0.13	430
BSCH000603031N8□00	1.8	±0.3nH	100	4	>10000	0.16	390
BSCH000603032N0□00	2.0	±0.3nH	100	4	>10000	0.17	380
BSCH000603032N2□00	2.2	±0.3nH	100	4	8800	0.19	360
BSCH000603032N4□00	2.4	±0.3nH	100	4	8300	0.20	350
BSCH000603032N7□00	2.7	±0.3nH	100	4	7700	0.21	340
BSCH000603033N0□00	3.0	±0.3nH	100	4	7200	0.22	330
BSCH000603033N3□00	3.3	±0.3nH	100	4	6700	0.23	320
BSCH000603033N6□00	3.6	±0.3nH	100	4	6400	0.25	310
BSCH000603033N9□00	3.9	±0.3nH	100	4	6000	0.27	300
BSCH000603034N3□00	4.3	±0.3nH	100	4	5700	0.30	280
BSCH000603034N7□00	4.7	±0.3nH	100	4	5300	0.30	280
BSCH000603035N1□00	5.1	±0.3nH	100	4	5000	0.33	270
BSCH000603035N6□00	5.6	±0.3nH	100	4	4600	0.36	260
BSCH000603036N2□00	6.2	±0.3nH	100	4	4200	0.38	250
BSCH000603036N8□00	6.8	5	100	4	3900	0.39	250
BSCH000603037N5□00	7.5	5	100	4	3600	0.41	240
BSCH000603038N2□00	8.2	5	100	4	3400	0.45	230
BSCH000603039N1□00	9.1	5	100	4	3200	0.48	220
BSCH0006030310N□00	10	5	100	4	2900	0.51	220
BSCH0006030312N□00	12	5	100	4	2700	0.68	190
BSCH0006030315N□00	15	5	100	4	2300	0.71	180
BSCH0006030318N□00	18	5	100	4	2100	0.81	170
BSCH0006030322N□00	22	5	100	4	1800	1.00	150
BSCH0006030327N□00	27	5	100	4	1800	1.35	120
BSCH0006030333N□00	33	5	100	4	1700	1.47	110
BSCH0006030339N□00	39	5	100	4	1500	1.72	100
BSCH0006030347N□00	47	5	100	4	1300	1.90	100
BSCH0006030356N□00	56	5	100	4	1100	2.27	80
BSCH0006030368N□00	68	5	100	4	1100	2.66	80
BSCH0006030382N□00	82	5	100	4	1000	3.37	70
BSCH00060303R10□00	100	5	100	4	900	3.74	60

Note: When ordering, please specify tolerance code. Tolerance : S=±0.3nH , J=±5%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- Rate Current :Applied the current to coils, the temperature rise shall not be more than 30℃
- Residual impedance of short chip : 0.19nH
- Measure Equipment：

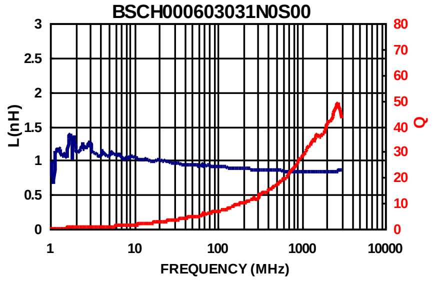
  L & Q：Agilent E4991A+Agilent 16197A

  SRF：Agilent E4991A or HP19196C

  RDC：HP4338B or CHEN HWA 502

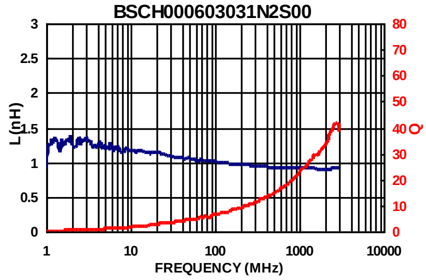
Test Instruments：Agilent E4991A Material/Impedance Analyzer

BSCH000603031N0S00



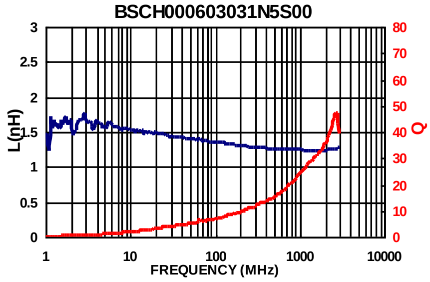
RDC<0.11Ω SRF>10000MHz Rated current:470 mA

BSCH000603031N2S00



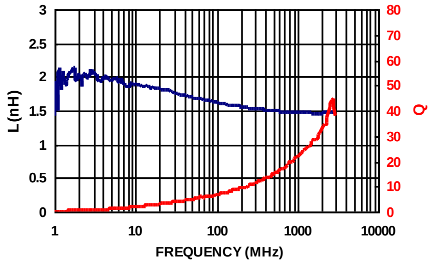
RDC<0.12Ω SRF>10000MHz Rated current:450 mA

BSCH000603031N5S00



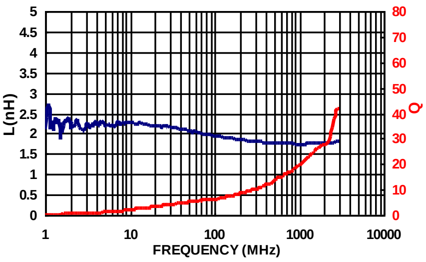
RDC<0.13Ω SRF>10000MHz Rated current:430 mA

BSCH000603031N8S00



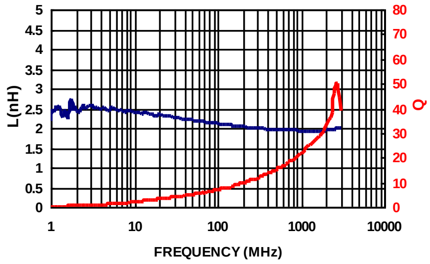
RDC<0.16Ω SRF>10000MHz Rated current:390 mA

BSCH000603032N0S00



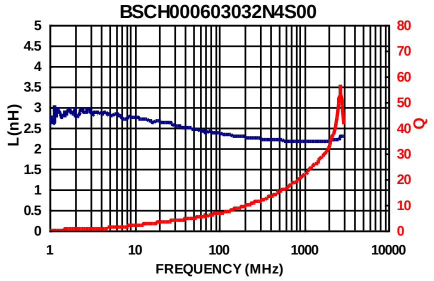
RDC<0.11Ω SRF>10000MHz Rated current:470 mA

BSCH000603032N2S00



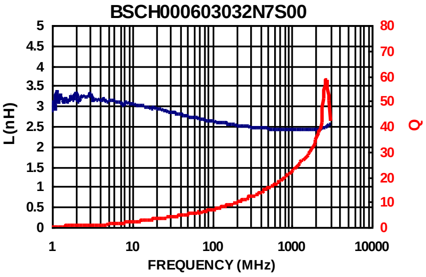
RDC<0.19Ω SRF>8800MHz Rated current:360 mA

BSCH000603032N4S00



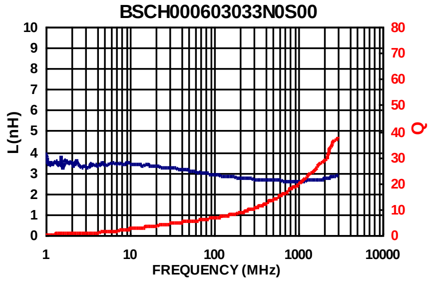
RDC<0.2Ω SRF>8300MHz Rated current:350 mA

BSCH000603032N7S00



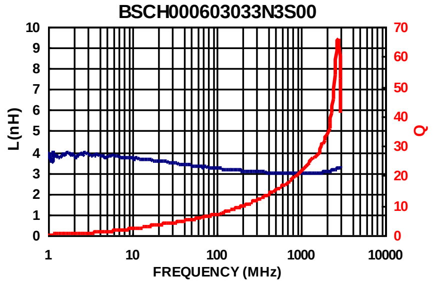
RDC<0.21Ω SRF>7700MHz Rated current:340 mA

BSCH000603033N0S00



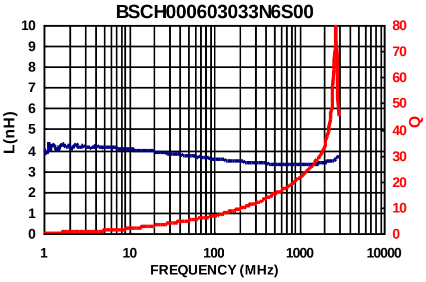
RDC<0.22Ω SRF>7200MHz Rated current:330 mA

BSCH000603033N3S00



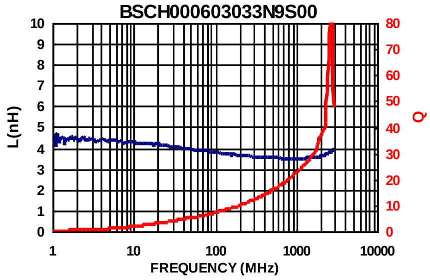
RDC<0.23Ω SRF>6700MHz Rated current:320 mA

BSCH000603033N6S00



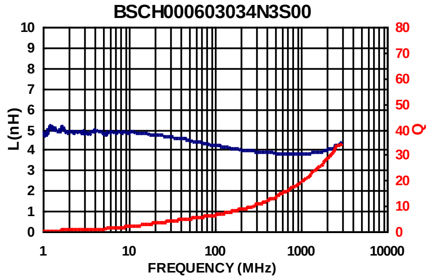
RDC<0.25Ω SRF>6400MHz Rated current:310 mA

BSCH000603033N9S00



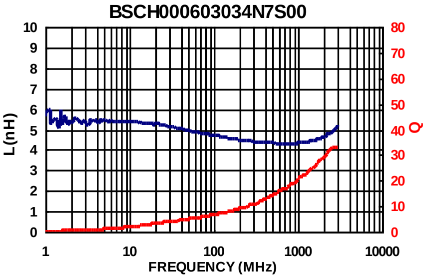
RDC<0.27Ω SRF>6000MHz Rated current:300 mA

BSCH000603034N3S00



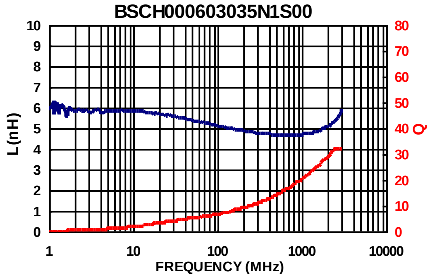
RDC<0.3Ω SRF>5700MHz Rated current:280 mA

BSCH000603034N7S00



RDC<0.3Ω SRF>5300MHz Rated current:280 mA

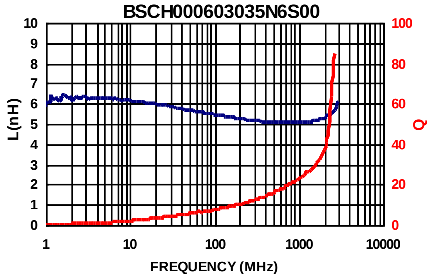
BSCH000603035N1S00



RDC<0.33Ω SRF>5000MHz Rated current:270 mA

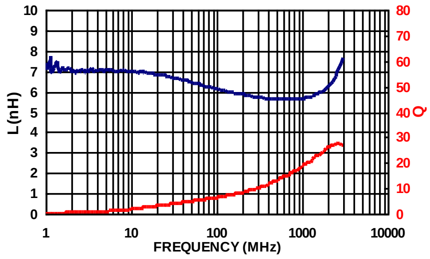
Test Instruments：Agilent E4991A Material/Impedance Analyzer

BSCH000603035N6S00



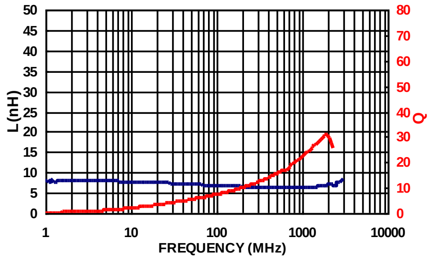
RDC<0.36Ω SRF>4600MHz Rated current:260 mA

BSCH000603036N2S00



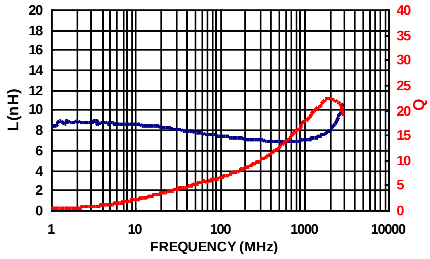
RDC<0.38Ω SRF>4200MHz Rated current:250 mA

BSCH000603036N8J00



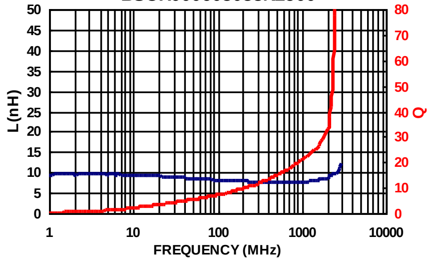
RDC<0.39Ω SRF>3900MHz Rated current:250 mA

BSCH000603037N5J00



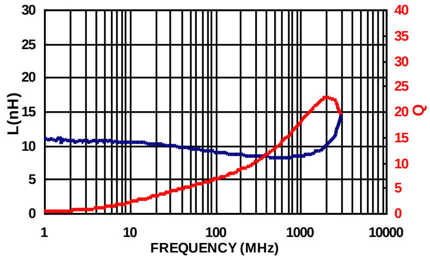
RDC<0.41Ω SRF>3600MHz Rated current:240 mA

BSCH000603038N2J00



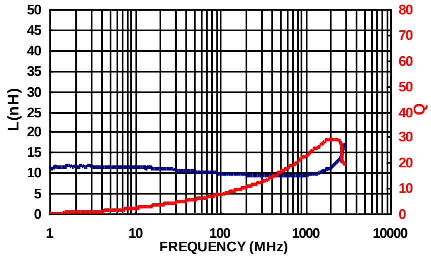
RDC<0.45Ω SRF>3400MHz Rated current:230 mA

BSCH000603039N1J00



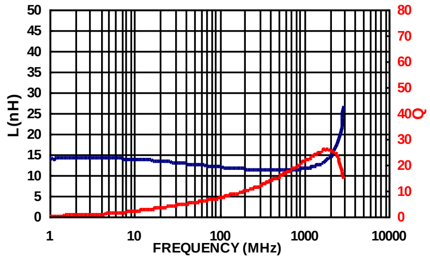
RDC<0.48Ω SRF>3200MHz Rated current:220 mA

BSCH0006030310NJ00



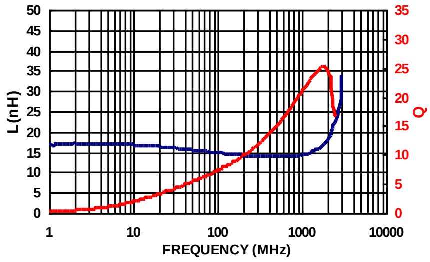
RDC<0.51Ω SRF>2900MHz Rated current:220 mA

BSCH0006030312NJ00



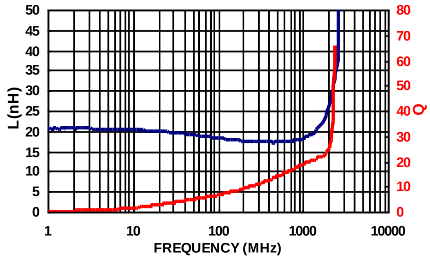
RDC<0.68Ω SRF>2700MHz Rated current:190 mA

BSCH0006030315NJ00



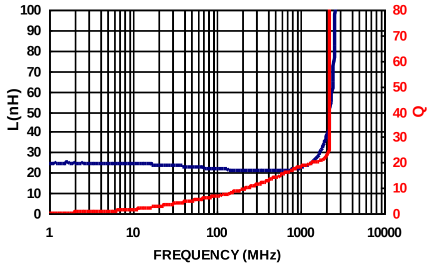
RDC<0.71Ω SRF>2300MHz Rated current:180 mA

BSCH0006030318NJ00



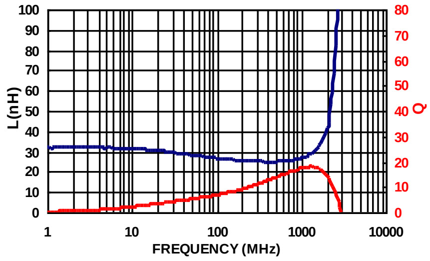
RDC<0.81Ω SRF>2100MHz Rated current:170 mA

BSCH0006030322NJ00



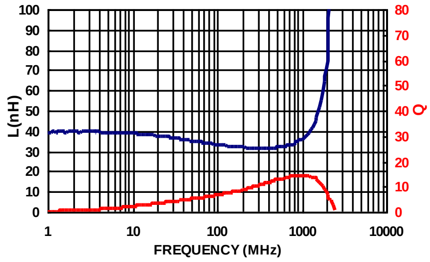
RDC<1.0Ω SRF>1800MHz Rated current:150 mA

BSCH0006030327NJ00



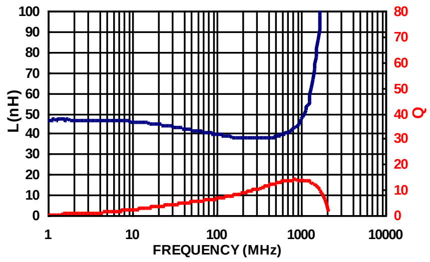
RDC<1.35Ω SRF>1800MHz Rated current:120 mA

BSCH0006030333NJ00



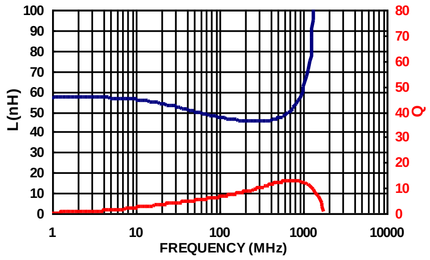
RDC<1.47Ω SRF>1700MHz Rated current:110 mA

BSCH0006030339NJ00



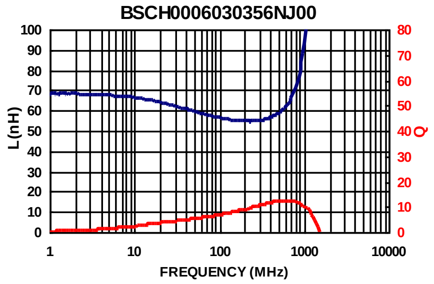
RDC<1.72Ω SRF>1500MHz Rated current:100 mA

BSCH0006030347NJ00

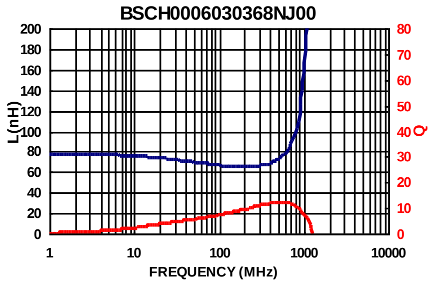


RDC<1.9Ω SRF>1300MHz Rated current:100 mA

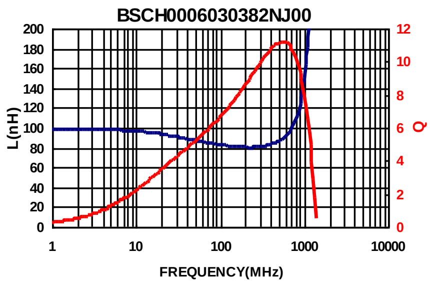
Test Instruments：Agilent E4991A Material/Impedance Analyzer



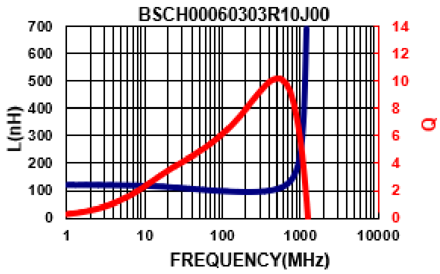
RDC<2.27Ω SRF>1100MHz Rated current:80 mA



RDC<2.66Ω SRF>1100MHz Rated current:80 mA



RDC<3.37Ω SRF>1000MHz Rated current:70 mA



Pulse a YAGEO company

CHILISIN ELECTRONICS CORP.

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Typ.	RDC (Ω) Max	IDC (mA) Max
BSCH001005051N0☐CS	1.0	±0.3nH	100	8	10000	0.07	400
BSCH001005051N1☐CS	1.1	±0.3nH	100	8	10000	0.10	400
BSCH001005051N2☐CS	1.2	±0.3nH	100	8	10000	0.09	400
BSCH001005051N3☐CS	1.3	±0.3nH	100	8	9000	0.10	400
BSCH001005051N5☐CS	1.5	±0.3nH	100	8	9000	0.10	400
BSCH001005051N6☐CS	1.6	±0.3nH	100	8	8700	0.10	400
BSCH001005051N8☐CS	1.8	±0.3nH	100	8	8700	0.10	400
BSCH001005052N0☐CS	2.0	±0.3nH	100	8	8100	0.10	400
BSCH001005052N2☐CS	2.2	±0.3nH	100	8	8100	0.12	400
BSCH001005052N4☐CS	2.4	±0.3nH	100	8	7700	0.15	400
BSCH001005052N7☐CS	2.7	±0.3nH	100	8	7700	0.15	400
BSCH001005053N0☐CS	3.0	±0.3nH	100	8	6300	0.15	400
BSCH001005053N3☐CS	3.3	±0.3nH/10	100	8	6300	0.15	400
BSCH001005053N6☐CS	3.6	±0.3nH/10	100	8	6100	0.15	400
BSCH001005053N9☐CS	3.9	±0.3nH/10	100	8	6100	0.18	400
BSCH001005054N3☐CS	4.3	±0.3nH/10	100	8	6000	0.18	400
BSCH001005054N7☐CS	4.7	±0.3nH/10	100	8	6000	0.18	400
BSCH001005055N0☐CS	5.0	±0.3nH/10	100	8	5100	0.20	400
BSCH001005055N1☐CS	5.1	±0.3nH/10	100	8	5300	0.20	400
BSCH001005055N6☐CS	5.6	±0.3nH/10	100	8	5100	0.20	400
BSCH001005056N8☐CS	6.8	5 / 10	100	8	4550	0.24	400
BSCH001005057N5☐CS	7.5	5 / 10	100	8	4200	0.24	300
BSCH001005058N0☐CS	8.0	5 / 10	100	8	4100	0.30	300
BSCH001005058N2☐CS	8.2	5 / 10	100	8	4100	0.24	300
BSCH001005059N1☐CS	9.1	5 / 10	100	8	3900	0.26	300
BSCH0010050510N☐CS	10	5 / 10	100	8	3900	0.26	300
BSCH0010050512N☐CS	12	5 / 10	100	8	3000	0.40	300
BSCH0010050515N☐CS	15	5 / 10	100	8	2800	0.50	300
BSCH0010050518N☐CS	18	5 / 10	100	8	2500	0.55	300
BSCH0010050522N☐CS	22	5 / 10	100	8	2200	0.70	300
BSCH0010050524N☐CS	24	5 / 10	100	8	2100	0.70	300
BSCH0010050527N☐CS	27	5 / 10	100	8	2000	0.80	300
BSCH0010050533N☐CS	33	5 / 10	100	8	1800	0.9	200
BSCH0010050539N☐CS	39	5 / 10	100	8	1600	1.0	150
BSCH0010050547N☐CS	47	5 / 10	100	8	1400	1.2	150

Note: When ordering, please specify tolerance code. Tolerance : S=±0.3nH , J=±5% , K=±10%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0nH
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent 16197A
  SRF：HP8753D
  RDC：HP4338B or CHEN HWA 502

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Typ.	RDC (Ω) Max	IDC (mA) Max
BSCH0010050556N□CS	56	5 / 10	100	8	1300	1.3	150
BSCH0010050568N□CS	68	5 / 10	100	8	1100	1.5	100
BSCH0010050575N□CS	75	5 / 10	100	8	1080	1.5	100
BSCH0010050582N□CS	82	5 / 10	100	8	1000	1.6	100
BSCH00100505R10□CS	100	5 / 10	100	8	900	2.0	100
BSCH00100505R12□CS	120	5 / 10	100	8	800	2.2	100
BSCH00100505R15□CS	150	5 / 10	100	8	700	3.5	100
BSCH00100505R18□CS	180	5 / 10	100	8	600	3.8	100
BSCH00100505R22□CS	220	5 / 10	100	8	500	4.2	100
BSCH00100505R27□CS	270	5 / 10	100	8	500	4.8	100

Note: When ordering, please specify tolerance code. Tolerance : S=±0.3nH , J=±5% , K=±10%

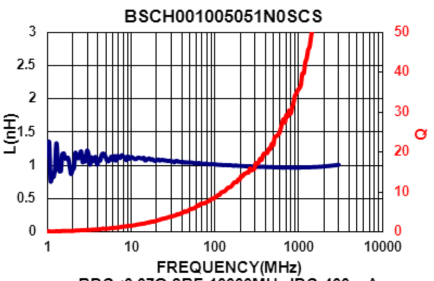
- Operating temperature range－55℃～125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0nH
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent 16197A

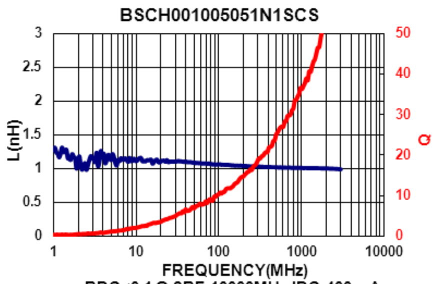
  SRF：HP8753D

  RDC：HP4338B or CHEN HWA 502

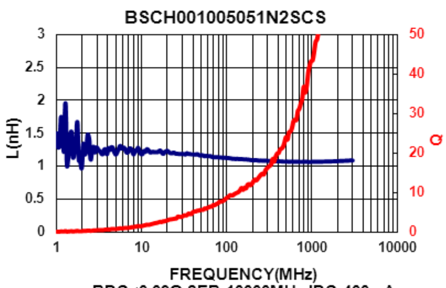
Test Instruments：Agilent E4991A Material/Impedance Analyzer



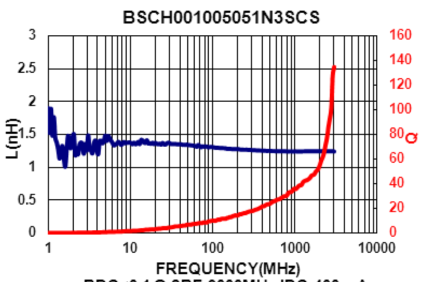
RDC<0.07Ω SRF:10000MHz IDC:400 mA



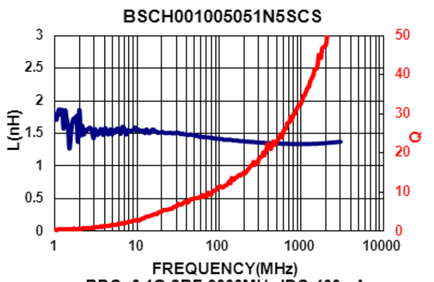
RDC<0.1 Ω SRF:10000MHz IDC:400 mA



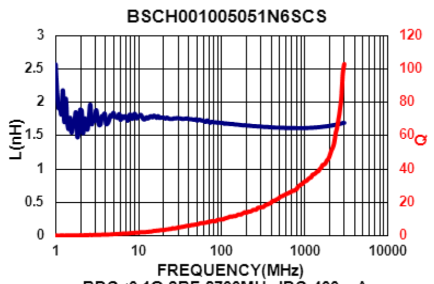
RDC<0.09Ω SER:10000MHz IDC:400mA



RDC<0.1 Ω SRF:9000MHz IDC:400 mA



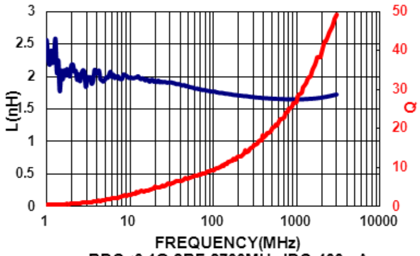
RDC<0.1Ω SRF:9000MHz IDC:400mA



RDC<0.1Ω SRF:8700MHz IDC:400 mA

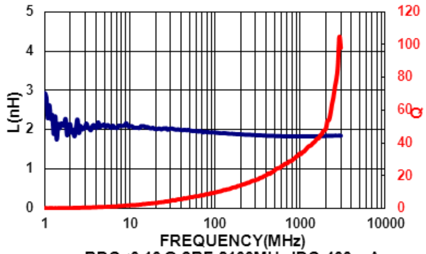
Test Instruments：Agilent E4991A Material/Impedance Analyzer

BSCH001005051N8SCS



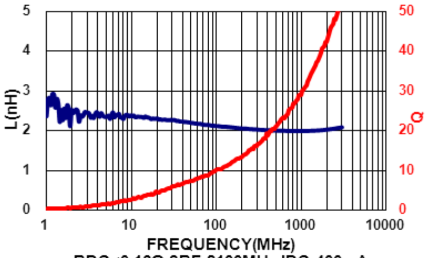
RDC<0.1Ω SRF:8700MHz IDC:400mA

BSCH001005052N0SCS



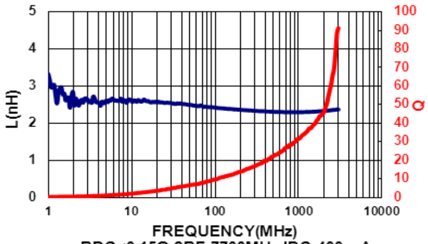
RDC<0.10 Ω SRF:8100MHz IDC:400 mA

BSCH001005052N2SCS



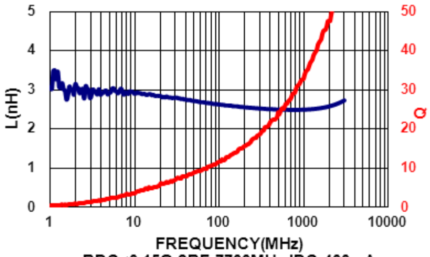
RDC<0.12Ω SRF:8100MHz IDC:400mA

BSCH001005052N4SCS



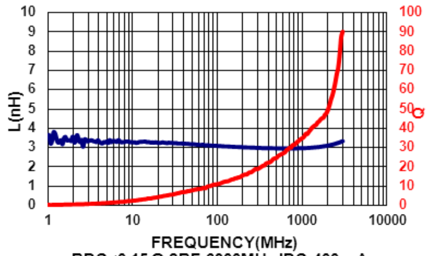
RDC<0.15Ω SRF:7700MHz IDC:400 mA

BSCH001005052N7SCS



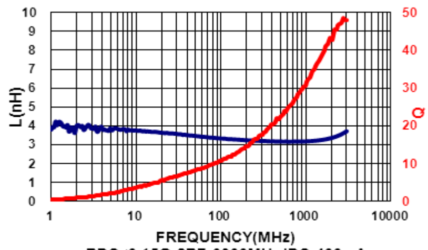
RDC<0.15Ω SRF:7700MHz IDC:400mA

BSCH001005053N0SCS



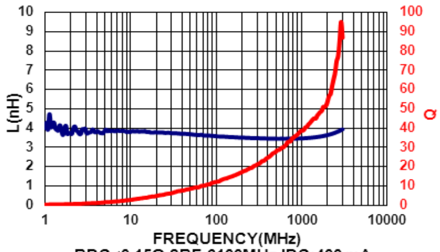
RDC<0.15 Ω SRF:6300MHz IDC:400 mA

BSCH001005053N3SCS



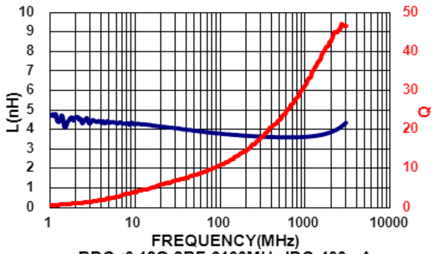
RDC<0.15Ω SRF:6300MHz IDC:400mA

BSCH001005053N6SCS



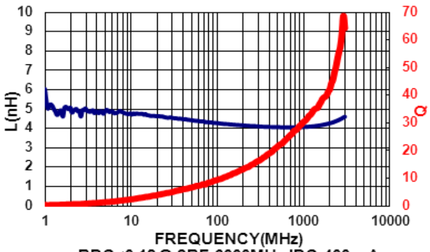
RDC<0.15Ω SRF:6100MHz IDC:400 mA

BSCH001005053N9SCS



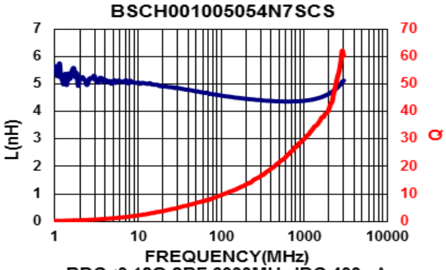
RDC<0.18Ω SRF:6100MHz IDC:400mA

BSCH001005054N3SCS



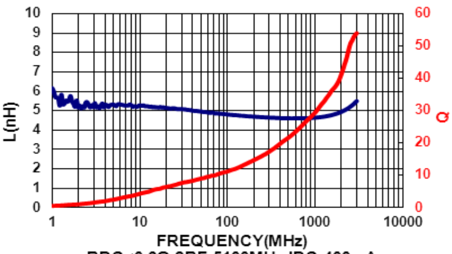
RDC<0.18 Ω SRF:6000MHz IDC:400 mA

BSCH001005054N7SCS



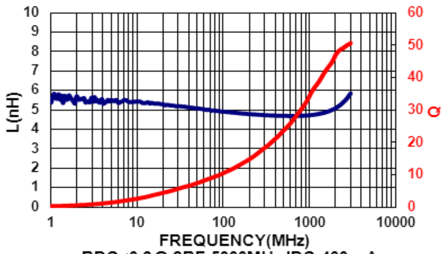
RDC<0.18Ω SRF:6000MHz IDC:400mA

BSCH001005055N0SCS



RDC<0.2Ω SRF:5100MHz IDC:400mA

BSCH001005055N1SCS



RDC<0.2 Ω SRF:5300MHz IDC:400 mA

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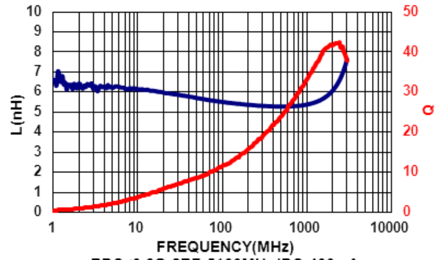
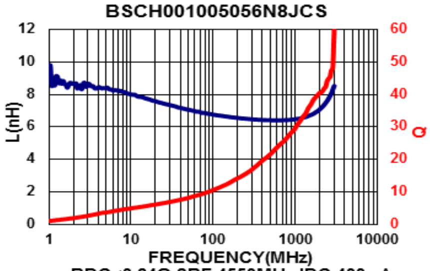


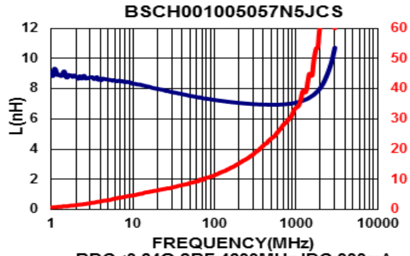
RDC<0.2Ω SRF:5100MHz IDC:400mA

BSCH001005056N8JCS

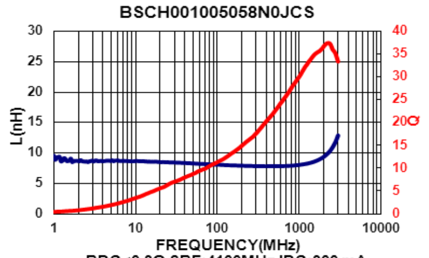


RDC<0.24Ω SRF:4550MHz IDC:400mA

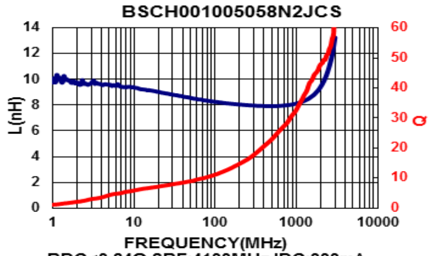
Test Instruments：Agilent E4991A Material/Impedance Analyzer



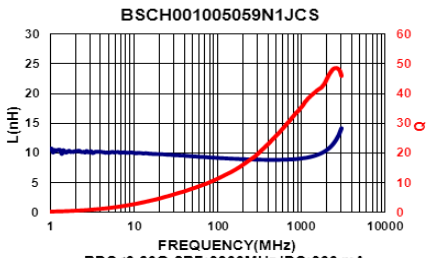
RDC<0.24Ω SRF:4200MHz IDC:300mA



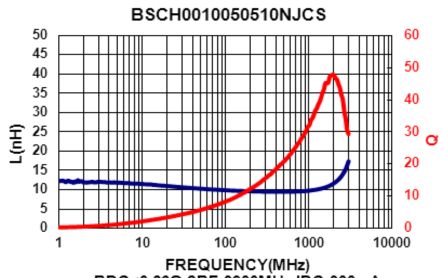
RDC<0.3Ω SRF:4100MHz IDC:300 mA



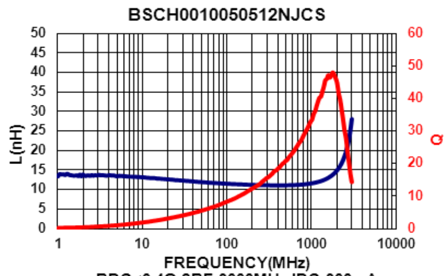
RDC<0.24Ω SRF:4100MHz IDC:300mA



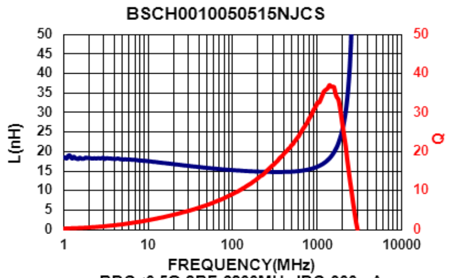
RDC<0.26Ω SRF:3900MHz IDC:300 mA



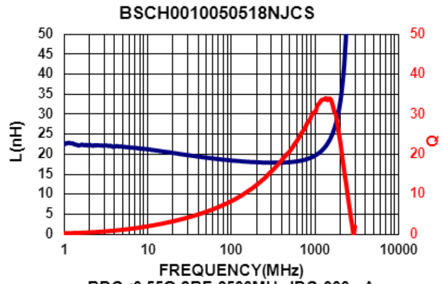
RDC<0.26Ω SRF:3900MHz IDC:300mA



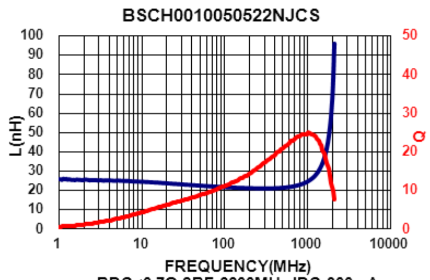
RDC<0.4Ω SRF:3000MHz IDC:300mA



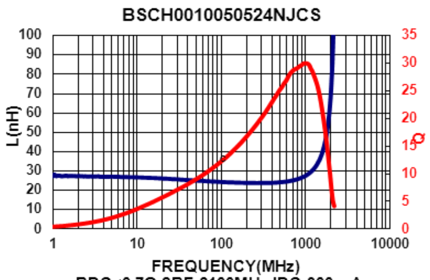
RDC<0.5Ω SRF:2800MHz IDC:300mA



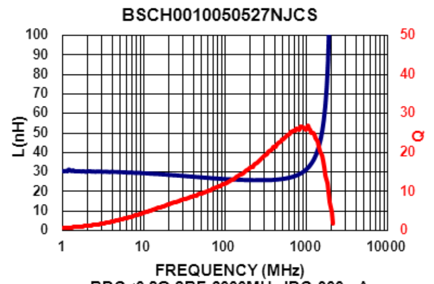
RDC<0.55Ω SRF:2500MHz IDC:300mA



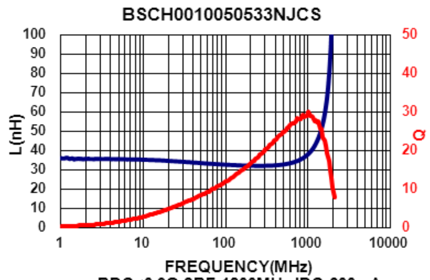
RDC<0.7Ω SRF:2200MHz IDC:300mA



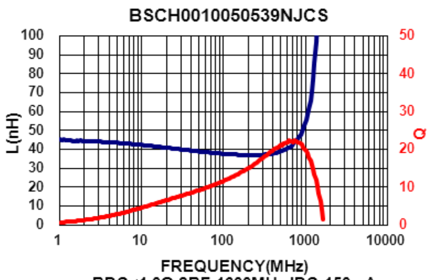
RDC<0.7Ω SRF:2100MHz IDC:300 mA



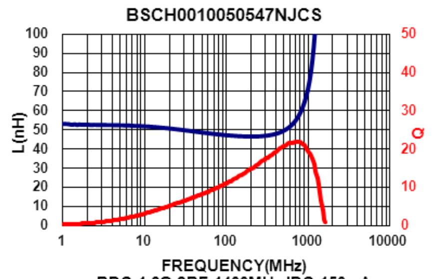
RDC<0.8Ω SRF:2000MHz IDC:300mA



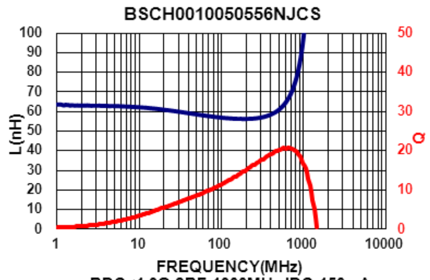
RDC<0.9Ω SRF:1800MHz IDC:200mA



RDC<1.0Ω SRF:1600MHz IDC:150mA



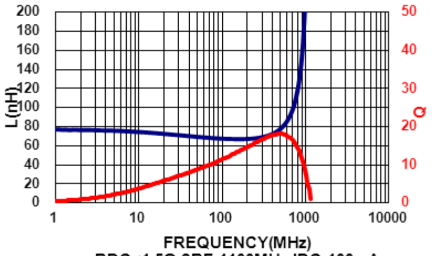
RDC:1.2Ω SRF:1400MHz IDC:150mA



RDC<1.3Ω SRF:1300MHz IDC:150mA

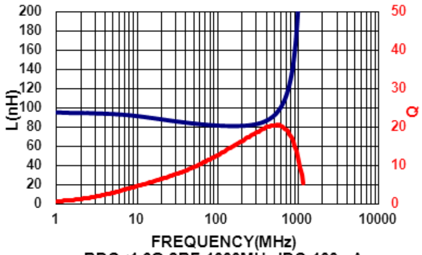
Test Instruments： Agilent E4991A Material/Impedance Analyzer

BSCH0010050568NJCS



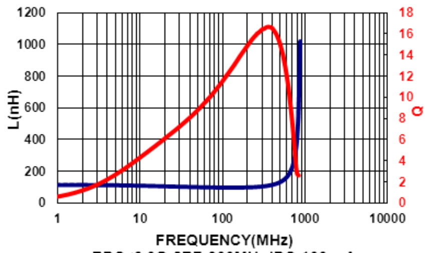
RDC<1.5Ω SRF:1100MHz IDC:100mA

BSCH0010050582NJCS



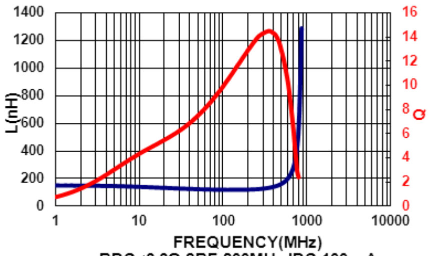
RDC<1.6Ω SRF:1000MHz IDC:100mA

BSCH00100505R10JCS



RDC<2.0Ω SRF:900MHz IDC:100 mA

BSCH00100505R12JCS



RDC<2.2Ω SRF:800MHz IDC:100 mA

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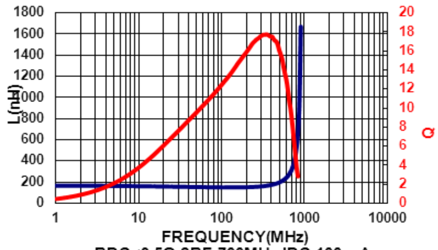
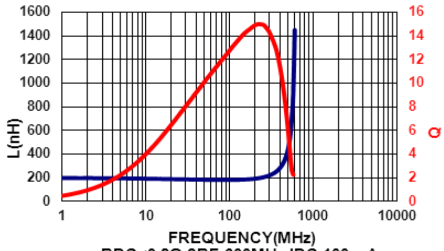


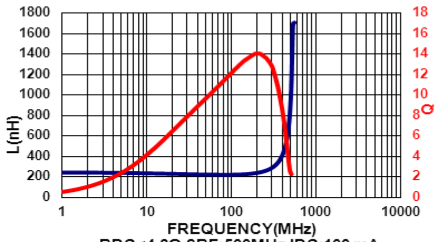
RDC<3.5Ω SRF:700MHz IDC:100 mA

BSCH00100505R18JCS



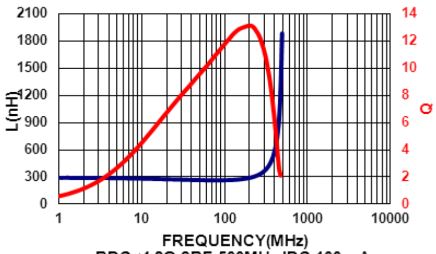
RDC<3.8Ω SRF:600MHz IDC:100 mA

BSCH00100505R22JCS



RDC<4.2Ω SRF:500MHz IDC:100 mA

BSCH00100505R27JCS



RDC<4.8Ω SRF:500MHz IDC:100 mA

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Typ.	RDC (Ω) Max	Rated Current (mA) Max
BSCH001005051N0□CP	1.0	±0.3nH	100	8	10000	0.07	400
BSCH001005051N1□CP	1.1	±0.3nH	100	8	10000	0.10	400
BSCH001005051N2□CP	1.2	±0.3nH	100	8	10000	0.09	400
BSCH001005051N3□CP	1.3	±0.3nH	100	8	9000	0.10	400
BSCH001005051N5□CP	1.5	±0.3nH	100	8	9000	0.10	400
BSCH001005051N6□CP	1.6	±0.3nH	100	8	8700	0.10	400
BSCH001005051N8□CP	1.8	±0.3nH	100	8	8700	0.10	400
BSCH001005052N0□CP	2.0	±0.3nH	100	8	8100	0.10	400
BSCH001005052N2□CP	2.2	±0.3nH	100	8	8100	0.12	400
BSCH001005052N4□CP	2.4	±0.3nH	100	8	7700	0.15	400
BSCH001005052N7□CP	2.7	±0.3nH	100	8	7700	0.15	400
BSCH001005053N0□CP	3.0	±0.3nH	100	8	6300	0.15	400
BSCH001005053N3□CP	3.3	±0.3nH	100	8	6300	0.15	400
BSCH001005053N6□CP	3.6	±0.3nH	100	8	6100	0.15	400
BSCH001005053N9□CP	3.9	±0.3nH	100	8	6100	0.18	400
BSCH001005054N3□CP	4.3	±0.3nH	100	8	6000	0.18	400
BSCH001005054N7□CP	4.7	±0.3nH	100	8	6000	0.18	400
BSCH001005055N1□CP	5.1	±0.3nH	100	8	5300	0.20	400
BSCH001005055N6□CP	5.6	±0.3nH	100	8	5100	0.20	400
BSCH001005056N2□CP	6.2	±0.3nH/5/10	100	8	4500	0.22	400
BSCH001005056N8□CP	6.8	5 / 10	100	8	4550	0.24	400
BSCH001005057N5□CP	7.5	5 / 10	100	8	4200	0.24	300
BSCH001005058N2□CP	8.2	5 / 10	100	8	4100	0.24	300
BSCH001005059N1□CP	9.1	5 / 10	100	8	3900	0.26	300
BSCH0010050510N□CP	10	5 / 10	100	8	3900	0.26	300
BSCH0010050512N□CP	12	5 / 10	100	8	3000	0.28	300
BSCH0010050515N□CP	15	5 / 10	100	8	2500	0.32	300
BSCH0010050518N□CP	18	5 / 10	100	8	2200	0.36	300
BSCH0010050522N□CP	22	5 / 10	100	8	1900	0.42	300
BSCH0010050527N□CP	27	5 / 10	100	8	1700	0.46	300
BSCH0010050533N□CP	33	5 / 10	100	8	1600	0.58	200
BSCH0010050539N□CP	39	5 / 10	100	8	1200	0.65	200
BSCH0010050547N□CP	47	5 / 10	100	8	1000	0.72	200
BSCH0010050556N□CP	56	5 / 10	100	8	800	0.82	200
BSCH0010050568N□CP	68	5 / 10	100	8	800	0.92	180
BSCH0010050582N□CP	82	5 / 10	100	8	700	1.20	150

Note: When ordering, please specify tolerance code. Tolerance : C=±0.2nH , S=±0.3nH , J=±5% , K=±10%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- Rate Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Residual impedance of short chip : 0nH
- Measure Equipment：

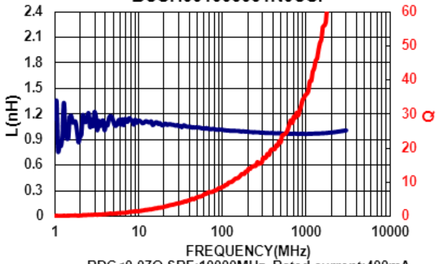
  L & Q：Agilent E4991A+Agilent 16197A

  SRF：HP8753D

  RDC：HP4338B or CHEN HWA 502

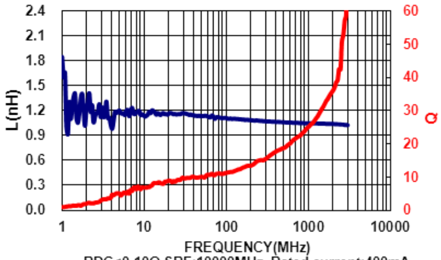
Test Instruments：Agilent E4991A Material/Impedance Analyzer

BSCH001005051N0SCP



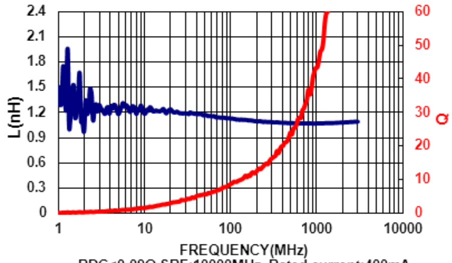
RDC<0.07Ω SRF:10000MHz Rated current:400mA

BSCH001005051N1SCP



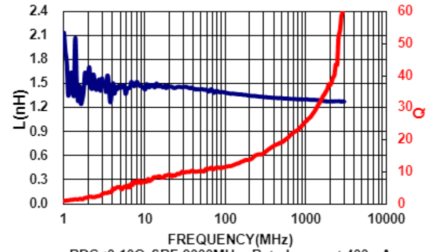
RDC<0.10Ω SRF:10000MHz Rated current:400mA

BSCH001005051N2SCP



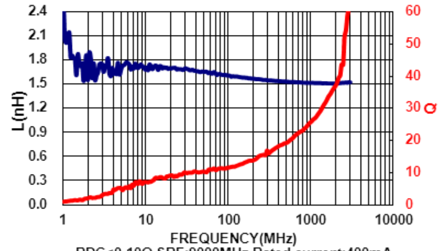
RDC<0.09Ω SRF:10000MHz Rated current:400mA

BSCH001005051N3SCP



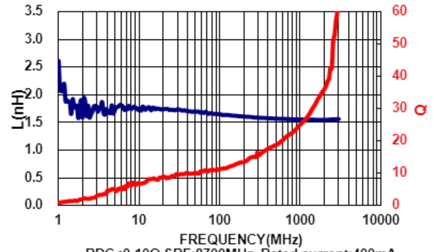
RDC<0.10Ω SRF:9000MHz Rated current:400mA

BSCH001005051N5SCP



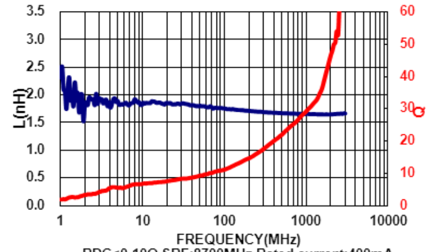
RDC<0.10Ω SRF:9000MHz Rated current:400mA

BSCH001005051N6SCP



RDC<0.10Ω SRF:8700MHz Rated current:400mA

BSCH001005051N8SCP



RDC<0.10Ω SRF:8700MHz Rated current:400mA

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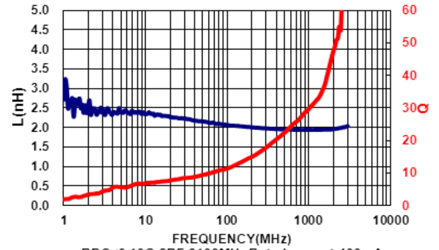
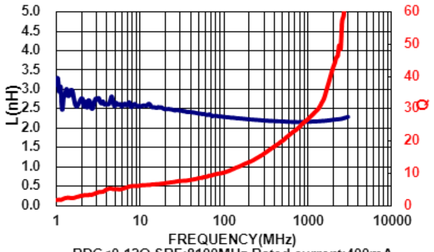


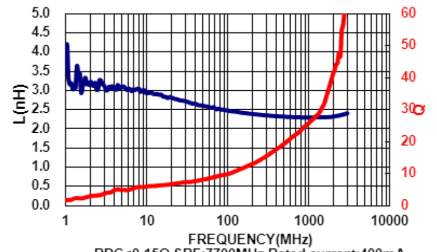
RDC<0.10Ω SRF:8100MHz Rated current:400mA

BSCH001005052N2SCP



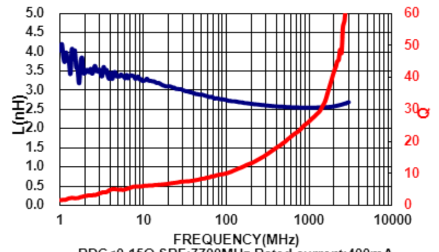
RDC<0.12Ω SRF:8100MHz Rated current:400mA

BSCH001005052N4SCP



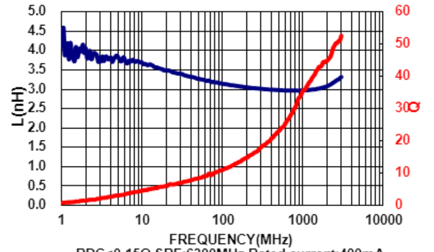
RDC<0.15Ω SRF:7700MHz Rated current:400mA

BSCH001005052N7SCP



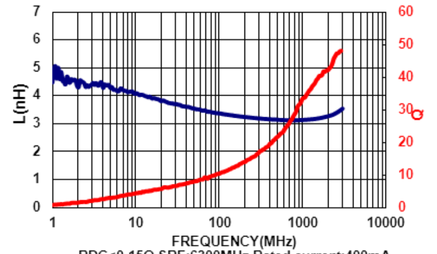
RDC<0.15Ω SRF:7700MHz Rated current:400mA

BSCH001005053N0SCP



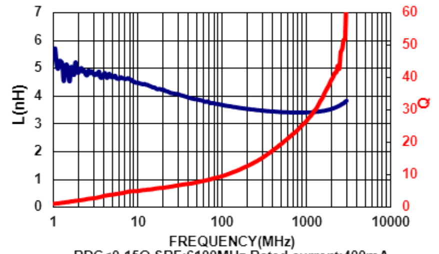
RDC<0.15Ω SRF:6300MHz Rated current:400mA

BSCH001005053N3SCP



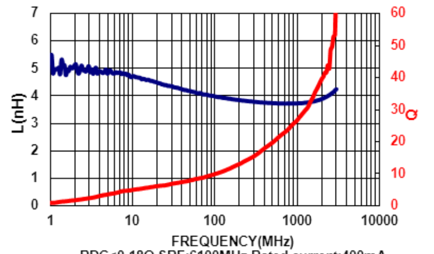
RDC<0.15Ω SRF:6300MHz Rated current:400mA

BSCH001005053N6SCP



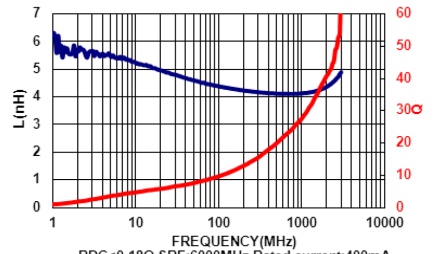
RDC<0.15Ω SRF:6100MHz Rated current:400mA

BSCH001005053N9SCP



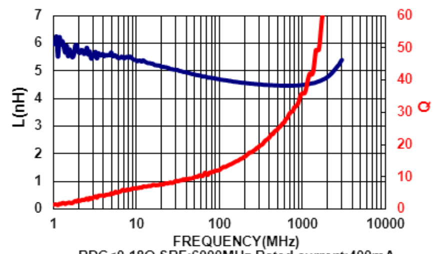
RDC<0.18Ω SRF:6100MHz Rated current:400mA

BSCH001005054N3SCP



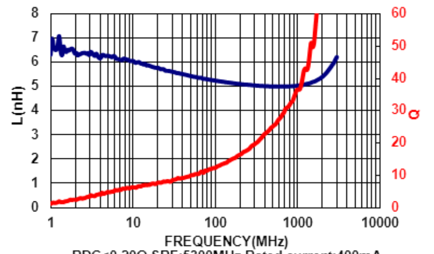
RDC<0.18Ω SRF:6000MHz Rated current:400mA

BSCH001005054N7SCP



RDC<0.18Ω SRF:6000MHz Rated current:400mA

BSCH001005055N1SCP



RDC<0.20Ω SRF:5300MHz Rated current:400mA

Test Instruments：Agilent E4991A Material/Impedance Analyzer

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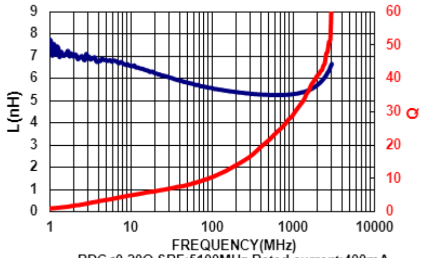
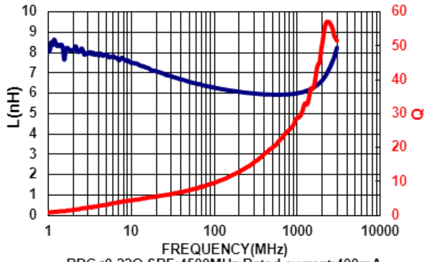


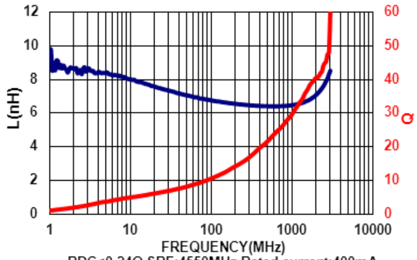
RDC<0.20Ω SRF:5100MHz Rated current:400mA

BSCH001005056N2SCP



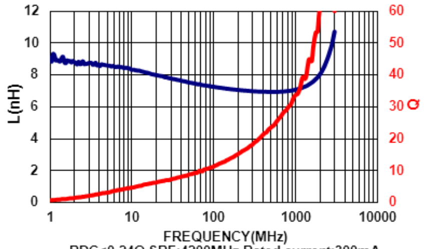
RDC<0.22Ω SRF:4500MHz Rated current:400mA

BSCH001005056N8JCP



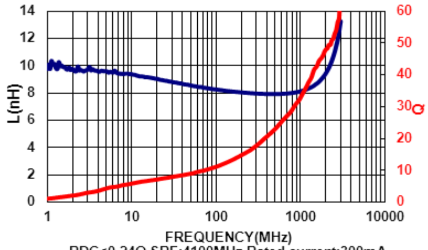
RDC<0.24Ω SRF:4550MHz Rated current:400mA

BSCH001005057N5JCP



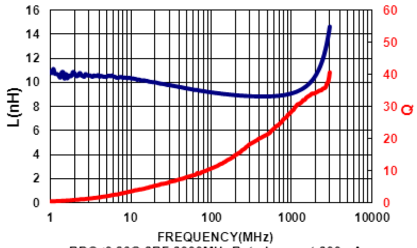
RDC<0.24Ω SRF:4200MHz Rated current:300mA

BSCH001005058N2JCP



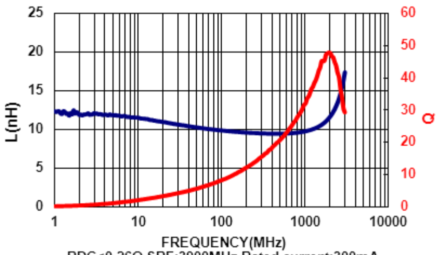
RDC<0.24Ω SRF:4100MHz Rated current:300mA

BSCH001005059N1JCP



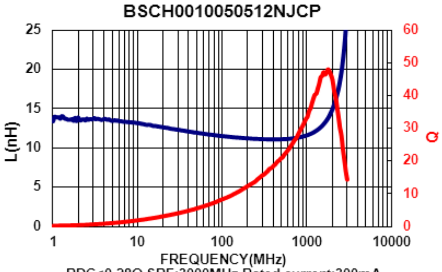
RDC<0.26Ω SRF:3900MHz Rated current:300mA

BSCH0010050510NJCP



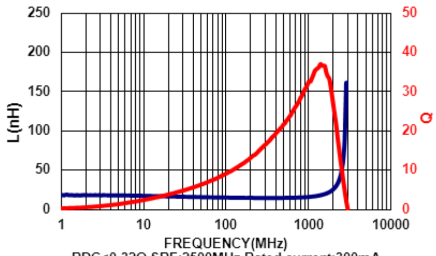
RDC<0.26Ω SRF:3900MHz Rated current:300mA

BSCH0010050512NJCP



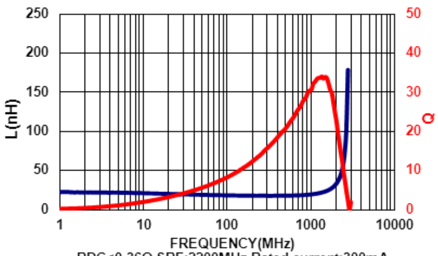
RDC<0.28Ω SRF:3000MHz Rated current:300mA

BSCH0010050515NJCP



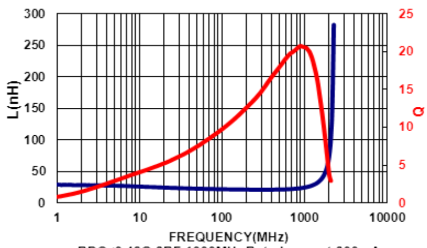
RDC<0.32Ω SRF:2500MHz Rated current:300mA

BSCH0010050518NJCP



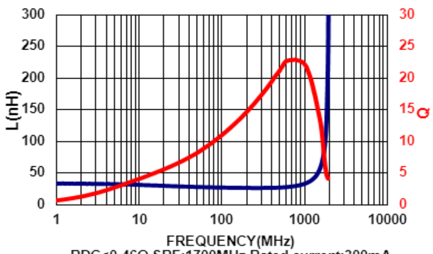
RDC<0.36Ω SRF:2200MHz Rated current:300mA

BSCH0010050522NJCP



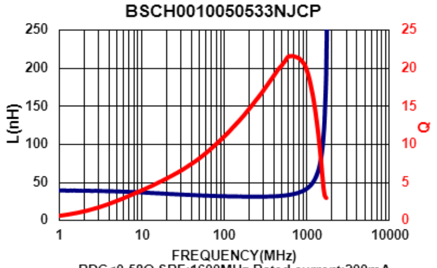
RDC<0.42Ω SRF:1900MHz Rated current:300mA

BSCH0010050527NJCP



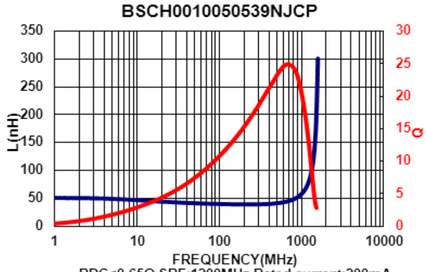
RDC<0.46Ω SRF:1700MHz Rated current:300mA

BSCH0010050533NJCP



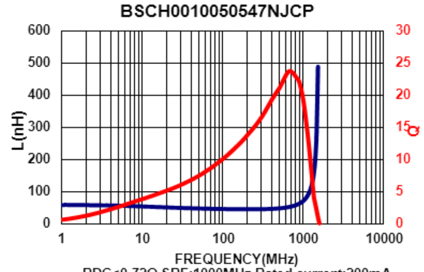
RDC<0.58Ω SRF:1600MHz Rated current:200mA

BSCH0010050539NJCP



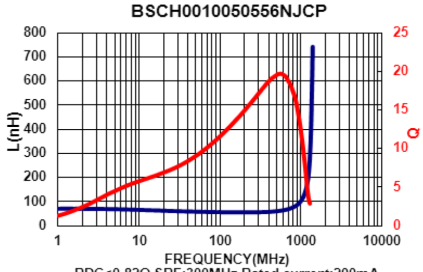
RDC<0.65Ω SRF:1200MHz Rated current:200mA

BSCH0010050547NJCP



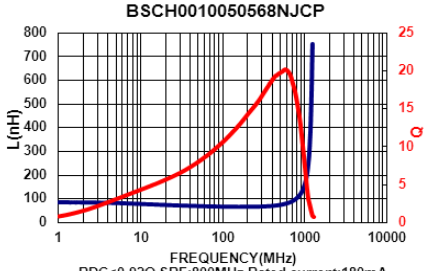
RDC<0.72Ω SRF:1000MHz Rated current:200mA

BSCH0010050556NJCP



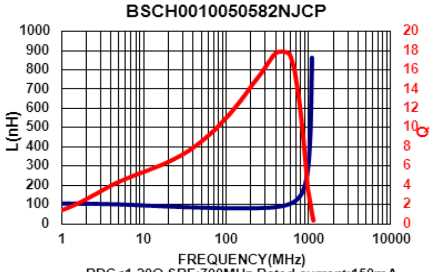
RDC<0.82Ω SRF:300MHz Rated current:200mA

BSCH0010050568NJCP



RDC<0.92Ω SRF:800MHz Rated current:180mA

BSCH0010050582NJCP



RDC<1.20Ω SRF:700MHz Rated current:150mA

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCH001005051N0☐SM	1.0	±0.3nH	100	8	10000	0.07	400
BSCH001005051N2☐SM	1.2	±0.3nH	100	8	6000	0.10	400
BSCH001005051N5☐SM	1.5	±0.3nH	100	8	6000	0.10	400
BSCH001005051N6☐SM	1.6	±0.3nH	100	8	6000	0.10	400
BSCH001005051N8☐SM	1.8	±0.3nH	100	8	6000	0.10	400
BSCH001005052N0☐SM	2.0	±0.3nH	100	8	6000	0.12	400
BSCH001005052N2☐SM	2.2	±0.3nH	100	8	6000	0.15	400
BSCH001005052N4☐SM	2.4	±0.3nH	100	8	6000	0.15	400
BSCH001005052N7☐SM	2.7	±0.3nH	100	8	6000	0.15	400
BSCH001005053N0☐SM	3.0	±0.3nH	100	8	6000	0.15	400
BSCH001005053N3☐SM	3.3	±0.3nH	100	8	6000	0.15	400
BSCH001005053N6☐SM	3.6	±0.3nH	100	8	6000	0.15	400
BSCH001005053N9☐SM	3.9	±0.3nH	100	8	6000	0.19	400
BSCH001005054N3☐SM	4.3	±0.3nH	100	8	6000	0.20	400
BSCH001005054N7☐SM	4.7	±0.3nH	100	8	6000	0.20	400
BSCH001005055N1☐SM	5.1	±0.3nH	100	8	6000	0.20	400
BSCH001005055N6☐SM	5.6	±0.3nH	100	8	5300	0.20	400
BSCH001005056N2☐SM	6.2	5	100	8	4300	0.25	400
BSCH001005056N8☐SM	6.8	5	100	8	4200	0.25	400
BSCH001005057N5☐SM	7.5	5	100	8	3900	0.25	400
BSCH001005058N2☐SM	8.2	5	100	8	3600	0.30	300
BSCH001005059N1☐SM	9.1	5	100	8	3400	0.34	300
BSCH0010050510N☐SM	10	5	100	8	3200	0.35	300
BSCH0010050512N☐SM	12	5	100	8	2800	0.35	300
BSCH0010050515N☐SM	15	5	100	8	2300	0.46	300

Note: When ordering, please specify tolerance code. Tolerance : S=±0.3nH , J=±5%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0.55nH
- Measure Equipment：

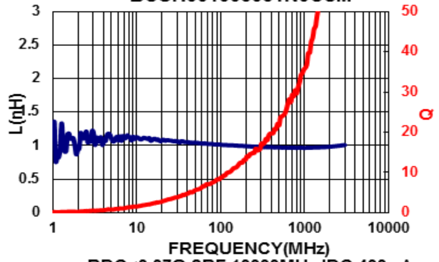
  L & Q：Agilent E4991A+Agilent 16197A

  SRF：HP8753D

  RDC：HP4338B or CHEN HWA 502

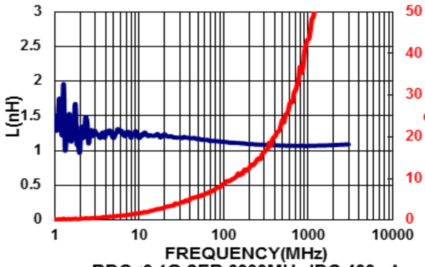
Test Instruments：Agilent E4991A Material/Impedance Analyzer

BSCH001005051N0SSM



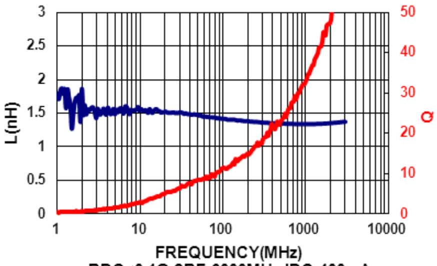
RDC<0.07Ω SRF:10000MHz IDC:400mA

BSCH001005051N2SSM



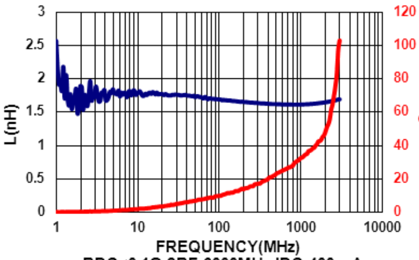
RDC<0.1Ω SER:6000MHz IDC:400mA

BSCH001005051N5SSM



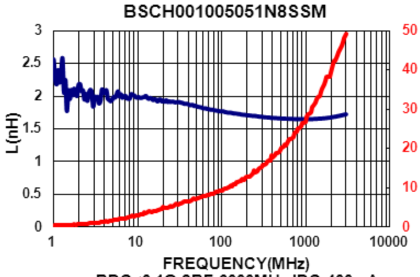
RDC<0.1Ω SRF:6000MHz IDC:400mA

BSCH001005051N6SSM



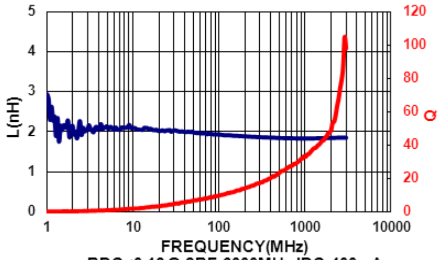
RDC<0.1Ω SRF:6000MHz IDC:400 mA

BSCH001005051N8SSM



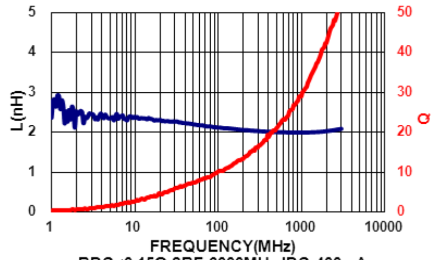
RDC<0.1Ω SRF:6000MHz IDC:400mA

BSCH001005052N0SSM



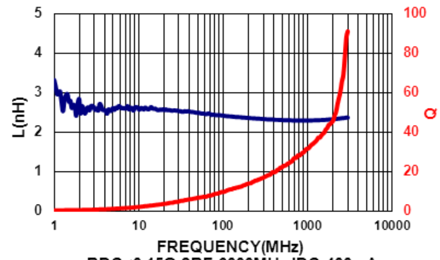
RDC<0.12 Ω SRF:6000MHz IDC:400mA

BSCH001005052N2SSM



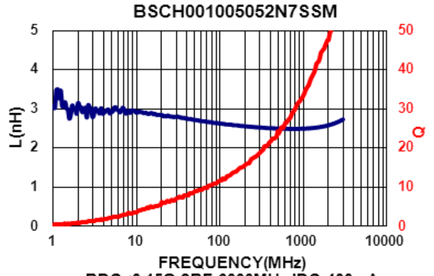
RDC<0.15Ω SRF:6000MHz IDC:400mA

BSCH001005052N4SSM



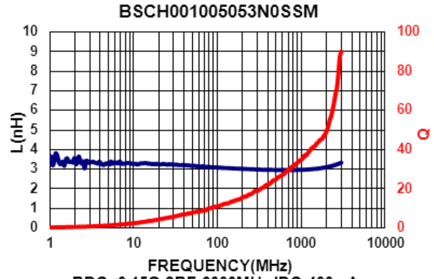
RDC<0.15Ω SRF:6000MHz IDC:400mA

BSCH001005052N7SSM



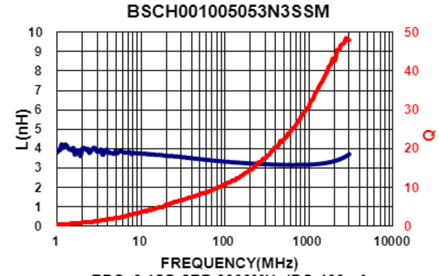
RDC<0.15Ω SRF:6000MHz IDC:400mA

BSCH001005053N0SSM



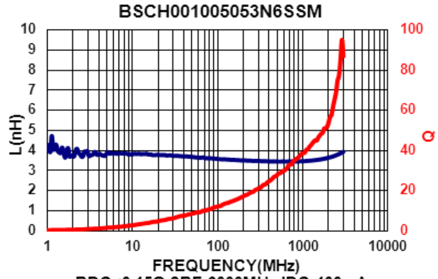
RDC<0.15Ω SRF:6000MHz IDC:400mA

BSCH001005053N3SSM



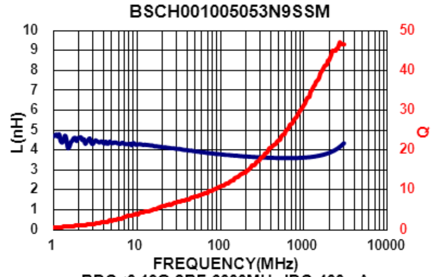
RDC<0.15Ω SRF:6000MHz IDC:400mA

BSCH001005053N6SSM



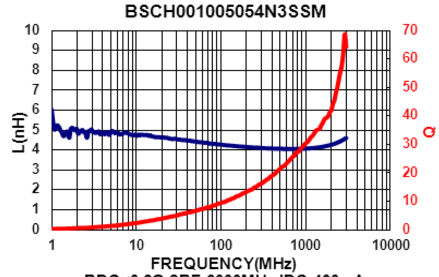
RDC<0.15Ω SRF:6000MHz IDC:400mA

BSCH001005053N9SSM



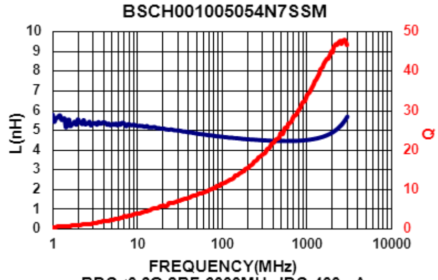
RDC<0.19Ω SRF:6000MHz IDC:400mA

BSCH001005054N3SSM



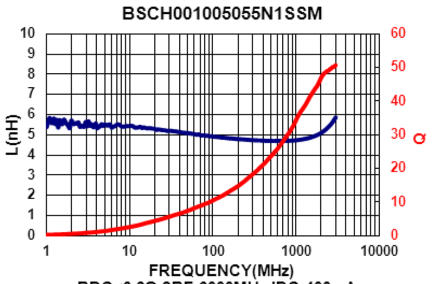
RDC<0.2Ω SRF:6000MHz IDC:400mA

BSCH001005054N7SSM

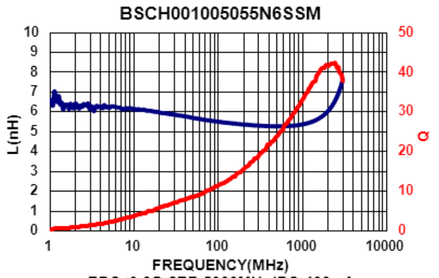


RDC<0.2Ω SRF:6000MHz IDC:400mA

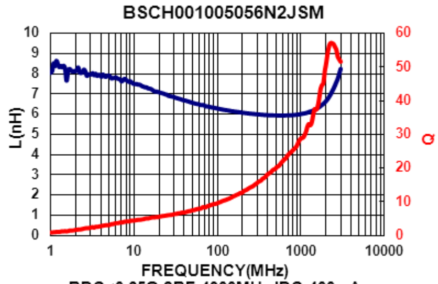
Test Instruments：Agilent E4991A Material/Impedance Analyzer



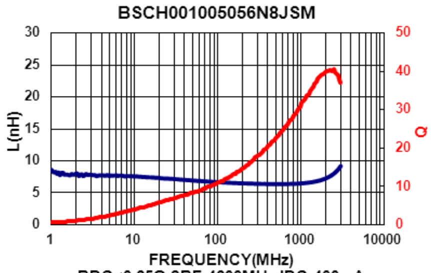
RDC<0.2Ω SRF:6000MHz IDC:400mA



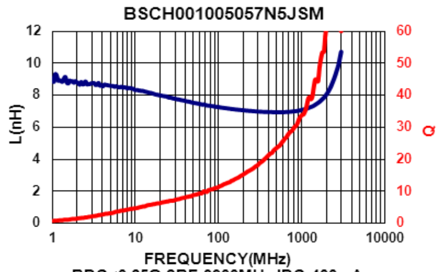
RDC<0.2Ω SRF:5300MHz IDC:400mA



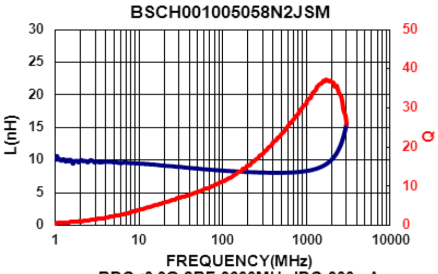
RDC<0.25Ω SRF:4300MHz IDC:400mA



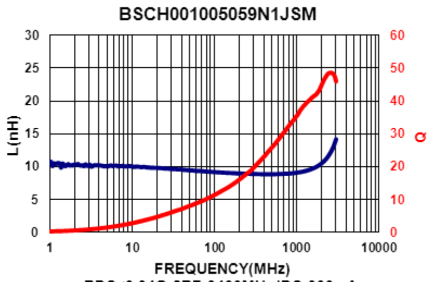
RDC<0.25Ω SRF:4200MHz IDC:400mA



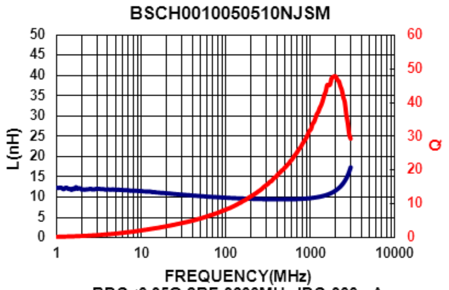
RDC<0.25Ω SRF:3900MHz IDC:400mA



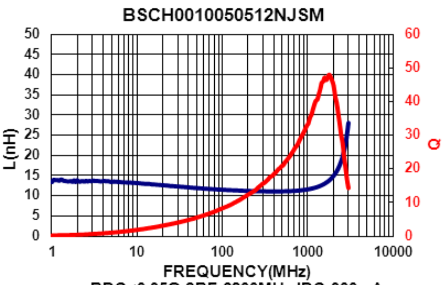
RDC<0.3Ω SRF:3600MHz IDC:300mA



RDC<0.34Ω SRF:3400MHz IDC:300mA



RDC<0.35Ω SRF:3200MHz IDC:300mA



RDC<0.35Ω SRF:2800MHz IDC:300mA

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Typ.	RDC (Ω) Max	IDC (mA) Max
BSCH001608081N0S00	1.0	±0.3nH	100	8	10000	0.10	600
BSCH001608081N2S00	1.2	±0.3nH	100	8	10000	0.10	600
BSCH001608081N5S00	1.5	±0.3nH	100	8	8000	0.10	600
BSCH001608081N6S00	1.6	±0.3nH	100	8	8000	0.10	600
BSCH001608081N8S00	1.8	±0.3nH	100	8	8000	0.10	600
BSCH001608082N2S00	2.2	±0.3nH	100	8	7200	0.10	600
BSCH001608082N7S00	2.7	±0.3nH	100	10	6200	0.10	600
BSCH001608083N0S00	3.0	±0.3nH	100	10	5200	0.12	600
BSCH001608083N3□00	3.3	±0.3nH/10	100	10	5200	0.12	600
BSCH001608083N6S00	3.6	±0.3nH	100	10	5000	0.14	600
BSCH001608083N9□00	3.9	±0.3nH/10	100	10	5000	0.14	600
BSCH001608084N3□00	4.3	±0.3nH/10	100	10	4750	0.16	600
BSCH001608084N7□00	4.7	±0.3nH /10	100	10	4750	0.16	600
BSCH001608085N1□00	5.1	±0.3nH /10	100	10	4100	0.18	600
BSCH001608085N6□00	5.6	±0.3nH/10	100	10	4100	0.18	600
BSCH001608086N2□00	6.2	5 / 10	100	10	3750	0.22	600
BSCH001608086N8□00	6.8	5 / 10	100	10	3750	0.22	600
BSCH001608087N5□00	7.5	5 / 10	100	10	3300	0.24	600
BSCH001608088N2□00	8.2	5 / 10	100	10	3300	0.24	600
BSCH0016080810N□00	10	5 / 10	100	12	3000	0.26	600
BSCH0016080812N□00	12	5 / 10	100	12	2600	0.28	600
BSCH0016080815N□00	15	5 / 10	100	12	2500	0.32	600
BSCH0016080816N□00	16	5 / 10	100	12	2400	0.35	600
BSCH0016080818N□00	18	5 / 10	100	12	2400	0.35	600
BSCH0016080822N□00	22	5 / 10	100	12	2000	0.40	500
BSCH0016080827N□00	27	5 / 10	100	12	1900	0.45	500
BSCH0016080833N□00	33	5 / 10	100	12	1600	0.55	400
BSCH0016080839N□00	39	5 / 10	100	12	1400	0.60	400
BSCH0016080847N□00	47	5 / 10	100	12	1300	0.70	400
BSCH0016080856N□00	56	5 / 10	100	12	1100	0.75	400
BSCH0016080862N□00	62	5 / 10	100	12	1050	0.85	400
BSCH0016080868N□00	68	5 / 10	100	12	1050	0.85	400
BSCH0016080875N□00	75	5 / 10	100	12	900	1.00	300
BSCH0016080882N□00	82	5 / 10	100	12	900	1.00	300

Note: When ordering, please specify tolerance code. Tolerance : S=±0.3nH , J=±5% , K=±10%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0nH
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent 16197A

  SRF：HP8753D

  RDC：HP4338B or CHEN HWA 502

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Typ.	RDC (Ω) Max	IDC (mA) Max
BSCH00160808R10□00	100	5 / 10	100	12	770	1.20	300
BSCH00160808R12□00	120	5 / 10	50	8	650	1.30	300
BSCH00160808R15□00	150	5 / 10	50	8	550	1.70	250
BSCH00160808R18□00	180	5 / 10	50	8	520	1.90	250
BSCH00160808R22□00	220	5 / 10	50	8	500	2.00	250
BSCH00160808R27□00	270	5 / 10	50	8	470	2.20	150
BSCH00160808R33□00	330	5 / 10	50	8	320	2.80	100
BSCH00160808R39□00	390	5 / 10	50	8	300	3.00	100

Note: When ordering, please specify tolerance code. Tolerance : S=±0.3nH , J=±5% , K=±10%

- Operating temperature range－55℃～125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Residual impedance of short chip : 0nH
- Measure Equipment：

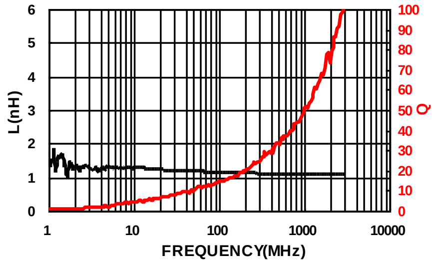
  L & Q：Agilent E4991A+Agilent 16197A

  SRF：HP8753D

  RDC：HP4338B or CHEN HWA 502

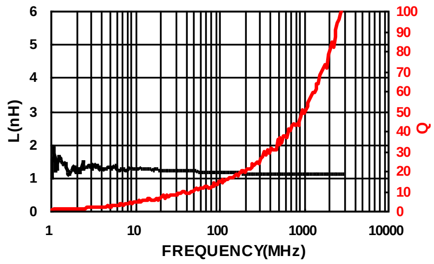
Test Instruments：Agilent E4991A Material/Impedance Analyzer

BSCH001608081N0S00



RDC<0.1Ω SRF:10000MHz IDC:600mA

BSCH001608081N2S00



RDC<0.1Ω SRF:10000MHz IDC:600mA

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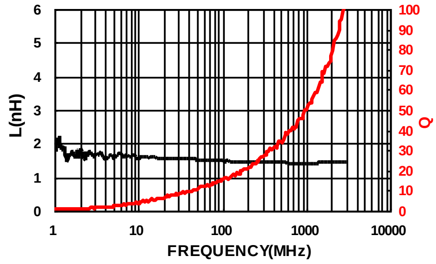
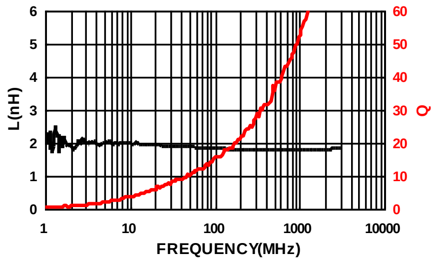


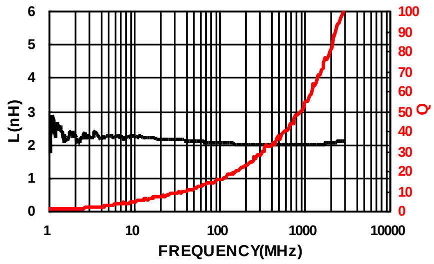
RDC<0.1Ω SRF:8000MHz IDC:600mA

BSCH001608081N8S00



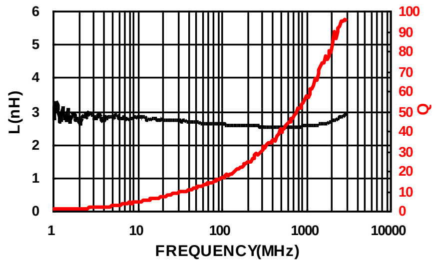
RDC<0.1Ω SRF:8000MHz IDC:600mA

BSCH001608082N2S00



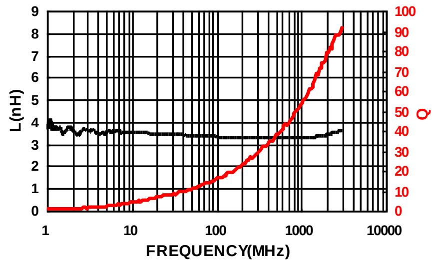
RDC<0.1Ω SRF:7200MHz IDC:600mA

BSCH001608082N7S00



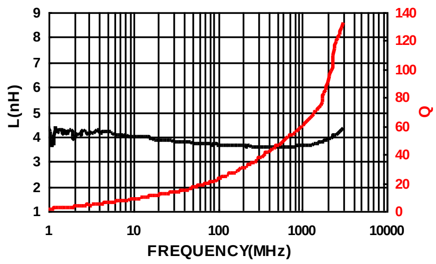
RDC<0.10Ω SRF:6200MHz IDC:600mA

BSCH001608083N3S00



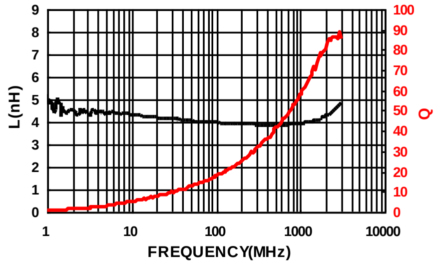
RDC<0.12Ω SRF:5200MHz IDC:600mA

BSCH001608083N6S00



RDC<0.14Ω SRF:5000MHz IDC:600mA

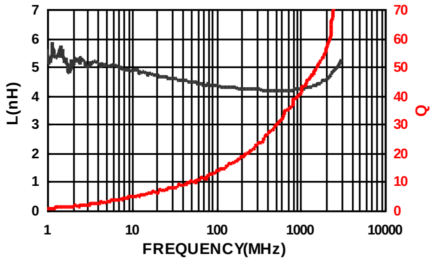
BSCH001608083N9S00



RDC<0.14Ω SRF:5000MHz IDC:600mA

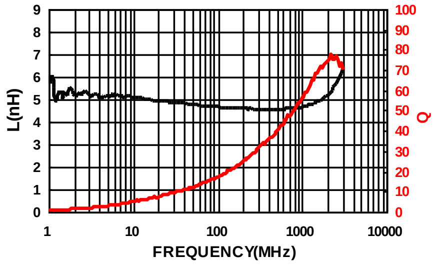
Test Instruments：Agilent E4991A Material/Impedance Analyzer

BSCH001608084N3S00



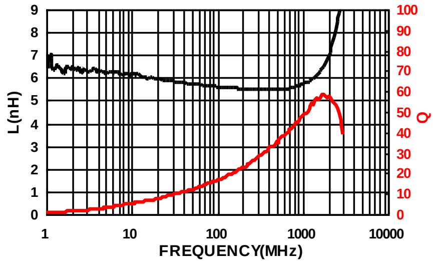
RDC<0.16Ω SRF:4750MHz IDC:600mA

BSCH001608084N7S00



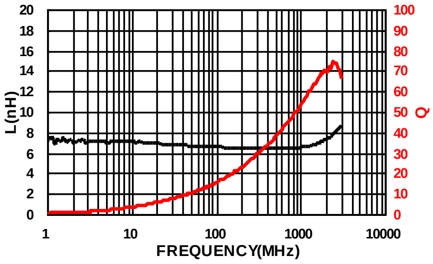
RDC<0.16Ω SRF:4750MHz IDC:600mA

BSCH001608085N6S00



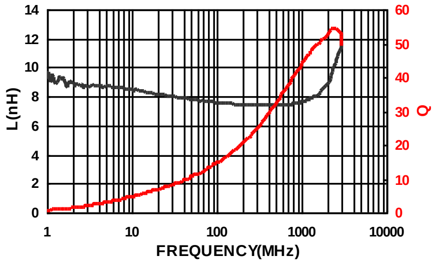
RDC<0.18Ω SRF:4100MHz IDC:600mA

BSCH001608086N8J00



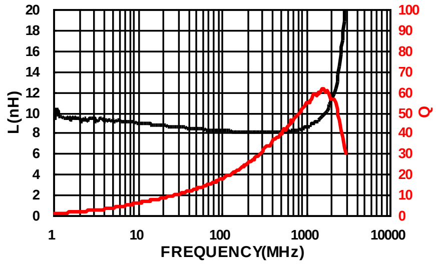
RDC<0.22Ω SRF:3750MHz IDC:600mA

BSCH001608087N5J00



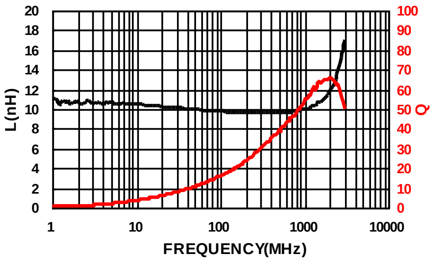
RDC<0.24Ω SRF:3300MHz IDC:600mA

BSCH001608088N2J00



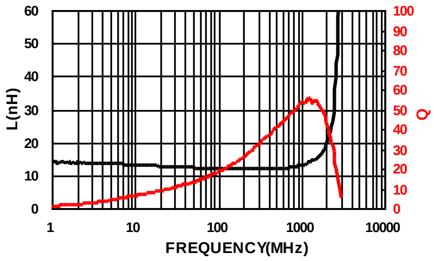
RDC<0.24Ω SRF:3300MHz IDC:600mA

BSCH0016080810NJ00



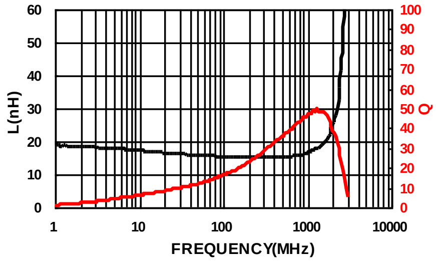
RDC<0.26Ω SRF:3000MHz IDC:600mA

BSCH0016080812NJ00



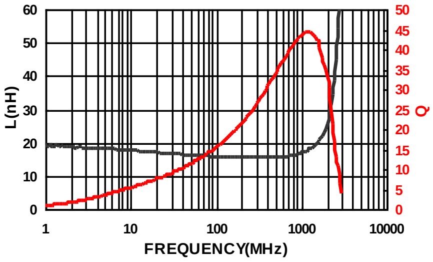
RDC<0.28Ω SRF:2600MHz IDC:600mA

BSCH0016080815NJ00



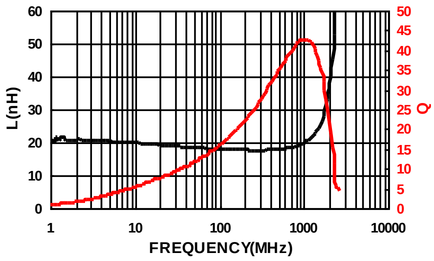
RDC<0.32Ω SRF:2400MHz IDC:600mA

BSCH0016080816NJ00



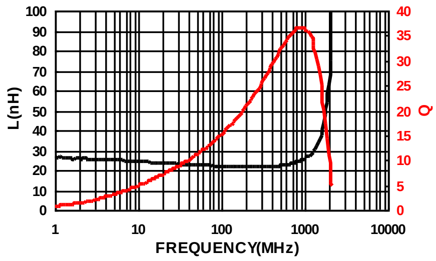
RDC<0.35Ω SRF:2400MHz IDC:600mA

BSCH0016080818NJ00



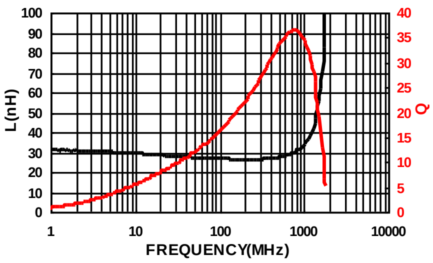
RDC<0.35Ω SRF:2400MHz IDC:600mA

BSCH0016080822NJ00



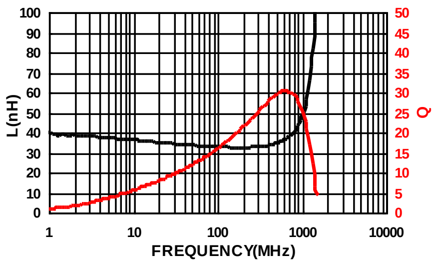
RDC<0.4Ω SRF:2000MHz IDC:500mA

BSCH0016080827NJ00



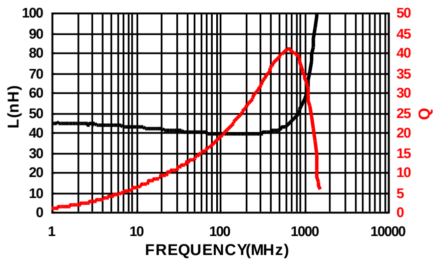
RDC<0.45Ω SRF:1900MHz IDC:500mA

BSCH0016080833NJ00



RDC<0.55Ω SRF:1600MHz IDC:400mA

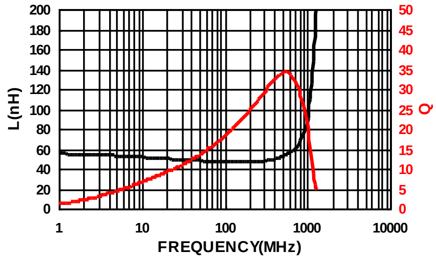
BSCH0016080839NJ00



RDC<0.60Ω SRF:1400MHz IDC:400mA

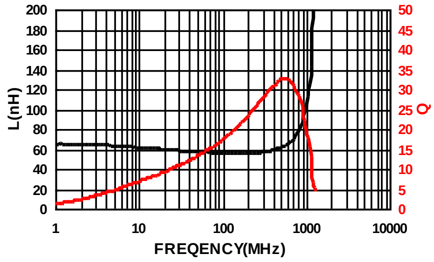
Test Instruments：Agilent E4991A Material/Impedance Analyzer

BSCH0016080847NJ00



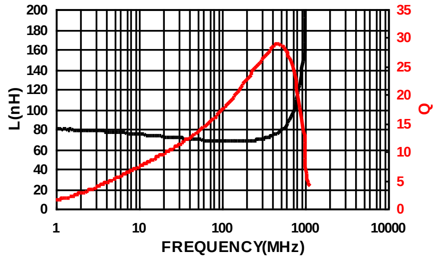
RDC<0.7Ω SRF:1300MHz IDC:400mA

BSCH0016080856NJ00



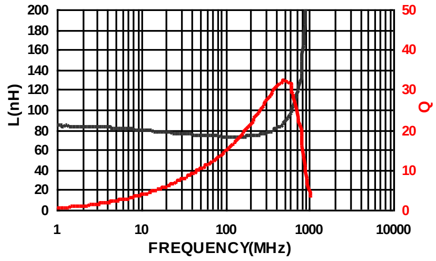
RDC<0.75Ω SRF:1100MHz IDC:400mA

BSCH0016080868NJ00



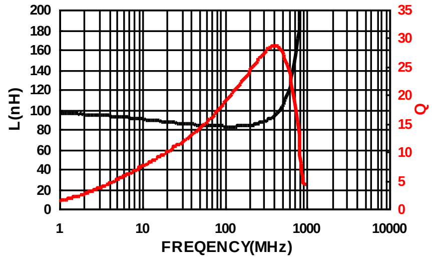
RDC<0.85Ω SRF:1050MHz IDC:400mA

BSCH0016080875NJ00



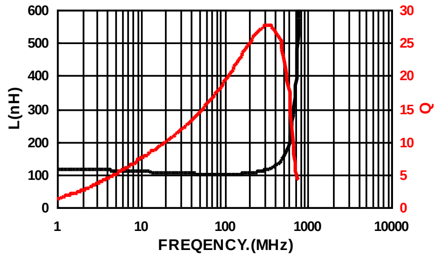
RDC<1.0Ω SRF:900MHz IDC:300mA

BSCH0016080882NJ00



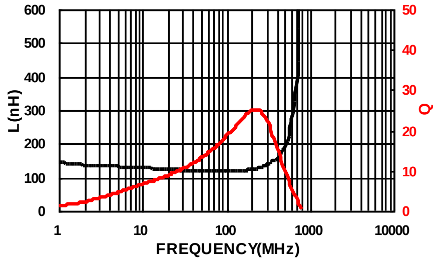
RDC<1.0Ω SRF:900MHz IDC:300mA

BSCH00160808R10J00



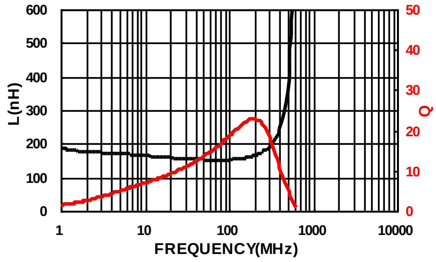
RDC<1.20Ω SRF:770MHz IDC:300mA

BSCH00160808R12J00



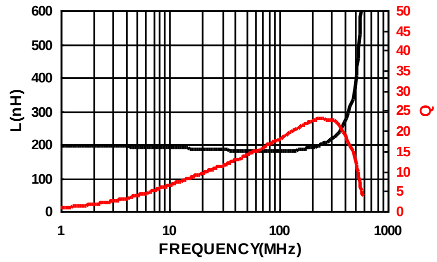
RDC<1.30 Ω SRF:650MHz IDC:300mA

BSCH00160808R15J00



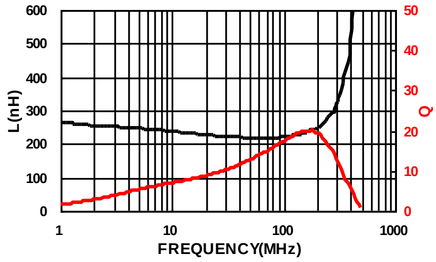
RDC<1.70 Ω SRF:550MHz IDC:250mA

BSCH00160808R18J00



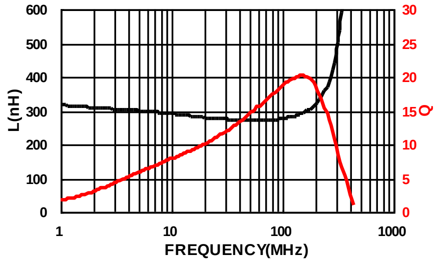
RDC<1.90 Ω SRF:520MHz IDC:250mA

BSCH00160808R22J00



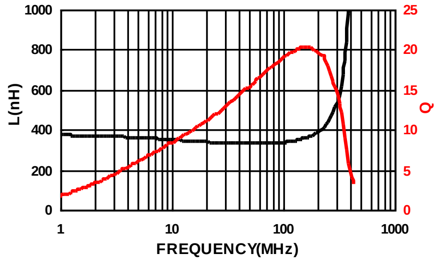
RDC<2.00 Ω SRF:500MHz IDC:250mA

BSCH00160808R27J00



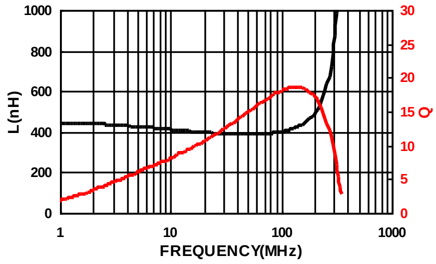
RDC<2.20 Ω SRF:470MHz IDC:150mA

BSCH00160808R33J00



RDC<2.8 Ω SRF:320MHz IDC:100mA

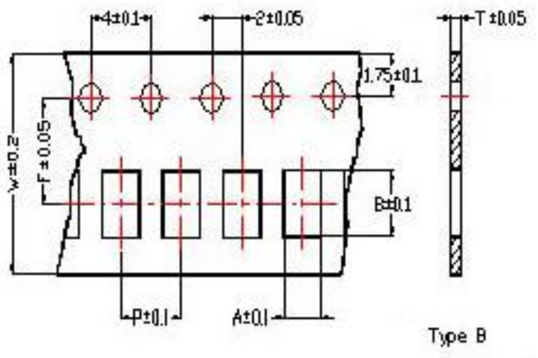
BSCH00160808R39J00



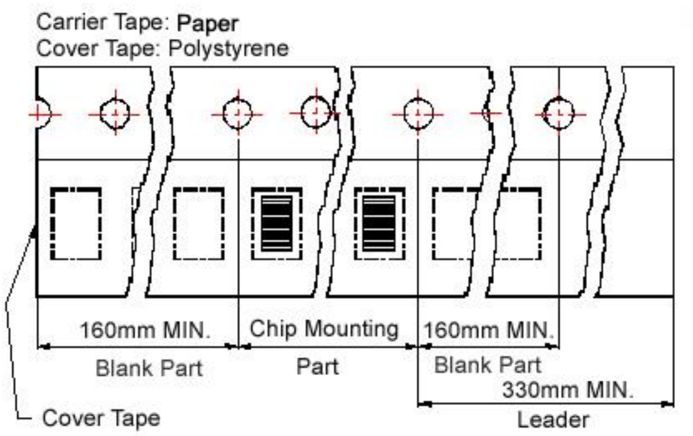
RDC<3.0 Ω SRF:300MHz IDC:100mA

Packaging Specifications

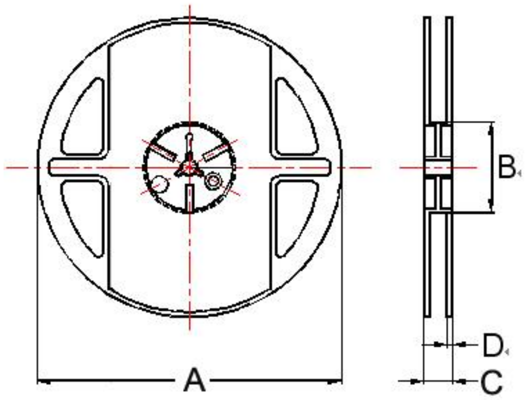
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions						Reel Dimensions				Quantity
	A	B	T	W	P	F	A	B	C	D	PCS / Reel
BSCH00060303	0.37	0.67	0.42	8	2	3.5	180	60	13	1.5	15000
BSCH00100505	0.62	1.12	0.60	8	2	3.5	178	60	12	1.5	10000
BSCH00160808	1.00	1.80	0.95	8	4	3.5	178	60	12	1.5	4000

BSPQ Series

BSPQ Series supports miniaturized devices. Its low inductance, high precision and higher Q enables easy impedance matching at both RF and IF circuits and compact high frequency circuit designing.

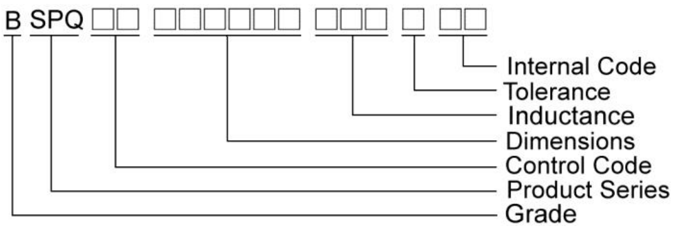
Features

- Film Type
- Excellent high frequency application
- Higher Q factor
- Miniaturization
- Tight tolerance

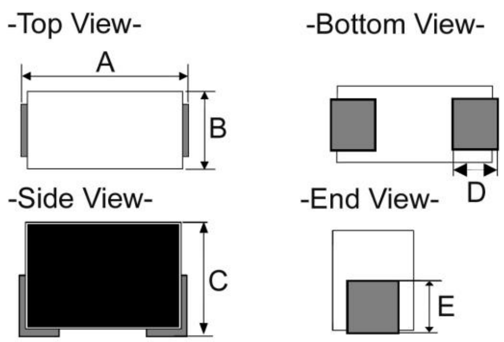
Applications

- RF matching circuit requiring Q value
- Bluetooth, WLAN, UWB, digital TV tuners and high-frequency circuit and module

Product Identification



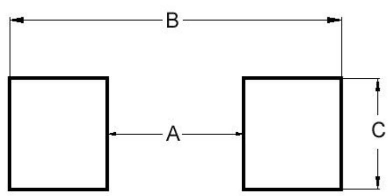
Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D	E
BSPQ00060304	0.6±0.03	0.3±0.03	0.4±0.03	0.15±0.03	0.2±0.03

Recommended Pattern



Dimensions in mm

TYPE	A	B	C
BSPQ00060304	0.3	0.75 ~ 1.05	0.3

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Rated Current (mA) Max
BSPQ000603040N6□00	0.6	±0.1nH/±0.2nH	20	500	20000	0.04	1100
BSPQ000603040N7□00	0.7	±0.1nH/±0.2nH	20	500	20000	0.04	1100
BSPQ000603040N8□00	0.8	±0.1nH/±0.2nH	20	500	18000	0.04	1100
BSPQ000603040N9□00	0.9	±0.1nH/±0.2nH	20	500	18000	0.04	1100
BSPQ000603041N0□00	1.0	±0.1nH/±0.2nH	20	500	16000	0.04	1100
BSPQ000603041N1□00	1.1	±0.1nH/±0.2nH	20	500	14000	0.04	1100
BSPQ000603041N2□00	1.2	±0.1nH/±0.2nH	20	500	13000	0.04	1100
BSPQ000603041N3v00	1.3	±0.1nH/±0.2nH	20	500	13000	0.04	1100
BSPQ000603041N4□00	1.4	±0.1nH/±0.2nH	20	500	12000	0.04	1100
BSPQ000603041N5□00	1.5	±0.1nH/±0.2nH	20	500	12000	0.05	1000
BSPQ000603041N6□00	1.6	±0.1nH/±0.2nH	20	500	10000	0.05	1000
BSPQ000603041N7□00	1.7	±0.1nH/±0.2nH	20	500	10000	0.07	800
BSPQ000603041N8□00	1.8	±0.1nH/±0.2nH	20	500	10000	0.08	800
BSPQ000603041N9□00	1.9	±0.1nH/±0.2nH	20	500	10000	0.12	600
BSPQ000603042N0□00	2.0	±0.1nH/±0.2nH	20	500	9000	0.12	600
BSPQ000603042N1□00	2.1	±0.1nH/±0.2nH	20	500	9000	0.12	600
BSPQ000603042N2□00	2.2	±0.1nH/±0.2nH	20	500	9000	0.12	600
BSPQ000603042N3□00	2.3	±0.1nH/±0.2nH	20	500	9000	0.12	600
BSPQ000603042N4□00	2.4	±0.1nH/±0.2nH	20	500	9000	0.12	600
BSPQ000603042N5□00	2.5	±0.1nH/±0.2nH	20	500	9000	0.12	600
BSPQ000603042N6□00	2.6	±0.1nH/±0.2nH	20	500	9000	0.12	600
BSPQ000603042N7□00	2.7	±0.1nH/±0.2nH	20	500	9000	0.12	600
BSPQ000603042N8□00	2.8	±0.1nH/±0.2nH	20	500	8000	0.12	600
BSPQ000603042N9□00	2.9	±0.1nH/±0.2nH	20	500	8000	0.12	600
BSPQ000603043N0□00	3.0	±0.1nH/±0.2nH	20	500	8000	0.12	600
BSPQ000603043N1□00	3.1	±0.1nH/±0.2nH	20	500	7500	0.17	500
BSPQ000603043N2□00	3.2	±0.1nH/±0.2nH	20	500	7000	0.17	500
BSPQ000603043N3□00	3.3	±0.1nH/±0.2nH	20	500	7000	0.17	500
BSPQ000603043N4□00	3.4	±0.1nH/±0.2nH	20	500	7000	0.17	500
BSPQ000603043N5□00	3.5	±0.1nH/±0.2nH	20	500	7000	0.17	500
BSPQ000603043N6□00	3.6	±0.1nH/±0.2nH	20	500	7000	0.17	500
BSPQ000603043N7□00	3.7	±0.1nH/±0.2nH	20	500	7000	0.17	500

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , H=±3% , J=±5%

- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Rated Current：Applied the current to coils, the temperature rise shall not be more than 25℃
- Residual impedance of short chip : 0.48nH
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent 16197A (or equivalent)

  SRF：Agilent E4991A or HP19196C

  RDC：HP4338B or CHEN HWA 502

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Rated Current (mA) Max
BSPQ000603043N8□00	3.8	±0.1nH/±0.2nH	20	500	7000	0.17	500
BSPQ000603043N9□00	3.9	±0.1nH/±0.2nH	20	500	7000	0.17	500
BSPQ000603044N0□00	4.0	±0.1nH/±0.2nH	20	500	7000	0.17	500
BSPQ000603044N1□00	4.1	±0.1nH/±0.2nH	20	500	7000	0.17	500
BSPQ000603044N2□00	4.2	±0.1nH/±0.2nH	20	500	7000	0.17	500
BSPQ000603044N3□00	4.3	3/5	20	500	7000	0.17	500
BSPQ000603044N7□00	4.7	3/5	20	500	7000	0.25	400
BSPQ000603045N1□00	5.1	3/5	20	500	5500	0.25	400
BSPQ000603045N6□00	5.6	3/5	20	500	5500	0.25	400
BSPQ000603046N2□00	6.2	3/5	20	500	5500	0.25	400
BSPQ000603046N8□00	6.8	3/5	20	500	5500	0.30	400
BSPQ000603047N5□00	7.5	3/5	20	500	4500	0.30	400
BSPQ000603048N2□00	8.2	3/5	20	500	4500	0.40	300
BSPQ000603049N1□00	9.1	3/5	20	500	4500	0.40	300
BSPQ0006030410N□00	10	3/5	20	500	4500	0.40	300
BSPQ0006030412N□00	12	3/5	20	500	4000	0.50	300
BSPQ0006030415N□00	15	3/5	20	500	3500	0.70	300
BSPQ0006030418N□00	18	3/5	20	500	3500	0.80	250
BSPQ0006030422N□00	22	3/5	20	500	3000	0.82	250

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , H=±3% , J=±5%

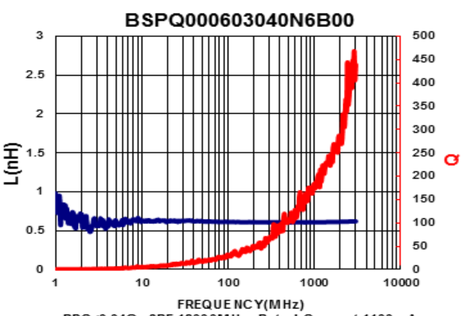
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Rated Current：Applied the current to coils, the temperature rise shall not be more than 25℃
- Residual impedance of short chip : 0.48nH
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent 16197A (or equivalent)

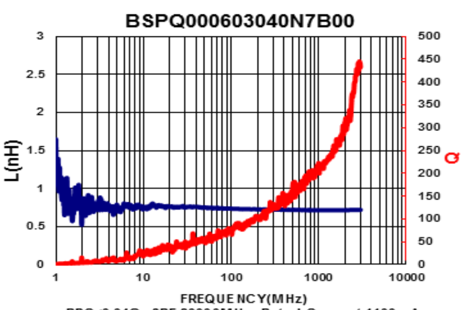
  SRF：Agilent E4991A or HP19196C

  RDC：HP4338B or CHEN HWA 502

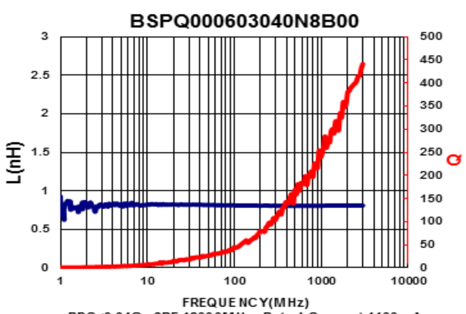
Test Instruments：Agilent E4991A Material/Impedance Analyzer



RDC<0.04Ω SRF:12000MHz Rated Current:1100mA

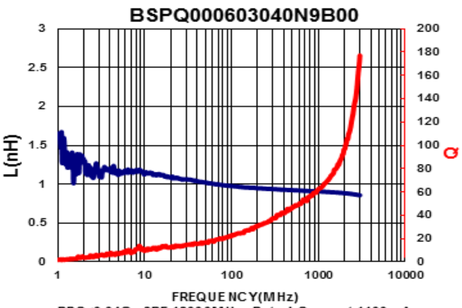


RDC<0.04Ω SRF:20000MHz Rated Current:1100mA

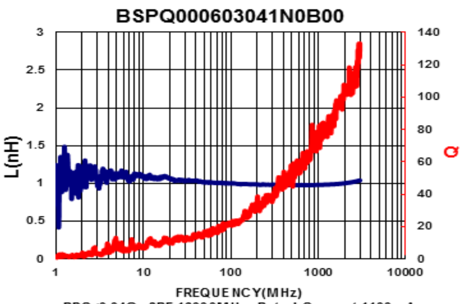


RDC<0.04Ω SRF:18000MHz Rated Current:1100mA

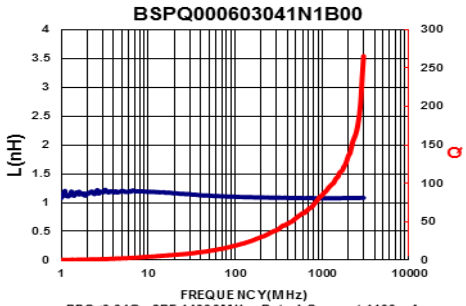
Test Instruments：Agilent E4991A Material/Impedance Analyzer



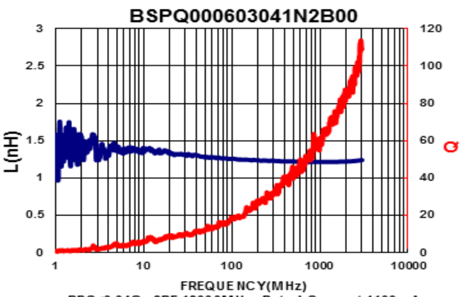
RDC<0.04Ω SRF:18000MHz Rated Current:1100mA



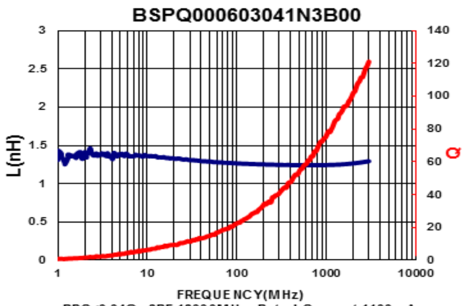
RDC<0.04Ω SRF:16000MHz Rated Current:1100mA



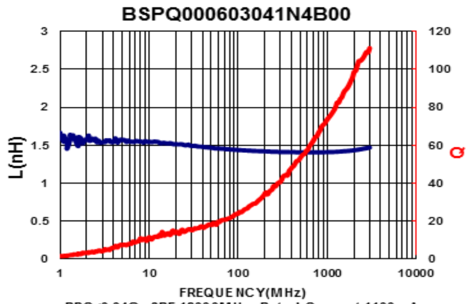
RDC<0.04Ω SRF:14000MHz Rated Current:1100mA



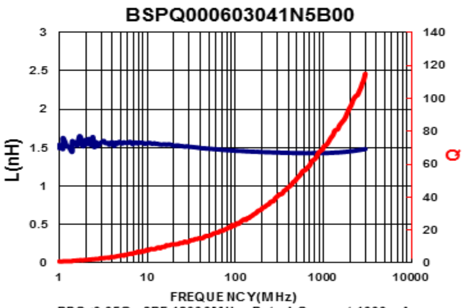
RDC<0.04Ω SRF:13000MHz Rated Current:1100mA



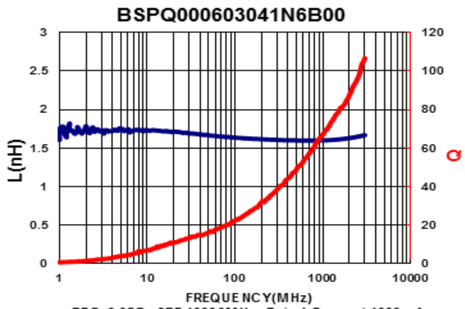
RDC<0.04Ω SRF:13000MHz Rated Current:1100mA



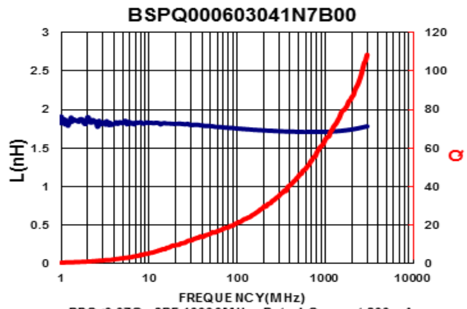
RDC<0.04Ω SRF:12000MHz Rated Current:1100mA



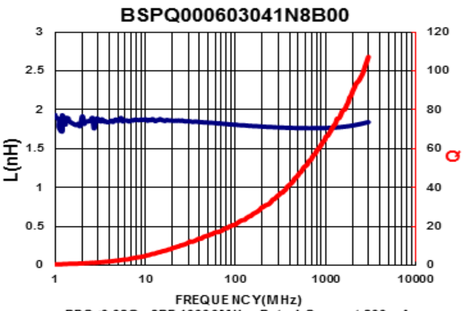
RDC<0.05Ω SRF:12000MHz Rated Current:1000mA



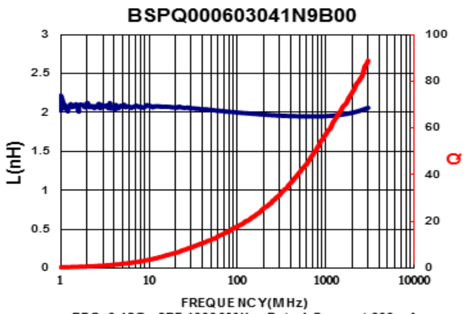
RDC<0.05Ω SRF:10000MHz Rated Current:1000mA



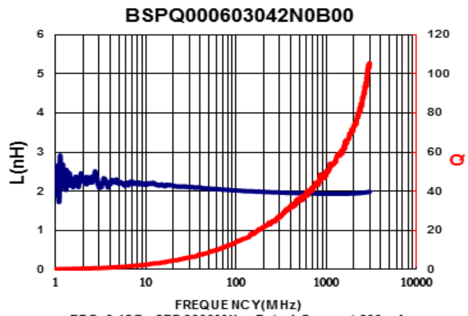
RDC<0.07Ω SRF:10000MHz Rated Current:800mA



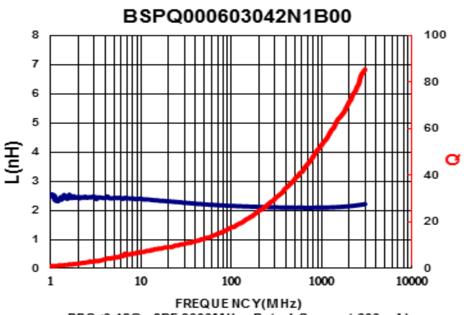
RDC<0.08Ω SRF:10000MHz Rated Current:800mA



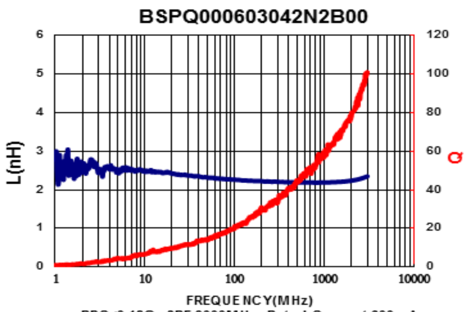
RDC<0.12Ω SRF:10000MHz Rated Current:600mA



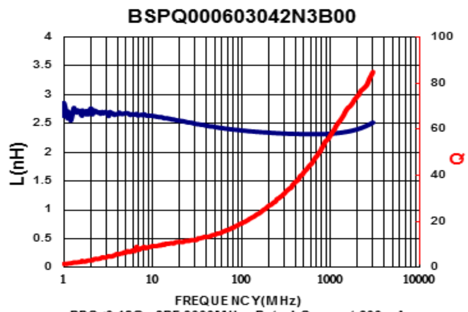
RDC<0.12Ω SRF:9000MHz Rated Current:600mA



RDC<0.12Ω SRF:9000MHz Rated Current:600mA)



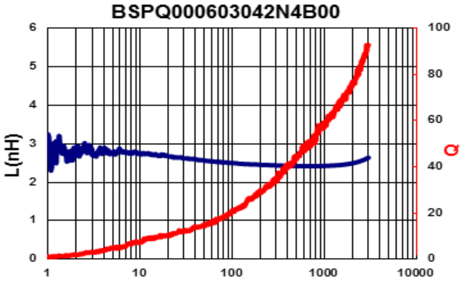
RDC<0.12Ω SRF:9000MHz Rated Current:600mA



RDC<0.12Ω SRF:9000MHz Rated Current:600mA

Test Instruments：Agilent E4991A Material/Impedance Analyzer

BSPQ000603042N4B00



RDC<0.12Ω SRF:9000MHz Rated Current:600mA)

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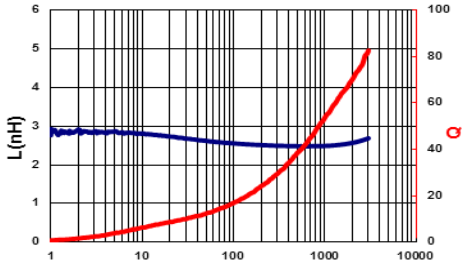

RDC<0.12Ω SRF:9000MHz Rated Current:600mA)

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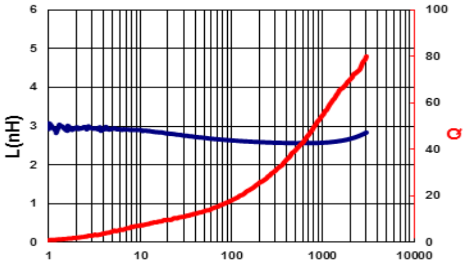
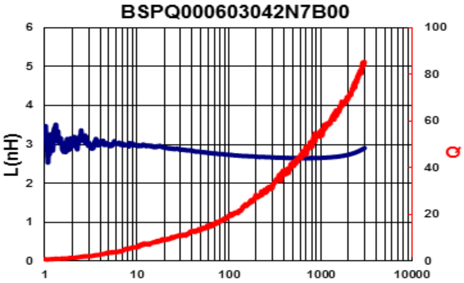


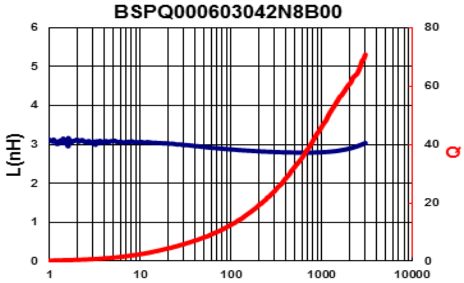
RDC<0.12Ω SRF:9000MHz Rated Current:600mA

BSPQ000603042N7B00



RDC<0.12Ω SRF:9000MHz Rated Current:600mA

BSPQ000603042N8B00



RDC<0.12Ω SRF:8000MHz Rated Current:600mA

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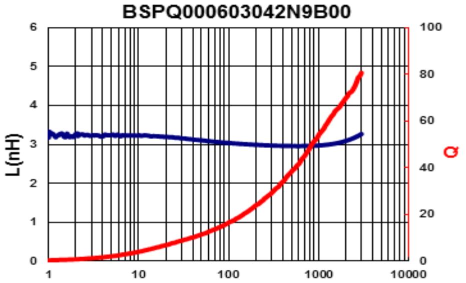
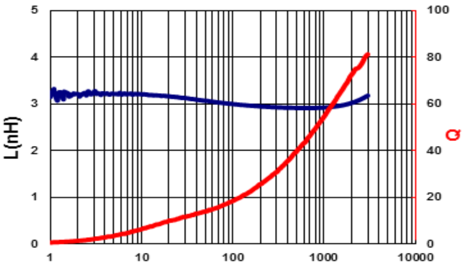


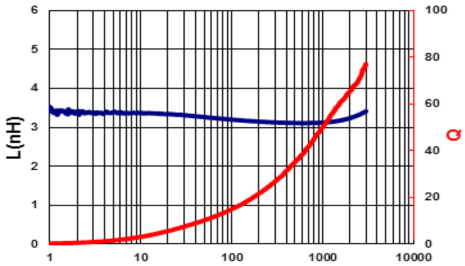
RDC<0.12Ω SRF:8000MHz Rated Current:600mA

BSPQ000603043N0B00



RDC<0.12Ω SRF:8000MHz Rated Current:600mA

BSPQ000603043N1B00



RDC<0.17Ω SRF:7500MHz Rated Current:500mA

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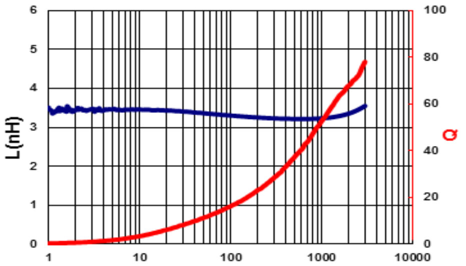
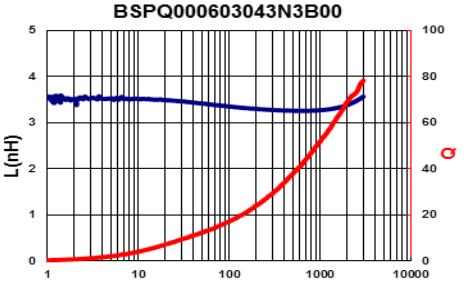


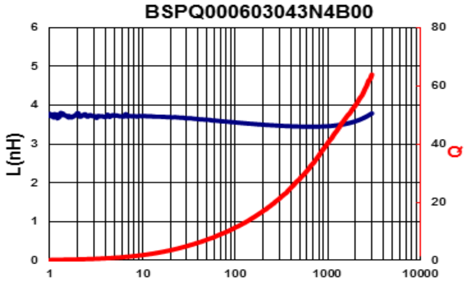
RDC<0.17Ω SRF:7000MHz Rated Current:500mA

BSPQ000603043N3B00



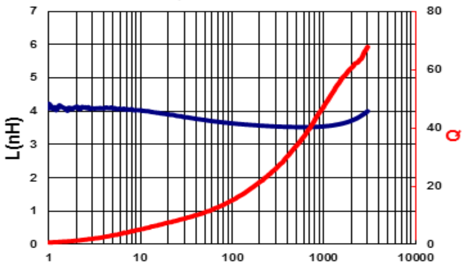
RDC<0.17Ω SRF:7000MHz Rated Current:500mA

BSPQ000603043N4B00



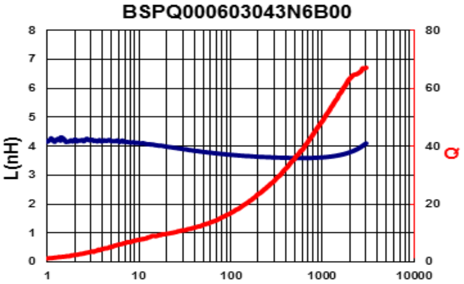
RDC<0.17Ω SRF:7000MHz Rated Current:500mA

BSPQ000603043N5B00



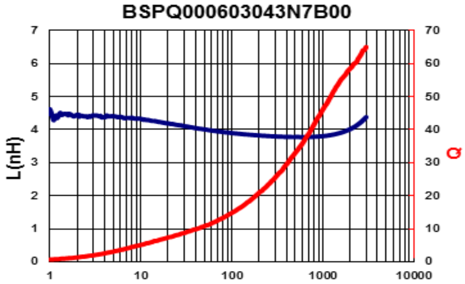
RDC<0.17Ω SRF:7000MHz Rated Current:500mA

BSPQ000603043N6B00



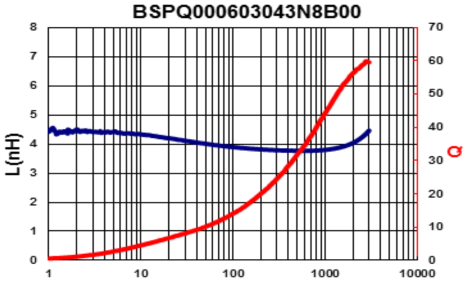
RDC<0.17Ω SRF:7000MHz Rated Current:500mA

BSPQ000603043N7B00



RDC<0.17Ω SRF:7000MHz Rated Current:500mA

BSPQ000603043N8B00



RDC<0.17Ω SRF:7000MHz Rated Current:500mA

Test Instruments：Agilent E4991A Material/Impedance Analyzer

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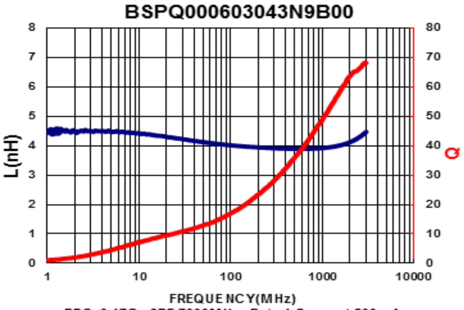
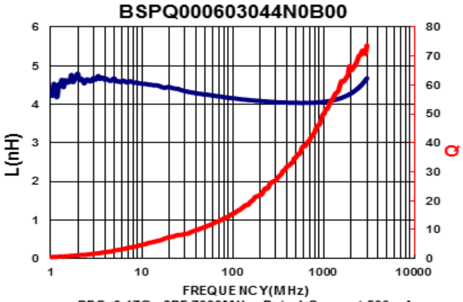


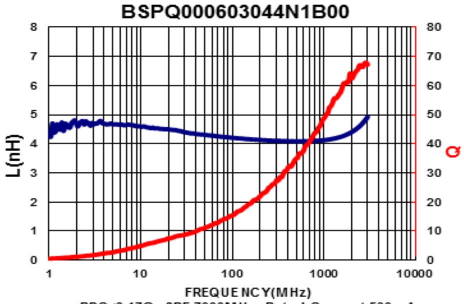
RDC<0.17Ω SRF:7000MHz Rated Current:500mA

BSPQ000603044N0B00



RDC<0.17Ω SRF:7000MHz Rated Current:500mA

BSPQ000603044N1B00



RDC<0.17Ω SRF:7000MHz Rated Current:500mA

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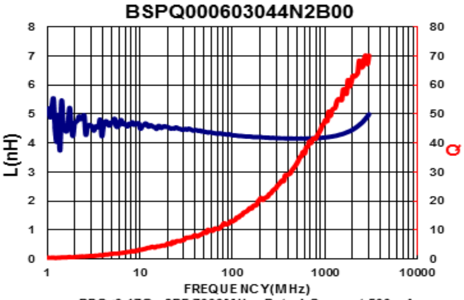
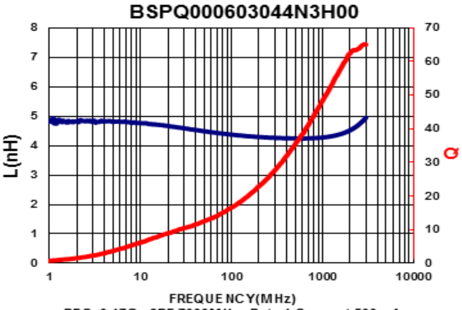


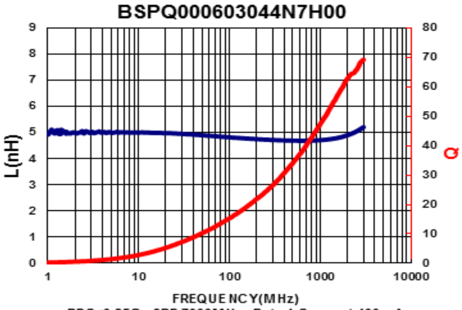
RDC<0.17Ω SRF:7000MHz Rated Current:500mA

BSPQ000603044N3H00



RDC<0.17Ω SRF:7000MHz Rated Current:500mA

BSPQ000603044N7H00



RDC<0.25Ω SRF:7000MHz Rated Current:400mA

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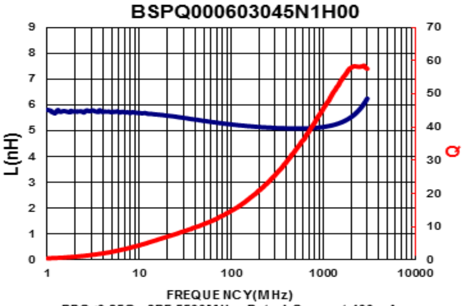

RDC<0.25Ω SRF:5500MHz Rated Current:400mA

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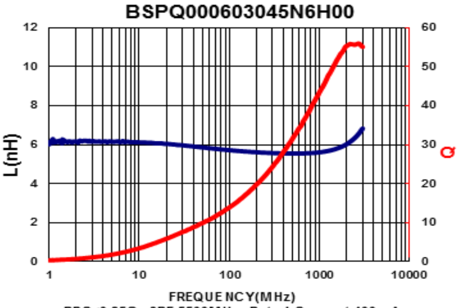

RDC<0.25Ω SRF:5500MHz Rated Current:400mA

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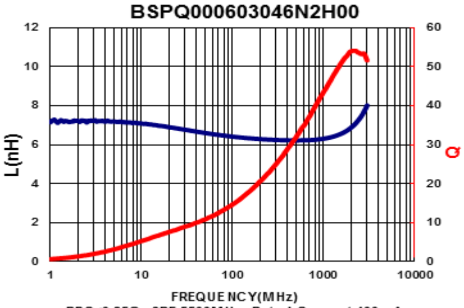
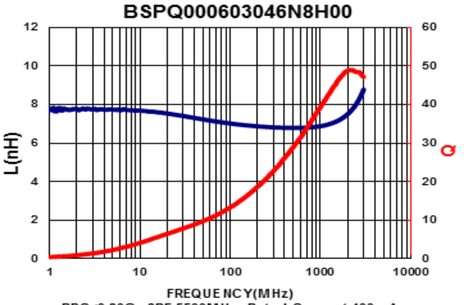


RDC<0.25Ω SRF:5500MHz Rated Current:400mA

BSPQ000603046N8H00



RDC<0.30Ω SRF:5500MHz Rated Current:400mA

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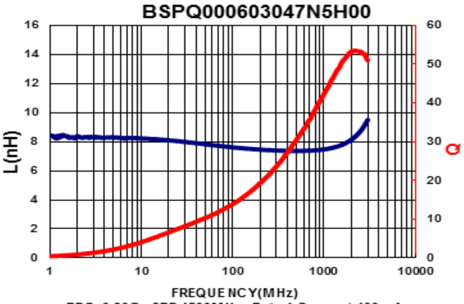

RDC<0.30Ω SRF:4500MHz Rated Current:400mA

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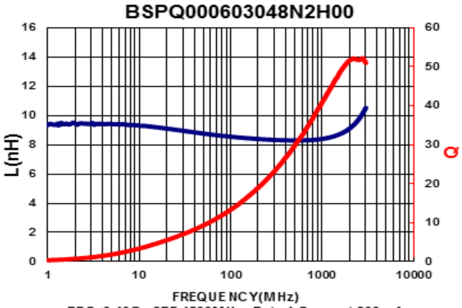

RDC<0.40Ω SRF:4500MHz Rated Current:300mA

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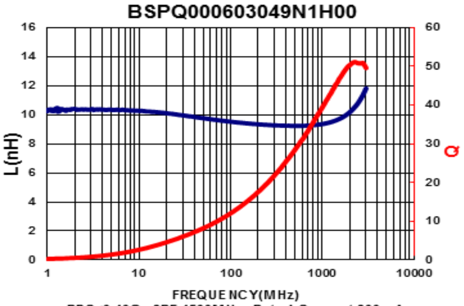
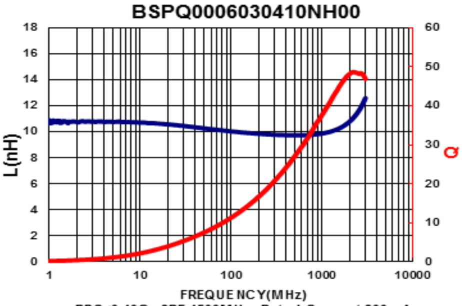


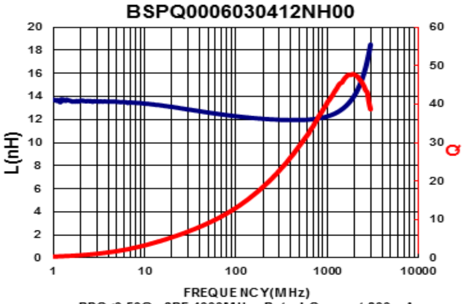
RDC<0.40Ω SRF:4500MHz Rated Current:300mA

BSPQ0006030410NH00



RDC<0.40Ω SRF:4500MHz Rated Current:300mA

BSPQ0006030412NH00



RDC<0.50Ω SRF:4000MHz Rated Current:300mA

Test Instruments：Agilent E4991A Material/Impedance Analyzer

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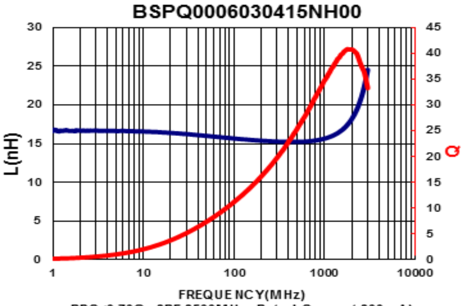
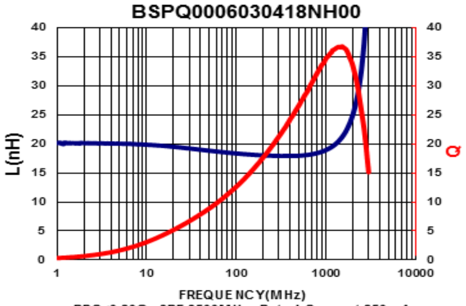


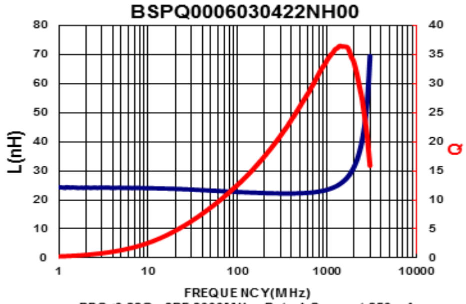
RDC<0.70Ω SRF:3500MHz Rated Current:300mA)

BSPQ0006030418NH00



RDC<0.80Ω SRF:3500MHz Rated Current:250mA

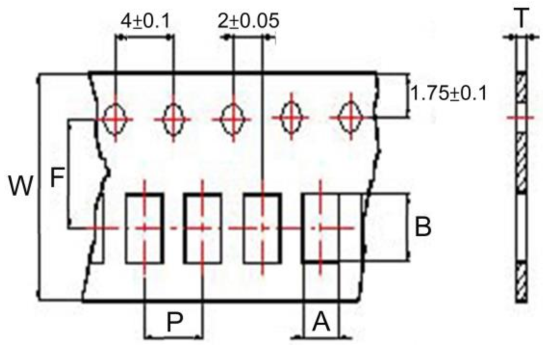
BSPQ0006030422NH00



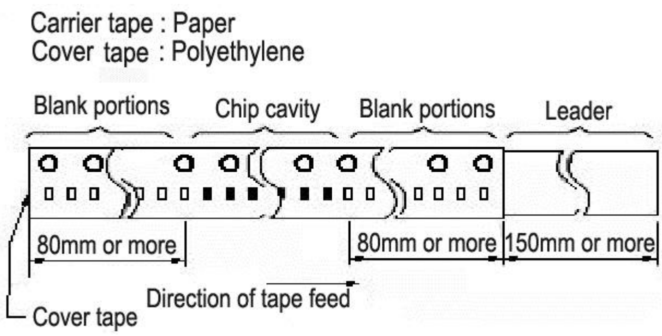
RDC<0.82Ω SRF:3000MHz Rated Current:250mA

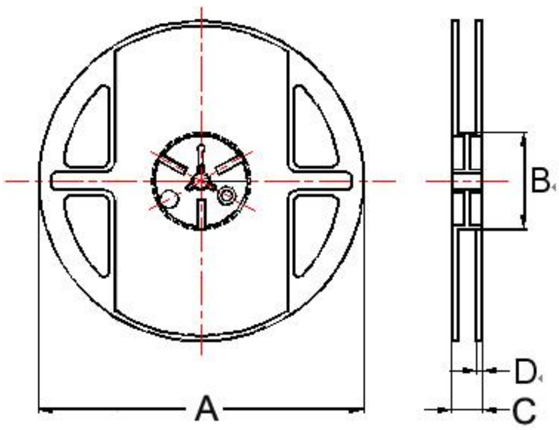
Packaging Specifications

Tape Dimensions



Tape Material





Dimensions in mm

TYPE	Tape Dimensions						Reel Dimensions				Quantity
	A	B	T	W	P	F	A	B	C	D	PCS / Reel
BSPQ00060304	0.37	0.68	0.45	8	2	3.5	180	60	13	1.5	15000

BWCM Series

Due to accurate wire winding technology, these chip inductors are designed for filtering impedance matching, resonance and choke circuits for RF designer. Both standard series and custom designs are available.

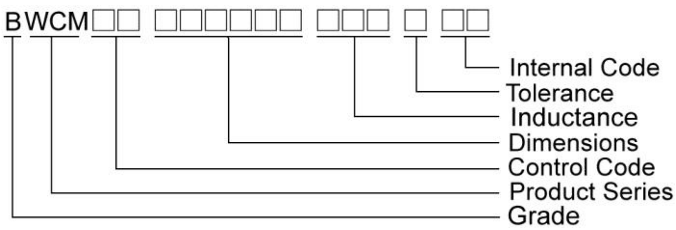
Features

- RoHS Compliant
- Ceramic body and wire wound construction provide high SRFs
- Exceptional Q value even at high frequencies
- Ceramic construction delivers the highest possible SRFs as well as high Q value
- Low DC resistance design supports low loss, high output and low power consumption
- CM series is standard for RF designers

Applications

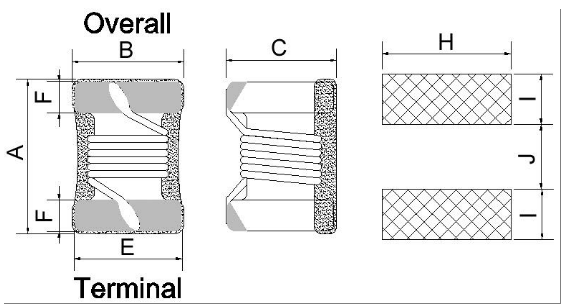
- RF products for cellular phone
- GPS receiver
- Base Station
- Repeater
- Wireless LAN/ mouse/ keyboard/ earphone
- Remote control
- Security system and other RF modules

Product Identification

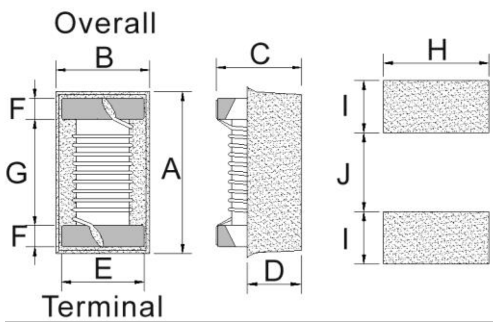


Shape and Dimensions / Recommended Pattern

BWCM00060404



BWCM00110705/181010

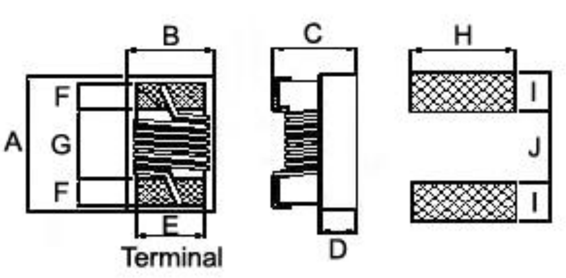


Dimensions

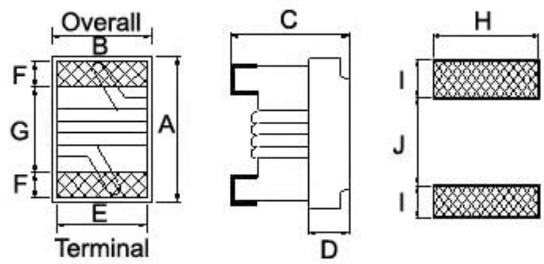
	A	B	C	D	E	F	G	H	I	J
BWCM00060404	0.53±0.05	0.40±0.05	0.40±0.05	-	0.38	0.10	-	0.40	0.21	0.23
BWCM00110705	1.1±0.1	0.70±0.1	0.5±0.1	0.35	0.60	0.15	0.70	0.66	0.40	0.60
BWCM00181010	1.80±0.1	1.00±0.1	0.95±0.1	0.60	0.90	0.23	1.15	1.15	0.57	0.86

Shape and Dimensions / Recommended Pattern

BWCM00120707



BWCM00161008



Dimensions

	A	B	C	D	E	F	G	H	I	J
BWCM00120707	1.19 Max	0.70 Max	0.66 Max	0.25	0.51	0.23	0.56	0.66	0.36	0.46
BWCM00161008	$1.6^{+0.2}_{-0.1}$	1.02±0.1	$0.82^{+0.2}_{-0.1}$	0.35	0.70	0.30	0.95	1.02	0.64	0.64

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Typ.
BWCM000604041N0□00	1.0	±0.2nH	250	48	900	19	0.03	900
BWCM000604041N1□00	1.1	±0.2nH	250	41	900	19	0.06	660
BWCM000604041N7□00	1.7	±0.2nH	250	41	900	19	0.07	600
BWCM000604041N8□00	1.8	±0.2nH	250	37	900	19	0.10	520
BWCM000604041N9□00	1.9	±0.2nH	250	41	900	19	0.08	620
BWCM000604042N0□00	2.0	±0.2nH	250	42	900	19	0.10	490
BWCM000604042N1□00	2.1	±0.2nH	250	35	900	19	0.16	400
BWCM000604042N2□00	2.2	±0.2nH	250	33	900	19	0.16	400
BWCM000604042N7□00	2.7	±0.2nH	250	46	900	15	0.06	720
BWCM000604042N8□00	2.8	±0.2nH	250	44	900	14	0.08	600
BWCM000604042N9□00	2.9	±0.2nH	250	41	900	13	0.10	540
BWCM000604043N0□00	3.0	±0.2nH	250	34	900	14	0.22	350
BWCM000604043N1□00	3.1	±0.2nH	250	48	900	12	0.07	720
BWCM000604043N2□00	3.2	±0.2nH	250	48	900	10	0.08	580
BWCM000604043N3□00	3.3	±0.2nH	250	47	900	11	0.11	520
BWCM000604043N4□00	3.4	±0.2nH	250	43	900	11	0.15	440
BWCM000604043N5□00	3.5	±0.2nH	250	43	900	12	0.15	440
BWCM000604043N6□00	3.6	±0.2nH	250	36	900	11	0.23	340
BWCM000604043N7□00	3.7	±0.2nH	250	38	900	11	0.23	340
BWCM000604043N9□00	3.9	±0.2nH	250	48	900	11	0.07	650
BWCM000604044N3□00	4.3	5	100	45	900	11	0.12	480
BWCM000604044N7□00	4.7	5	100	45	900	9.5	0.09	620
BWCM000604045N1□00	5.1	5	100	45	900	9.5	0.14	480
BWCM000604045N4□00	5.4	5	100	46	900	9.5	0.21	420
BWCM000604045N6□00	5.6	5	100	37	900	8.3	0.33	330
BWCM000604045N8□00	5.8	5	100	47	900	8.8	0.16	460
BWCM000604046N2□00	6.2	5	100	39	900	9.9	0.22	360
BWCM000604046N8□00	6.8	5	100	42	900	7.7	0.18	460
BWCM000604047N5□00	7.5	5	100	41	900	7.5	0.24	400
BWCM000604048N2□00	8.2	5	100	40	900	8.5	0.26	290

Note: When ordering, please specify tolerance code. Tolerance : C=±0.2nH , J=±5%

- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Irms for a 20℃ temperature rise from 25℃ ambient with current
- Offset value : -0.48nH
- Measure Equipment：

  L & Q：HP4286A/HP4287A/AgilentE4991/Keysight E4982A

  SRF：Agilent HP8753D/ AgilentE4991

  RDC：HP4287A/Keysight E4982A

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

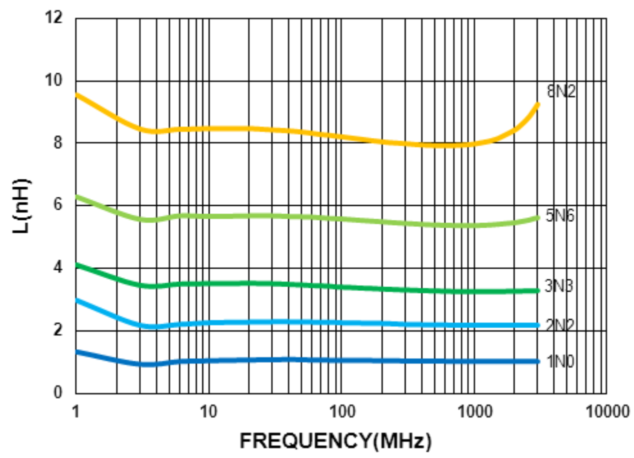
Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Typ.
BWCM000604048N7□00	8.7	5	100	39	900	7.5	0.42	290
BWCM000604049N1□00	9.1	5	100	46	900	6.4	0.22	460
BWCM0006040410N□00	10	5	100	37	900	7.2	0.46	250
BWCM0006040411N□00	11	5	100	37	900	7.0	0.47	260
BWCM0006040412N□00	12.5	5	100	39	900	6.0	0.54	280
BWCM0006040413N□00	13	5	100	39	900	5.9	0.54	280
BWCM0006040414N□00	13.5	5	100	37	900	6.0	0.53	240
BWCM0006040415N□00	15.5	5	100	38	900	5.7	0.60	230

Note: When ordering, please specify tolerance code. Tolerance : C=±0.2nH , J=±5%

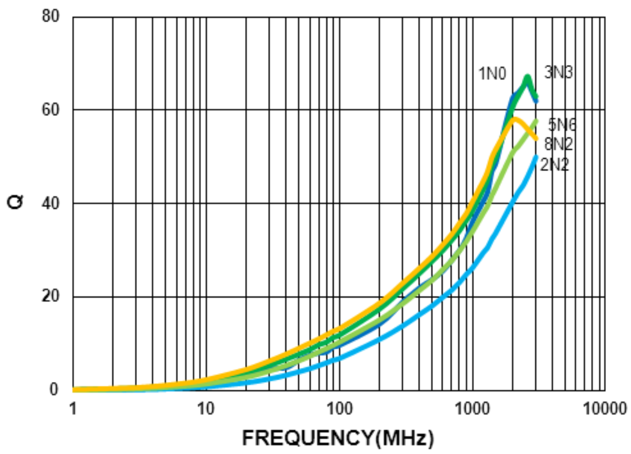
- Operating temperature range - 55℃ ~ 125℃(Including self - temperature rise)
- Irms for a 20℃ temperature rise from 25℃ ambient with current
- Offset value : -0.48nH
- Measure Equipment：

L & Q：HP4286A/HP4287A/AgilentE4991/Keysight E4982A
SRF：Agilent HP8753D/ AgilentE4991
RDC：HP4287A/Keysight E4982A
Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Typ.
BWCM001107051N5□H8	1.5	±0.2nH/±0.5nH	100	20	250	18	0.028	2100
BWCM001107052N5□H8	2.5	±0.1nH/±0.2nH/±0.5nH/2	100	30	250	15.5	0.03	2100
BWCM001107052N7□H8	2.7	±0.1nH/±0.2nH/±0.5nH/2	100	28	250	14	0.047	1500
BWCM001107053N0□H8	3.0	±0.1nH/±0.2nH/±0.5nH/2	100	20	250	12.5	0.063	1350
BWCM001107053N8□H8	3.8	±0.1nH/±0.2nH/±0.5nH/2	100	35	250	10	0.03	1950
BWCM001107053N9□H8	3.9	±0.1nH/±0.2nH/±0.5nH/2	100	35	250	10	0.03	1950
BWCM001107054N0□H8	4.0	±0.1nH/±0.2nH/±0.5nH/2	100	30	250	10	0.03	1950
BWCM001107054N1□H8	4.1	±0.1nH/±0.2nH/±0.5nH/2	100	30	250	9.6	0.044	1800
BWCM001107054N3□H8	4.3	±0.1nH/±0.2nH/±0.5nH/2	100	32	250	9.6	0.044	1800
BWCM001107054N7□H8	4.7	±0.1nH/±0.2nH/±0.5nH/2	100	31	250	8	0.071	1200
BWCM001107055N8□H8	5.8	±0.1nH/±0.2nH/±0.5nH/2	100	30	250	8	0.04	1770
BWCM001107056N2□H8	6.2	±0.1nH/±0.2nH/±0.5nH/2	100	33	250	8	0.056	1600
BWCM001107056N8□H8	6.8	2 / 5	100	30	250	7	0.068	1450
BWCM001107057N1□H8	7.1	2 / 5	100	32	250	7	0.069	1420
BWCM001107057N8□H8	7.8	2 / 5	100	30	250	7	0.05	1700
BWCM001107057N9□H8	7.9	2 / 5	100	30	250	7	0.05	1700
BWCM001107058N0□H8	8.0	2 / 5	100	30	250	7	0.05	1700
BWCM001107058N2□H8	8.2	2 / 5	100	32	250	6.5	0.069	1500
BWCM001107058N6□H8	8.6	2 / 5	100	31	250	6.5	0.07	1420
BWCM001107058N7□H8	8.7	2 / 5	100	31	250	6.5	0.07	1420
BWCM001107058N8□H8	8.8	2 / 5	100	31	250	6.5	0.07	1420
BWCM001107058N9□H8	8.9	2 / 5	100	31	250	6.5	0.07	1420
BWCM001107059N0□H8	9	2 / 5	100	30	250	6.5	0.07	1420
BWCM001107059N1□H8	9.1	2 / 5	100	32	250	6.5	0.08	1400
BWCM0011070511N□H8	11	2 / 5	100	32	250	6.2	0.083	1400
BWCM0011070515N□H8	15	2 / 5	100	31	250	5.5	0.114	1150
BWCM0011070518N□H8	18	2 / 5	100	30	250	5.2	0.13	1050
BWCM0011070519N□H8	19	2 / 5	100	30	250	5	0.156	920
BWCM0011070520N□H8	20	2 / 5	100	30	250	4.5	0.186	800
BWCM0011070523N□H8	23	2 / 5	100	29	250	4.5	0.201	760
BWCM0011070524N□H8	24	2 / 5	100	31	250	4	0.212	770
BWCM0011070527N□H8	27	2 / 5	100	30	250	4	0.288	680

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , D=±0.5nH , G=±2% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Offset value : -0.556nH
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent HP8722ES

  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Typ.
BWCM0011070533N□H8	33	2 / 5	100	30	250	3.6	0.336	620
BWCM0011070539N□H8	39	2 / 5	100	28	250	3.4	0.456	530
BWCM0011070547N□H8	47	2 / 5	100	25	200	3.2	0.648	440
BWCM0011070551N□H8	51	2 / 5	100	25	200	2.9	0.696	415
BWCM0011070553N□H8	53	2 / 5	100	25	200	2.9	0.696	415
BWCM0011070556N□H8	56	2 / 5	100	25	200	2.9	0.996	340
BWCM0011070568N□H8	68	2 / 5	100	25	200	2.5	1.128	320
BWCM0011070575N□H8	75	2 / 5	100	25	200	2.4	1.224	320

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , D=±0.5nH , G=±2% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Offset value : -0.556nH
- Measure Equipment：

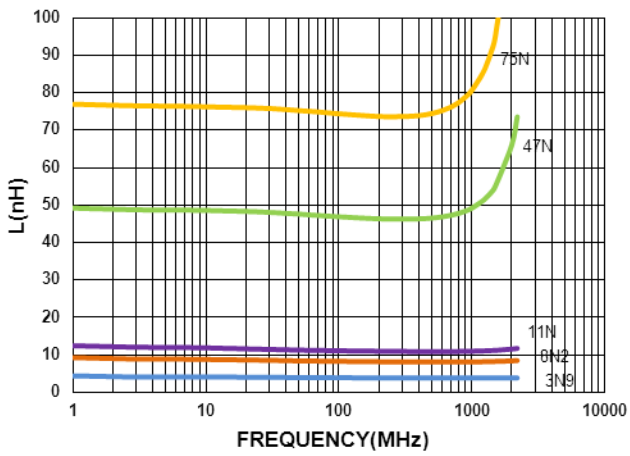
  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent HP8722ES

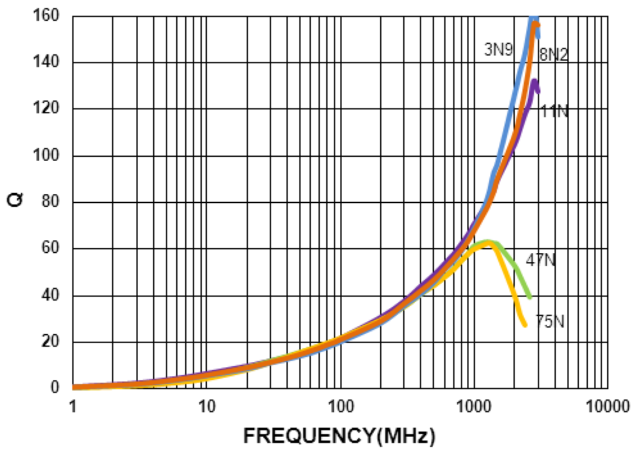
  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Typ.
BWCM001107052N2□L8	2.2	±0.1nH/±0.2nH/±0.5nH/2	100	30	250	15.5	0.022	2530
BWCM001107052N4□L8	2.4	±0.1nH/±0.2nH/±0.5nH/2	100	30	250	15.5	0.022	2530
BWCM001107053N3□L8	3.3	±0.1nH/±0.2nH/±0.5nH/2	100	30	250	14	0.03	2000
BWCM001107053N4□L8	3.4	±0.1nH/±0.2nH/±0.5nH/2	100	30	250	10	0.03	1950
BWCM001107053N5□L8	3.5	±0.1nH/±0.2nH/±0.5nH/2	100	30	250	10	0.03	1950
BWCM001107053N6□L8	3.6	±0.1nH/±0.2nH/±0.5nH/2	100	30	250	10	0.03	1950
BWCM001107055N0□L8	5	±0.1nH/±0.2nH/±0.5nH/2	100	32	250	10	0.04	1770
BWCM001107055N1□L8	5.1	±0.1nH/±0.2nH/±0.5nH/2	100	35	250	8	0.04	1770
BWCM001107055N2□L8	5.2	±0.1nH/±0.2nH/±0.5nH/2	100	35	250	8	0.04	1770
BWCM001107055N3□L8	5.3	±0.1nH/±0.2nH/±0.5nH/2	100	35	250	8	0.04	1770
BWCM001107055N4□L8	5.4	±0.1nH/±0.2nH/±0.5nH/2	100	35	250	8	0.04	1770
BWCM001107055N5□L8	5.5	±0.1nH/±0.2nH/±0.5nH/2	100	35	250	8	0.04	1770
BWCM001107055N6□L8	5.6	±0.1nH/±0.2nH/±0.5nH/2	100	35	250	8	0.04	1770
BWCM001107055N7□L8	5.7	±0.1nH/±0.2nH/±0.5nH/2	100	30	250	8	0.04	1770
BWCM001107057N2□L8	7.2	2 / 5	100	32	250	7	0.05	1700
BWCM001107057N3□L8	7.3	2 / 5	100	32	250	7	0.05	1700
BWCM001107057N4□L8	7.4	2 / 5	100	30	250	7	0.05	1700
BWCM001107057N5□L8	7.5	2 / 5	100	35	250	7	0.05	1700
BWCM001107057N6□L8	7.6	2 / 5	100	30	250	7	0.05	1700
BWCM001107057N7□L8	7.7	2 / 5	100	30	250	7	0.05	1700
BWCM001107059N2□L8	9.2	2 / 5	100	32	250	6	0.081	1400
BWCM001107059N3□L8	9.3	2 / 5	100	34	250	6	0.081	1400
BWCM001107059N4□L8	9.4	2 / 5	100	33	250	6	0.081	1400
BWCM001107059N5□L8	9.5	2 / 5	100	32	250	6	0.081	1400
BWCM001107059N6□L8	9.6	2 / 5	100	33	250	6	0.081	1400
BWCM001107059N7□L8	9.7	2 / 5	100	33	250	6	0.081	1400
BWCM001107059N8□L8	9.8	2 / 5	100	34	250	6	0.081	1400
BWCM001107059N9□L8	9.9	2 / 5	100	32	250	6	0.081	1400
BWCM0011070510N□L8	10	2 / 5	100	31	250	6	0.081	1400
BWCM0011070512N□L8	12	2 / 5	100	30	250	5.2	0.093	1240

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , D=±0.5nH , G=±2% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Offset value : -0.556nH
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent HP8753D/Agilent HP8722ES
  RDC：Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Typ.
BWCM0011070513N□L8	13	2 / 5	100	30	250	5.2	0.093	1240
BWCM0011070516N□L8	16	2 / 5	100	31	250	5	0.126	1000
BWCM0011070522N□L8	22	2 / 5	100	30	250	4.5	0.202	780
BWCM0011070530N□L8	30	2 / 5	100	30	250	3.8	0.309	660
BWCM0011070536N□L8	36	2 / 5	100	30	250	3.5	0.431	540
BWCM0011070543N□L8	43	2 / 5	100	30	250	3.4	0.516	515

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , D=±0.5nH , G=±2% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Offset value : -0.556nH
- Measure Equipment：

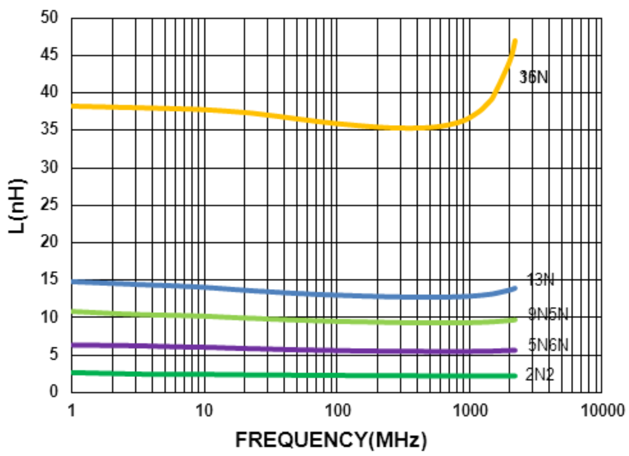
  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent HP8722ES

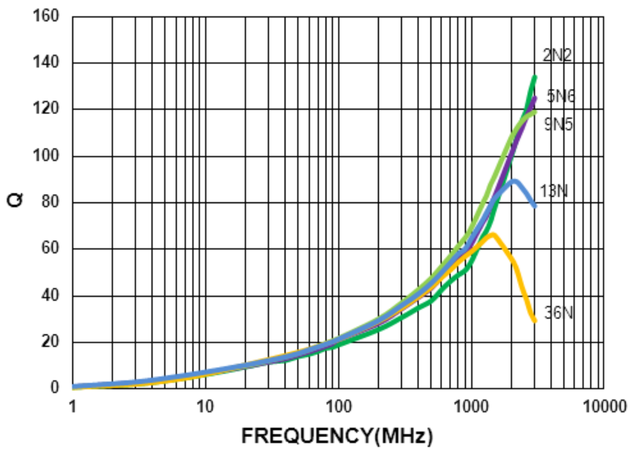
  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Max
BWCM001207071N5□00	1.5	±0.1nH/±0.2nH/±0.5nH	100	10	250	18.0	0.03	1000
BWCM001207072N4□00	2.4	±0.1nH/±0.2nH/±0.5nH	100	20	250	15.0	0.05	850
BWCM001207072N5□00	2.5	±0.1nH/±0.2nH/±0.5nH	100	20	250	15.0	0.05	850
BWCM001207072N7□00	2.7	±0.1nH/±0.2nH/±0.5nH	100	20	250	15.0	0.05	850
BWCM001207072N9□00	2.9	±0.1nH/±0.2nH/±0.5nH	100	20	250	15.0	0.07	750
BWCM001207073N9□00	3.9	3 / 5	100	25	250	10.0	0.07	750
BWCM001207074N1□00	4.1	3 / 5	100	25	250	10.0	0.07	750
BWCM001207074N3□00	4.3	3 / 5	100	25	250	10.0	0.07	750
BWCM001207074N7□00	4.7	3 / 5	100	25	250	8.0	0.07	750
BWCM001207075N1□00	5.1	3 / 5	100	25 typ	250	8.0	0.12	600
BWCM001207075N8□00	5.8	3 / 5	100	25	250	8.0	0.12	700
BWCM001207076N2□00	6.2	3 / 5	100	25	250	8.0	0.09	700
BWCM001207076N8□00	6.8	3 / 5	100	25	250	6.0	0.09	700
BWCM001207077N3□00	7.3	3 / 5	100	25	250	6.0	0.13	570
BWCM001207077N5□00	7.5	3 / 5	100	25	250	6.0	0.13	570
BWCM001207078N2□00	8.2	3 / 5	100	25	250	5.5	0.14	540
BWCM001207078N7□00	8.7	3 / 5	100	25	250	5.5	0.14	540
BWCM001207079N1□00	9.1	3 / 5	100	25	250	5.5	0.14	540
BWCM001207079N5□00	9.5	3 / 5	100	25	250	5.5	0.14	540
BWCM0012070710N□00	10	2 / 3 / 5	100	25	250	5.5	0.17	500
BWCM0012070711N□00	11	2 / 3 / 5	100	30	250	5.5	0.14	500
BWCM0012070712N□00	12	2 / 3 / 5	100	30	250	5.5	0.14	500
BWCM0012070713N□00	13	2 / 3 / 5	100	25	250	5.0	0.21	430
BWCM0012070715N□00	15	2 / 3 / 5	100	30	250	5.0	0.16	460
BWCM0012070716N□00	16	2 / 3 / 5	100	25	250	4.5	0.24	370
BWCM0012070718N□00	18	2 / 3 / 5	100	25	250	4.5	0.27	370
BWCM0012070719N□00	19	2 / 3 / 5	100	25	250	4.5	0.27	370
BWCM0012070720N□00	20	2 / 3 / 5	100	25	250	4.0	0.27	370
BWCM0012070722N□00	22	2 / 3 / 5	100	25	250	4.0	0.30	310
BWCM0012070723N□00	23	2 / 3 / 5	100	25	250	3.8	0.30	310
BWCM0012070724N□00	24	2 / 3 / 5	100	25	250	3.5	0.52	280
BWCM0012070727N□00	27	2 / 3 / 5	100	25	250	3.5	0.52	280

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , D=±0.5nH , G=±2% , H=±3% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent HP8753D/Agilent HP8722ES
  RDC：Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Electrical Characteristics

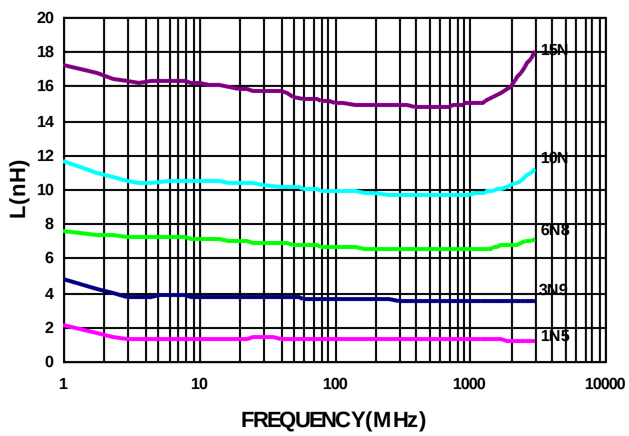
Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Max
BWCM0012070730N□00	30	2 / 3 / 5	100	25	250	3.3	0.58	270
BWCM0012070733N□00	33	2 / 3 / 5	100	25	250	3.2	0.63	260
BWCM0012070736N□00	36	2 / 3 / 5	100	25	250	3.1	0.63	260
BWCM0012070739N□00	39	2 / 3 / 5	100	25	250	3.0	0.70	250
BWCM0012070740N□00	40	2 / 3 / 5	100	25	250	3.0	0.70	250
BWCM0012070747N□00	47	2 / 3 / 5	100	25	200	2.9	1.08	210
BWCM0012070751N□00	51	2 / 3 / 5	100	25	200	2.85	1.08	210
BWCM0012070756N□00	56	2 / 3 / 5	100	25	200	2.80	1.17	200
BWCM0012070762N□00	62	2 / 3 / 5	100	20	200	2.60	1.82	145
BWCM0012070768N□00	68	2 / 3 / 5	100	20	200	2.50	1.96	140
BWCM0012070772N□00	72	2 / 3 / 5	100	20	150	2.50	2.10	135
BWCM0012070775N□00	75	2 / 3 / 5	100	20	150	2.40	2.10	135
BWCM0012070782N□00	82	2 / 3 / 5	100	20	150	2.30	2.24	130
BWCM0012070791N□00	91	2 / 3 / 5	100	20	150	2.10	2.38	125
BWCM00120707R10□00	100	2 / 3 / 5	100	20	150	1.50	2.52	120
BWCM00120707R12□00	120	2 / 3 / 5	100	20	150	1.00	2.66	110

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , D=±0.5nH , G=±2% , H=±3% , J=±5%

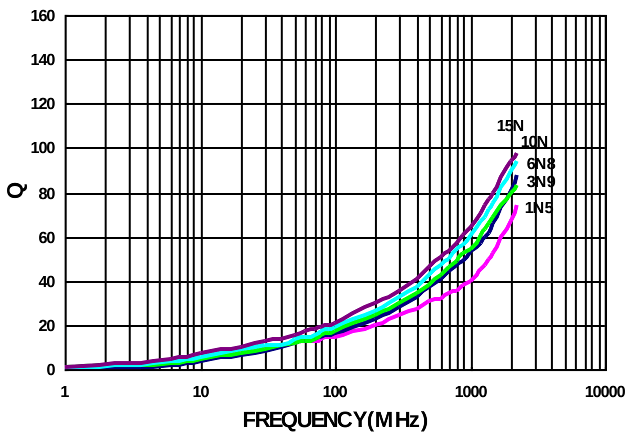
- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent HP8753D/Agilent HP8722ES
  RDC：Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Max
BWCM001610082N2□00	2.2	±0.1nH/±0.2nH/±0.5nH	100	16	250	6.0	0.049	700
BWCM001610083N6□00	3.6	3 / 5	100	25	250	6.0	0.059	850
BWCM001610083N9□00	3.9	3 / 5	100	35	250	6.0	0.059	850
BWCM001610084N3□00	4.3	3 / 5	100	35	250	6.0	0.059	850
BWCM001610084N7□00	4.7	3 / 5	100	35	250	6.0	0.059	850
BWCM001610085N6□00	5.6	3 / 5	100	35	250	6.0	0.082	750
BWCM001610086N2□00	6.2	3 / 5	100	35	250	6.0	0.082	750
BWCM001610086N8□00	6.8	3 / 5	100	35	250	6.0	0.082	750
BWCM001610087N5□00	7.5	3 / 5	100	35	250	6.0	0.082	750
BWCM001610088N2□00	8.2	3 / 5	100	35	250	6.0	0.110	650
BWCM001610088N7□00	8.7	3 / 5	100	35	250	6.0	0.110	650
BWCM001610089N1□00	9.1	3 / 5	100	35	250	6.0	0.110	650
BWCM001610089N5□00	9.5	3 / 5	100	35	250	6.0	0.110	650
BWCM0016100810N□00	10	2 / 3 / 5	100	35	250	6.0	0.110	650
BWCM0016100811N□00	11	2 / 3 / 5	100	35	250	6.0	0.110	650
BWCM0016100812N□00	12	2 / 3 / 5	100	35	250	6.0	0.130	600
BWCM0016100813N□00	13	2 / 3 / 5	100	35	250	6.0	0.130	600
BWCM0016100815N□00	15	2 / 3 / 5	100	40	250	6.0	0.130	600
BWCM0016100816N□00	16	2 / 3 / 5	100	40	250	5.5	0.160	550
BWCM0016100818N□00	18	2 / 3 / 5	100	40	250	5.5	0.160	550
BWCM0016100820N□00	20	2 / 3 / 5	100	40	250	4.9	0.160	550
BWCM0016100822N□00	22	2 / 3 / 5	100	40	250	4.6	0.170	500
BWCM0016100824N□00	24	2 / 3 / 5	100	40	250	3.8	0.210	500
BWCM0016100827N□00	27	2 / 3 / 5	100	40	250	3.7	0.210	440
BWCM0016100830N□00	30	2 / 3 / 5	100	40	250	3.3	0.230	420
BWCM0016100833N□00	33	2 / 3 / 5	100	40	250	3.2	0.230	420
BWCM0016100836N□00	36	2 / 3 / 5	100	40	250	2.9	0.260	400
BWCM0016100839N□00	39	2 / 3 / 5	100	40	250	2.8	0.260	400
BWCM0016100843N□00	43	2 / 3 / 5	100	40	200	2.7	0.290	380
BWCM0016100847N□00	47	2 / 3 / 5	100	38	200	2.6	0.290	380
BWCM0016100851N□00	51	2 / 3 / 5	100	38	200	2.5	0.330	370
BWCM0016100856N□00	56	2 / 3 / 5	100	38	200	2.4	0.350	360

Note: When ordering, please specify tolerance code. Tolerance：B=±0.1nH , C=±0.2nH , D=±0.5nH , G=±2% , H=±3% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent HP8722ES

  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Max
BWCM0016100862N□00	62	2 / 3 / 5	100	38	200	2.3	0.510	280
BWCM0016100868N□00	68	2 / 3 / 5	100	38	200	2.2	0.380	340
BWCM0016100872N□00	72	2 / 3 / 5	100	34	150	2.1	0.560	270
BWCM0016100875N□00	75	2 / 3 / 5	100	34	150	2.05	0.560	270
BWCM0016100882N□00	82	2 / 3 / 5	100	34	150	2.00	0.600	250
BWCM0016100891N□00	91	2 / 3 / 5	100	34	150	1.90	0.640	230
BWCM00161008R10□00	100	2 / 3 / 5	100	34	150	1.80	0.680	220
BWCM00161008R11□00	110	2 / 3 / 5	100	32	150	1.70	1.200	200
BWCM00161008R12□00	120	2 / 3 / 5	100	32	150	1.60	1.300	180
BWCM00161008R13□00	130	2 / 3 / 5	100	32	150	1.45	1.400	170
BWCM00161008R15□00	150	2 / 3 / 5	100	32	150	1.40	1.500	160
BWCM00161008R16□00	160	2 / 3 / 5	100	32	150	1.35	2.100	150
BWCM00161008R18□00	180	2 / 3 / 5	100	25	100	1.30	2.200	140
BWCM00161008R20□00	200	2 / 3 / 5	100	25	100	1.25	2.400	120
BWCM00161008R22□00	220	2 / 3 / 5	100	25	100	1.20	2.500	120
BWCM00161008R27□00	270	2 / 3 / 5	100	30	100	0.96	3.400	110
BWCM00161008R33□00	330	2 / 3 / 5	100	30	100	0.80	5.500	85
BWCM00161008R39□00	390	2 / 3 / 5	100	30	100	0.80	6.200	80
BWCM00161008R47□00	470	2 / 3 / 5	100	30	100	0.70	7.000	75

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , D=±0.5nH , G=±2% , H=±3% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

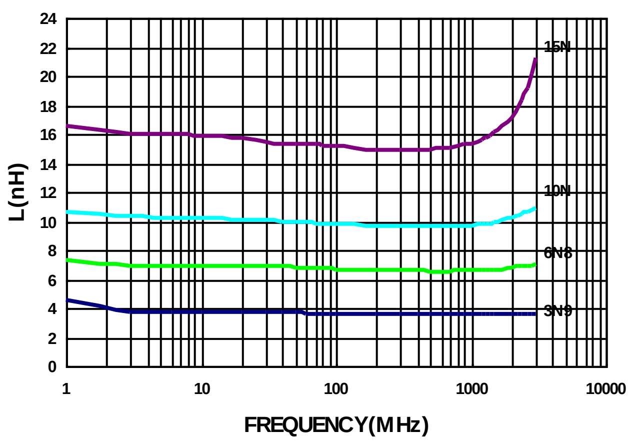
  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent HP8722ES

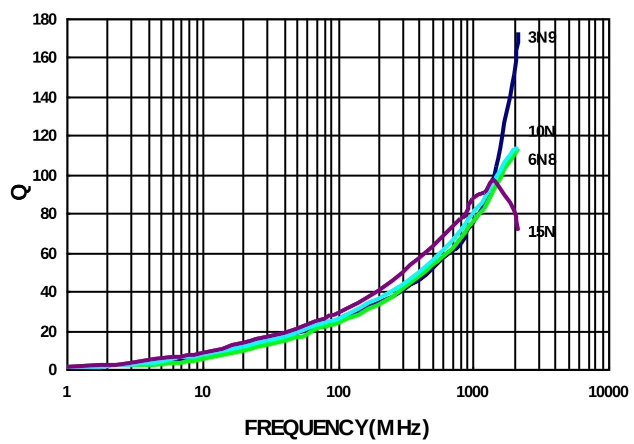
  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

*Typical **L** vs. Frequency*



*Typical **Q** vs. Frequency*



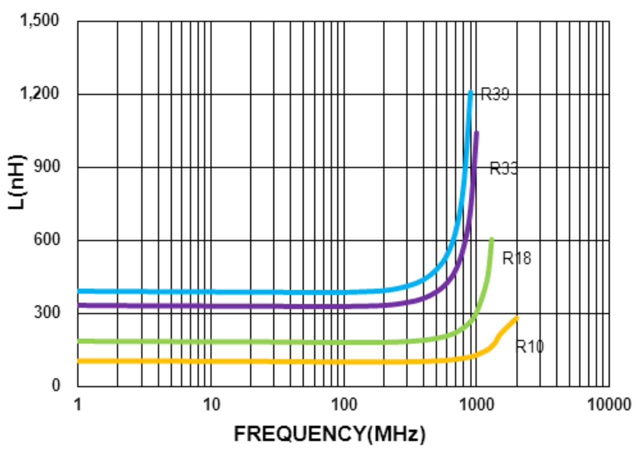
Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Typ.
BWCM00181010R10□H8	100	2 / 5	100	34	150	1.75	0.63	490
BWCM00181010R11□H8	110	2 / 5	100	32	150	1.73	0.7	450
BWCM00181010R12□H8	120	2 / 5	100	32	150	1.65	0.72	450
BWCM00181010R15□H8	150	2 / 5	100	28	150	1.58	0.87	420
BWCM00181010R18□H8	180	2 / 5	100	25	100	1.38	1.65	310
BWCM00181010R20□H8	200	2 / 5	100	25	100	1.35	1.74	290
BWCM00181010R21□H8	210	2 / 5	100	27	100	1.33	1.98	280
BWCM00181010R22□H8	220	2 / 5	100	25	100	1.33	2.08	280
BWCM00181010R25□H8	250	2 / 5	100	24	100	1.33	2.28	250
BWCM00181010R27□H8	270	2 / 5	100	24	100	1.25	2.42	260
BWCM00181010R30□H8	300	2 / 5	100	25	100	1.2	3.12	220
BWCM00181010R33□H8	330	2 / 5	100	25	100	1.1	3.84	190
BWCM00181010R36□H8	360	2 / 5	100	25	100	1.05	3.98	190
BWCM00181010R39□H8	390	2 / 5	100	25	100	1	4.23	190

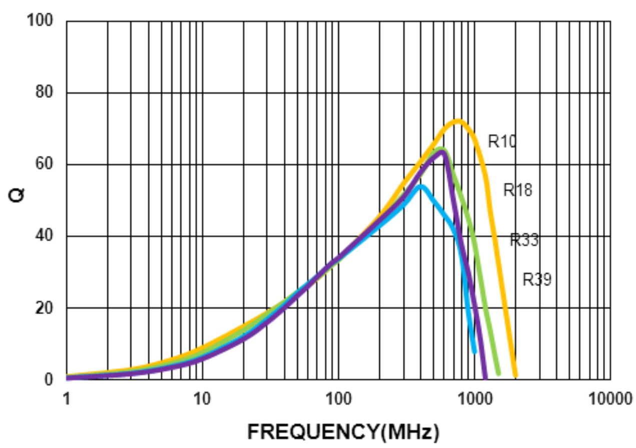
Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Offset value : -0.771nH
- Measure Equipment：
  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent HP8753D/Agilent HP8722ES
  RDC：Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Typ.
BWCM001810102N2□L8	2.2	±0.2nH	100	24	250	15	0.018	3200
BWCM001810102N4□L8	2.4	±0.2nH	100	18	250	15	0.026	2400
BWCM001810103N9□L8	3.9	±0.1nH/±0.2nH/ 2	100	30	250	10	0.028	2200
BWCM001810104N3□L8	4.3	±0.1nH/±0.2nH/ 2	100	35	250	11.6	0.036	2100
BWCM001810104N7□L8	4.7	±0.1nH/±0.2nH/ 2	100	25	250	10.4	0.054	1500
BWCM001810104N9□L8	4.9	±0.1nH/±0.2nH/ 2	100	23	250	7.3	0.081	1200
BWCM001810105N6□L8	5.6	±0.2nH/ 2	100	38	250	6.65	0.04	1900
BWCM001810106N8□L8	6.8	±0.2nH/ 2	100	40	250	6.65	0.04	1900
BWCM001810107N5□L8	7.5	±0.2nH/ 2	100	35	250	7	0.048	1500
BWCM001810108N2□L8	8.2	±0.2nH/ 2	100	38	250	4.75	0.052	1600
BWCM001810108N7□L8	8.7	±0.2nH/ 2	100	38	250	4.75	0.052	1600
BWCM001810109N1□L8	9.1	±0.2nH/ 2	100	38	250	4.75	0.052	1600
BWCM001810109N5□L8	9.5	±0.2nH/ 2	100	38	250	4.75	0.052	1600
BWCM0018101010N□L8	10	2 / 5	100	38	250	4.75	0.052	1600
BWCM0018101011N□L8	11	2 / 5	100	40	250	4.75	0.052	1600
BWCM0018101012N□L8	12	2 / 5	100	37	250	5	0.064	1500
BWCM0018101013N□L8	13	2 / 5	100	37	250	5	0.064	1500
BWCM0018101015N□L8	15	2 / 5	100	38	250	4.6	0.075	1400
BWCM0018101016N□L8	16	2 / 5	100	40	250	4.6	0.075	1400
BWCM0018101018N□L8	18	2 / 5	100	40	250	4.6	0.075	1400
BWCM0018101022N□L8	22	2 / 5	100	40	250	3.45	0.086	1300
BWCM0018101023N□L8	23	2 / 5	100	40	250	3.45	0.086	1300
BWCM0018101024N□L8	24	2 / 5	100	40	250	3.45	0.086	1300
BWCM0018101027N□L8	27	2 / 5	100	40	250	3.6	0.098	1200
BWCM0018101028N□L8	28	2 / 5	100	40	250	3.6	0.098	1200
BWCM0018101030N□L8	30	2 / 5	100	40	250	2.88	0.12	1100
BWCM0018101033N□L8	33	2 / 5	100	40	250	3.15	0.11	1100
BWCM0018101036N□L8	36	2 / 5	100	37	250	3	0.2	910
BWCM0018101039N□L8	39	2 / 5	100	40	250	3.28	0.16	1000
BWCM0018101043N□L8	43	2 / 5	100	40	250	2.78	0.21	840

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , G=±2% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Offset value : -0.771nH
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent HP8722ES

  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Typ.
BWCM0018101047N□L8	47	2 / 5	100	32	200	2.7	0.23	830
BWCM0018101051N□L8	51	2 / 5	100	32	200	2.7	0.23	830
BWCM0018101056N□L8	56	2 / 5	100	38	200	2.6	0.26	770
BWCM0018101068N□L8	68	2 / 5	100	37	200	2.38	0.38	630
BWCM0018101072N□L8	72	2 / 5	100	34	150	2.33	0.47	560
BWCM0018101075N□L8	75	2 / 5	100	28	150	2.28	0.41	590
BWCM0018101082N□L8	82	2 / 5	100	34	150	2.23	0.5	550
BWCM0018101091N□L8	91	2 / 5	100	33	150	1.9	0.54	520

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , G=±2% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Offset value : -0.771nH
- Measure Equipment：

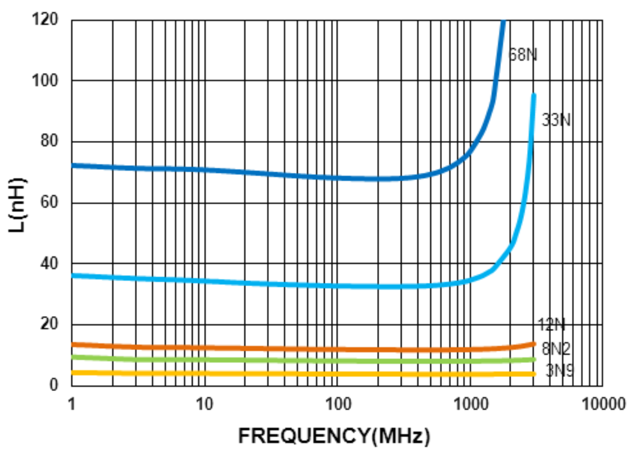
  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent HP8722ES

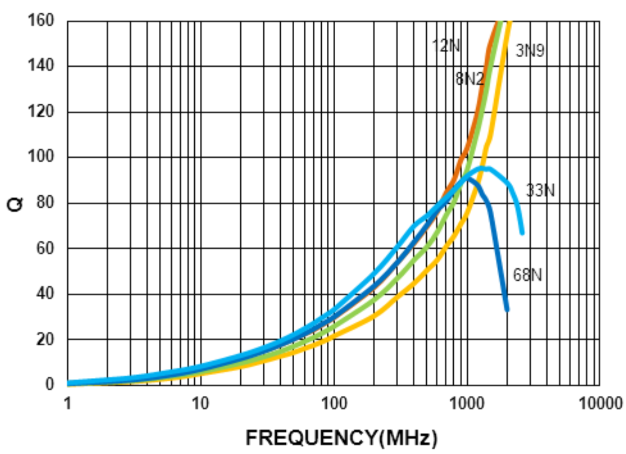
  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



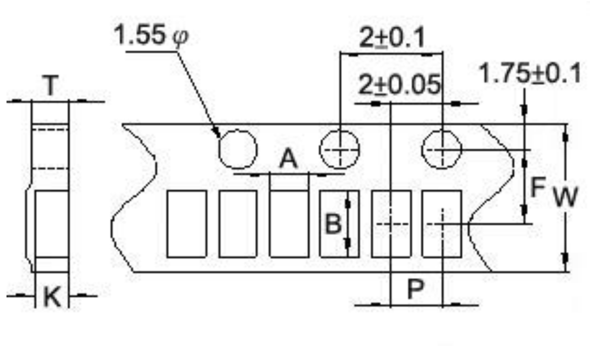
Typical Q vs. Frequency



Packaging Specifications

Tape Dimensions **Tape Material**

Figure 1



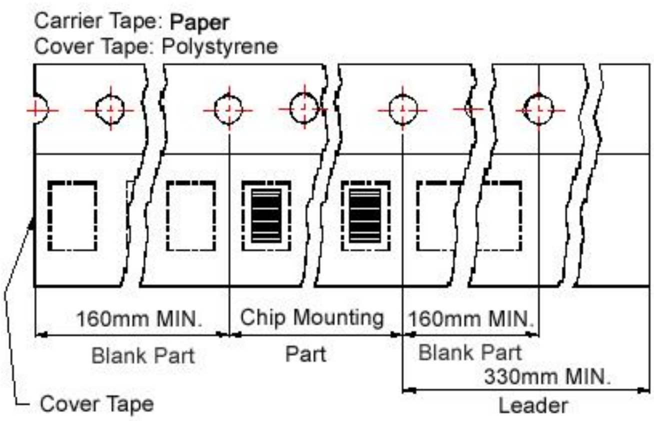
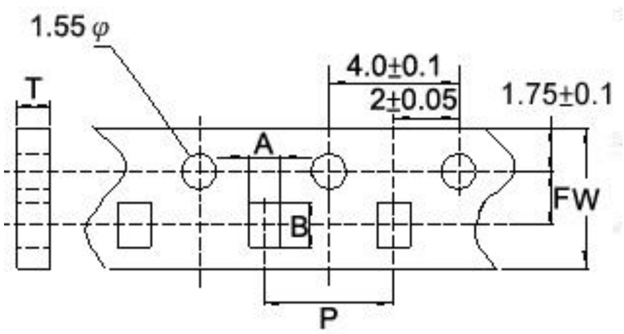
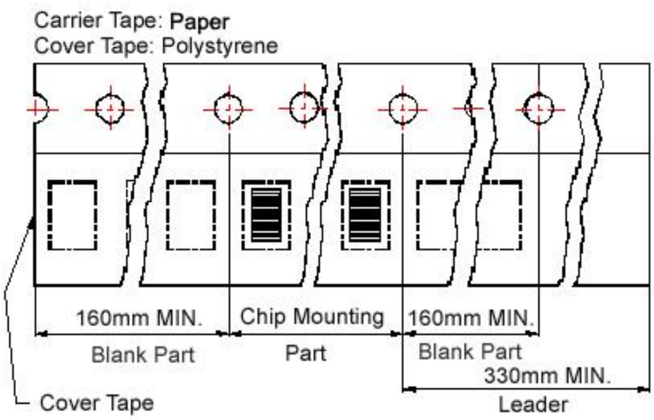
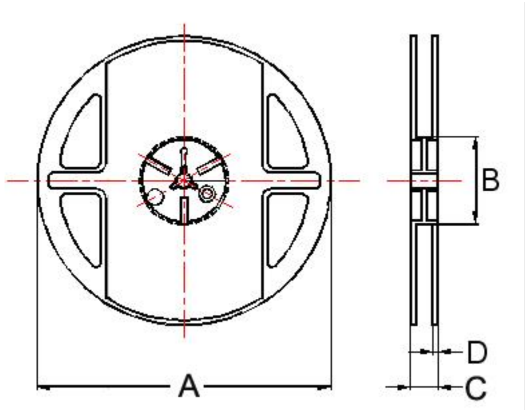


Figure 2





Reel Dimensions



Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity
		A	B	T	W	P	F	K	A	B	C	D	PCS / Reel
BWCM00060404	1	0.79	0.89	0.65	8	2	3.5	0.45	178	60	12	1.5	4000
BWCM00110705	1	0.85	1.25	0.75	8	2	3.5	0.60	178	60	12	1.5	4000
BWCM00120707	1	0.67	1.20	0.75	8	2	3.5	0.59	178	60	12	1.5	4000
BWCM00161008	2	1.20	1.80	1.05	8	4	3.5	-	178	60	12	1.5	4000
BWCM00181010	2	1.20	2.00	1.10	8	4	3.5	-	178	60	12	1.5	4000

BWCS Series

Due to accurate wire winding technology, these chip inductors are designed for filtering, impedance matching, resonance and choke circuits for RF designer. Both standard series custom designs are available.

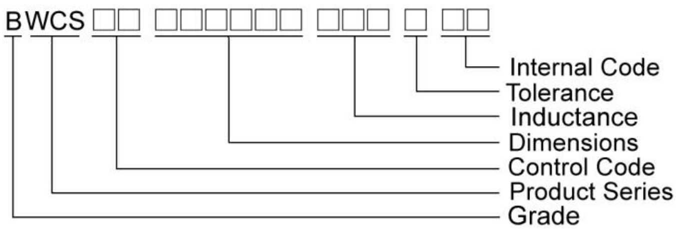
Features

- RoHS Compliant
- Ceramic body and wire wound construction provide high SRFs
- Exceptional Q values even at high frequencies
- Highest possible SRFs as well as excellent Q values
- The non-magnetic coil form assures utmost thermal stability, predictability and batch consistency
- CS series is standard for RF designers

Applications

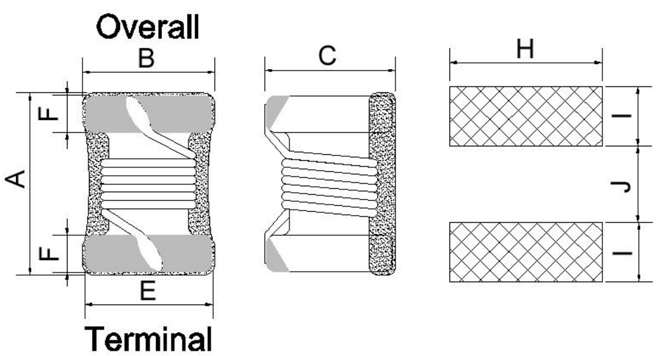
- RF products for cellular phone
- GPS receiver
- Base Station
- Repeater
- Wireless LAN/ mouse/ keyboard/ earphone
- Remote control
- Security system and other RF modules

Product Identification

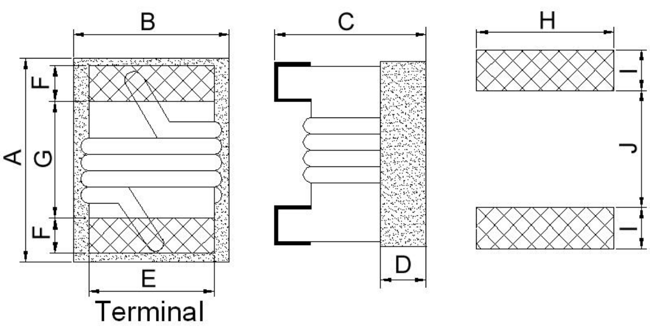


Shape and Dimensions / Recommended Pattern

BWCS00060404



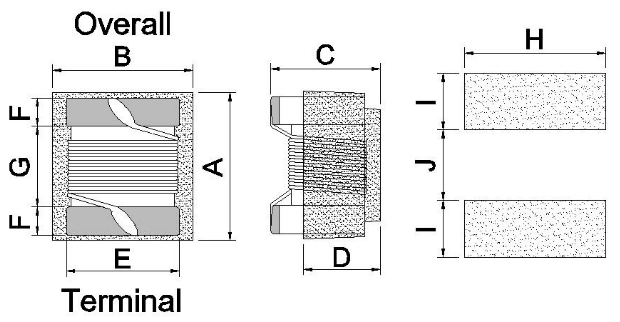
BWCS00120707



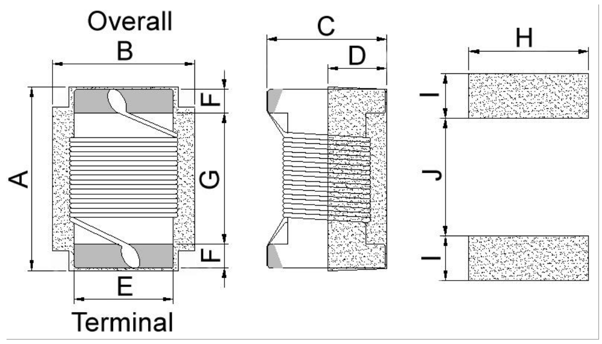
Dimensions

		A Max	B Max	C Max	D	E	F	G	H	I	J
BWCS00060404	inch	0.023	0.018	0.018	-	0.015	0.004	-	0.018	0.007	0.009
	mm	0.58	0.46	0.45	-	0.38	0.1	-	0.46	0.18	0.23
BWCS00120707	inch	0.047	0.025	0.026	0.010	0.020	0.009	0.022	0.026	0.014	0.018
	mm	1.19	0.64	0.66	0.25	0.51	0.23	0.56	0.66	0.36	0.46

BWCS00161008/ 231715/ 292821



BWCS00493834



Dimensions

		A	B	C	D	E	F	G	H	I	J
BWCS00161008	mm	$1.6^{+0.2}_{-0.1}$	1.02±0.1	$0.82^{+0.2}_{-0.1}$	0.51	0.76	0.33	0.86	1.02	0.64	0.64

		A Max	B Max	C Max	D	E	F	G	H	I	J
BWCS00231715	inch	0.093	0.068	0.06	0.028	0.050	0.020	0.040	0.070	0.040	0.030
	mm	2.35	1.73	1.52	0.71	1.27	0.51	1.02	1.78	1.02	0.76
BWCS00292821	inch	0.115	0.110	0.083	0.046	0.080	0.020	0.060	0.100	0.040	0.050
	mm	2.92	2.79	2.1	1.16	2.03	0.51	1.52	2.54	1.02	1.27
BWCS00493834	inch	0.197	0.154	0.135	0.07	0.1	0.025	0.128	0.12	0.045	0.118
	mm	4.95	3.81	3.43	1.78	2.54	0.64	3.25	3.05	1.14	3.00

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (GHz) Typ	RDC (Ω) Max	Irms (mA) Typ
BWCS000604040N5□00	0.5	10	250	4	23.5	0.02	1250
BWCS000604040N6□00	0.6	10	250	6	24.5	0.03	1000
BWCS000604041N2□00	1.2	5	250	13	17.9	0.042	870
BWCS000604041N3□00	1.3	5	250	11	17.6	0.048	820
BWCS000604041N4□00	1.4	5	250	14	17	0.08	630
BWCS000604041N5□00	1.5	5	250	11	17	0.09	600
BWCS000604042N2□00	2.2	5	250	15	16.7	0.07	700
BWCS000604042N3□00	2.3	5	250	18	16.5	0.07	670
BWCS000604042N4□00	2.4	5	250	13	13	0.082	620
BWCS000604042N5□00	2.5	5	250	16	12.5	0.165	440
BWCS000604043N3□00	3.3	5	250	14	12.8	0.08	630
BWCS000604043N4□00	3.4	5	250	11	12.7	0.08	630
BWCS000604043N5□00	3.5	5	250	16	12.4	0.08	630
BWCS000604043N6□00	3.6	5	250	18	12.5	0.105	550
BWCS000604043N7□00	3.7	5	250	15	10.6	0.105	550
BWCS000604043N8□00	3.8	5	250	16	10.2	0.18	420
BWCS000604043N9□00	3.9	5	250	12	11.2	0.24	360
BWCS000604044N8□00	4.8	5	250	17	11	0.096	570
BWCS000604044N9□00	4.9	5	250	18	11.7	0.13	510
BWCS000604045N0□00	5.0	5	250	18	11.5	0.13	510
BWCS000604045N1□00	5.1	5	250	18	11.1	0.13	510
BWCS000604045N2□00	5.2	5	250	18	10	0.17	430
BWCS000604045N3□00	5.3	5	250	18	10.6	0.13	510
BWCS000604045N4□00	5.4	5	250	18	10.2	0.13	510
BWCS000604045N5□00	5.5	5	250	16	9.5	0.285	330
BWCS000604046N7□00	6.7	5	250	18	6.8	0.15	460
BWCS000604046N8□00	6.8	5	250	18	9.5	0.15	460
BWCS000604046N9□00	6.9	5	250	18	9.3	0.15	460
BWCS000604047N0□00	7.0	5	250	18	6.7	0.21	390
BWCS000604047N1□00	7.1	5	250	18	9.5	0.25	390
BWCS000604047N2□00	7.2	5	250	18	9.4	0.25	390
BWCS000604047N3□00	7.3	5	250	18	9.3	0.25	390

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：HP4286A/HP4287A/AgilentE4991/Keysight E4982A

  SRF：Agilent HP8753D/Agilent HP8722ES

  RDC：HP4287A

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Electrical Characteristics

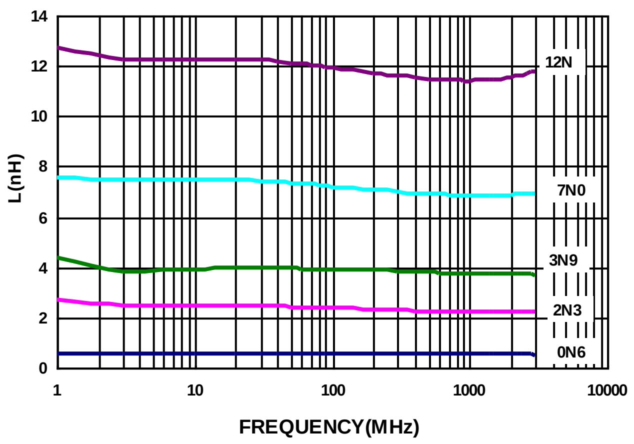
Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (GHz) Typ	RDC (Ω) Max	Irms (mA) Typ
BWCS000604047N4□00	7.4	5	250	18	9.1	0.25	390
BWCS000604047N5□00	7.5	5	250	15	6.8	0.34	300
BWCS000604047N6□00	7.6	5	250	17	9.3	0.3	340
BWCS000604047N7□00	7.7	5	250	17	9.2	0.3	340
BWCS000604047N8□00	7.8	5	250	17	9.2	0.3	340
BWCS000604047N9□00	7.9	5	250	17	9.1	0.3	340
BWCS000604048N0□00	8.0	5	250	17	9.2	0.3	340
BWCS000604048N1□00	8.1	5	250	17	9.1	0.3	340
BWCS000604048N2□00	8.2	5	250	17	6.4	0.27	340
BWCS000604048N4□00	8.4	5	250	15	8.9	0.38	300
BWCS000604048N5□00	8.5	5	250	15	8.9	0.38	300
BWCS000604048N7□00	8.7	5	250	15	6.3	0.38	300
BWCS000604049N0□00	9.0	5	250	15	6.4	0.38	300
BWCS000604049N4□00	9.4	5	250	16	6.4	0.4	280
BWCS000604049N6□00	9.6	5	250	16	6.2	0.4	280
BWCS0006040411N□00	11	5	250	16	5.7	0.44	280
BWCS0006040412N□00	12	5	250	17	5.6	0.36	300
BWCS0006040413N□00	13	5	250	16	6.7	0.5	270
BWCS0006040414N□00	14	5	250	16	5.1	0.5	270

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

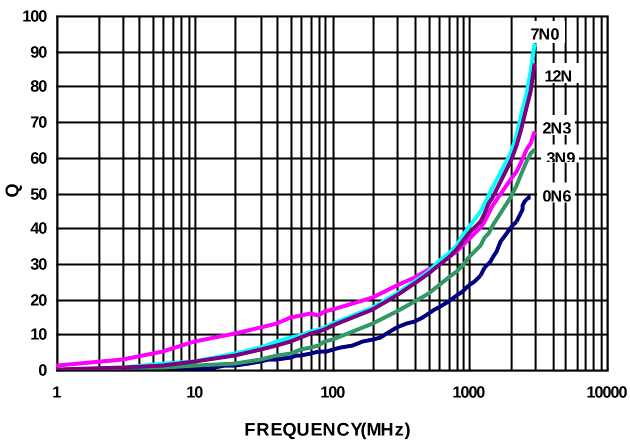
- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

L & Q：HP4286A/HP4287A/AgilentE4991/Keysight E4982A
SRF：Agilent HP8753D/Agilent HP8722ES
RDC：HP4287A
Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Max
BWCS001207071N0□00	1.0	10 / 5 / ±0.1nH	250	16	12.7	0.045	1360
BWCS001207071N2□00	1.2	10 / 5 / ±0.1nH	250	10	10.4	0.140	640
BWCS001207071N3□00	1.3	10 / ±0.1nH	250	10	10.4	0.140	640
BWCS001207071N9□00	1.9	10 / 5 / ±0.1nH	250	16	11.3	0.070	1040
BWCS001207072N0□00	2.0	10 / 5 / ±0.1nH	250	16	11.1	0.070	1040
BWCS001207072N2□00	2.2	10 / 5 / ±0.1nH	250	19	10.8	0.070	960
BWCS001207072N4□00	2.4	10 / 5 / ±0.1nH	250	15	10.5	0.068	790
BWCS001207072N5□00	2.5	10 / 5 / ±0.1nH	250	13	10.4	0.150	640
BWCS001207072N7□00	2.7	10 / 5 / ±0.1nH	250	16	10.4	0.120	640
BWCS001207073N3□00	3.3	10 / 5 / 3	250	19	7.00	0.066	840
BWCS001207073N6□00	3.6	10 / 5 / 3	250	19	6.80	0.066	840
BWCS001207073N9□00	3.9	10 / 5 / 3	250	19	6.00	0.066	840
BWCS001207074N3□00	4.3	10 / 5 / 3	250	18	6.00	0.091	700
BWCS001207074N7□00	4.7	10 / 5 / 3	250	15	4.77	0.130	640
BWCS001207075N1□00	5.1	10 / 5 / 3	250	20	4.80	0.083	800
BWCS001207075N6□00	5.6	10 / 5 / 3	250	20	4.80	0.083	760
BWCS001207075N8□00	5.8	10 / 5 / 3	250	20	4.80	0.083	760
BWCS001207076N2□00	6.2	10 / 5 / 3	250	20	4.80	0.083	760
BWCS001207076N8□00	6.8	10 / 5 / 3	250	20	4.80	0.083	680
BWCS001207077N3□00	7.3	10 / 5 / 3	250	20	4.80	0.12	680
BWCS001207077N5□00	7.5	10 / 5 / 3	250	22	4.80	0.10	680
BWCS001207078N2□00	8.2	10 / 5 / 3	250	22	4.40	0.10	680
BWCS001207078N7□00	8.7	10 / 5 / 3	250	18	4.10	0.20	480
BWCS001207079N0□00	9.0	10 / 5 / 3	250	22	4.16	0.10	680
BWCS001207079N1□00	9.1	10 / 5 / 3	250	22	4.16	0.10	680
BWCS001207079N5□00	9.5	10 / 5 / 3	250	18	4.00	0.20	480
BWCS0012070710N□00	10	10 / 5 / 3 / 2	250	21	3.90	0.20	480
BWCS0012070711N□00	11	10 / 5 / 3 / 2	250	24	3.68	0.12	640
BWCS0012070712N□00	12	10 / 5 / 3 / 2	250	24	3.60	0.12	640
BWCS0012070713N□00	13	10 / 5 / 3 / 2	250	24	3.45	0.21	440
BWCS0012070715N□00	15	10 / 5 / 3 / 2	250	24	3.28	0.17	560
BWCS0012070716N□00	16	10 / 5 / 3 / 2	250	24	3.10	0.22	560

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , G=±2% , H=±3% , J=±5% , K=±10%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent HP8753D/Agilent HP8722ES
  RDC：HP4287A
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Max
BWCS0012070718N□00	18	10 / 5 / 3 / 2	250	25	3.10	0.23	420
BWCS0012070719N□00	19	10 / 5 / 3 / 2	250	24	3.04	0.20	480
BWCS0012070720N□00	20	10 / 5 / 3 / 2	250	25	3.00	0.25	420
BWCS0012070722N□00	22	10 / 5 / 3 / 2	250	25	2.80	0.30	400
BWCS0012070723N□00	23	10 / 5 / 3 / 2	250	22	2.72	0.30	400
BWCS0012070724N□00	24	10 / 5 / 3 / 2	250	25	2.70	0.30	400
BWCS0012070727N□00	27	10 / 5 / 3 / 2	250	24	2.48	0.30	400
BWCS0012070730N□00	30	10 / 5 / 3 / 2	250	25	2.35	0.35	400
BWCS0012070733N□00	33	10 / 5 / 3 / 2	250	24	2.35	0.40	400
BWCS0012070736N□00	36	10 / 5 / 3 / 2	250	24	2.32	0.44	320
BWCS0012070739N□00	39	10 / 5 / 3 / 2	250	25	2.10	0.55	200
BWCS0012070740N□00	40	10 / 5 / 3 / 2	250	24	2.24	0.65	320
BWCS0012070743N□00	43	10 / 5 / 3 / 2	250	25	2.03	0.81	100
BWCS0012070747N□00	47	10 / 5 / 3 / 2	250	20	2.10	0.83	150
BWCS0012070751N□00	51	10 / 5 / 3 / 2	250	25	1.75	0.82	100
BWCS0012070756N□00	56	10 / 5 / 3 / 2	250	22	1.76	0.97	100
BWCS0012070768N□00	68	10 / 5 / 3 / 2	250	22	1.62	1.12	100
BWCS0012070782N□00	82	10 / 5 / 3 / 2	250	20	1.26	1.55	50
BWCS00120707R10□00	100	10 / 5 / 3 / 2	250	20	1.16	2.00	30
BWCS00120707R18□00	180	10 / 5 / 3 / 2	100	8	0.70	2.70	50
BWCS00120707R22□00	220	10 / 5 / 3 / 2	100	8	0.70	4.00	50

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , G=±2% , H=±3% , J=±5% , K=±10%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

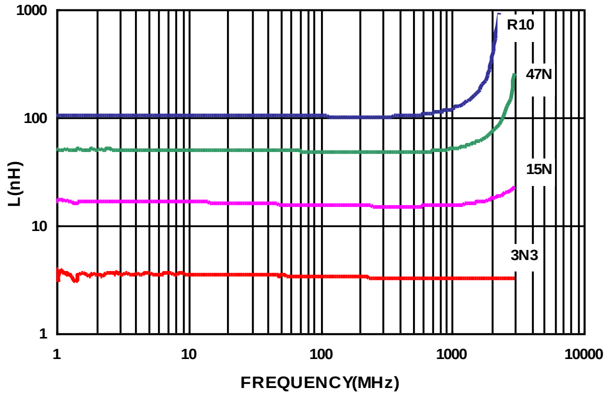
  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent HP8722ES

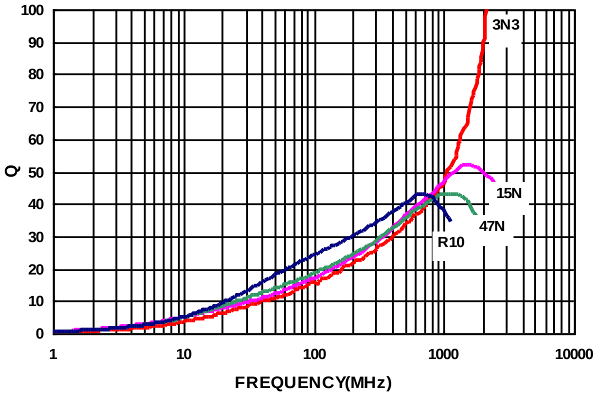
  RDC：HP4287A

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max	Color
BWCS001610081N6☐00	1.6	10 / 5 / ±0.1nH	250	24	12500	0.030	700	Red
BWCS001610081N8☐00	1.8	10 / 5 / ±0.1nH	250	16	12500	0.045	700	Black
BWCS001610082N2☐00	2.2	10 / 5 / ±0.1nH	250	13	12500	0.250	700	Yellow
BWCS001610083N3☐00	3.3	10 / 5 / 3 / 2	250	35	5900	0.045	700	Blue
BWCS001610083N6☐00	3.6	10 / 5 / 3 / 2	250	22	5900	0.063	700	Red
BWCS001610083N9☐00	3.9	10 / 5 / 3 / 2	250	22	6900	0.080	700	Brown
BWCS001610084N3☐00	4.3	10 / 5 / 3 / 2	250	22	5900	0.063	700	Orange
BWCS001610084N7☐00	4.7	10 / 5 / 3 / 2	250	20	5800	0.116	700	Violet
BWCS001610085N1☐00	5.1	10 / 5 / 3 / 2	250	20	5700	0.140	700	Green
BWCS001610085N6☐00	5.6	10 / 5 / 3 / 2	250	20	5800	0.170	700	Yellow
BWCS001610086N3☐00	6.3	10 / 5 / 3 / 2	250	20	5700	0.140	700	White
BWCS001610086N8☐00	6.8	10 / 5 / 3 / 2	250	27	5800	0.110	700	Red
BWCS001610087N5☐00	7.5	10 / 5 / 3 / 2	250	28	4800	0.106	700	Brown
BWCS001610088N2☐00	8.2	10 / 5 / 3 / 2	250	28	4700	0.109	700	White
BWCS001610088N7☐00	8.7	10 / 5 / 3 / 2	250	28	4600	0.109	700	Yellow
BWCS001610089N1☐00	9.1	10 / 5 / 3 / 2	250	28	4800	0.120	700	Violet
BWCS001610089N5☐00	9.5	10 / 5 / 3 / 2	250	28	5400	0.135	700	Blue
BWCS0016100810N☐00	10	10 / 5 / 3 / 2	250	31	4800	0.130	700	Orange
BWCS0016100811N☐00	11	10 / 5 / 3 / 2	250	33	4000	0.086	700	Gray
BWCS0016100812N☐00	12	10 / 5 / 3 / 2	250	35	4000	0.130	700	Yellow
BWCS0016100813N☐00	13	10 / 5 / 3 / 2	250	30	4000	0.160	700	Black
BWCS0016100815N☐00	15	10 / 5 / 3 / 2	250	35	4000	0.170	700	Green
BWCS0016100816N☐00	16	10 / 5 / 3 / 2	250	34	3300	0.104	700	White
BWCS0016100818N☐00	18	10 / 5 / 3 / 2	250	35	3100	0.170	700	Blue
BWCS0016100820N☐00	20	10 / 5 / 3 / 2	250	38	3000	0.190	700	Red
BWCS0016100822N☐00	22	10 / 5 / 3 / 2	250	38	3000	0.190	700	Violet
BWCS0016100823N☐00	23	10 / 5 / 3 / 2	250	38	2850	0.190	700	Orange
BWCS0016100824N☐00	24	10 / 5 / 3 / 2	250	37	2650	0.135	700	Black
BWCS0016100827N☐00	27	10 / 5 / 3 / 2	250	40	2800	0.220	600	Gray
BWCS0016100830N☐00	30	10 / 5 / 3 / 2	250	37	2250	0.144	600	Brown
BWCS0016100833N☐00	33	10 / 5 / 3 / 2	250	40	2300	0.220	600	White
BWCS0016100836N☐00	36	10 / 5 / 3 / 2	250	38	2080	0.250	600	Red
BWCS0016100839N☐00	39	10 / 5 / 3 / 2	250	40	2200	0.250	600	Black
BWCS0016100843N☐00	43	10 / 5 / 3 / 2	250	39	2000	0.280	600	Orange

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , G=±2% , H=±3% , J=±5% , K=±10%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent HP8753D/Agilent E4991A
  RDC：Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max	Color
BWCS0016100847N☐00	47	10 / 5 / 3 / 2	200	38	2000	0.280	600	Brown
BWCS0016100851N☐00	51	10 / 5 / 3 / 2	200	38	1900	0.310	600	Brown
BWCS0016100856N☐00	56	10 / 5 / 3 / 2	200	38	1900	0.310	600	Red
BWCS0016100868N☐00	68	10 / 5 / 3 / 2	200	37	1700	0.340	600	Orange
BWCS0016100872N☐00	72	10 / 5 / 3 / 2	150	34	1700	0.490	400	Yellow
BWCS0016100882N☐00	82	10 / 5 / 3 / 2	150	34	1700	0.540	400	Green
BWCS0016100891N☐00	91	10 / 5 / 3 / 2	150	34	1400	0.580	400	Black
BWCS00161008R10☐00	100	10 / 5 / 3 / 2	150	34	1400	0.580	400	Blue
BWCS00161008R11☐00	110	10 / 5 / 3 / 2	150	32	1350	0.610	300	Violet
BWCS00161008R12☐00	120	10 / 5 / 3 / 2	150	32	1300	0.750	300	Gray
BWCS00161008R15☐00	150	10 / 5 / 3 / 2	150	28	990	0.920	280	White
BWCS00161008R16☐00	160	10 / 5 / 3 / 2	100	25	990	1.250	240	Yellow
BWCS00161008R18☐00	180	10 / 5 / 3 / 2	100	25	990	1.250	240	Black
BWCS00161008R20☐00	200	10 / 5 / 3 / 2	100	25	900	2.100	200	Red
BWCS00161008R21☐00	210	10 / 5 / 3 / 2	100	27	895	2.060	200	Gray
BWCS00161008R22☐00	220	10 / 5 / 3 / 2	100	25	900	2.100	200	Brown
BWCS00161008R24☐00	240	10 / 5 / 3 / 2	100	25	900	2.200	200	Green
BWCS00161008R25☐00	250	10 / 5 / 3 / 2	100	25	822	3.550	120	Violet
BWCS00161008R27☐00	270	10 / 5 / 3 / 2	100	24	900	2.800	170	Red
BWCS00161008R33☐00	330	10 / 5 / 3 / 2	100	25	900	3.890	100	Orange
BWCS00161008R39☐00	390	10 / 5 / 3 / 2	100	25	900	4.350	100	Yellow
BWCS00161008R47☐00	470	10 / 5 / 3 / 2	100	25	500	4.500	100	Brown
BWCS00161008R56☐00	560	10 / 5 / 3 / 2	100	23	460	4.700	90	Blue

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , G=±2% , H=±3% , J=±5% , K=±10%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

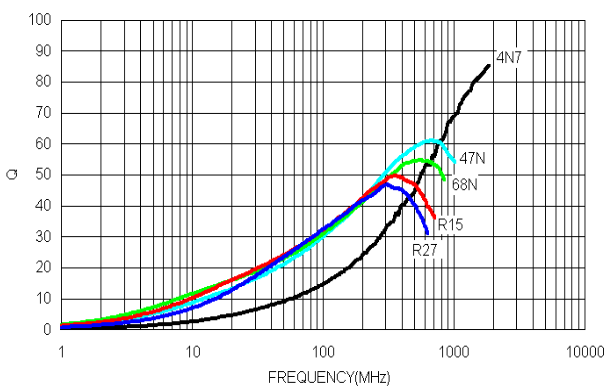
  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent E4991A

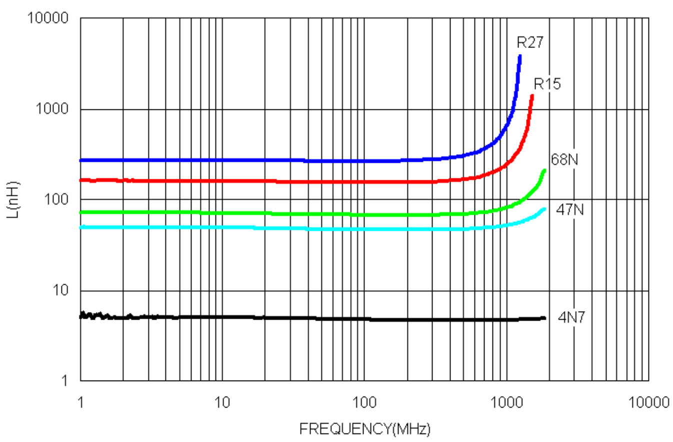
  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max	Color
BWCS002317152N7☐00	2.7	10 / 5 / 2	250	50	1500	7900	0.06	800	Yellow
BWCS002317152N8☐00	2.8	10 / 5 / 2	250	80	1500	7900	0.06	800	Gray
BWCS002317153N0☐00	3.0	10 / 5 / 2	250	65	1500	7900	0.06	800	White
BWCS002317153N3☐00	3.3	10 / 5 / 2	250	50	1500	7900	0.08	600	Black
BWCS002317155N6☐00	5.6	10 / 5 / 2	250	65	1000	5500	0.08	600	Orange
BWCS002317156N8☐00	6.8	10 / 5 / 2	250	50	1000	5500	0.11	600	Brown
BWCS002317157N5☐00	7.5	10 / 5 / 2	250	50	1000	4500	0.14	600	Green
BWCS002317158N2☐00	8.2	10 / 5 / 2	250	50	1000	4700	0.12	600	Red
BWCS0023171510N☐00	10	10 / 5 / 2	250	60	500	4200	0.10	600	Blue
BWCS0023171512N☐00	12	10 / 5 / 2	250	50	500	4000	0.15	600	Orange
BWCS0023171515N☐00	15	10 / 5 / 2	250	50	500	3400	0.17	600	Yellow
BWCS0023171518N☐00	18	10 / 5 / 2	250	50	500	3300	0.20	600	Green
BWCS0023171522N☐00	22	10 / 5 / 2	250	55	500	2600	0.22	500	Blue
BWCS0023171524N☐00	24	10 / 5 / 2	250	50	500	2000	0.22	500	Gray
BWCS0023171527N☐00	27	10 / 5 / 2	250	55	500	2500	0.25	500	Violet
BWCS0023171533N☐00	33	10 / 5 / 2	250	60	500	2050	0.27	500	Gray
BWCS0023171536N☐00	36	10 / 5 / 2	250	55	500	1700	0.27	500	Orange
BWCS0023171539N☐00	39	10 / 5 / 2	250	60	500	2000	0.29	500	White
BWCS0023171543N☐00	43	10 / 5 / 2	200	60	500	1650	0.34	500	Yellow
BWCS0023171547N☐00	47	10 / 5 / 2	200	60	500	1650	0.31	500	Black
BWCS0023171556N☐00	56	10 / 5 / 2	200	60	500	1550	0.34	500	Brown
BWCS0023171568N☐00	68	10 / 5 / 2	200	60	500	1450	0.38	500	Red
BWCS0023171582N☐00	82	10 / 5 / 2	150	65	500	1300	0.42	400	Orange
BWCS0023171591N☐00	91	10 / 5 / 2	150	65	500	1200	0.48	400	Black
BWCS00231715R10☐00	100	10 / 5 / 2	150	65	500	1200	0.46	400	Yellow
BWCS00231715R11☐00	110	10 / 5 / 2	150	50	250	1000	0.48	400	Brown
BWCS00231715R12☐00	120	10 / 5 / 2	150	50	250	1100	0.51	400	Green
BWCS00231715R15☐00	150	10 / 5 / 2	100	50	250	920	0.56	400	Blue
BWCS00231715R18☐00	180	10 / 5 / 2	100	50	250	870	0.64	400	Violet
BWCS00231715R20☐00	200	10 / 5 / 2	100	50	250	860	0.68	400	Red
BWCS00231715R22☐00	220	10 / 5 / 2	100	50	250	850	0.70	400	Gray
BWCS00231715R24☐00	240	10 / 5 / 2	100	44	250	690	1.00	350	Red

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent HP8753D/Agilent E4991A
  RDC：Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max	Color
BWCS00231715R25□00	250	10 / 5 / 2	100	45	250	660	1.20	350	Yellow
BWCS00231715R27□00	270	10 / 5 / 2	100	48	250	650	1.00	350	White
BWCS00231715R30□00	300	10 / 5 / 2	100	25	250	450	1.40	310	Orange
BWCS00231715R33□00	330	10 / 5 / 2	100	48	250	600	1.40	310	Black
BWCS00231715R39□00	390	10 / 5 / 2	100	48	250	560	1.50	290	Brown
BWCS00231715R47□00	470	10 / 5 / 2	50	33	100	450	1.76	250	Violet
BWCS00231715R51□00	510	10 / 5 / 2	25	23	50	340	1.90	230	Gray
BWCS00231715R56□00	560	10 / 5 / 2	25	23	50	340	1.90	230	Orange
BWCS00231715R62□00	620	10 / 5 / 2	25	23	50	220	2.20	210	Yellow
BWCS00231715R68□00	680	10 / 5 / 2	25	23	50	188	2.20	190	Green
BWCS00231715R82□00	820	10 / 5 / 2	25	23	50	215	2.35	180	Blue
BWCS002317151R0□00	1000	10 / 5 / 2	25	20	50	100	2.50	170	Gray
BWCS002317151R2□00	1200	10 / 5	7.9	18	25	100	2.50	170	White
BWCS002317151R8□00	1800	10 / 5 / 2	7.9	16	7.9	80	2.50	170	Orange
BWCS002317152R2□00	2200	10 / 5 / 2	7.9	16	7.9	65	3.90	140	Gray
BWCS002317153R3□00	3300	10 / 5 / 2	7.9	15	7.9	40	4.40	90	Red
BWCS002317154R7□00	4700	10 / 5 / 2	7.9	15	7.9	40	6.40	90	Yellow

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

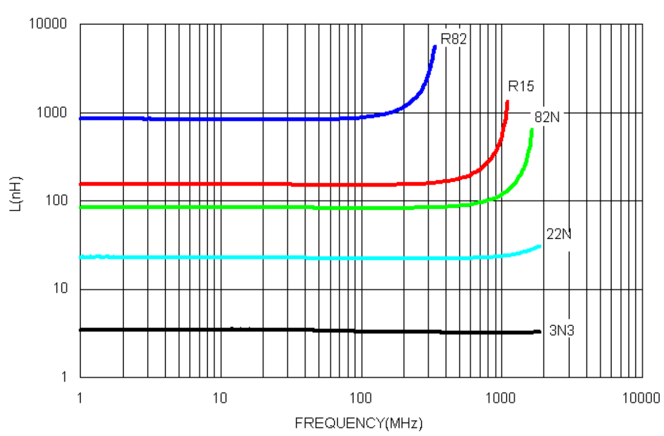
  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent E4991A

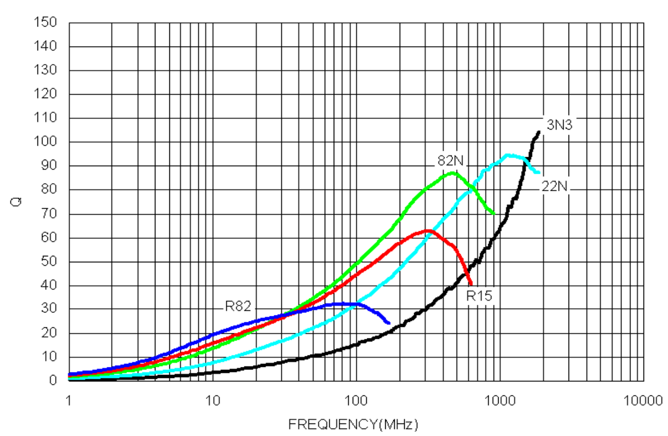
  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max	Color Coding 1ST	2ND	3RD	offset value (nH)
BWCS0029282110N☐00	10	10 / 5 / 2	50	50	500	4100	0.08	1000	Brown	Black	Black	-0.4
BWCS0029282112N☐00	12	10 / 5 / 2	50	50	500	3300	0.09	1000	Brown	Red	Black	-0.6
BWCS0029282115N☐00	15	10 / 5 / 2	50	50	500	2500	0.10	1000	Brown	Green	Black	-0.9
BWCS0029282118N☐00	18	10 / 5 / 2	50	50	350	2500	0.11	1000	Brown	Gray	Black	-0.4
BWCS0029282122N☐00	22	10 / 5 / 2	50	55	350	2400	0.12	1000	Red	Red	Black	-0.9
BWCS0029282127N☐00	27	10 / 5 / 2	50	55	350	1600	0.13	1000	Red	Violet	Black	-1
BWCS0029282133N☐00	33	10 / 5 / 2	50	60	350	1600	0.14	1000	Orange	Orange	Black	-1.3
BWCS0029282139N☐00	39	10 / 5 / 2	50	60	350	1500	0.15	1000	Orange	White	Black	-1.4
BWCS0029282147N☐00	47	10 / 5 / 2	50	65	350	1500	0.16	1000	Yellow	Violet	Black	-1
BWCS0029282156N☐00	56	10 / 5 / 2	50	65	350	1300	0.18	1000	Green	Blue	Black	-3.5
BWCS0029282168N☐00	68	10 / 5 / 2	50	65	350	1300	0.20	1000	Blue	Gray	Black	-3.5
BWCS0029282182N☐00	82	10 / 5 / 2	50	60	350	1000	0.22	1000	Gray	Red	Black	-3.6
BWCS00292821R10☐00	100	10 / 5 / 2	25	60	350	1000	0.56	650	Brown	Black	Brown	-6
BWCS00292821R12☐00	120	10 / 5 / 2	25	60	350	950	0.63	650	Brown	Red	Brown	-5
BWCS00292821R15☐00	150	10 / 5 / 2	25	45	100	850	0.70	580	Brown	Green	Brown	-5
BWCS00292821R18☐00	180	10 / 5 / 2	25	45	100	750	0.77	620	Brown	Gray	Brown	-2
BWCS00292821R20☐00	200	10 / 5 / 2	25	45	100	700	0.84	500	Red	Black	Brown	0
BWCS00292821R22☐00	220	10 / 5 / 2	25	45	100	700	0.84	500	Red	Red	Brown	-15
BWCS00292821R27☐00	270	10 / 5 / 2	25	45	100	600	0.91	500	Red	Violet	Brown	-15
BWCS00292821R33☐00	330	10 / 5 / 2	25	45	100	570	1.05	450	Orange	Orange	Brown	-20
BWCS00292821R39☐00	390	10 / 5 / 2	25	45	100	500	1.12	470	Orange	White	Brown	-25
BWCS00292821R47☐00	470	10 / 5 / 2	25	45	100	450	1.19	470	Yellow	Violet	Brown	-35
BWCS00292821R56☐00	560	10 / 5 / 2	25	45	100	415	1.33	400	Green	Blue	Brown	-32
BWCS00292821R62☐00	620	10 / 5 / 2	25	45	100	375	1.40	300	Blue	Red	Brown	-40
BWCS00292821R68☐00	680	10 / 5 / 2	25	45	100	375	1.47	400	Blue	Gray	Brown	-50
BWCS00292821R75☐00	750	10 / 5 / 2	25	45	100	360	1.54	360	Violet	Green	Brown	-50
BWCS00292821R82☐00	820	10 / 5 / 2	25	45	100	350	1.61	400	Gray	Red	Brown	-55
BWCS00292821R91☐00	910	10 / 5 / 2	25	35	50	320	1.68	380	White	Brown	Brown	-80
BWCS002928211R0☐00	1000	10 / 5 / 2	25	35	50	290	1.75	370	Brown	Black	Red	-80
BWCS002928211R2☐00	1200	10 / 5 / 2	7.9	35	50	250	2.0	310	Brown	Red	Red	-17.8
BWCS002928211R5☐00	1500	10 / 5 / 2	7.9	28	50	200	2.3	330	Brown	Green	Red	-29.3
BWCS002928211R8☐00	1800	10 / 5 / 2	7.9	28	50	160	2.6	300	Brown	Gray	Red	-42.2

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%

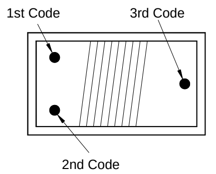
- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent E4991A

  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A



COLOR CODING

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max	Color Coding 1ST	Color Coding 2ND	Color Coding 3RD	offset value (nH)
BWCS002928212R2□00	2200	10 / 5 / 2	7.9	28	50	160	2.8	280	Red	Red	Red	-89.6
BWCS002928212R7□00	2700	10 / 5 / 2	7.9	22	25	140	3.2	290	Red	Violet	Red	-75
BWCS002928213R3□00	3300	10 / 5 / 2	7.9	22	25	110	3.4	290	Orange	Orange	Red	-145.6
BWCS002928213R9□00	3900	10 / 5 / 2	7.9	20	25	100	3.6	260	Orange	White	Red	-155.5
BWCS002928214R7□00	4700	10 / 5 / 2	7.9	20	25	90	4.0	260	Yellow	Violet	Red	-227.7
BWCS002928215R6□00	5600	10 / 5 / 2	7.9	18	7.9	45	4.0	240	Green	Blue	Red	0
BWCS002928216R8□00	6800	10 / 5 / 2	7.9	18	7.9	40	4.9	200	Blue	Gray	Red	0
BWCS002928218R2□00	8200	10 / 5 / 2	7.9	18	7.9	25	6.0	170	Gray	Red	Red	0
BWCS00292821100□00	10000	10 / 5 / 2	2.52	18	7.9	25	8.0	150	Brown	Black	Orange	0
BWCS00292821150□00	15000	10 / 5 / 2	2.52	15	7.9	20	11	100	Brown	Green	Orange	0

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%

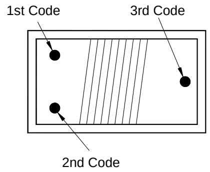
- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent E4991A

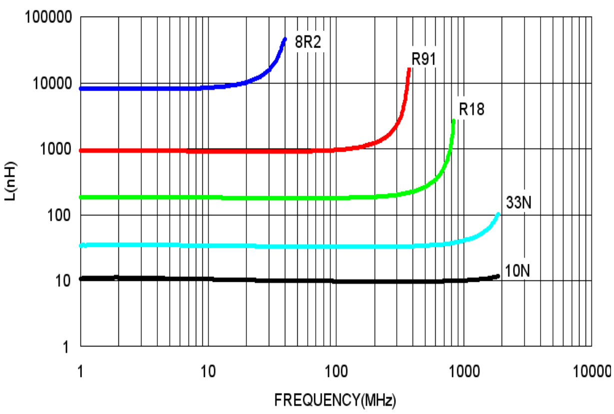
  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

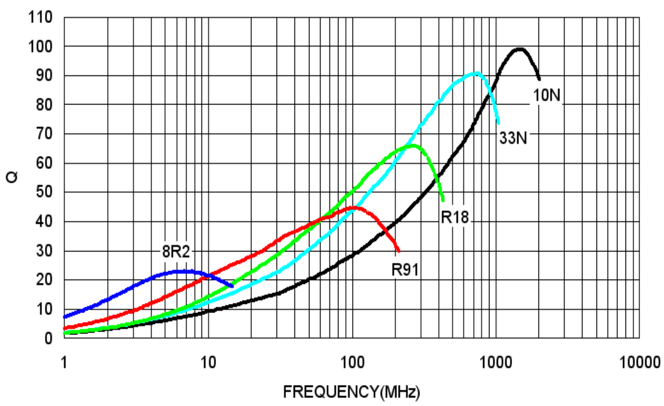


COLOR CODING

*Typical **L** vs. Frequency*



*Typical **Q** vs. Frequency*



Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Typ
BWCS004938341R0□00	1.0	5	7.9	60	50	310	1.2	480
BWCS004938341R2□00	1.2	5	7.9	62	50	230	1.2	480
BWCS004938341R5□00	1.5	5 / 2	7.9	65	50	210	1.6	430
BWCS004938341R8□00	1.8	5	7.9	68	50	190	2.0	380
BWCS004938342R2□00	2.2	5 / 2	7.9	63	50	170	2.2	340
BWCS004938342R7□00	2.7	5 / 2	7.9	60	50	160	3.2	300
BWCS004938343R3□00	3.3	5 / 2	7.9	60	50	145	3.8	270
BWCS004938343R9□00	3.9	5 / 2	7.9	61	50	130	5.0	240
BWCS004938344R7□00	4.7	5	7.9	60	50	115	5.4	230
BWCS004938345R6□00	5.6	5	7.9	42	50	100	5.7	220
BWCS004938346R8□00	6.8	5	7.9	32	50	90	6.6	210
BWCS004938348R2□00	8.2	5 / 2	7.9	35	50	80	7.0	200
BWCS00493834100□00	10	5	7.9	27	50	70	7.7	190
BWCS00493834120□00	12	5	2.5	34	10	58	8.7	180
BWCS00493834150□00	15	5 / 2	2.5	32	10	48	9.6	170
BWCS00493834180□00	18	5	2.5	28	10	36	10.5	160
BWCS00493834220□00	22	5 / 2	2.5	28	10	34	11.5	155
BWCS00493834270□00	27	5	2.5	28	10	30	12.5	150
BWCS00493834330□00	33	5 / 2	2.5	20	10	20	13.5	145

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

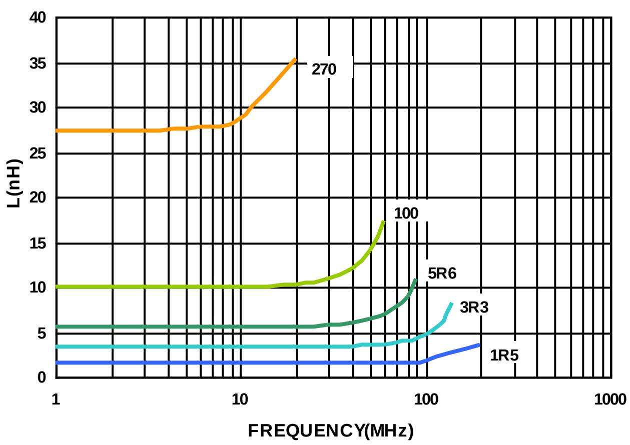
  L & Q：HP4286A/HP4287A/AgilentE4991/Keysight E4982A

  SRF：Agilent HP8753D/Agilent E4991A

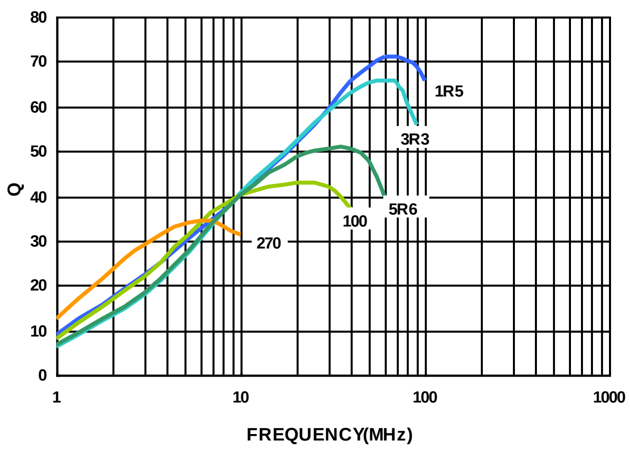
  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency

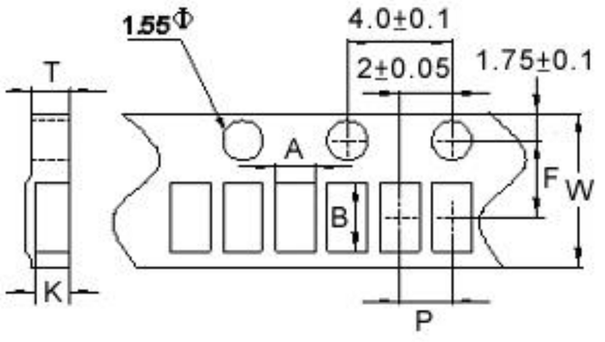


Packaging Specifications

Tape Dimensions

Tape Material

Figure 1



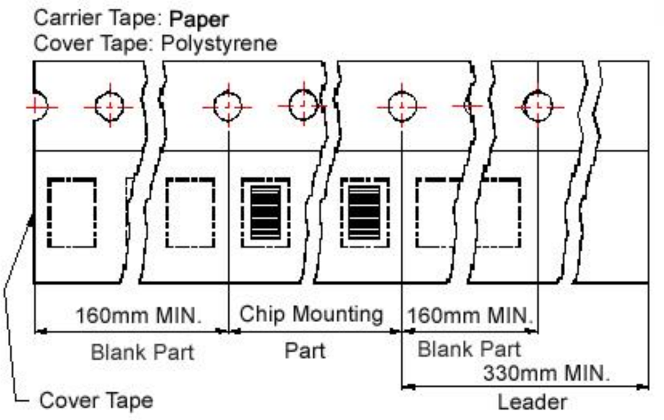
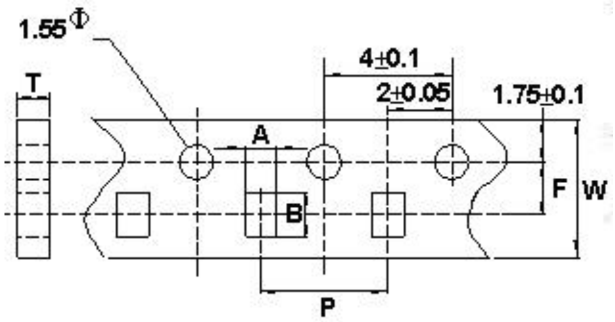


Figure 2



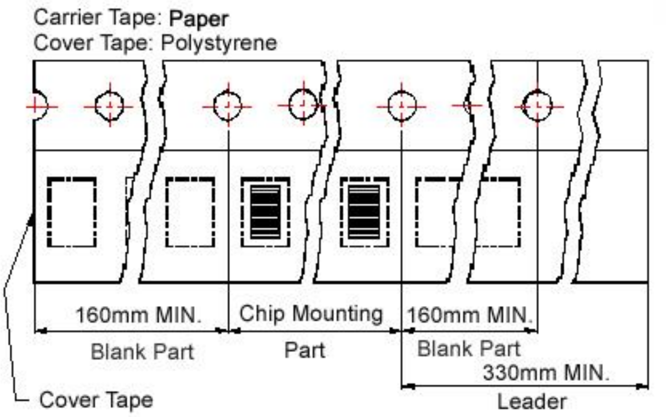
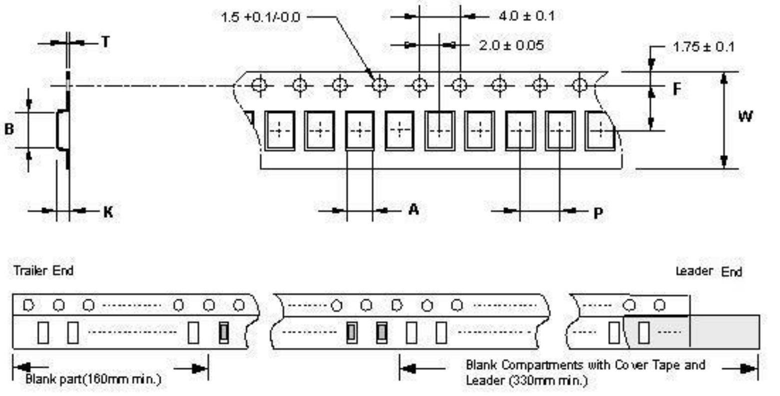
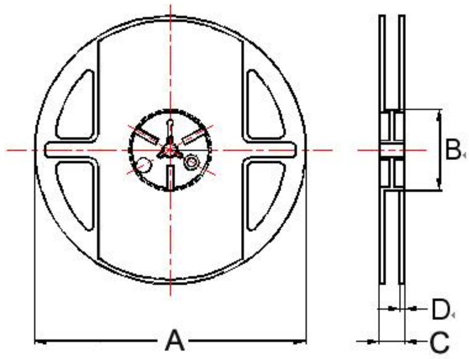


Figure 3



Reel Dimensions



Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity
		A	B	T	W	P	F	K	A	B	C	D	PCS / Reel
BWCS00060404	1	0.47	0.60	0.65	8	2	3.5	0.45	178	60	12	1.5	4000
BWCS00120707	1	0.67	1.20	0.75	8	2	3.5	0.59	178	60	12	1.5	4000
BWCS00161008	2	1.25	1.90	1.05	8	4	3.5	-	178	60	12	1.5	4000
BWCS00231715	3	1.85	2.45	0.23	8	4	3.5	1.50	178	60	12	1.5	2000
BWCS00292821	3	2.80	2.95	0.23	8	4	3.5	2.20	178	60	12	1.5	2000
BWCS00493834	3	3.90	4.90	0.30	12	8	5.5	3.20	178	60	16	1.4	600

BWPM Series

Due to accurate wire winding technology, these chip inductors are designed for filtering, impedance matching, resonance and choke circuits for RF designer. Both standard series custom designs are available.

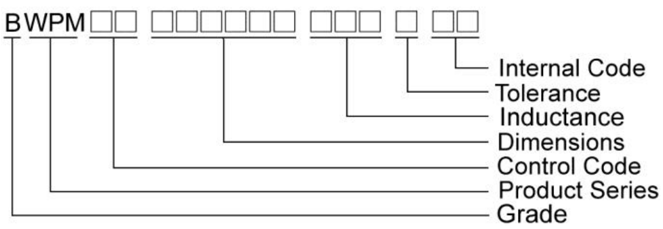
Features

- RoHS Compliant and Halogen Free
- Ceramic body and wire wound construction provide high Q and SRFs
- Higher Q and lower DCR than other inductors
- Exceptional current handling capability
- PM series is for high power and high frequency application

Applications

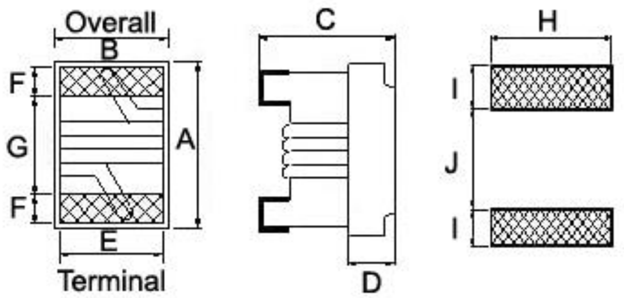
- Wireless embedded portable devices
- GPS receiver
- Base Station
- Repeater
- Set Top Box
- Cable / IP Modem
- Security system and other RF modules

Product Identification



Shape and Dimensions / Recommended Pattern

BWPM00161108



Dimensions

	A	B	C	D	E	F	G	H	I	J
BWPM00161108	$1.6^{+0.2}_{-0.1}$	1.1260.1	$0.82^{+0.2}_{-0.1}$	0.30	0.95	0.30	0.70	1.02	0.64	0.64

Pulse a YAGEO company
CHILISIN ELECTRONICS CORP.

SMD Wire Wound Ceramic Chip Inductors - BWPM Series

Electrical Characteristics

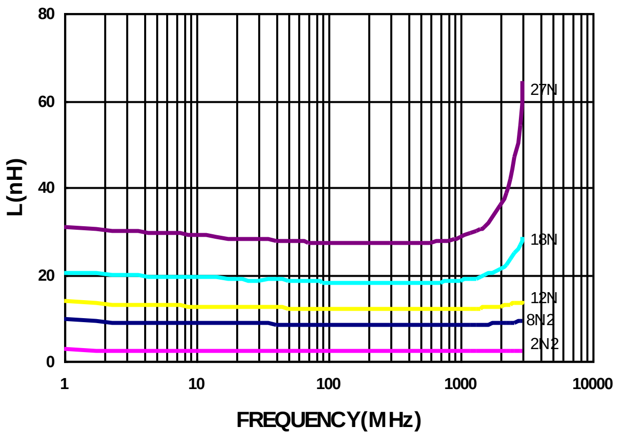
Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (GHz) Min	RDC (Ω) Max	Irms (mA) Max	Color
BWPM001611082N2□00	2.2	±0.5nH	100	25	250	18	0.018	1400	Black
BWPM001611083N9□00	3.9	±0.2nH/±0.5nH	100	38	250	11	0.032	1000	Brown
BWPM001611085N6□00	5.6	±0.5nH	100	38	250	10	0.045	900	Red
BWPM001611086N8□00	6.8	±0.2nH/±0.5nH	100	38	250	7	0.045	900	Orange
BWPM001611088N2□00	8.2	±0.5nH	100	38	250	7	0.058	800	Yellow
BWPM0016110810N□00	10	5 / 2	100	38	250	5	0.058	800	Green
BWPM0016110812N□00	12	5 / 2	100	38	250	5	0.071	750	Blue
BWPM0016110815N□00	15	5	100	42	250	4.5	0.085	700	Violet
BWPM0016110818N□00	18	5 / 2	100	42	250	3.5	0.085	700	Brown
BWPM0016110822N□00	22	5 / 2	100	42	250	3.3	0.099	640	White
BWPM0016110827N□00	27	5 / 2	100	42	250	2.8	0.116	590	Black
BWPM0016110833N□00	33	5	100	42	250	2.5	0.132	550	Brown

Note: When ordering, please specify tolerance code. Tolerance : C=±0.2nH , D=±0.5nH , G=±2% , J=±5%

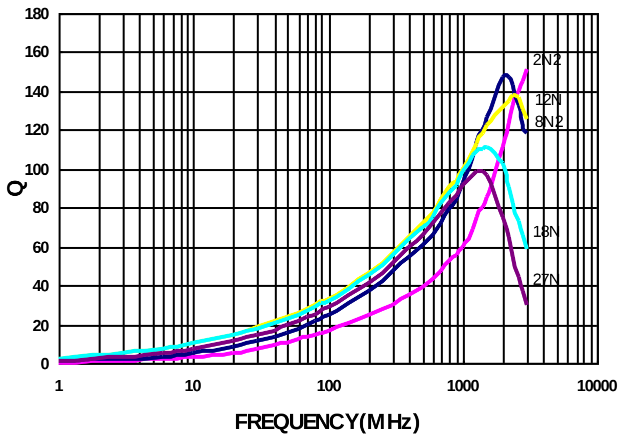
- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent HP8753D
  RDC：Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency

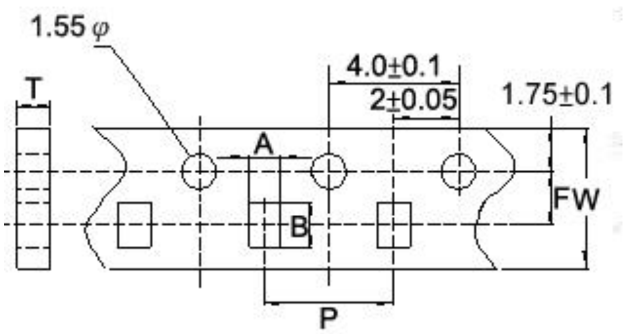


Typical Q vs. Frequency

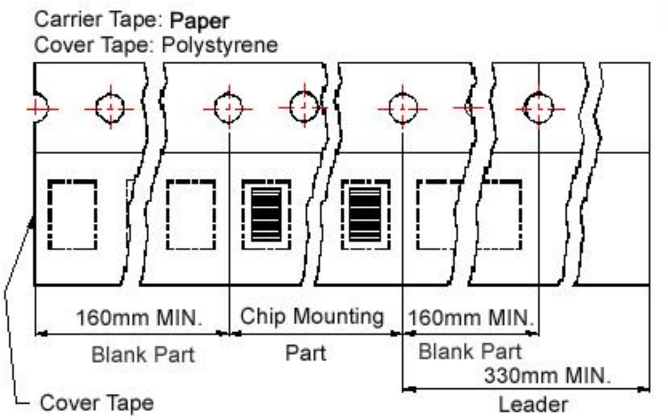


Packaging Specifications

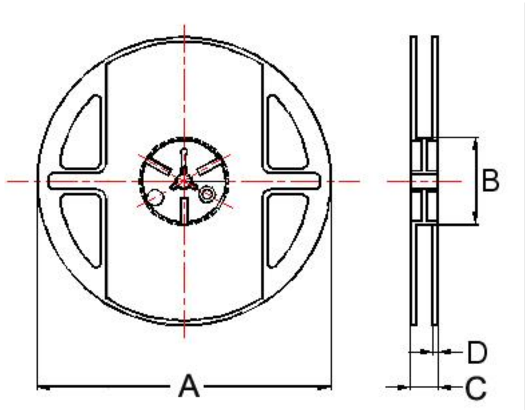
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions						Reel Dimensions				Quantity
	A	B	T	W	P	F	A	B	C	D	PCS / Reel
BWPM00161108	1.25	1.90	1.05	8	4	3.5	178	60	12	1.5	4000

BWHP Series

Due to accurate wire winding technology, these chip inductors are designed for filtering, impedance matching, resonance and choke circuits for RF designer. Both standard series custom designs are available.

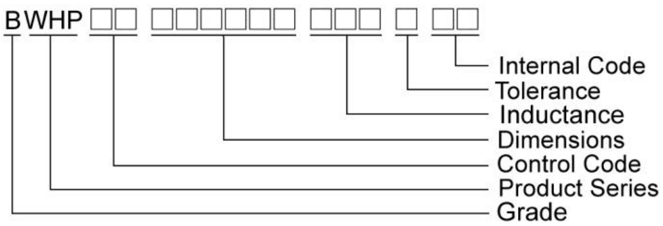
Features

- RoHS Compliant and Halogen Free
- Ceramic body and wire wound construction provide high Q and SRFs
- Higher Q and lower DCR than other inductors
- Exceptional current handling capability
- HP series is for high power and high frequency application

Applications

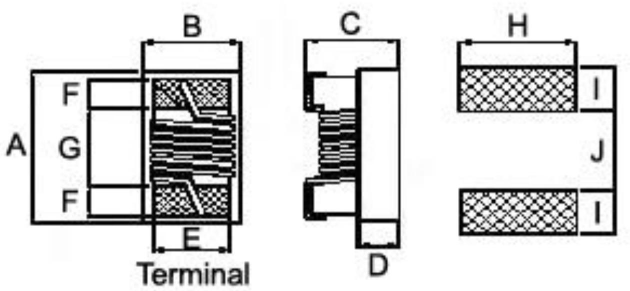
- Wireless embedded portable devices
- GPS receiver
- Base Station
- Repeater
- Set Top Box
- Cable / IP Modem
- Security system and other RF modules

Product Identification

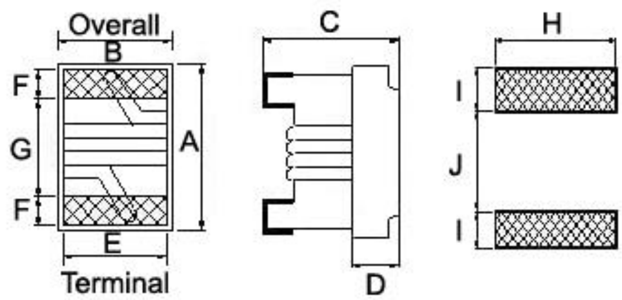


Shape and Dimensions / Recommended Pattern

BWHP00110706



BWHP00161008

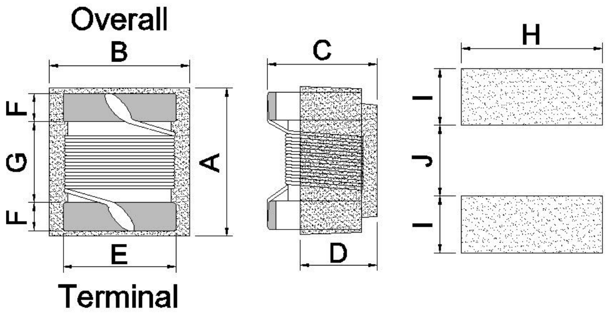


Dimensions

	A	B	C	D	E	F	G	H	I	J
BWHP00110706	1.1±0.05	0.70±0.05	0.6±0.05	0.25	0.45	0.20	0.54	0.66	0.36	0.51
BWHP00161008	$1.6^{+0.2}_{-0.1}$	1.00±0.1	$0.82^{+0.2}_{-0.1}$	0.30	0.70	0.30	0.95	1.02	0.64	0.64

Shape and Dimensions / Recommended Pattern

BWHP00231715



Dimensions

	A Max	B Max	C Max	D	E	F	G	H	I	J
BWHP00231715	2.35	1.73	1.52	0.71	1.27	0.30	1.44	1.78	1.02	0.76

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (GHz) Typ.	RDC (Ω) Max	Irms (mA) Max
BWHP001107061N0□00	1.0	±0.1nH / 5	250	18	250	16.0	0.030	2300
BWHP001107062N0□00	2.0	±0.2nH / 5	250	18	250	15.2	0.038	2100
BWHP001107062N2□00	2.2	±0.2nH / 5	250	25	250	15.1	0.045	2100
BWHP001107062N4□00	2.4	±0.2nH / 5	250	25	250	14.0	0.045	2000
BWHP001107062N7□00	2.7	±0.2nH / 5	250	20	250	13.0	0.090	1500
BWHP001107063N3□00	3.3	2 / 3 / 5	250	20	250	12.8	0.050	1700
BWHP001107063N6□00	3.6	2 / 3 / 5	250	28	250	11.7	0.065	1700
BWHP001107063N9□00	3.9	2 / 3 / 5	250	28	250	9.50	0.065	1700
BWHP001107064N3□00	4.3	2 / 3 / 5	250	22	250	7.15	0.060	1600
BWHP001107064N7□00	4.7	2 / 3 / 5	250	18	250	6.85	0.115	1500
BWHP001107065N1□00	5.1	2 / 3 / 5	250	20	250	6.80	0.125	1200
BWHP001107065N6□00	5.6	2 / 3 / 5	250	28	250	6.80	0.070	1600
BWHP001107066N2□00	6.2	2 / 3 / 5	250	25	250	5.80	0.070	1600
BWHP001107066N8□00	6.8	2 / 3 / 5	250	25	250	5.80	0.095	1500
BWHP001107067N5□00	7.5	2 / 3 / 5	250	25	250	5.40	0.130	1400
BWHP001107068N2□00	8.2	2 / 3 / 5	250	30	250	5.40	0.080	1500
BWHP001107068N7□00	8.7	2 / 3 / 5	250	30	250	5.00	0.085	1500
BWHP001107069N0□00	9.0	2 / 3 / 5	250	28	250	5.00	0.090	1400
BWHP001107069N5□00	9.5	2 / 3 / 5	250	30	250	4.70	0.095	1400
BWHP0011070610N□00	10	2 / 3 / 5	250	30	250	4.70	0.120	1300
BWHP0011070611N□00	11	2 / 3 / 5	250	30	250	4.70	0.095	1400
BWHP0011070612N□00	12	2 / 3 / 5	250	25	250	4.40	0.110	1200
BWHP0011070613N□00	13	2 / 3 / 5	250	30	250	4.20	0.140	870
BWHP0011070615N□00	15	2 / 3 / 5	250	30	250	3.90	0.130	1100
BWHP0011070616N□00	16	2 / 3 / 5	250	30	250	3.70	0.150	850
BWHP0011070618N□00	18	2 / 3 / 5	250	30	250	3.55	0.160	900
BWHP0011070619N□00	19	2 / 3 / 5	250	30	250	3.50	0.175	850
BWHP0011070620N□00	20	2 / 3 / 5	250	30	250	3.50	0.220	780
BWHP0011070621N□00	21	2 / 3 / 5	250	30	250	1.70	0.360	450
BWHP0011070622N□00	22	2 / 3 / 5	250	30	250	3.30	0.210	800
BWHP0011070623N□00	23	2 / 3 / 5	250	30	250	3.15	0.210	700
BWHP0011070624N□00	24	2 / 3 / 5	250	30	250	3.15	0.260	700
BWHP0011070625N□00	25	2 / 3 / 5	250	30	250	3.15	0.310	700
BWHP0011070626N□00	26	2 / 3 / 5	250	30	250	3.15	0.275	700

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , G=±2% , H=±3% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent HP8753D/Agilent HP8722ES
  RDC：Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Electrical Characteristics

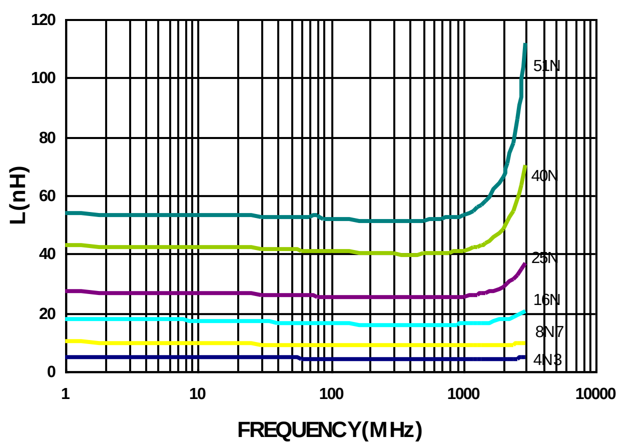
Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (GHz) Typ.	RDC (Ω) Max	Irms (mA) Max
BWHP0011070627N□00	27	2 / 3 / 5	250	30	250	3.20	0.300	450
BWHP0011070630N□00	30	2 / 3 / 5	250	30	250	2.90	0.350	450
BWHP0011070633N□00	33	2 / 3 / 5	250	30	250	2.80	0.380	490
BWHP0011070636N□00	36	2 / 3 / 5	250	30	250	2.80	0.480	480
BWHP0011070637N□00	37	2 / 3 / 5	250	30	250	2.70	0.490	470
BWHP0011070639N□00	39	2 / 3 / 5	250	30	250	2.60	0.520	450
BWHP0011070640N□00	40	2 / 3 / 5	250	30	250	2.60	0.520	450
BWHP0011070643N□00	43	2 / 3 / 5	250	29	250	2.50	0.720	450
BWHP0011070647N□00	47	2 / 3 / 5	250	30	250	2.40	0.720	420
BWHP0011070651N□00	51	2 / 3 / 5	250	30	250	2.30	0.980	360

Note: When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , G=±2% , H=±3% , J=±5%

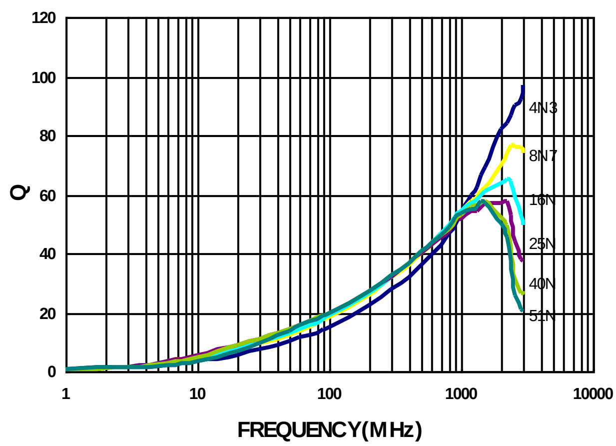
- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent HP8753D/Agilent HP8722ES
  RDC：Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (GHz) Typ.	RDC (Ω) Max	Irms (mA) Max	Color
BWHP001610081N8□00	1.8	5	250	23	250	16.0	0.033	2100	Black
BWHP001610082N2□00	2.2	5	250	13	250	15.0	0.182	900	Brown
BWHP001610083N9□00	3.9	2 / 3 / 5	250	26	250	7.50	0.062	1600	Red
BWHP001610084N3□00	4.3	2 / 3 / 5	250	26	250	7.50	0.088	1300	Orange
BWHP001610084N7□00	4.7	2 / 3 / 5	250	25	250	7.90	0.130	1100	Yellow
BWHP001610086N8□00	6.8	2 / 3 / 5	250	40	250	5.80	0.065	1400	Green
BWHP001610087N2□00	7.2	2 / 3 / 5	250	32	250	5.40	0.100	1400	Blue
BWHP001610087N5□00	7.5	2 / 3 / 5	250	32	250	5.30	0.100	1300	Violet
BWHP0016100811N□00	11	2 / 3 / 5	250	41	250	4.10	0.086	1400	Gray
BWHP0016100815N□00	15	2 / 3 / 5	250	42	250	3.60	0.110	1200	White
BWHP0016100816N□00	16	2 / 3 / 5	250	40	250	3.50	0.125	1100	Black
BWHP0016100822N□00	22	2 / 3 / 5	250	40	250	3.15	0.195	850	Brown
BWHP0016100823N□00	23	2 / 3 / 5	250	40	250	3.00	0.150	850	Red
BWHP0016100824N□00	24	2 / 3 / 5	250	42	250	2.95	0.125	1100	Orange
BWHP0016100827N□00	27	2 / 3 / 5	250	42	250	2.80	0.200	780	Yellow
BWHP0016100830N□00	30	2 / 3 / 5	250	49	250	2.80	0.130	920	Green
BWHP0016100833N□00	33	2 / 3 / 5	250	45	250	2.70	0.170	680	Blue
BWHP0016100836N□00	36	2 / 3 / 5	250	44	250	2.50	0.225	720	Violet
BWHP0016100839N□00	39	2 / 3 / 5	250	48	250	2.45	0.190	680	Gray
BWHP0016100843N□00	43	2 / 3 / 5	250	45	250	2.45	0.225	810	White
BWHP0016100847N□00	47	2 / 3 / 5	200	43	250	2.30	0.240	680	Black
BWHP0016100851N□00	51	2 / 3 / 5	200	42	250	2.30	0.280	660	Brown
BWHP0016100856N□00	56	2 / 3 / 5	200	43	250	2.20	0.300	610	Red
BWHP0016100868N□00	68	2 / 3 / 5	200	43	250	2.00	0.330	600	Orange
BWHP0016100872N□00	72	2 / 3 / 5	150	37	250	1.90	0.420	550	Yellow
BWHP0016100875N□00	75	2 / 3 / 5	150	37	250	1.90	0.520	500	Green
BWHP0016100882N□00	82	2 / 3 / 5	150	38	250	1.80	0.460	510	Blue
BWHP0016100891N□00	91	2 / 3 / 5	150	45	250	1.65	0.580	440	Violet
BWHP00161008R10□00	100	2 / 3 / 5	150	49	250	1.70	0.540	470	Gray
BWHP00161008R11□00	110	2 / 3 / 5	150	47	250	1.60	0.620	440	White
BWHP00161008R12□00	120	2 / 3 / 5	150	47	250	1.55	0.720	420	Black
BWHP00161008R15□00	150	2 / 3 / 5	150	47	250	1.35	1.150	390	Brown

Note: When ordering, please specify tolerance code. Tolerance : G=±2% ,H=±3% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent HP8722ES

  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (GHz) Typ.	RDC (Ω) Max	Irms (mA) Max	Color
BWHP00161008R18□00	180	2 / 3 / 5	100	48	250	1.30	1.500	310	Red
BWHP00161008R20□00	200	2 / 3 / 5	100	47	250	1.25	2.000	280	Orange
BWHP00161008R21□00	210	2 / 3 / 5	100	48	250	1.20	2.000	280	Yellow
BWHP00161008R22□00	220	2 / 3 / 5	100	47	250	1.10	2.000	280	Green
BWHP00161008R25□00	250	2 / 3 / 5	100	45	250	1.05	3.000	240	Blue
BWHP00161008R27□00	270	2 / 3 / 5	100	46	250	1.05	2.250	260	Violet
BWHP00161008R30□00	300	2 / 3 / 5	100	47	250	0.99	2.800	220	Gray
BWHP00161008R33□00	330	2 / 3 / 5	100	46	250	0.93	3.600	180	White
BWHP00161008R36□00	360	2 / 3 / 5	100	47	250	0.93	4.000	170	Black
BWHP00161008R39□00	390	2 / 3 / 5	100	47	250	0.88	4.000	170	Brown

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , H=±3% , J=±5%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

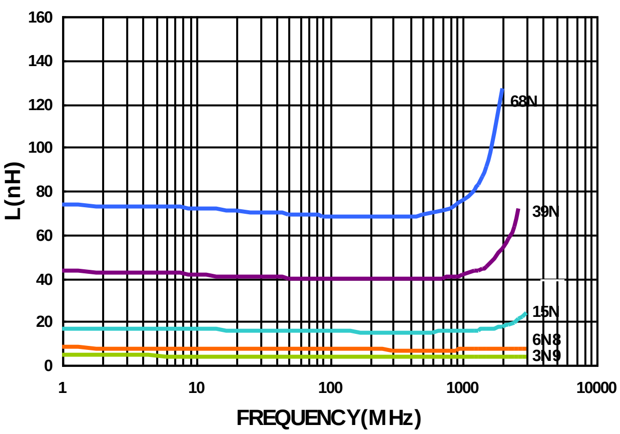
  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent HP8753D/Agilent HP8722ES

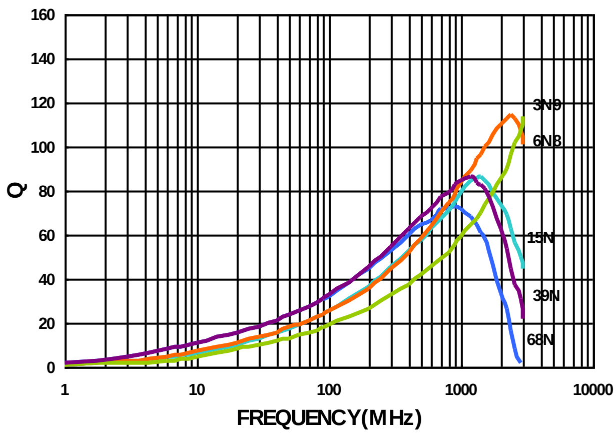
  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

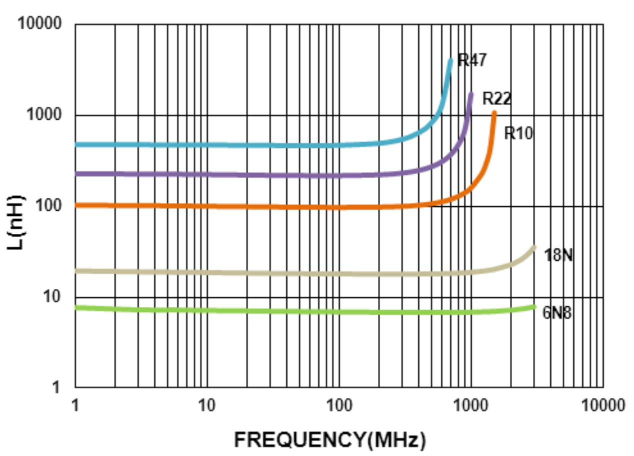
Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (MHz) Typ.	RDC (Ω) Max	Irms (mA) Typ
BWHP002317152N6□00	2.6	5	250	100	1500	9500	0.015	2000
BWHP002317156N2□00	6.2	5	250	104	1000	7200	0.027	1500
BWHP002317156N8□00	6.8	5	250	90	1000	6000	0.066	1300
BWHP0023171511N□00	11	2 / 5	250	93	500	4750	0.039	1600
BWHP0023171512N□00	12	2 / 5	250	91	500	4425	0.039	1400
BWHP0023171513N□00	13	2 / 5	250	91	500	4100	0.039	1400
BWHP0023171518N□00	18	2 / 5	250	95	500	3650	0.050	1200
BWHP0023171533N□00	33	2 / 5	250	100	500	2410	0.087	1100
BWHP0023171547N□00	47	2 / 5	200	105	500	2170	0.093	1000
BWHP0023171556N□00	56	2 / 5	200	100	500	1815	0.122	950
BWHP0023171582N□00	82	2 / 5	150	103	500	1525	0.168	820
BWHP00231715R10□00	100	2 / 5	150	100	500	1400	0.220	720
BWHP00231715R12□00	120	2 / 5	150	80	250	1265	0.293	620
BWHP00231715R15□00	150	2 / 5	100	80	250	1150	0.288	600
BWHP00231715R18□00	180	2 / 5	100	77	250	1025	0.374	540
BWHP00231715R22□00	220	2 / 5	100	75	250	930	0.426	500
BWHP00231715R27□00	270	2 / 5	100	75	250	830	0.754	420
BWHP00231715R33□00	330	2 / 5	100	54	100	770	1.004	360
BWHP00231715R39□00	390	2 / 5	100	52	100	700	1.110	330
BWHP00231715R47□00	470	2 / 5	50	52	100	640	1.559	280
BWHP00231715R56□00	560	2 / 5	25	46	100	550	2.067	240
BWHP00231715R68□00	680	2 / 5	25	46	100	535	2.355	210
BWHP00231715R82□00	820	2 / 5	25	50	100	485	3.945	180

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5%

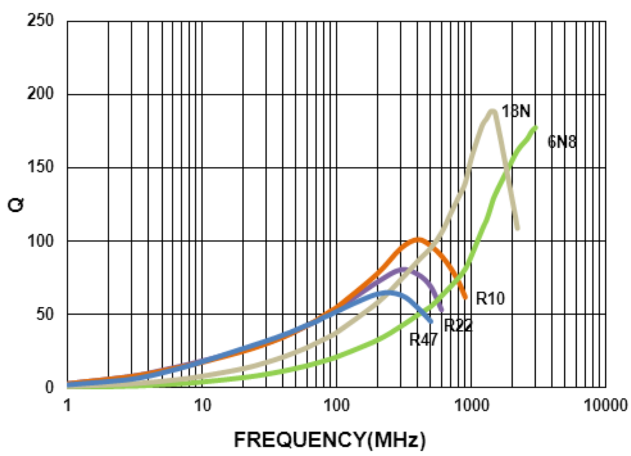
- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent HP8753D/Agilent HP8722ES
  RDC：Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency



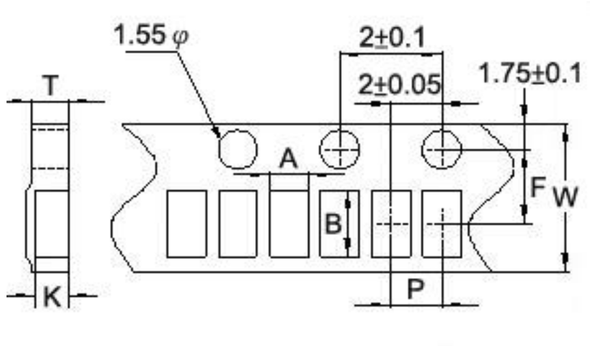
Typical Q vs. Frequency



Packaging Specifications

Tape Dimensions | ***Tape Material***

Figure 1



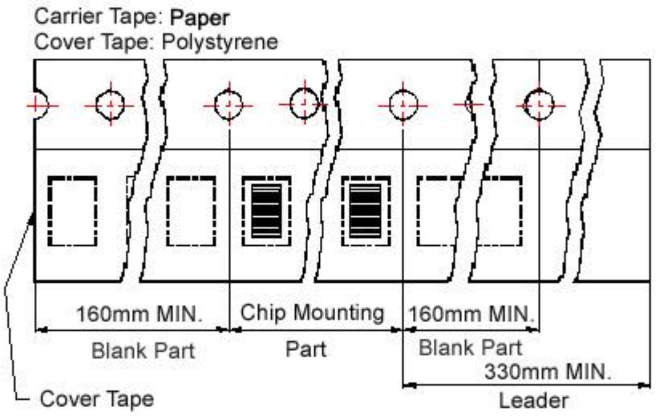
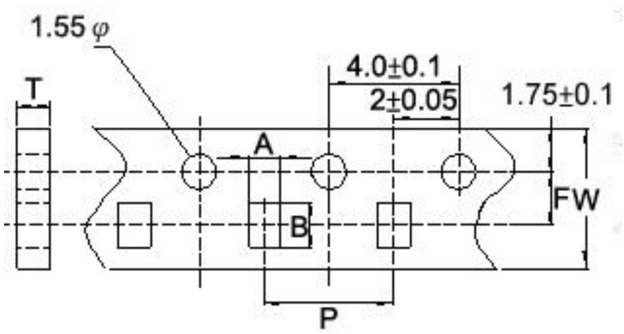


Figure 2



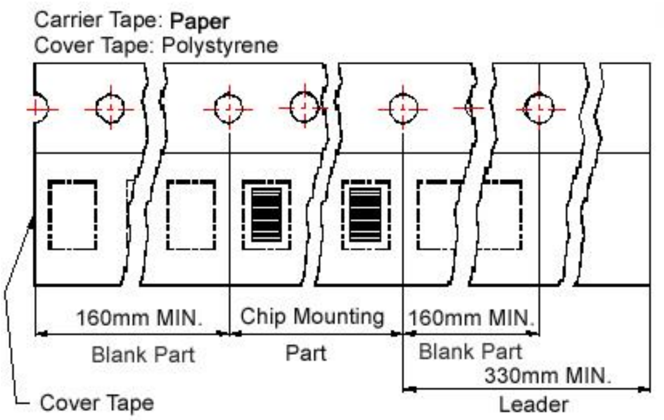
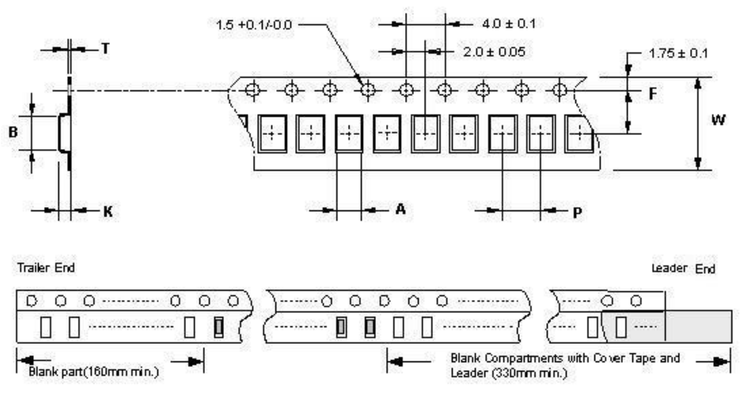
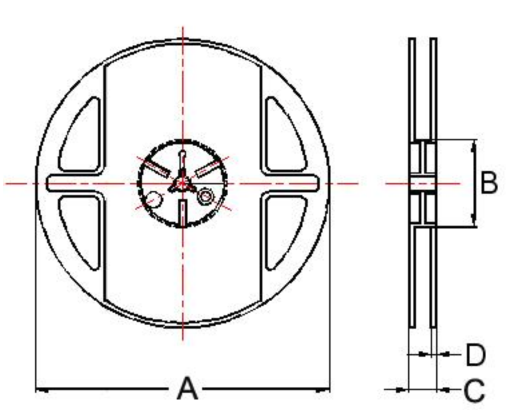


Figure 3 | ***Reel Dimensions***





Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity
		A	B	T	W	P	F	K	A	B	C	D	PCS / Reel
BWHP00110706	1	0.80	1.20	0.75	8	2	3.5	0.62	178	60	12	1.5	4000
BWHP00161008	2	1.23	1.90	1.05	8	4	3.5	-	178	60	12	1.5	4000
BWHP00231715	3	1.85	2.45	0.23	8	4	3.5	1.50	178	60	12	1.5	2000

BWHH Series

Due to accurate wire winding technology, these chip inductors are designed for filtering, impedance matching, resonance and choke circuits for RF designer. Both standard series custom designs are available.

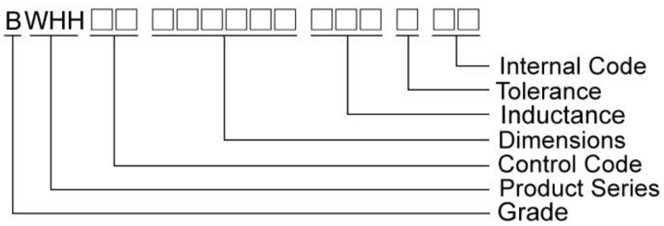
Features

- RoHS Compliant and Halogen Free
- Ceramic body and wire wound construction provide high Q and SRFs
- Higher Q and lower DCR than other inductors
- Exceptional current handling capability
- HPH series is for high power and high frequency application

Applications

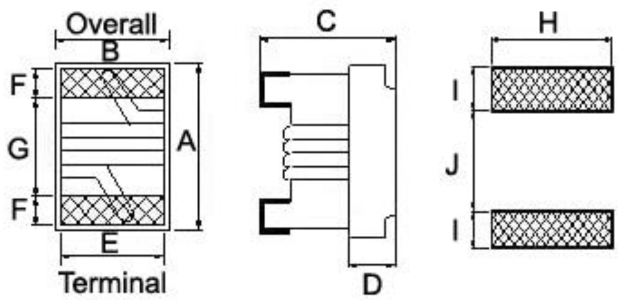
- Wireless embedded portable devices
- GPS receiver
- Base Station
- Repeater
- Set Top Box
- Cable / IP Modem
- Security system and other RF modules

Product Identification



Shape and Dimensions / Recommended Pattern

BWHH00161108



Dimensions

	A	B	C	D	E	F	G	H	I	J
BWHH00161108	$1.6^{+0.2}_{-0.1}$	1.12±0.1	$0.82^{+0.2}_{-0.1}$	0.30	0.70	0.30	0.95	1.02	0.64	0.64

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (GHz) Typ.	RDC (Ω) Max	Irms (mA) Max	Color Code
BWHH001611083N3□00	3.3	5 / 3	250	36	250	9.6	0.034	1900	Black
BWHH001611083N6□00	3.6	5 / 3	250	28	250	9.7	0.040	1900	Brown
BWHH001611085N1□00	5.1	5 / 3	250	38	250	8.9	0.042	1700	Red
BWHH001611085N6□00	5.6	5 / 3	250	35	250	6.6	0.042	1700	Orange
BWHH001611086N0□00	6.0	5 / 3	250	49	250	6.0	0.042	1700	Yellow
BWHH001611088N2□00	8.2	5 / 3	250	40	250	5.9	0.054	1400	Green
BWHH001611088N7□00	8.7	5 / 3	250	46	250	5.5	0.054	1400	Blue
BWHH001611089N1□00	9.1	5 / 3	250	40	250	5.1	0.052	1400	Violet
BWHH001611089N5□00	9.5	5 / 3	250	42	250	4.9	0.054	1400	Gray
BWHH0016110810N□00	10	5 / 3	250	44	250	4.3	0.054	1400	White
BWHH0016110812N□00	12	5 / 3	250	40	250	4.1	0.088	1100	Black
BWHH0016110818N□00	18	5 / 3	250	45	250	3.3	0.082	1200	Brown

Note: When ordering, please specify tolerance code. Tolerance : H=±3% , J=±5%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

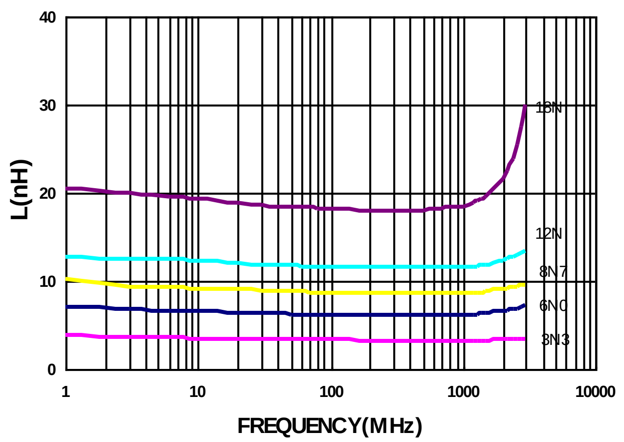
  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent E5071C

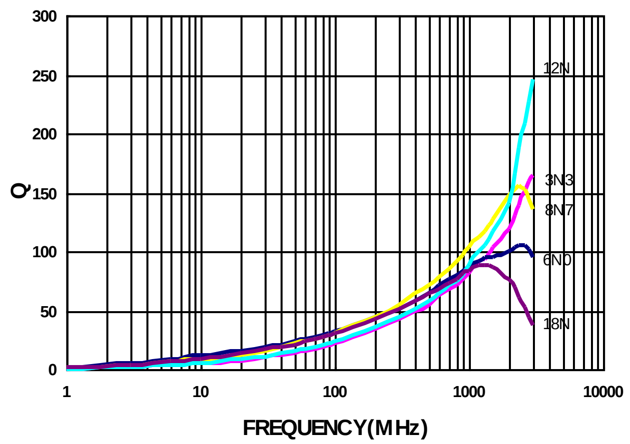
  RDC：Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency

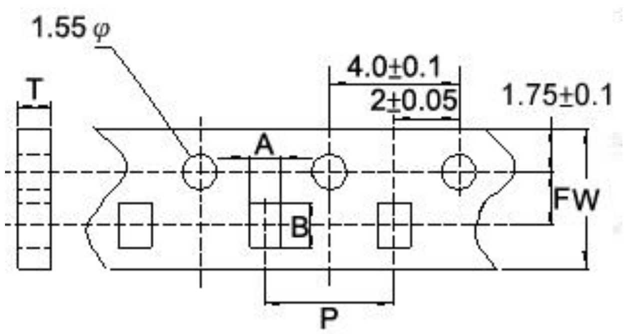


Typical Q vs. Frequency

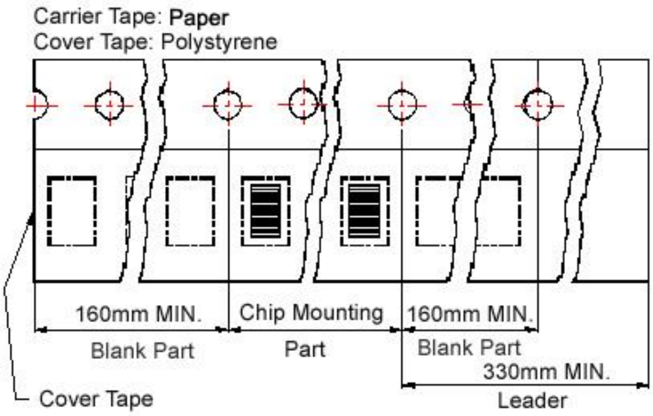


Packaging Specifications

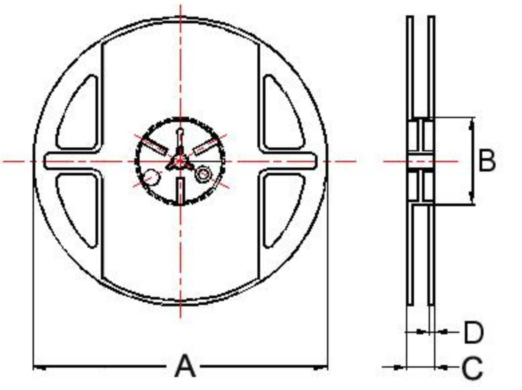
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions						Reel Dimensions				Quantity
	A	B	T	W	P	F	A	B	C	D	PCS / Reel
BWHH00161108	1.25	1.90	1.05	8	4	3.5	178	60	12	1.5	4000

BWCT Series

Due to accurate wire winding technology, these chip inductors are designed for filtering, impedance matching, resonance and choke circuits for RF designer. Both standard series custom designs are available.

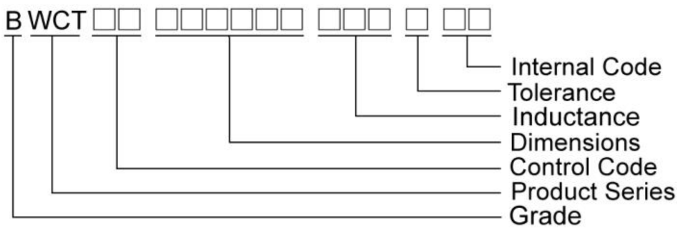
Features

- RoHS compliant.
- Ceramic body and wire wound construction provide highest SRFs
- Exceptional Q values even at high frequencies
- Highest possible SRFs as well as excellent Q values
- The non-magnetic coil form assures utmost thermal stability, predictability and batch consistency

Applications

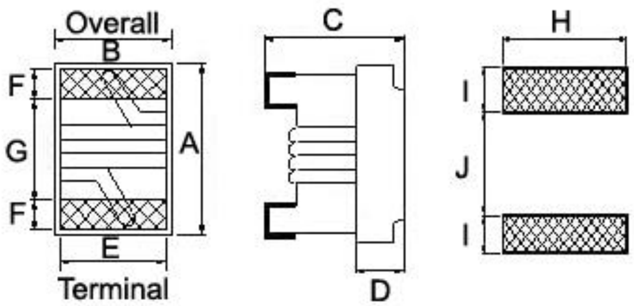
- RF products for cellular phone
- GPS receiver
- Base Station
- Repeater
- Wireless LAN/ mouse/ keyboard/ earphone
- Remote control
- Security system and other RF modules

Product Identification



Shape and Dimensions/ Recommended Pattern

BWCT00231711



Dimensions

		A Max	B Max	C Max	D	E	F	G	H	I	J
BWCT00231711	inch	0.093	0.068	0.039	0.020	0.050	0.020	0.040	0.070	0.040	0.030
	mm	2.35	1.73	1.10	0.51	1.27	0.51	1.02	1.78	1.02	0.76

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max	Color
BWCT002317111N8☐00	1.8	10	250	55	1500	9400	0.03	800	Black
BWCT002317113N9☐00	3.9	10	250	50	1000	6100	0.06	800	Brown
BWCT002317114N7☐00	4.7	10 / 5	250	50	1000	5500	0.06	800	Red
BWCT002317115N1☐00	5.1	10 / 5	250	50	1000	5500	0.06	800	-
BWCT002317116N8☐00	6.8	10 / 5	250	50	1000	5500	0.08	800	Orange
BWCT002317118N2☐00	8.2	10 / 5	250	50	1000	4800	0.08	800	Yellow
BWCT0023171110N☐00	10	10 / 5 / 2	250	55	750	3300	0.08	800	Green
BWCT0023171112N☐00	12	10 / 5 / 2	250	55	750	3800	0.10	800	Blue
BWCT0023171115N☐00	15	10 / 5 / 2	250	50	500	2950	0.10	800	Violet
BWCT0023171118N☐00	18	10 / 5 / 2	250	50	500	3100	0.13	800	Gray
BWCT0023171122N☐00	22	10 / 5 / 2	250	50	500	2900	0.15	800	White
BWCT0023171127N☐00	27	10 / 5 / 2	250	50	500	2450	0.23	600	Black
BWCT0023171133N☐00	33	10 / 5 / 2	250	55	500	2350	0.28	600	Brown
BWCT0023171139N☐00	39	10 / 5 / 2	250	55	500	2200	0.33	600	Red
BWCT0023171147N☐00	47	10 / 5 / 2	200	50	500	2000	0.39	600	Orange
BWCT0023171156N☐00	56	10 / 5 / 2	200	50	500	1850	0.39	500	Yellow
BWCT0023171168N☐00	68	10 / 5 / 2	200	50	500	1500	0.40	500	Green
BWCT0023171182N☐00	82	10 / 5 / 2	150	50	500	1500	0.44	500	Blue
BWCT00231711R10☐00	100	10 / 5 / 2	150	50	500	1200	0.64	400	Violet
BWCT00231711R12☐00	120	10 / 5 / 2	150	40	250	1150	0.68	300	Gray
BWCT00231711R15☐00	150	10 / 5 / 2	150	40	250	1050	0.80	300	White
BWCT00231711R18☐00	180	10 / 5 / 2	150	40	250	950	0.90	300	Black
BWCT00231711R22☐00	220	10 / 5 / 2	150	40	250	900	0.98	300	Brown
BWCT00231711R27☐00	270	10 / 5 / 2	150	40	250	850	1.30	300	Red
BWCT00231711R33☐00	330	10 / 5 / 2	100	40	250	800	1.45	300	Orange
BWCT00231711R39☐00	390	10 / 5 / 2	100	35	250	700	1.60	300	Yellow
BWCT00231711R47☐00	470	10 / 5 / 2	50	25	100	600	1.80	300	Green
BWCT00231711R56☐00	560	10 / 5 / 2	25	18	50	550	1.90	300	Blue
BWCT00231711R62☐00	620	10 / 5 / 2	25	18	50	450	2.00	300	Violet
BWCT00231711R68☐00	680	10 / 5 / 2	25	18	50	420	2.10	300	Gray
BWCT00231711R75☐00	750	10 / 5 / 2	25	18	50	400	2.20	300	White
BWCT00231711R82☐00	820	10 / 5 / 2	25	18	50	400	2.50	300	Black
BWCT002317111R0☐00	1000	10 / 5	25	17	50	330	3.10	300	Brown

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

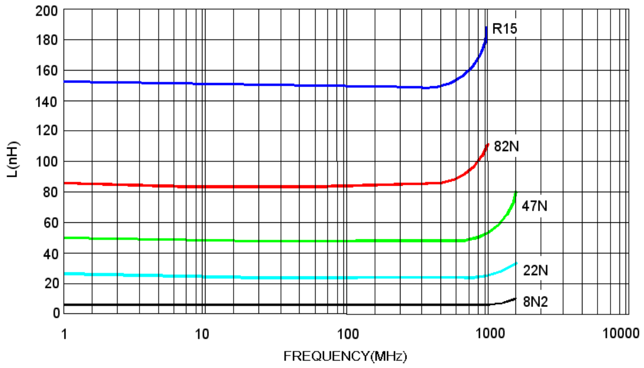
  SRF：Agilent/HP8753D/Agilent E4991A

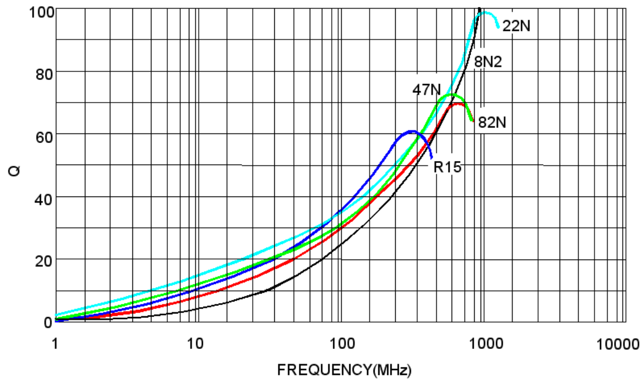
  RDC: HP4338B or Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

BWCT00231711



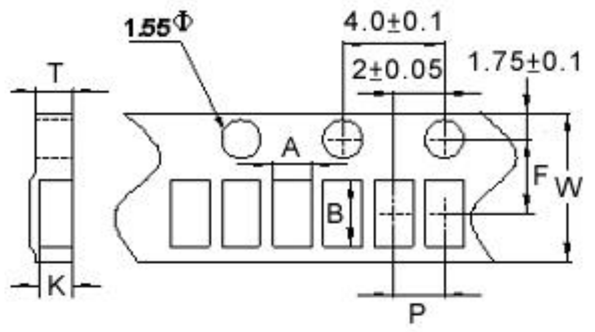


Packaging Specifications

Tape Dimensions

Tape Material

Figure 1



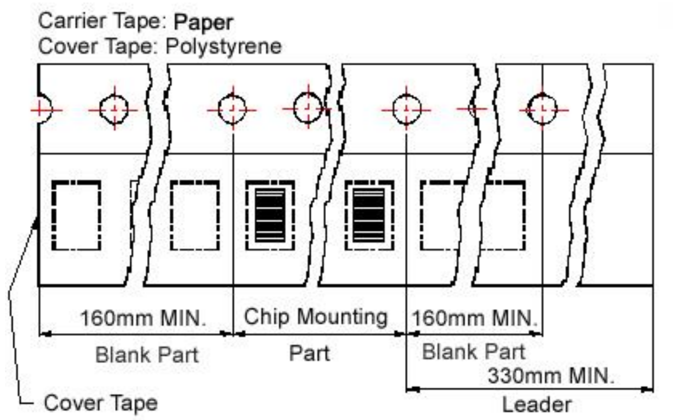
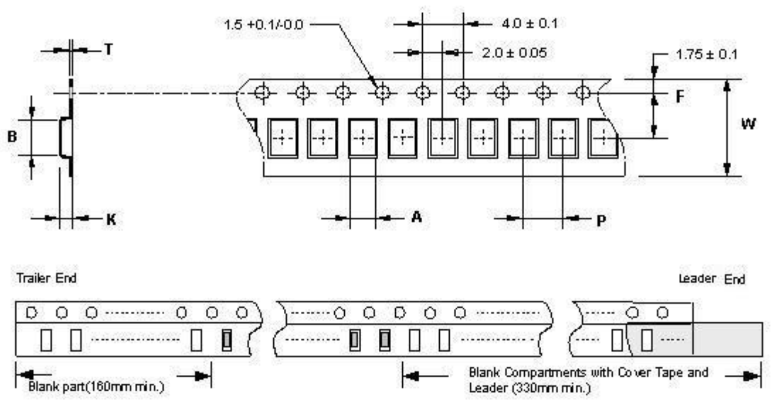
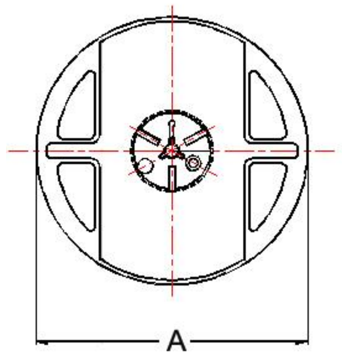
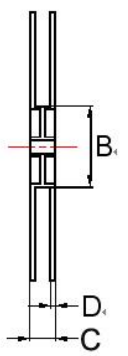


Figure 2



Reel Dimensions





Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity
		A	B	T	W	P	F	K	A	B	C	D	PCS / Reel
BWCT00231711	2	1.85	2.45	0.23	8	4	3.5	1.10	178	60	12	1.5	2000

BWHQ Series

Due to accurate wire winding technology, these chip inductors are designed for filtering, impedance matching, resonance and choke circuits for RF designer. Both standard series custom designs are available.

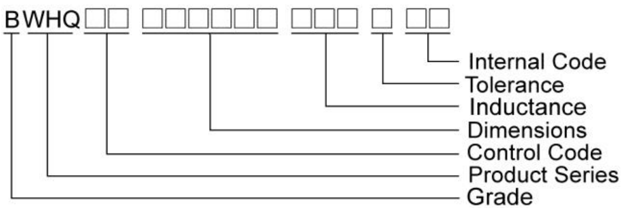
Features

- RoHS compliant.
- Ceramic body and wire wound construction provide highest SRFs
- Exceptional Q values even at high frequencies
- Highest possible SRFs as well as excellent Q values
- The non-magnetic coil form assures utmost thermal stability, predictability and batch consistency
- The highest Q factors and low RDC to fulfill the needs of mobile applications

Applications

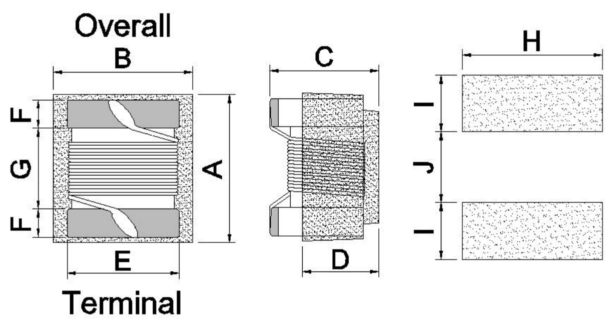
- RF products for cellular phone
- GPS receiver
- Base Station
- Repeater
- Wireless LAN/ mouse/ keyboard/ earphone
- Remote control
- Security system and other RF modules

Product Identification

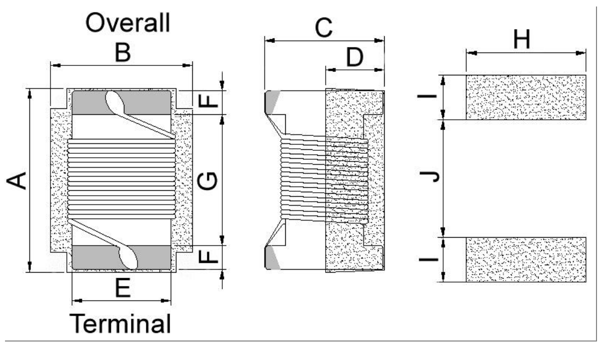


Shape and Dimensions/ Recommended Pattern

BWHQ00231816/ 302821



BWHQ00493834



Dimensions

		A Max	B Max	C Max	D	E	F	G	H	I	J
BWHQ00231816	inch	0.090	0.070	0.061	0.020	0.050	0.017	0.050	0.070	0.040	0.030
	mm	2.29	1.78	1.56	0.50	1.27	0.44	1.27	1.78	1.02	0.76
BWHQ00302821	inch	0.117	0.110	0.083	0.028	0.080	0.020	0.060	0.100	0.040	0.050
	mm	2.96	2.79	2.10	0.70	2.03	0.51	1.52	2.54	1.02	1.27
BWHQ00493834	inch	0.197	0.154	0.135	0.070	0.1	0.025	0.128	0.120	0.045	0.118
	mm	4.95	3.810	3.43	1.78	2.54	0.64	3.25	3.05	1.14	3.00

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max	Color
BWHQ002318162N5☐00	2.5	10 / 5	250	80	1500	6000	0.020	1600	Black
BWHQ002318165N6☐00	5.6	10 / 5	250	98	1500	6000	0.035	1600	Brown
BWHQ002318166N2☐00	6.2	10 / 5	250	88	1000	4750	0.035	1600	Red
BWHQ0023181612N☐00	12	10 / 5	250	80	1000	3000	0.045	1600	Orange
BWHQ0023181616N☐00	16	10 / 5 / 2	250	72	500	2950	0.060	1500	Yellow
BWHQ0023181618N☐00	18	10 / 5 / 2	250	75	500	2550	0.060	1400	Green
BWHQ0023181620N☐00	20	10 / 5 / 2	250	70	500	2050	0.055	1400	Blue
BWHQ0023181627N☐00	27	10 / 5 / 2	250	75	500	2000	0.070	1300	Violet
BWHQ0023181630N☐00	30	10 / 5 / 2	250	65	500	1950	0.095	1200	Gray
BWHQ0023181639N☐00	39	10 / 5 / 2	250	65	500	1600	0.095	1100	White
BWHQ0023181648N☐00	48	10 / 5 / 2	200	65	500	1400	0.110	1200	Black
BWHQ0023181651N☐00	51	10 / 5 / 2	200	65	500	1400	0.120	1000	Brown

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

L & Q：Agilent E4991A+Agilent HP16197A

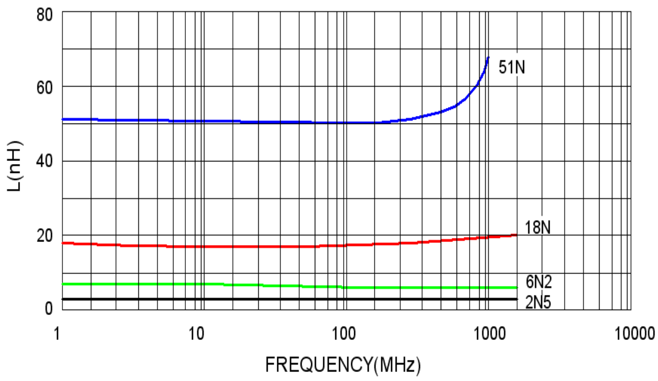
SRF：Agilent HP8753D/Agilent E4991A

RDC：HP 4338B or Chroma 16502

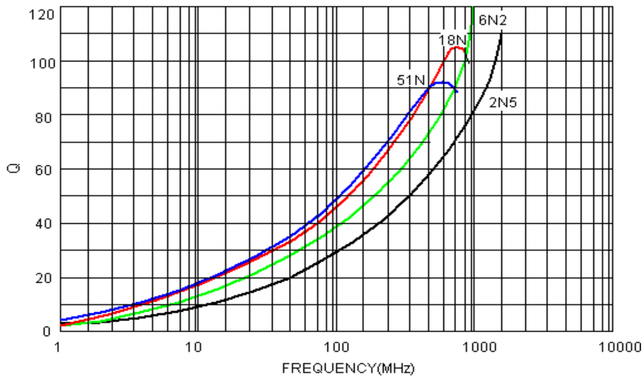
Irms：HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max	Color Coding 1ST	Color Coding 2ND	Color Coding 3RD
BWHQ003028214N1□00	4.1	10 / 5	50	75	1500	6000	0.05	1600	Black	Yellow	Black
BWHQ003028218N2□00	8.2	10 / 5	50	60	500	3600	0.06	1600	Gray	Red	White
BWHQ0030282110N□00	10	10 / 5	50	60	500	3600	0.06	1600	Brown	Black	Black
BWHQ0030282112N□00	12	10 / 5 / 2	50	70	500	2800	0.06	1500	Brown	Red	Black
BWHQ0030282118N□00	18	10 / 5 / 2	50	62	350	2700	0.07	1400	Brown	Gray	Black
BWHQ0030282122N□00	22	10 / 5 / 2	50	62	350	2050	0.07	1400	Red	Red	Black
BWHQ0030282133N□00	33	10 / 5 / 2	50	75	350	1700	0.09	1300	Orange	Orange	Black
BWHQ0030282139N□00	39	10 / 5 / 2	50	75	350	1300	0.09	1300	Orange	White	Black
BWHQ0030282147N□00	47	10 / 5 / 2	50	75	350	1450	0.12	1200	Yellow	Violet	Black
BWHQ0030282156N□00	56	10 / 5 / 2	50	75	350	1230	0.12	1200	Green	Blue	Black
BWHQ0030282168N□00	68	10 / 5 / 2	50	80	350	1150	0.13	1100	Blue	Gray	Black
BWHQ0030282182N□00	82	10 / 5 / 2	50	80	350	1060	0.16	1100	Gray	Red	Black
BWHQ00302821R10□00	100	10 / 5 / 2	50	62	350	1000	0.16	1000	Brown	Black	Brown
BWHQ00302821R12□00	120	10 / 5 / 2	25	50	100	950	0.20	1000	Brown	Red	Brown
BWHQ00302821R15□00	150	10 / 5 / 2	25	48	100	820	0.23	1000	Brown	Green	Brown
BWHQ00302821R22□00	220	10 / 5 / 2	25	48	100	730	0.45	1000	Red	Red	Brown
BWHQ00302821R27□00	270	10 / 5 / 2	25	48	100	650	0.50	900	Red	Violet	Brown
BWHQ00302821R33□00	330	10 / 5 / 2	25	48	100	570	0.65	900	Orange	Orange	Brown
BWHQ00302821R39□00	390	10 / 5 / 2	25	48	100	530	0.70	900	Orange	White	Brown

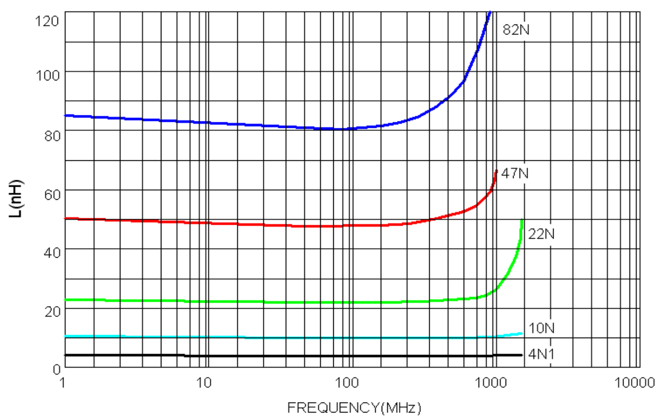
Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

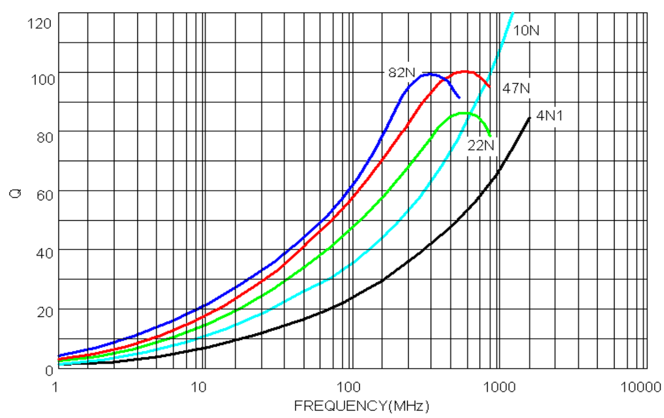
L & Q：Agilent E4991A+Agilent HP16197A
SRF：Agilent HP8753D/Agilent E4991A
RDC：HP 4338B or Chroma 16502
Irms：HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

*Typical **L** vs. Frequency*



*Typical **Q** vs. Frequency*



Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Typ.	Test Frequency (MHz)	SRF (MHz) Typ.	RDC (Ω) Max	Irms (mA) Max
BWHQ00493834-R15□00	150	2	75	50	860	0.100	1150
BWHQ00493834-R18□00	180	2	80	50	850	0.105	1150
BWHQ00493834-R22□00	220	2	80	50	700	0.110	940
BWHQ00493834-R27□00	270	2	85	50	730	0.120	940
BWHQ00493834-R33□00	330	2	80	50	600	0.135	850
BWHQ00493834-R39□00	390	2	80	50	600	0.150	850

Note: When ordering, please specify tolerance code. Tolerance : G=±2% ,

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：HP4286A/HP4287A/AgilentE4991/Keysight E4982A

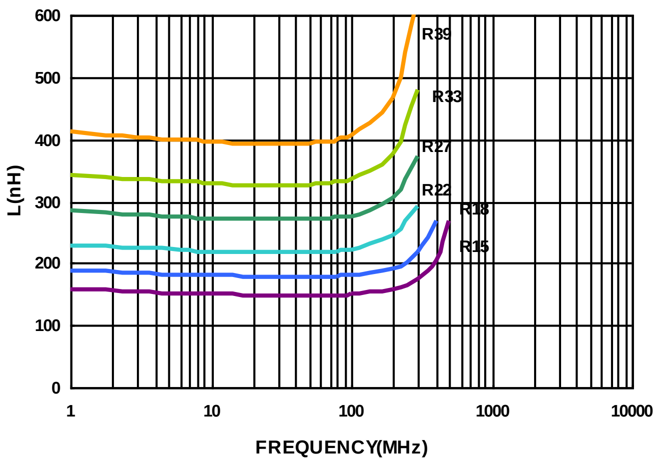
  SRF：Agilent HP8753D/AgilentE4991

  RDC：Chroma 16502

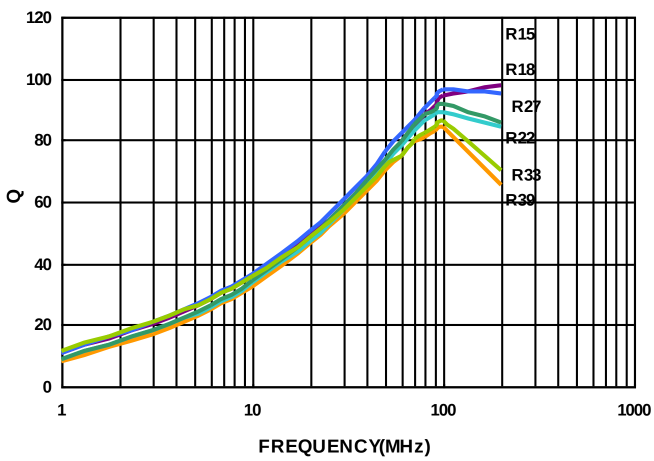
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency



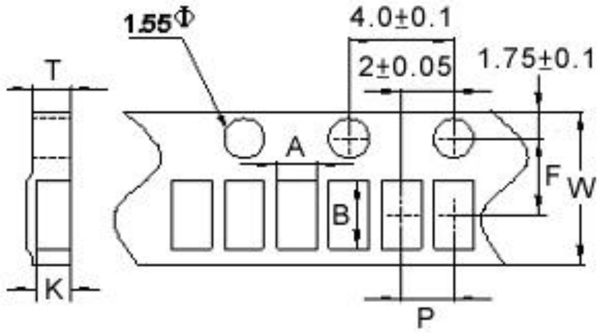
Typical Q vs. Frequency



Packaging Specifications

Tape Dimensions **Reel Dimensions**

Figure 1



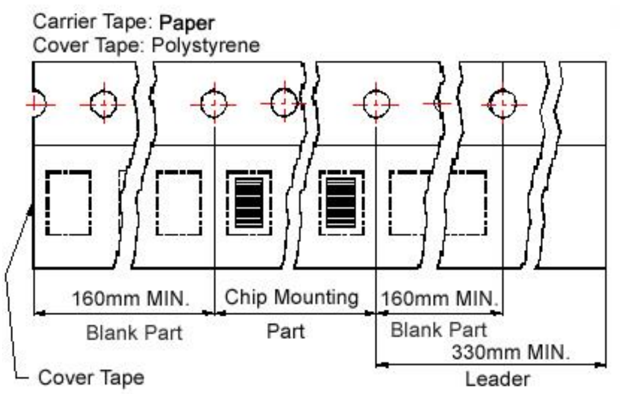
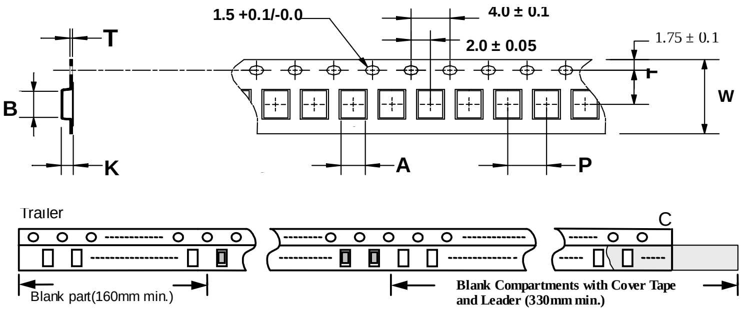
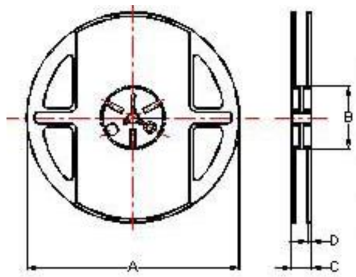


Figure 2





Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity
		A	B	T	W	P	F	K	A	B	C	D	PCS / REEL
BWHQ00231816	2	1.85	2.45	0.23	8	4	3.5	1.45	178	60	12	1.5	2000
BWHQ00302821	2	2.80	2.95	0.23	8	4	3.5	2.20	178	60	12	1.5	2000
BWHQ00493834	2	3.90	4.90	0.30	12	8	5.5	3.20	178	60	16	1.4	600

BWHC Series

Due to accurate wire winding technology, these chip inductors are designed for filtering, impedance matching, resonance and choke circuits for RF designer. Both standard series custom designs are available.

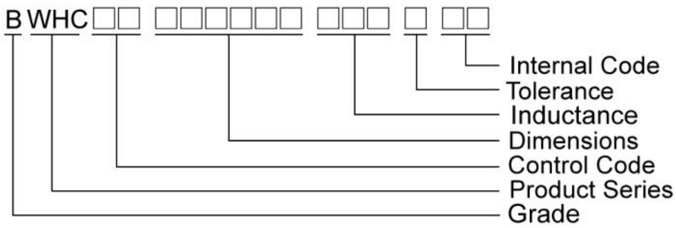
Features

- RoHS compliant
- Ceramic body and wire wound construction provide highest SRFs
- Exceptional Q values even at high frequencies
- Highest possible SRFs as well as excellent Q values
- The non-magnetic coil form assures utmost thermal stability, predictability and batch consistency
- The high current rating and low loss to fit the RF applications

Applications

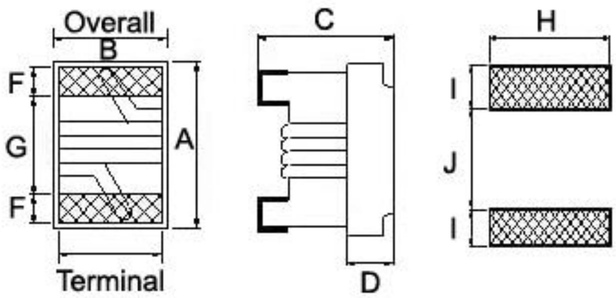
- RF products for cellular phone
- GPS receiver
- Base Station
- Repeater
- Wireless LAN/ mouse/ keyboard/ earphone
- Remote control
- Security system and other RF modules

Product Identification



Shape and Dimensions/ Recommended Pattern

BWHC00181210



Dimensions

		A Max	B Max	C Max	D	E	F	G	H	I	J
BWHC00181210	inch	0.071	0.049	0.04	0.015	0.030	0.013	0.034	0.040	0.025	0.025
	mm	1.80	1.25	1.02	0.38	0.76	0.33	0.86	1.02	0.64	0.64

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max	Color
BWHC001812101N6□00	1.6	10 / 5	250	24	250	12500	0.030	2400	Black
BWHC001812103N6□00	3.6	10 / 5	250	24	250	5900	0.048	2300	Brown
BWHC001812103N9□00	3.9	10 / 5	250	25	250	5900	0.054	2200	Red
BWHC001812104N3□00	4.3	10 / 5	250	25	250	5800	0.054	2100	Orange
BWHC001812106N8□00	6.8	10 / 5	250	35	250	5800	0.054	2100	Orange
BWHC001812107N5□00	7.5	10 / 5	250	35	250	3700	0.059	2100	Yellow
BWHC001812108N2□00	8.2	10 / 5	250	38	250	3700	0.071	2000	Brown
BWHC0018121010N□00	10	10 / 5 / 2	250	38	250	3700	0.071	2000	Green
BWHC0018121012N□00	12	10 / 5 / 2	250	38	250	3000	0.075	2000	Blue
BWHC0018121015N□00	15	10 / 5 / 2	250	38	250	2800	0.080	1900	Violet
BWHC0018121018N□00	18	10 / 5 / 2	250	40	250	2800	0.099	1900	Gray
BWHC0018121022N□00	22	10 / 5 / 2	250	42	250	2400	0.099	1800	White
BWHC0018121024N□00	24	10 / 5 / 2	250	42	250	2400	0.105	1800	Black

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Irms for a 20℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

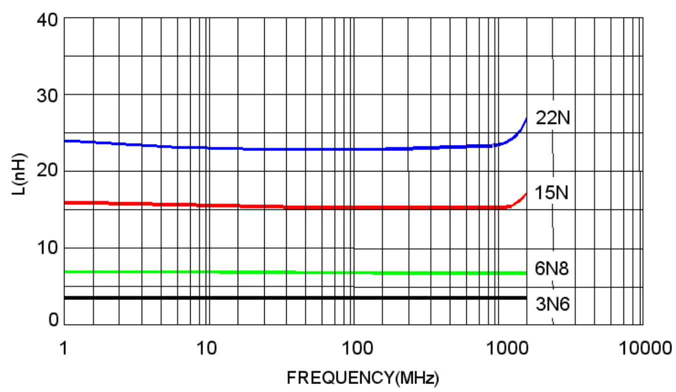
  SRF：Agilent HP8753D

  RDC：HP4338B or Chroma 16502

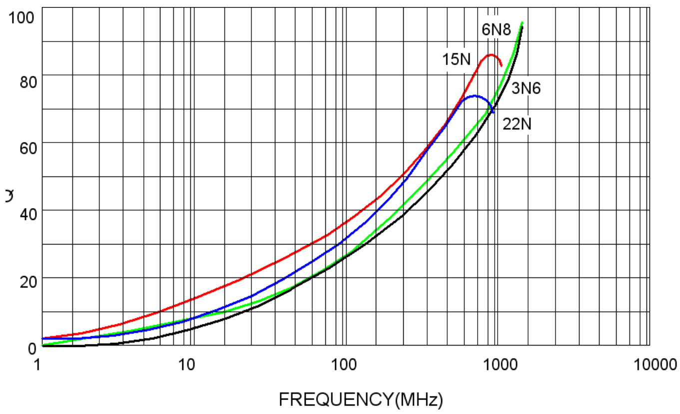
  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency

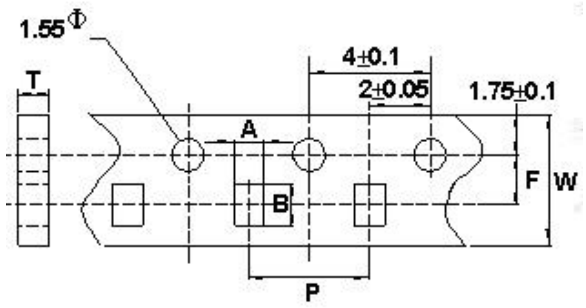


Typical Q vs. Frequency

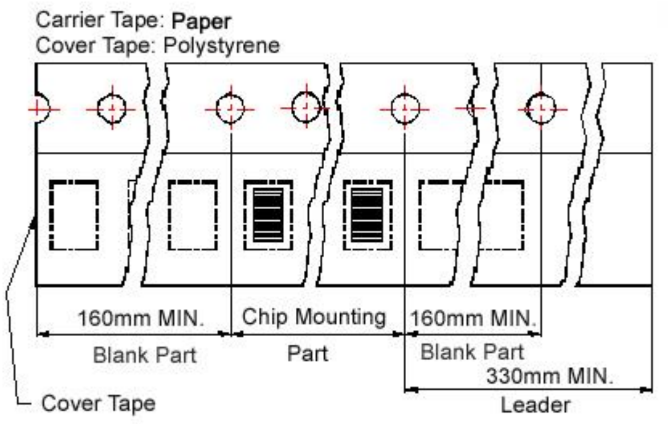


Packaging Specifications

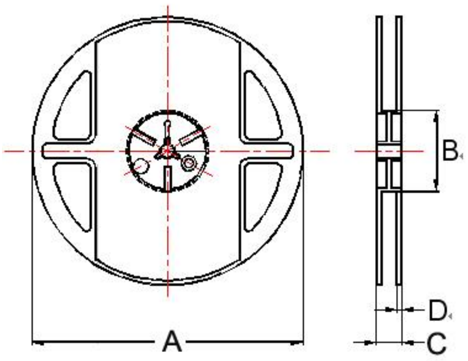
Tape Dimensions



Tape Material



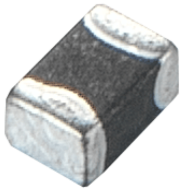
Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions						Reel Dimensions				Quantity
	A	B	T	W	P	F	A	B	C	D	PCS / REEL
BWHC00181210	1.25	1.90	1.05	8	4	3.5	178	60	12	1.5	4000

BSCL Series



The SMD multi-layered ferrite chip inductors provide a cost-effective solution for densely packed PC board designs. BSCL series comes in 4 sizes and is suitable for low frequency applications.

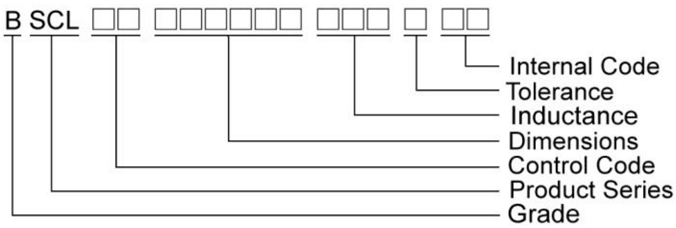
Features

- RoHS compliant
- High mounting density of compact circuit due to crosstalk elimination that results from a closed magnetic flux in a ferrite material
- Suitable for flow and re-flow soldering
- Available in 4 sizes

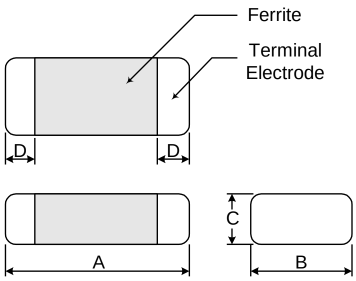
Applications

- Personal computers, HDDs, other various electronic devices
- Any portable device where compact size and high mounting densities are required

Product Identification



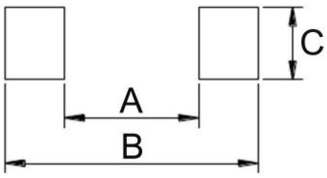
Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D
BSCL00160808	1.6±0.20	0.80±0.20	0.80±0.20	0.3±0.20
BSCL00201209	2.0±0.20	1.25±0.20	0.90±0.20	0.5±0.30
BSCL00201212	2.0±0.20	1.25±0.20	1.25±0.20	0.5±0.30
BSCL00321611	3.2±0.20	1.60±0.20	1.10±0.20	0.5±0.30

Recommended Pattern



Dimensions in mm

TYPE	A	B	C
BSCL00160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
BSCL00201209	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.4
BSCL00201212	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.2
BSCL00321611	2.0 ~ 2.4	4.2 ~ 5.2	1.3 ~ 1.9

Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCL0016080810N☐00	0.010	20	15	50	300	0.2	50
BSCL0016080833N☐00	0.033	20	15	50	270	0.2	50
BSCL0016080847N☐00	0.047	20	15	50	260	0.3	50
BSCL0016080856N☐00	0.056	20	15	50	255	0.3	50
BSCL0016080868N☐00	0.068	20	15	50	250	0.3	50
BSCL0016080882N☐00	0.082	20	15	50	245	0.3	50
BSCL00160808R10☐00	0.10	20 / 15 / 10	25	25	240	0.5	50
BSCL00160808R12☐00	0.12	20 / 15 / 10	25	25	205	0.5	50
BSCL00160808R15☐00	0.15	20 / 15 / 10	25	25	180	0.6	50
BSCL00160808R18☐00	0.18	20 / 15 / 10	25	25	165	0.6	50
BSCL00160808R22☐00	0.22	20 / 15 / 10	25	25	150	0.8	50
BSCL00160808R27☐00	0.27	20 / 15 / 10	25	25	136	0.8	50
BSCL00160808R33☐00	0.33	20 / 15 / 10	25	25	125	0.85	35
BSCL00160808R39☐00	0.39	20 / 15 / 10	25	25	110	1.00	35
BSCL00160808R47☐00	0.47	20 / 15 / 10	25	25	105	1.35	35
BSCL00160808R56☐00	0.56	20 / 15 / 10	25	25	95	1.50	35
BSCL00160808R68☐00	0.68	20 / 15 / 10	25	25	85	1.70	35
BSCL00160808R82☐00	0.82	20 / 15 / 10	25	25	75	2.10	35
BSCL001608081R0☐00	1.0	20 / 15 / 10	35	10	65	0.60	25
BSCL001608081R2☐00	1.2	20 / 15 / 10	35	10	60	0.80	25
BSCL001608081R5☐00	1.5	20 / 15 / 10	35	10	55	0.80	25
BSCL001608081R8☐00	1.8	20 / 15 / 10	35	10	50	0.95	25
BSCL001608082R2☐00	2.2	20 / 15 / 10	35	10	45	1.00	15
BSCL001608082R7☐00	2.7	20 / 15 / 10	35	10	40	1.15	15
BSCL001608083R3☐00	3.3	20 / 15 / 10	35	10	38	1.30	15
BSCL001608083R9☐00	3.9	20 / 15 / 10	35	10	36	1.50	15
BSCL001608084R7☐00	4.7	20 / 15 / 10	35	10	33	1.60	15
BSCL001608085R6☐00	5.6	20 / 15 / 10	35	4	22	1.10	5
BSCL001608086R8☐00	6.8	20 / 15 / 10	35	4	20	1.30	5
BSCL001608088R2☐00	8.2	20 / 15 / 10	30	4	18	1.50	5
BSCL00160808100☐00	10	20 / 15 / 10	30	2	17	1.70	5
BSCL00160808120☐00	12	20 / 15 / 10	30	2	15	1.80	3
BSCL00160808150☐00	15	20 / 15 / 10	20	1	14	1.50	1
BSCL00160808220☐00	22	20 / 15 / 10	20	1	11	1.70	1

Note: When ordering, please specify tolerance code. Tolerance : K=±10% , L=±15% , M=±20%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Measure Equipment：

  L & Q：HP4291A

  SRF：Agilent HP8753D/Agilent E4991A

  RDC：HP4338B or CHEN HWA 502

Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCL0020120922N☐00	0.022	20	20	50	320	0.20	300
BSCL0020120933N☐00	0.033	20 / 15	20	50	320	0.20	300
BSCL0020120947N☐00	0.047	20 / 15	20	50	320	0.20	300
BSCL0020120956N☐00	0.056	20 / 15	20	50	320	0.20	300
BSCL0020120968N☐00	0.068	20 / 15	20	50	280	0.20	300
BSCL0020120982N☐00	0.082	20 / 15	20	50	255	0.20	300
BSCL00201209R10☐00	0.10	20 / 15 / 10	25	25	235	0.30	250
BSCL00201209R12☐00	0.12	20 / 15 / 10	25	25	220	0.30	250
BSCL00201209R15☐00	0.15	20 / 15 / 10	25	25	200	0.40	250
BSCL00201209R18☐00	0.18	20 / 15 / 10	25	25	185	0.40	250
BSCL00201209R22☐00	0.22	20 / 15 / 10	25	25	170	0.50	250
BSCL00201209R27☐00	0.27	20 / 15 / 10	25	25	150	0.50	250
BSCL00201209R33☐00	0.33	20 / 15 / 10	25	25	145	0.55	250
BSCL00201209R39☐00	0.39	20 / 15 / 10	25	25	135	0.65	250
BSCL00201209R47☐00	0.47	20 / 15 / 10	25	25	125	0.65	250
BSCL00201209R56☐00	0.56	20 / 15 / 10	25	25	115	0.75	150
BSCL00201209R68☐00	0.68	20 / 15 / 10	25	25	105	0.80	150
BSCL00201209R82☐00	0.82	20 / 15 / 10	25	25	100	1.00	150
BSCL002012091R0☐00	1.0	20 / 15 / 10	45	10	75	0.40	50
BSCL002012091R2☐00	1.2	20 / 15 / 10	45	10	65	0.50	50
BSCL002012091R5☐00	1.5	20 / 15 / 10	45	10	60	0.50	50
BSCL002012091R8☐00	1.8	20 / 15 / 10	45	10	55	0.60	50
BSCL002012092R2☐00	2.2	20 / 15 / 10	45	10	50	0.65	30

Note: When ordering, please specify tolerance code. Tolerance : K=±10% , L=±15% , M=±20%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Measure Equipment：

L & Q：HP4291A

SRF：Agilent HP8753D/Agilent E4991A

RDC：HP4338B or CHEN HWA 502

Electrical Characteristics

Part Number	Inductance (µH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCL002012122R7☐00	2.7	20 / 15 / 10	45	10	45	0.75	30
BSCL002012123R3☐00	3.3	20 / 15 / 10	45	10	41	0.80	30
BSCL002012123R9☐00	3.9	20 / 15 / 10	45	10	38	0.90	30
BSCL002012124R7☐00	4.7	20 / 15 / 10	45	10	35	1.00	30
BSCL002012125R6☐00	5.6	20 / 15 / 10	45	4	32	0.90	15
BSCL002012126R8☐00	6.8	20 / 15 / 10	45	4	29	1.00	15
BSCL002012128R2☐00	8.2	20 / 15 / 10	45	4	26	1.10	15
BSCL00201212100☐00	10	20 / 15 / 10	45	2	24	1.10	15
BSCL00201212120☐00	12	20 / 15 / 10	45	2	22	1.20	15
BSCL00201212150☐00	15	20 / 15 / 10	30	1	19	0.80	5
BSCL00201212180☐00	18	20 / 15 / 10	30	1	18	0.90	5
BSCL00201212220☐00	22	20 / 15 / 10	30	1	16	1.1	5

Note: When ordering, please specify tolerance code. Tolerance : K=±10% , L=±15% , M=±20%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Measure Equipment：

  L & Q：HP4291A

  SRF：Agilent HP8753D/Agilent E4991A

  RDC：HP4338B or CHEN HWA 502

Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
BSCL0032161147N□00	0.047	20	20	50	320	0.15	300
BSCL0032161156N□00	0.056	20	20	50	280	0.25	300
BSCL0032161168N□00	0.068	20	20	50	280	0.25	300
BSCL0032161182N□00	0.082	20	20	50	250	0.25	300
BSCL00321611R10□00	0.10	20 / 15 / 10	25	25	235	0.25	250
BSCL00321611R12□00	0.12	20 / 15 / 10	25	25	220	0.30	250
BSCL00321611R15□00	0.15	20 / 15 / 10	25	25	200	0.30	250
BSCL00321611R18□00	0.18	20 / 15 / 10	25	25	185	0.40	250
BSCL00321611R22□00	0.22	20 / 15 / 10	25	25	170	0.40	250
BSCL00321611R27□00	0.27	20 / 15 / 10	25	25	150	0.50	250
BSCL00321611R33□00	0.33	20 / 15 / 10	25	25	145	0.60	250
BSCL00321611R39□00	0.39	20 / 15 / 10	25	25	135	0.50	200
BSCL00321611R47□00	0.47	20 / 15 / 10	25	25	125	0.60	200
BSCL00321611R56□00	0.56	20 / 15 / 10	25	25	115	0.70	150
BSCL00321611R68□00	0.68	20 / 15 / 10	25	25	105	0.80	150
BSCL00321611R82□00	0.82	20 / 15 / 10	25	25	100	0.90	150
BSCL003216111R0□00	1.0	20 / 15 / 10	45	10	75	0.40	100
BSCL003216111R2□00	1.2	20 / 15 / 10	45	10	65	0.50	100
BSCL003216111R5□00	1.5	20 / 15 / 10	45	10	60	0.50	80
BSCL003216111R8□00	1.8	20 / 15 / 10	45	10	55	0.50	70
BSCL003216112R2□00	2.2	20 / 15 / 10	45	10	50	0.60	60
BSCL003216112R7□00	2.7	20 / 15 / 10	45	10	45	0.60	60
BSCL003216113R3□00	3.3	20 / 15 / 10	45	10	41	0.70	60
BSCL003216113R9□00	3.9	20 / 15 / 10	45	10	38	0.80	50
BSCL003216114R7□00	4.7	20 / 15 / 10	45	10	35	0.90	50
BSCL003216115R6□00	5.6	20 / 15 / 10	45	4	32	0.70	25
BSCL003216116R8□00	6.8	20 / 15 / 10	45	4	29	0.80	25
BSCL003216118R2□00	8.2	20 / 15 / 10	45	4	26	0.90	25
BSCL00321611100□00	10	20 / 15 / 10	45	2	24	1.00	25
BSCL00321611120□00	12	20 / 15 / 10	45	2	22	1.00	15
BSCL00321611150□00	15	20 / 15 / 10	35	1	19	0.70	5
BSCL00321611180□00	18	20 / 15 / 10	35	1	18	0.75	5
BSCL00321611220□00	22	20 / 15 / 10	35	1	16	0.90	5
BSCL00321611270□00	27	20 / 15 / 10	35	1	14	0.90	5

Note: When ordering, please specify tolerance code. Tolerance : K=±10% , L=±15% , M=±20%

- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- IDC：Applied the current to coils, the inductance shall be less than 10% initial value
- Measure Equipment：

  L & Q：HP4291A

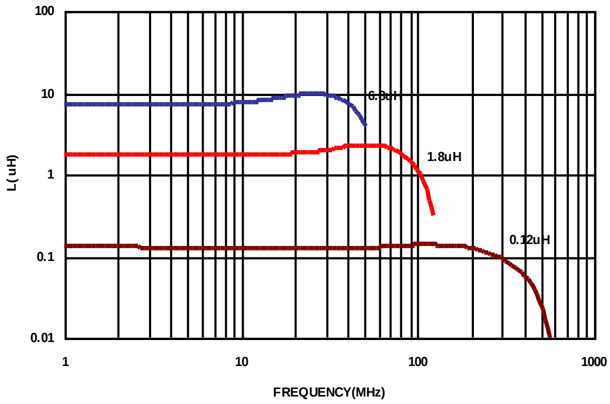
  SRF：Agilent HP8753D/Agilent E4991A

  RDC：HP4338B or CHEN HWA 502

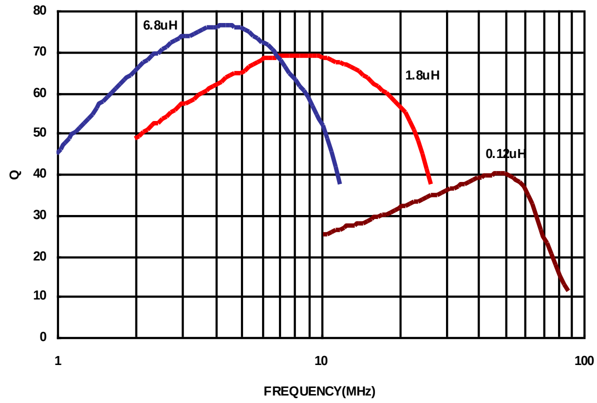
Test Instruments： Agilent E4991A Impedance / Material Analyzer

BSCL00160808

INDUCTANCE vs. FREQUENCY CHARACTERISTICS

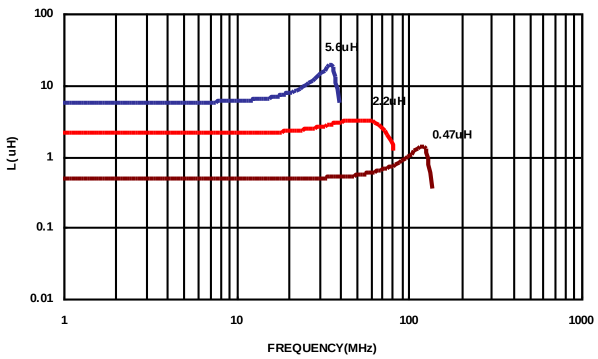


Q vs. FREQUENCY CHARACTERISTICS

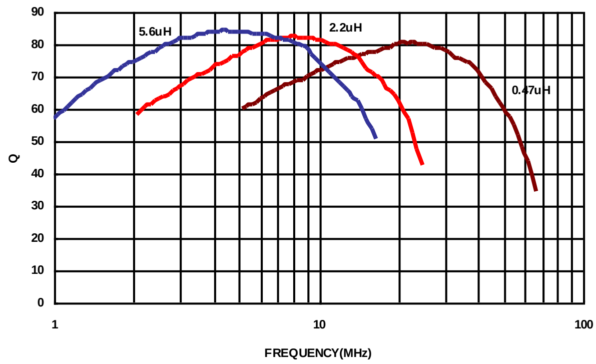


BSCL00201209

INDUCTANCE vs. FREQUENCY CHARACTERISTICS

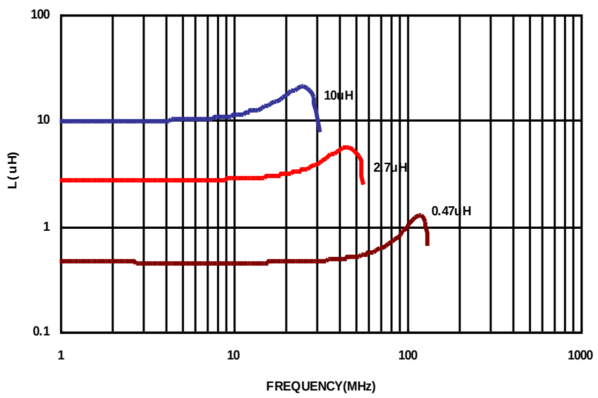


Q vs. FREQUENCY CHARACTERISTICS

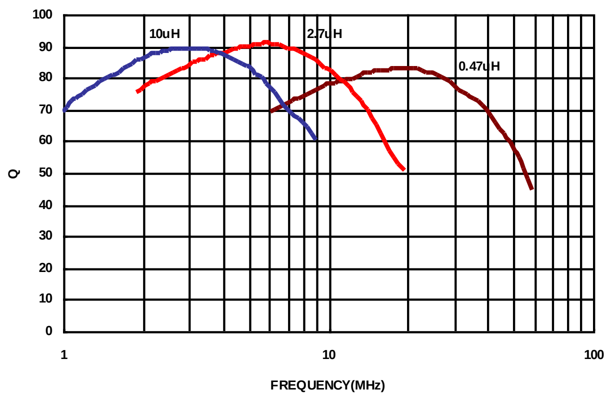


BSCL00321611

INDUCTANCE vs. FREQUENCY CHARACTERISTICS

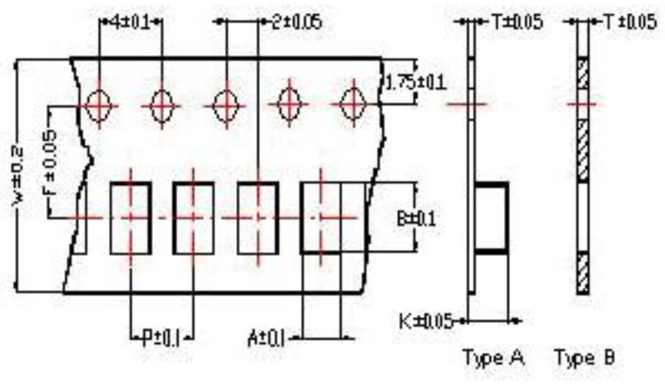


Q vs. FREQUENCY CHARACTERISTICS



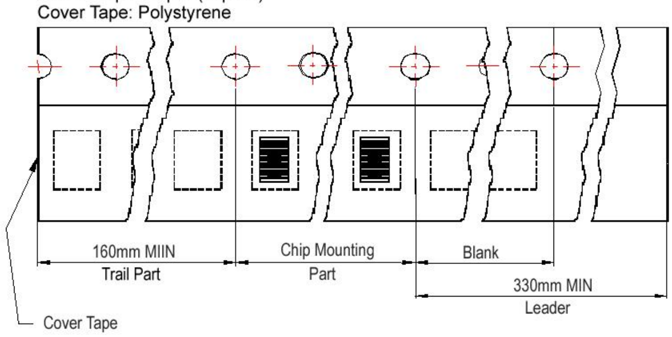
Packaging Specifications

Tape Dimensions

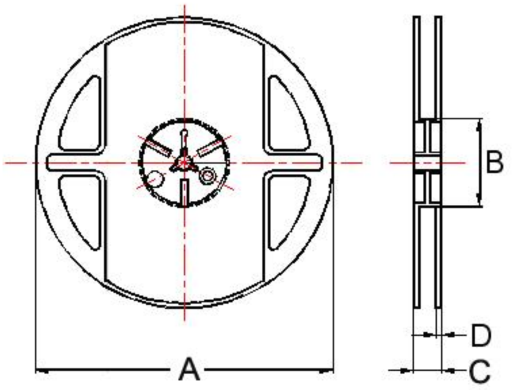


Tape Material

Carrier Tape: Polycarbonate (Tape A)
Carrier Tape: Paper (Tape B)
Cover Tape: Polystyrene



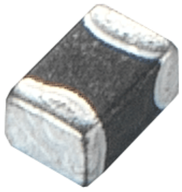
Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity
	A	B	T	W	P	F	K	Tape	A	B	C	D	PCS / Reel
BSCL00160808	1.05	1.85	0.95	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
BSCL00201209	1.50	2.30	0.97	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
BSCL00201212	1.35	2.25	0.22	8.0	4.0	3.5	1.35	A	178	60	12	1.5	3000
BSCL00321611	1.88	3.50	0.22	8.0	4.0	3.5	1.27	A	178	60	12	1.5	3000

BSCY Series



The SMD multi-layered ferrite chip inductors provide a cost-effective solution for densely packed PC board designs. BSCY series comes in 3 sizes and is suitable for low frequency applications.

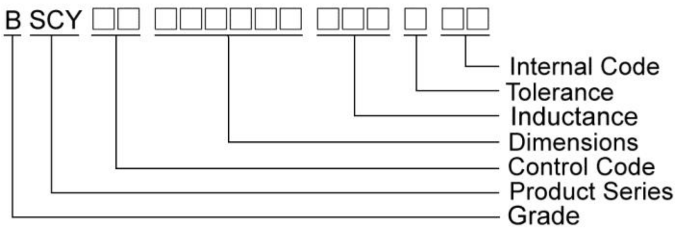
Features

- RoHS compliant
- High mounting density of compact circuit due to crosstalk elimination that results from a closed magnetic flux in a ferrite material
- Suitable for flow and re-flow soldering
- Available in 3 sizes

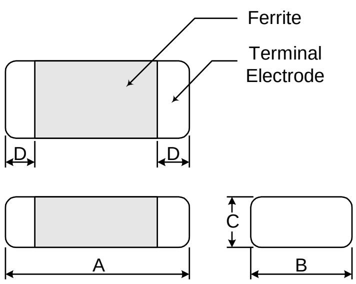
Applications

- Personal computers, HDDs, other various electronic devices
- Any portable device where compact size and high mounting densities are required

Product Identification



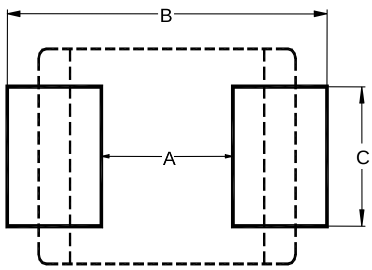
Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D
BSCY00160808	1.6±0.2	0.80±0.2	0.80±0.2	0.3±0.2
BSCY00201209	2.0±0.2	1.25±0.2	0.90±0.2	0.5±0.3
BSCY00201212	2.0±0.2	1.25±0.2	1.25±0.2	0.5±0.3

Recommended Pattern



Dimensions in mm

TYPE	A	B	C
BSCL00160808	0.7 ~ 0.8	1.8 ~ 2.0	0.6 ~ 0.8
BSCL00201209	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.4
BSCL00201212	1.0 ~ 1.2	2.6 ~ 4.0	1.0 ~ 1.2

Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) Max	Rated Current (mA) Max
BSCY001608082R2☐CP	2.2	30 / 20	1	0.20	1000
BSCY001608084R7☐CP	4.7	30 / 20	1	0.25	800
BSCY00160808100☐CP	10	30 / 20	1	0.90	90

Note: When ordering, please specify tolerance code. Tolerance : M=±20% , T=±30%

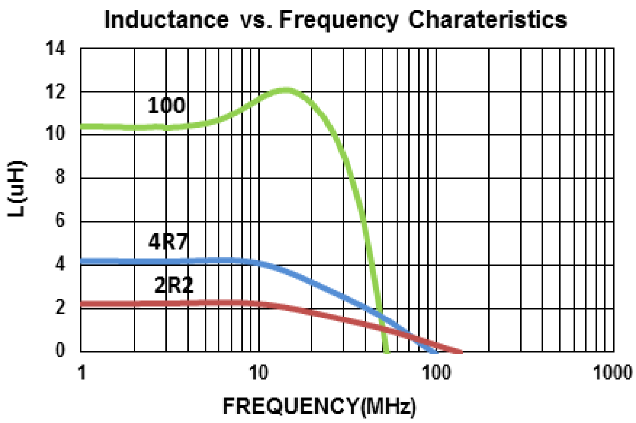
- Operating temperature range - 40℃ ~ 105℃(Including self - temperature rise)
- Rated Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

  L & Q：HP4291A

  SRF：Agilent HP8753D/Agilent E4991A

  RDC：HP4338B or CHEN HWA 502

Test Instruments：Agilent E4991A Impedance / Material Analyzer



Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) Max	Rated Current (mA) Max
BSCY002012091R0☐CP	1.0	30 / 20	1	0.06	2200
BSCY002012092R2☐CP	2.2	30 / 20	1	0.10	2000
BSCY002012094R7☐CP	4.7	30 / 20	1	0.30	900

Note: When ordering, please specify tolerance code. Tolerance : M=±20% , T=±30%

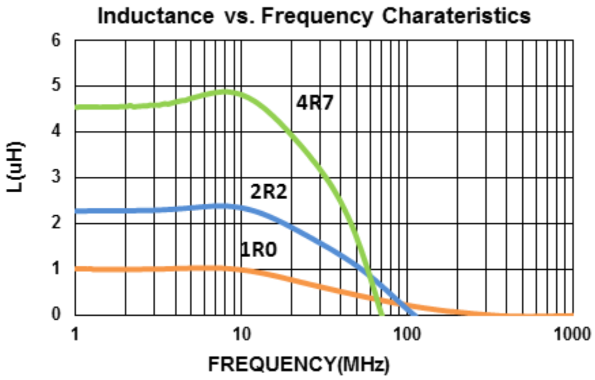
- Operating temperature range - 40℃ ~ 105℃(Including self - temperature rise)
- Rated Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

  L & Q：HP4291A

  SRF：Agilent HP8753D/Agilent E4991A

  RDC：HP4338B or CHEN HWA 502

Test Instruments：Agilent E4991A Impedance / Material Analyzer



Electrical Characteristics

Part Number	Inductance (μH)	Tolerance (±%)	Test Frequency (MHz)	RDC (Ω) Max	Rated Current (mA) Max
BSCY00201212100☐CP	10	30 / 20	1	0.50	400

Note: When ordering, please specify tolerance code. Tolerance : M=±20% , T=±30%

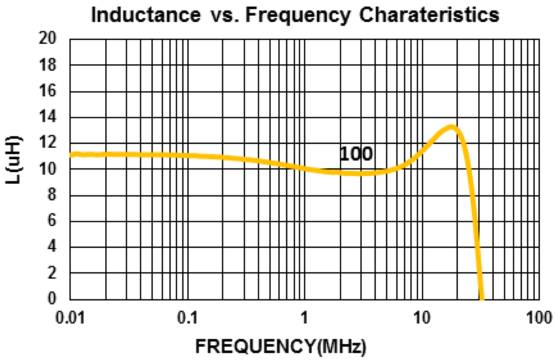
- Operating temperature range - 40℃ ~ 105℃(Including self - temperature rise)
- Rated Current：Applied the current to coils, the temperature rise shall not be more than 30℃
- Measure Equipment：

  L & Q：HP4291A

  SRF：Agilent HP8753D/Agilent E4991A

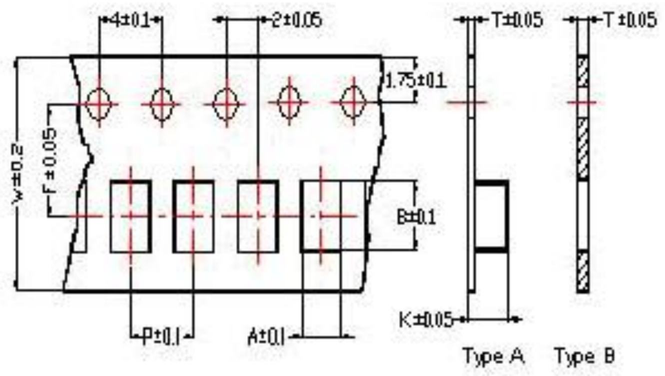
  RDC：HP4338B or CHEN HWA 502

Test Instruments：Agilent E4991A Impedance / Material Analyzer



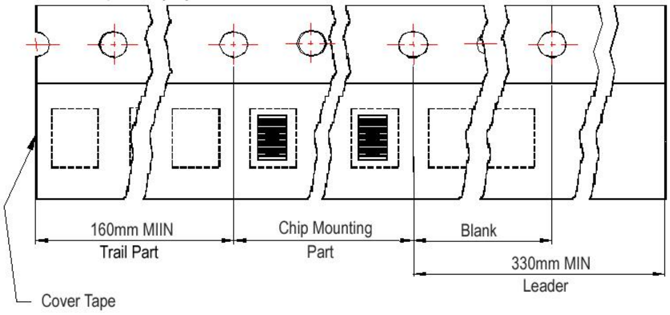
Packaging Specifications

Tape Dimensions

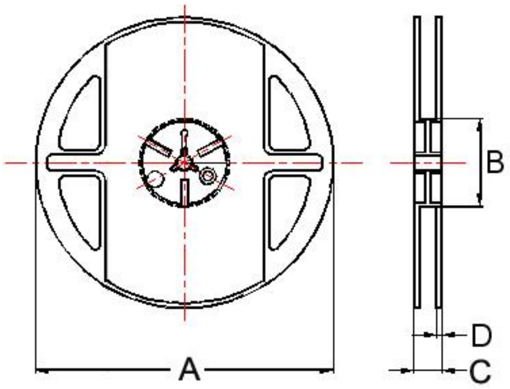


Tape Material

Carrier Tape: Polycarbonate (Tape A)
Carrier Tape: Paper (Tape B)
Cover Tape: Polystyrene



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity
	A	B	T	W	P	F	K	Tape	A	B	C	D	PCS / Reel
BSCY00160808	1.05	1.85	0.95	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
BSCY00201209	1.50	2.30	0.97	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
BSCY00201212	1.35	2.25	0.22	8.0	4.0	3.5	1.35	A	178	60	12	1.5	3000

BWNL Series

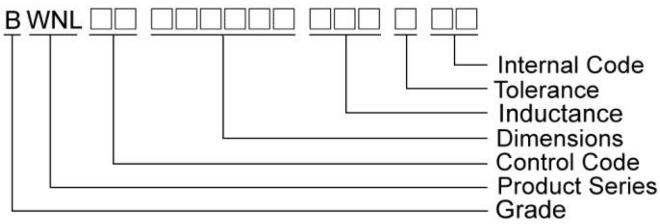
Features

- RoHS compliant
- Strong solderability by reflow soldering and soldering iron
- Highly accurate dimensions
- Can be mounted automatically
- Terminals are highly resistant to external forces
- Highly resistant to mechanical shocks and pressure
- Highly reliable in environments of sudden temperature change and humidity
- Superior Q characteristics and the broadest L selections among peers

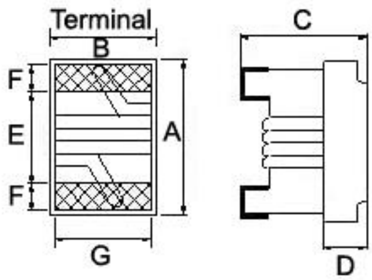
Applications

- Microtelevisions
- Liquid crystal televisions
- Video cameras
- Portable VCRs
- Car radios
- Car stereos
- Thin tape radios
- Television tuners
- Mobile telephones
- Radio and other electronic devices

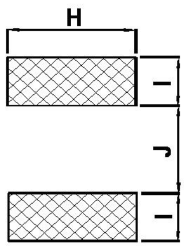
Product Identification



Shape and Dimensions



Recommended Pattern



Dimensions in mm

TYPE	A Max	B Max	C Max	D	E	F	G	H	I	J
BWNL00241715	2.40	1.72	1.52	0.70	1.02	0.50	1.27	1.78	1.02	0.76
BWNL00292822	2.92	2.79	2.20	0.70	1.50	0.50	2.00	2.54	1.02	1.27
BWNL00292522	2.92	2.50	2.20	0.70	1.50	0.50	2.00	2.54	1.02	1.27

BWNL00292822: at 5N0~R10,
BWNL00292522: at R12~101

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA)	Color
BWNL00241715R12☐00	0.12	10 / 5	25	25.2	500	0.20	600	White
BWNL00241715R15☐00	0.15	10 / 5	25	25.2	450	0.25	600	Black
BWNL00241715R18☐00	0.18	10 / 5	25	25.2	410	0.30	570	Brown
BWNL00241715R22☐00	0.22	10 / 5	25	25.2	350	0.35	550	Red
BWNL00241715R27☐00	0.27	10 / 5	25	25.2	280	0.40	530	Orange
BWNL00241715R33☐00	0.33	10 / 5	25	25.2	235	0.45	510	Yellow
BWNL00241715R39☐00	0.39	10 / 5	25	25.2	210	0.50	490	Green
BWNL00241715R47☐00	0.47	10 / 5	25	25.2	170	0.55	470	Blue
BWNL00241715R56☐00	0.56	10 / 5	25	25.2	150	0.60	450	Violet
BWNL00241715R68☐00	0.68	10 / 5	25	25.2	140	0.70	420	Gray
BWNL00241715R82☐00	0.82	10 / 5	25	25.2	130	0.75	400	White
BWNL002417151R0☐00	1.00	10 / 5	15	7.96	115	0.80	350	Black
BWNL002417151R2☐00	1.20	10 / 5	15	7.96	95	0.90	325	Brown
BWNL002417151R5☐00	1.50	10 / 5	15	7.96	85	1.05	300	Red
BWNL002417151R8☐00	1.80	10 / 5	15	7.96	80	1.20	270	Orange
BWNL002417152R2☐00	2.20	10 / 5	15	7.96	75	1.40	250	Yellow
BWNL002417152R7☐00	2.70	10 / 5	15	7.96	70	1.60	230	Green
BWNL002417153R3☐00	3.30	10 / 5	15	7.96	60	1.80	210	Blue
BWNL002417153R9☐00	3.90	10 / 5	15	7.96	55	2.00	190	Violet
BWNL002417154R7☐00	4.70	10 / 5	15	7.96	45	2.40	170	Gray
BWNL002417155R6☐00	5.60	10 / 5	15	7.96	40	2.70	150	White
BWNL002417156R8☐00	6.80	10 / 5	15	7.96	36	3.20	140	Black
BWNL002417158R2☐00	8.20	10 / 5	15	7.96	33	3.60	120	Brown
BWNL00241715100☐00	10.0	10 / 5	15	2.52	30	4.50	110	Red
BWNL00241715120☐00	12.0	10 / 5	15	2.52	25	5.70	105	Orange
BWNL00241715150☐00	15.0	10 / 5	15	2.52	23	6.50	90	Yellow
BWNL00241715180☐00	18.0	10 / 5	15	2.52	21	7.00	85	Green
BWNL00241715220☐00	22.0	10 / 5	15	2.52	20	8.00	78	Blue
BWNL00241715270☐00	27.0	10 / 5	15	2.52	18	9.00	75	Violet
BWNL00241715330☐00	33.0	10 / 5	15	2.52	17	10.0	70	Gray

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 25℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent E4991A

  RDC：HP4338B or Chroma 16502

Electrical Characteristics

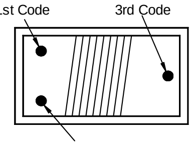
Part Number	Inductance (uH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA)	Color Coding		
								1^{ST}	2^{ND}	3^{RD}
BWNL002928225N0□00	0.005	10	10	100	3000	0.25	2000	Black	Green	Black
BWNL0029282210N□00	0.010	10	10	100	2500	0.25	1800	Brown	Black	Black
BWNL0029282212N□00	0.012	10	15	100	2400	0.26	1700	Brown	Red	Black
BWNL0029282215N□00	0.015	10	15	100	2300	0.28	1600	Brown	Green	Black
BWNL0029282218N□00	0.018	10	15	100	2200	0.30	1550	Brown	Gray	Black
BWNL0029282222N□00	0.022	10 / 5	20	100	2100	0.35	1500	Red	Red	Black
BWNL0029282227N□00	0.027	10 / 5	20	100	2000	0.40	1450	Red	Violet	Black
BWNL0029282233N□00	0.033	10 / 5	30	100	1600	0.42	1400	Orange	Orange	Black
BWNL0029282239N□00	0.039	10 / 5	35	100	1500	0.45	1350	Orange	White	Black
BWNL0029282247N□00	0.047	10 / 5	35	100	1400	0.50	1300	Yellow	Violet	Black
BWNL0029282256N□00	0.056	10 / 5	35	100	1300	0.60	1250	Green	Blue	Black
BWNL0029282268N□00	0.068	10 / 5	35	100	1200	0.65	1240	Blue	Gray	Black
BWNL0029282282N□00	0.082	10 / 5	35	100	1100	0.75	1230	Gray	Red	Black
BWNL00292822R10□00	0.10	10 / 5	35	100	800	0.80	1220	Brown	Black	Brown
BWNL00292522R12□00	0.12	10 / 5	30	25.2	700	0.30	900	Brown	Red	Brown
BWNL00292522R15□00	0.15	10 / 5	30	25.2	550	0.35	900	Brown	Green	Brown
BWNL00292522R18□00	0.18	10 / 5	30	25.2	500	0.40	850	Brown	Gray	Brown
BWNL00292522R22□00	0.22	10 / 5	30	25.2	450	0.50	840	Red	Red	Brown
BWNL00292522R27□00	0.27	10 / 5	30	25.2	425	0.55	830	Red	Violet	Brown
BWNL00292522R33□00	0.33	10 / 5	30	25.2	400	0.60	820	Orange	Orange	Brown
BWNL00292522R39□00	0.39	10 / 5	30	25.2	375	0.65	810	Orange	White	Brown
BWNL00292522R47□00	0.47	10 / 5	30	25.2	350	0.68	800	Yellow	Violet	Brown
BWNL00292522R56□00	0.56	10 / 5	30	25.2	325	0.75	800	Green	Blue	Brown
BWNL00292522R68□00	0.68	10 / 5	30	25.2	300	0.85	800	Blue	Gray	Brown
BWNL00292522R82□00	0.82	10 / 5	30	25.2	260	1.0	800	Gray	Red	Brown
BWNL002925221R0□00	1.0	10 / 5	25	7.96	245	1.1	800	Brown	Black	Red
BWNL002925221R2□00	1.2	10 / 5	25	7.96	230	1.2	790	Brown	Red	Red
BWNL002925221R5□00	1.5	10 / 5	25	7.96	182	1.3	750	Brown	Green	Red
BWNL002925221R8□00	1.8	10 / 5	25	7.96	135	1.45	750	Brown	Gray	Red
BWNL002925222R2□00	2.2	10 / 5	25	7.96	105	1.55	750	Red	Red	Red
BWNL002925222R7□00	2.7	10 / 5	25	7.96	70	1.7	740	Red	Violet	Red
BWNL002925223R3□00	3.3	10 / 5	25	7.96	55	1.9	730	Orange	Orange	Red
BWNL002925223R9□00	3.9	10 / 5	25	7.96	48	2.1	700	Orange	White	Red
BWNL002925224R7□00	4.7	10 / 5	25	7.96	43	2.3	650	Yellow	Violet	Red

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 25℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Measure Equipment：

  L & Q：HP4291A/HP4285A

  SRF：HP4291A/HP8753D



COLOR CODING

RDC：HP4338B or Chroma 16502

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA)	Color Coding 1ST	Color Coding 2ND	Color Coding 3RD
BWNL002925225R6□00	5.6	10 / 5	20	7.96	42	2.5	640	Green	Blue	Red
BWNL002925226R8□00	6.8	10 / 5	20	7.96	39	2.7	630	Blue	Gray	Red
BWNL002925228R2□00	8.2	10 / 5	20	7.96	36	3.05	600	Gray	Red	Red
BWNL00292522100□00	10	10 / 5	15	2.52	33	3.5	600	Brown	Black	Orange
BWNL00292522120□00	12	10 / 5	15	2.52	30	3.8	550	Brown	Red	Orange
BWNL00292522150□00	15	10 / 5	15	2.52	26	4.4	430	Brown	Green	Orange
BWNL00292522180□00	18	10 / 5	15	2.52	24	4.8	400	Brown	Gray	Orange
BWNL00292522220□00	22	10 / 5	15	2.52	22	5.5	400	Red	Red	Orange
BWNL00292522270□00	27	10 / 5	15	2.52	21	6.3	360	Red	Violet	Orange
BWNL00292522330□00	33	10 / 5	15	2.52	20	7.1	350	Orange	Orange	Orange
BWNL00292522390□00	39	10 / 5	10	2.52	18	9.5	330	Orange	White	Orange
BWNL00292522470□00	47	10 / 5	10	2.52	17	11.1	300	Yellow	Violet	Orange
BWNL00292522560□00	56	10 / 5	10	2.52	16	12.1	270	Green	Blue	Orange
BWNL00292522680□00	68	10 / 5	10	2.52	15	16.6	250	Blue	Gray	Orange
BWNL00292522820□00	82	10 / 5	10	2.52	13	19	200	Gray	Red	Orange
BWNL00292522101□00	100	10 / 5	8	0.796	12	21	120	Brown	Black	Yellow

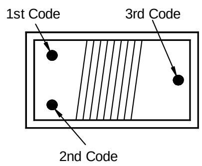
ote: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 25℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Measure Equipment：

  L & Q：HP4291A/HP4285A

  SRF：HP4291A/HP8753D

  RDC：HP4338B or Chroma 16502

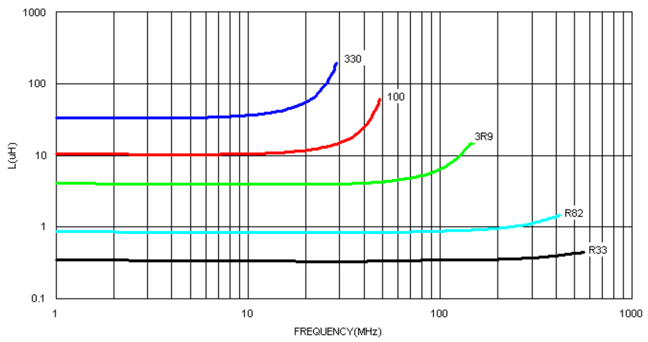


COLOR CODING

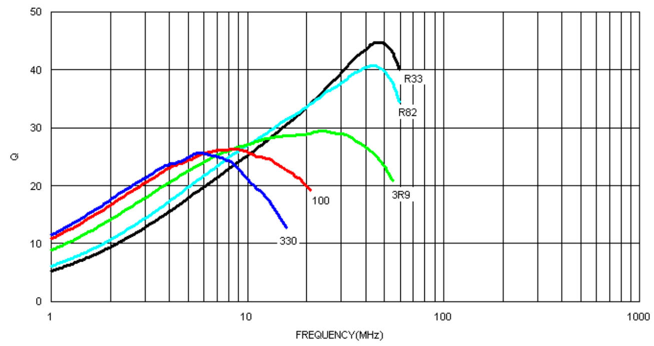
Test Instruments： Agilent E4991A Material/Impedance Analyzer

BWNL00241715

Typical L vs. Frequency

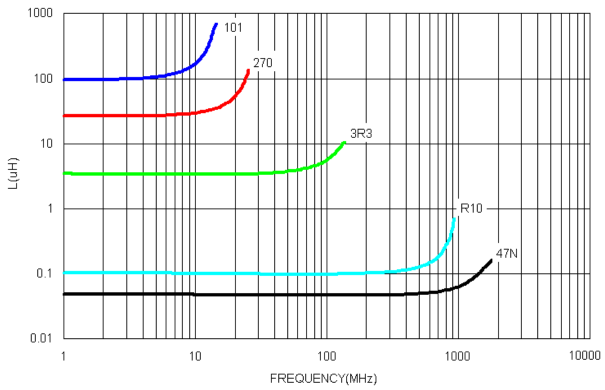


Typical Q vs. Frequency

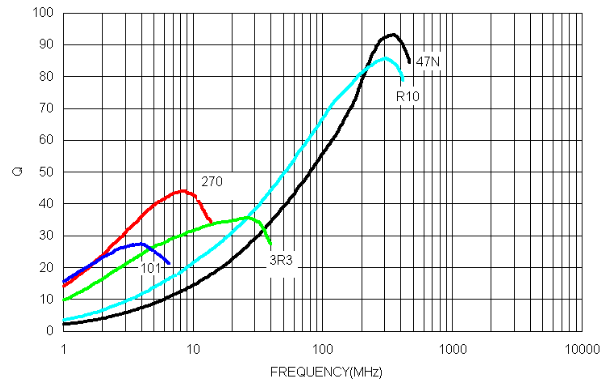


BWNL00292522

Typical L vs. Frequency

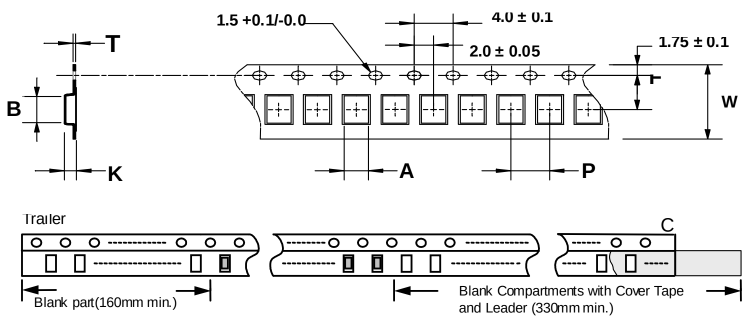


Typical Q vs. Frequency

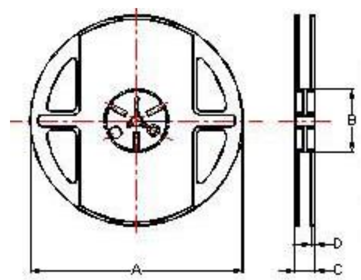


Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity
	A	B	T	W	P	F	K	A	B	C	D	PCS / Reel
BWNL00241715	1.85	2.45	0.23	8	4	3.5	1.45	178	60	12	1.5	2000
BWNL00292822(5N0~R10)	2.80	2.95	0.23	8	4	3.5	2.20	178	60	12	1.5	2000
BWNL00292522(R12~101)	2.40	2.93	0.26	8	4	3.5	2.25	178	60	12	1.5	2000

BWNC Series

The characteristics of this series perform low RDC and carry large current. These unique open type inductors offer many superior features in opposition to the molding type one of Japanese peers.

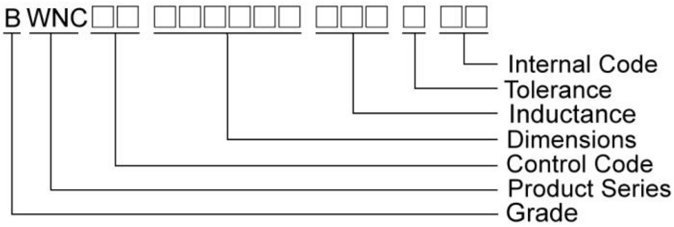
Features

- RoHS compliant
- Very strong solderability by reflow soldering and soldering iron
- Highly accurate dimensions can be mounted automatically
- Terminals are highly resistant to pull forces
- Highly resistant to mechanical shocks and pressure
- Highly reliable in environments of sudden temperature change and humidity
- Superior IDC for DC/DC converter

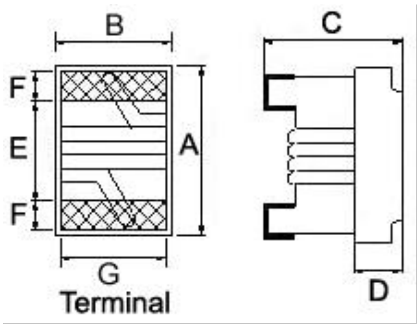
Applications

- DC/DC converter such as DSC
- LCD TV
- Game console
- Portable VCRs
- Conveyable telephone and others

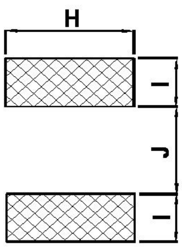
Product Identification



Shape and Dimensions



Recommended Pattern



Dimensions in mm

TYPE	A Max	B Max	C Max	D	E	F	G	H	I	J
BWNC00292522	2.92	2.50	2.20	0.7	1.5	0.5	2.0	2.54	1.02	1.27
BWNC00372926	3.70	2.90	2.60	0.7	2.0	0.6	2.4	2.70	1.00	2.00

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA)	Color Coding 1ST	2ND	3RD
BWNC002925221R0□00	1.0	10 / 5	25	7.96	300	0.34	1500	Brown	Black	Red
BWNC002925221R2□00	1.2	10 / 5	25	7.96	280	0.40	1400	Brown	Red	Red
BWNC002925221R5□00	1.5	10 / 5	25	7.96	270	0.42	1400	Brown	Green	Red
BWNC002925221R8□00	1.8	10 / 5	25	7.96	150	0.45	1200	Brown	Gray	Red
BWNC002925222R2□00	2.2	10 / 5	25	7.96	140	0.50	1200	Red	Red	Red
BWNC002925223R3□00	3.3	10 / 5	25	7.96	95	0.65	1000	Orange	Orange	Red
BWNC002925224R7□00	4.7	10 / 5	25	7.96	90	0.80	800	Yellow	Violet	Red
BWNC002925226R8□00	6.8	10 / 5	25	7.96	68	1.00	730	Blue	Gray	Red
BWNC00292522100□00	10	10 / 5	20	2.52	45	1.50	700	Brown	Black	Orange
BWNC00292522150□00	15	10 / 5	20	2.52	40	2.20	500	Brown	Green	Orange
BWNC00292522220□00	22	10 / 5	20	2.52	25	2.70	470	Red	Red	Orange
BWNC00292522330□00	33	10 / 5	20	2.52	25	4.00	400	Orange	Orange	Orange
BWNC00292522390□00	39	10 / 5	16	2.52	20	7.00	320	Orange	White	Orange
BWNC00292522470□00	47	10 / 5	16	2.52	20	8.00	300	Yellow	Violet	Orange

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range－40℃～105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Measure Equipment：

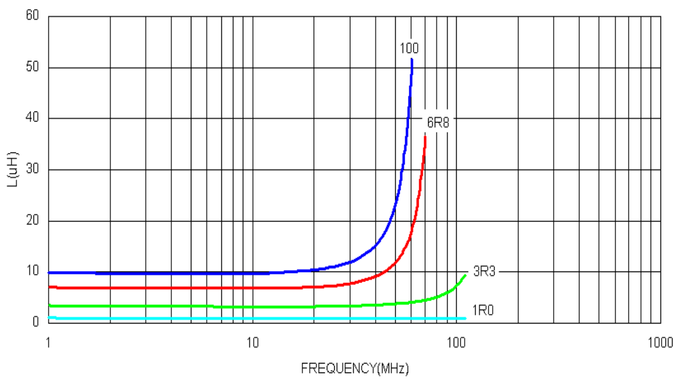
L & Q：Agilent HP4291A/Agilent HP4285A+Agilent HP16197A

SRF：Agilent HP4291A

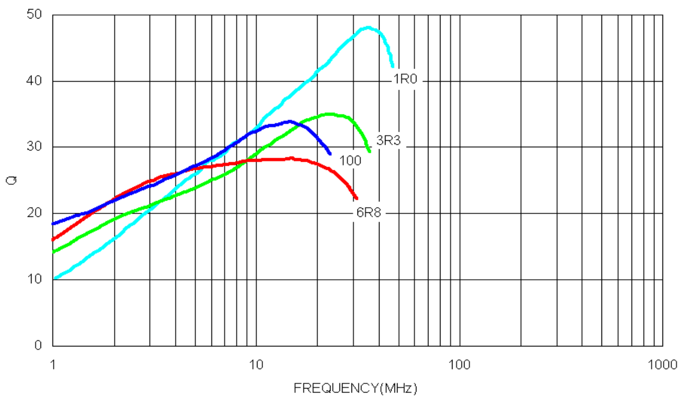
RDC：HP4338B or Chroma 16502

Test Instruments：Agilent HP4291A Material/Impedance Analyzer

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (MHz) Typ.	RDC (Ω)±30%	IDC (mA)	Color Coding 1ST	Color Coding 2ND	Color Coding 3RD
BWNC00372926R33□00	0.33	5 / 10 / 20	40	25.2	650	0.07	1600	Orange	Orange	Brown
BWNC00372926R47□00	0.47	5 / 10	40	25.2	450	0.07	1800	Yellow	Violet	Brown
BWNC003729261R0□00	1.0	5 / 10	20	7.96	100	0.08	1500	Brown	Black	Red
BWNC003729261R2□00	1.2	5 / 10	20	7.96	90	0.12	1400	Brown	Red	Red
BWNC003729261R5□00	1.5	5 / 10	20	7.96	80	0.13	1125	Brown	Green	Red
BWNC003729261R8□00	1.8	5 / 10	20	7.96	70	0.13	970	Brown	Gray	Red
BWNC003729262R2□00	2.2	5 / 10	20	7.96	68	0.13	970	Red	Red	Red
BWNC003729262R7□00	2.7	5 / 10	20	7.96	62	0.15	900	Red	Violet	Red
BWNC003729263R3□00	3.3	5 / 10	20	7.96	54	0.16	837	Orange	Orange	Red
BWNC003729264R7□00	4.7	5 / 10	20	7.96	43	0.23	675	Yellow	Violet	Red
BWNC003729265R6□00	5.6	5 / 10	20	7.96	36	0.26	620	Green	Blue	Red
BWNC003729266R8□00	6.8	5 / 10	20	7.96	33	0.27	600	Blue	Gray	Red
BWNC003729268R2□00	8.2	5 / 10	20	7.96	30	0.32	580	Gray	Red	Red
BWNC00372926100□00	10	5 / 10	15	2.52	28	0.36	520	Brown	Black	Orange
BWNC00372926120□00	12	5 / 10	15	2.52	25	0.50	500	Brown	Red	Orange
BWNC00372926150□00	15	5 / 10	15	2.52	19	0.56	480	Brown	Green	Orange
BWNC00372926180□00	18	5 / 10	15	2.52	17	0.67	330	Brown	Gray	Orange
BWNC00372926220□00	22	5 / 10	15	2.52	16	0.77	310	Red	Red	Orange
BWNC00372926270□00	27	5 / 10	15	2.52	13	1.00	280	Red	Violet	Orange
BWNC00372926330□00	33	5 / 10	15	2.52	12	1.10	270	Orange	Orange	Orange
BWNC00372926390□00	39	5 / 10	15	2.52	11	1.40	220	Orange	White	Orange
BWNC00372926470□00	47	5 / 10	15	2.52	10	1.64	210	Yellow	Violet	Orange
BWNC00372926560□00	56	5 / 10	15	2.52	9	2.49	189	Green	Blue	Orange
BWNC00372926680□00	68	5 / 10	15	2.52	9	2.80	189	Blue	Gray	Orange
BWNC00372926820□00	82	5 / 10	15	2.52	6	3.00	145	Gray	Red	Orange
BWNC00372926101□00	100	5 / 10	15	0.796	6	3.70	145	Brown	Black	Yellow
BWNC00372926151□00	150	5 / 10	15	0.796	5	6.10	120	Brown	Green	Yellow
BWNC00372926181□00	180	5 / 10	15	0.796	4	8.00	105	Brown	Gray	Yellow
BWNC00372926221□00	220	5 / 10	15	0.796	4	8.40	100	Red	Red	Yellow
BWNC00372926331□00	330	5 / 10	15	0.796	3.5	12.3	80	Orange	Orange	Yellow
BWNC00372926391□00	390	5 / 10	15	0.796	2.8	17.6	75	Orange	White	Yellow
BWNC00372926471□00	470	5 / 10	15	0.796	2.8	22.0	75	Yellow	Violet	Yellow
BWNC00372926561□00	560	5 / 10	15	0.796	2.5	23.0	65	Green	Blue	Yellow
BWNC00372926681□00	680	5 / 10	15	0.796	2	28.0	65	Blue	Gray	Yellow

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range－40℃～105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Measure Equipment：

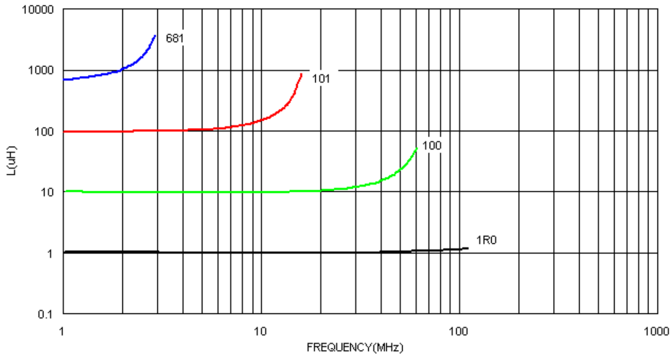
  L & Q：Agilent HP4291A(over 1MHz)/Agilent HP4285A+Agilent HP16197A (under 1MHz)

  SRF：Agilent HP4291A

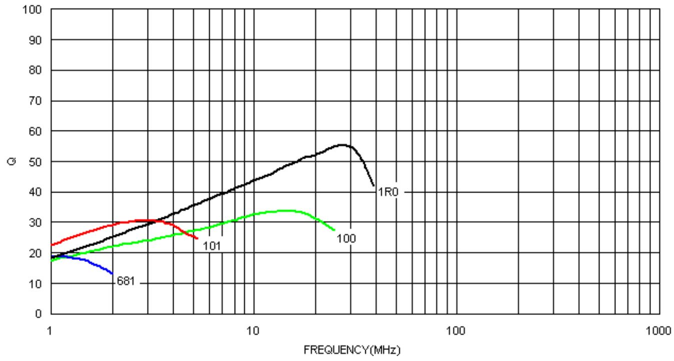
  RDC：HP4338B or Chroma 16502

Test Instruments：Agilent HP4291A Material/Impedance Analyzer

Typical L vs. Frequency

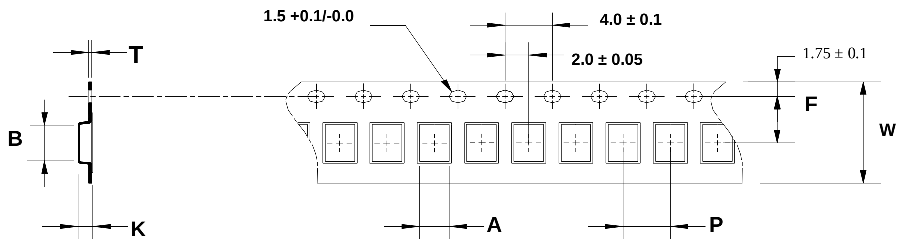


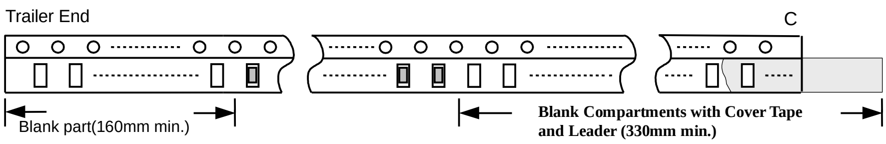
Typical Q vs. Frequency



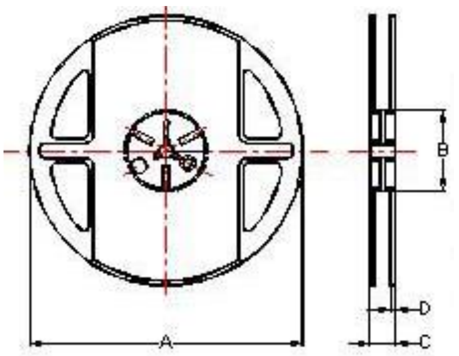
Packaging Specifications

Tape Dimensions





Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity
	A	B	T	W	P	F	K	A	B	C	D	PCS / Reel
BWNC00292522	2.40	2.93	0.26	8	4	3.5	2.25	178	60	12	1.5	2000
BWNC00372926	2.85	3.58	0.25	8	4	3.5	2.53	178	60	16	1.4	2000

BWLD Series

BWLD series is the newest open type ferrite wire wound chip inductors. The wire wound ferrite construction supports lower DCR than other open type inductors.

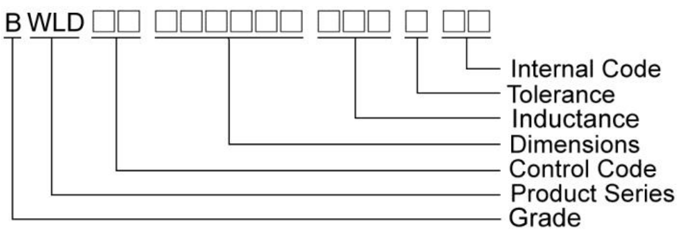
Features

- RoHS compliant
- SMD type wire-wound chip inductor with low DC resistance
- Wide inductance range (0.9uH~100uH)

Applications

- DSC, DVC, MD, PDA
- Portable digital devices

Product Identification



Shape and Dimensions / Recommended Pattern

FIG1

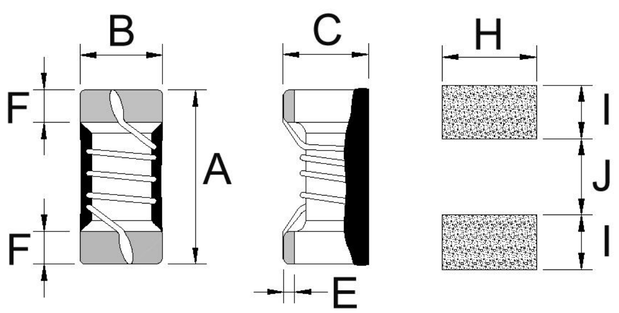
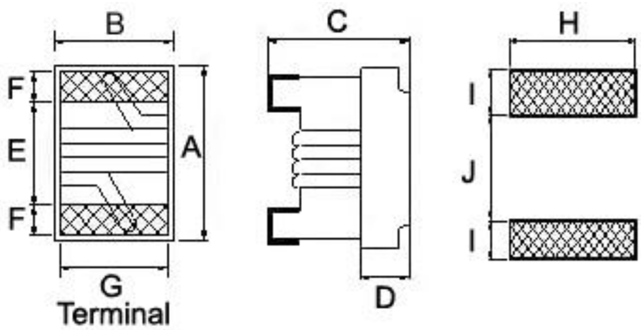


FIG2



Dimensions in mm

TYPE	FIG	A Max	B Max	C Max	D	E	F	G	H	I	J
BWLD00181010	1	1.80±0.1	1.0±0.1	0.95±0.1	-	0.1	0.35	-	1.02	0.64	0.64
BWLD00241715	2	2.4	1.72	1.52	0.70	1.00	0.50	1.27	1.78	1.02	0.76
BWLD00302522	2	2.99	2.50	2.20	0.70	1.52	0.51	2.03	2.54	1.02	1.27

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	SRF (MHz)Typ.	RDC (Ω±30%)	IDC (mA)Typ.	Color
BWLD001810101R0□00	1.0	5 / 10 / 20	7.96	16	390	0.32	700	Black
BWLD001810102R2□00	2.2	5 / 10 / 20	7.96	16	82	0.56	580	Orange
BWLD001810104R7□00	4.7	5 / 10 / 20	7.96	16	51	0.97	420	Violet
BWLD001810106R8□00	6.8	5 / 10 / 20	7.96	16	43	1.5	340	White
BWLD00181010100□00	10	5 / 10 / 20	7.96	14	36	1.85	280	Brown
BWLD00181010150□00	15	5 / 10 / 20	7.96	14	29	2.6	240	Orange
BWLD00181010220□00	22	5 / 10 / 20	2.52	14	24	3.61	200	Green

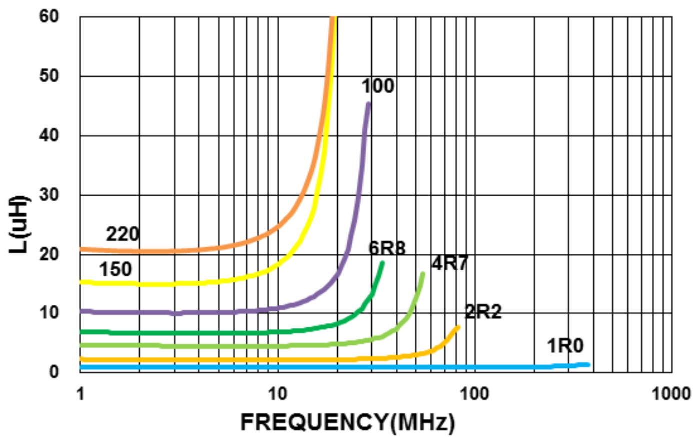
Note: When ordering, please specify tolerance code. Tolerance: J=±5% , K=±10% , M=±20%

- Operating temperature range - 40℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Measure Equipment：

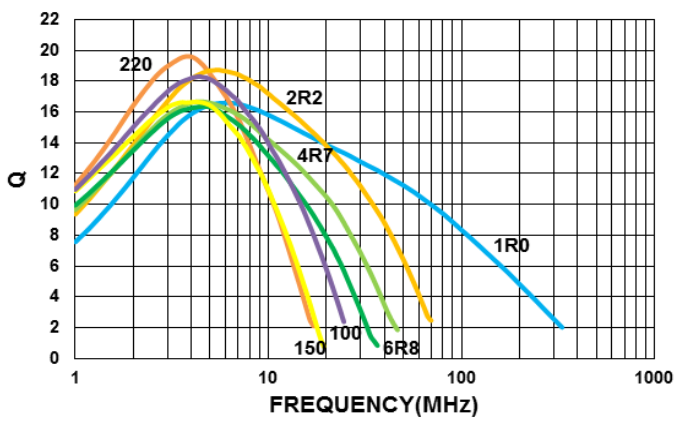
  L & Q：Agilent E4991A+Agilent HP16197A(over 1MHz)/Agilent HP4285A(under 1MHz)
  SRF：HP8753D/Agilent E4991A
  RDC：Chroma 16502
  IDC：HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	SRF (MHz) Min	RDC (Ω±30%)	IDC (mA)	Color
BWLD002417151R0☐00	1.0	10 / 20	7.96	18	100	0.10	800	Black
BWLD002417151R5☐00	1.5	10 / 20	7.96	18	90	0.18	650	Brown
BWLD002417152R2☐00	2.2	10 / 20	7.96	18	70	0.24	550	Red
BWLD002417153R3☐00	3.3	10 / 20	7.96	18	55	0.30	450	Orange
BWLD002417154R7☐00	4.7	10 / 20	7.96	18	50	0.47	360	Yellow
BWLD002417156R8☐00	6.8	10 / 20	7.96	18	60	0.75	290	Green
BWLD00241715100☐00	10	10 / 20	2.52	18	25	0.90	290	Blue
BWLD00241715150☐00	15	10 / 20	2.52	18	25	1.60	230	Violet
BWLD00241715220☐00	22	10 / 20	2.52	18	17	1.95	190	Gray
BWLD00241715330☐00	33	10 / 20	2.52	17	15	2.60	120	White
BWLD00241715470☐00	47	10 / 20	2.52	17	11	3.90	95	Black
BWLD00241715680☐00	68	10 / 20	2.52	17	11	5.50	95	Brown
BWLD00241715101☐00	100	10 / 20	1.00	12	9	9.00	70	Red

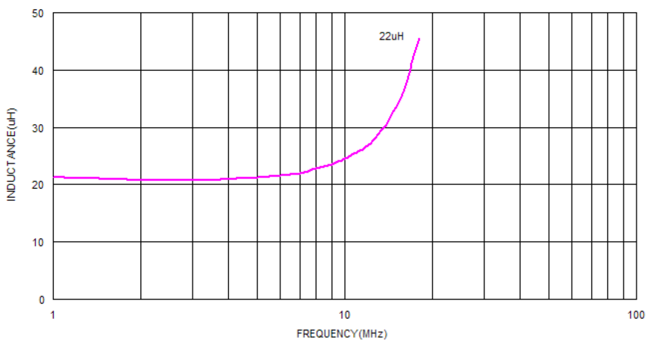
Note: When ordering, please specify tolerance code. Tolerance: K=±10% , M=±20%

- Operating temperature range - 25℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Measure Equipment：

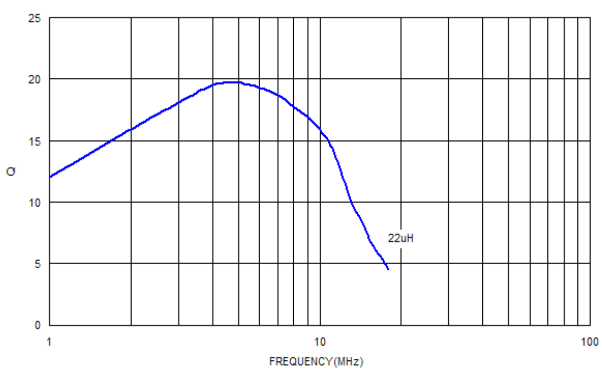
L & Q：Agilent E4991A+Agilent HP16197A(over 1MHz)/Agilent HP4285A(under 1MHz)
SRF：HP8753D/Agilent E4991A
RDC：Chroma 16502
IDC：HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency



Typical Q vs. Frequency



SMD Wire Wound Chip Inductors – BWLD Series

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Typ.	Irms (mA) Max	Color 1^{ST}	Color 2^{ND}	Color 3^{RD}
BWLD00302522R90□00	0.9	10	2.5	25	300	0.1	1400	1300	White	Black	Brown
BWLD003025221R1□00	1.1	10	2.5	24	275	0.105	1300	1200	Brown	Brown	Red
BWLD003025221R3□00	1.3	5 / 10	2.5	24	220	0.11	1200	1100	Brown	Orange	Red
BWLD003025221R5□00	1.5	5 / 10	2.5	22	210	0.125	1100	1000	Brown	Yellow	Red
BWLD003025221R9□00	1.9	5 / 10	2.5	22	165	0.14	1000	1000	Brown	White	Red
BWLD003025222R2□00	2.2	5 / 10	2.5	21	75	0.155	950	950	Red	Red	Red
BWLD003025222R7□00	2.7	5 / 10	2.5	22	57	0.19	800	900	Red	Violet	Red
BWLD003025223R3□00	3.3	5 / 10	2.5	21	54	0.21	750	800	Orange	Orange	Red
BWLD003025223R9□00	3.9	5 / 10	2.5	21	50	0.22	700	800	Orange	White	Red
BWLD003025224R7□00	4.7	5 / 10	2.5	27	48	0.435	700	650	Yellow	Violet	Red
BWLD003025225R8□00	5.8	5 / 10	2.5	21	33	0.28	550	750	Green	Gray	Red
BWLD003025226R8□00	6.8	5 / 10	2.5	20	28	0.315	500	700	Blue	Gray	Red
BWLD003025228R2□00	8.2	5 / 10	2.5	20	24	0.395	500	650	Gray	Red	Red
BWLD00302522100□00	10	5 / 10	2.5	22	20	0.48	450	550	Brown	Black	Orange

Note: When ordering, please specify tolerance code. Tolerance: J=±5% , K=±10%

- Operating temperature range - 25℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value with current
- Irms for a 40℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L：Agilent E4991A/HP4287A+16197A

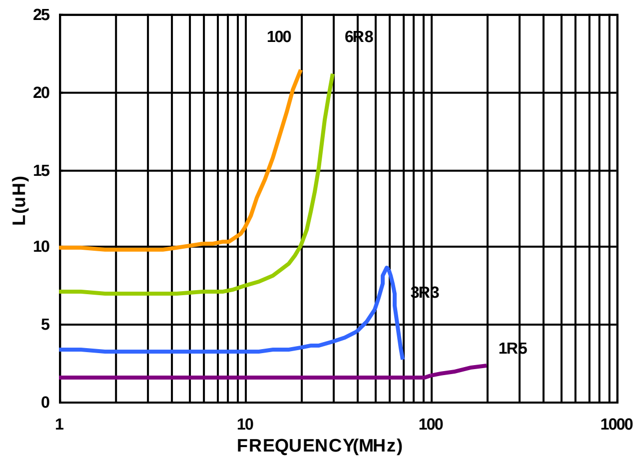
  SRF：HP8753D/Agilent E4991A

  RDC：Chroma 16502

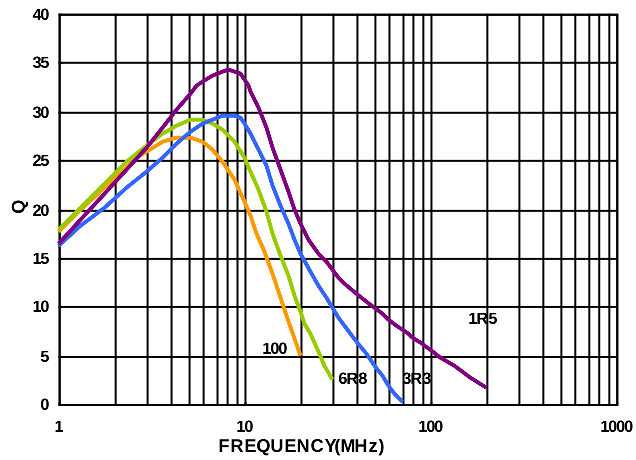
  IDC：HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency



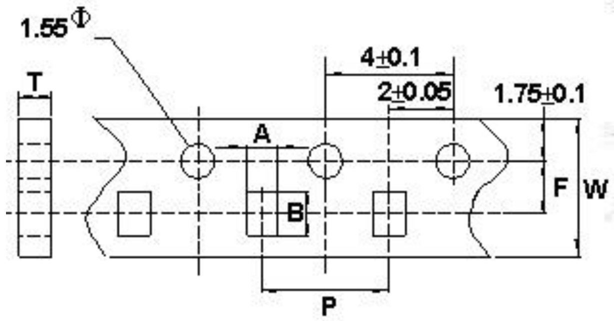
Typical Q vs. Frequency



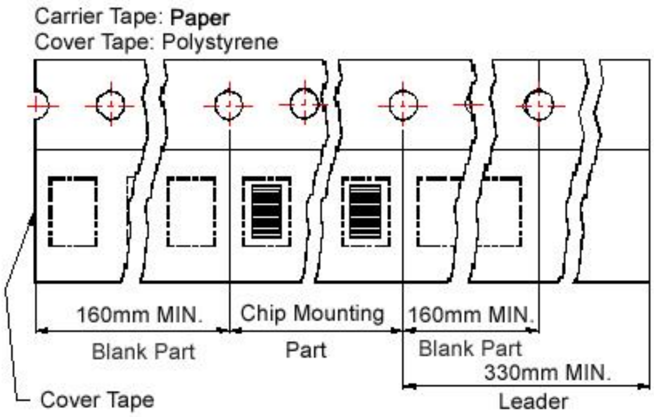
Packaging Specifications

Tape Dimensions

FIG1

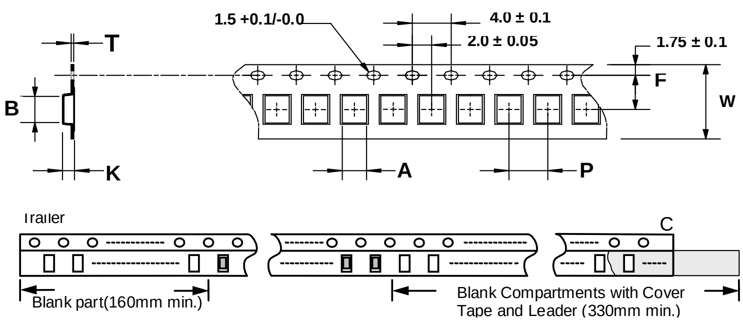


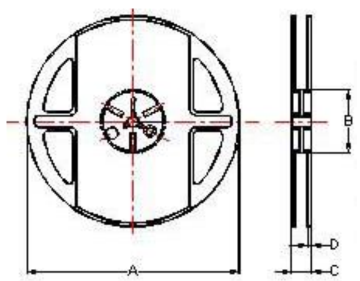
Tape Material



Reel Dimensions

FIG2





Dimensions in mm

TYPE	FIG	Tape Dimensions							Reel Dimensions				Quantity
		A	B	T	W	P	F	K	A	B	C	D	PCS / REEL
BWLD00181010	1	1.20	2.42	1.1	8	4	3.5	-	178	60	12	1.5	4000
BWLD00241715	2	1.60	2.42	0.22	8	4	3.5	1.45	178	60	12	1.5	2000
BWLD00302522	2	2.40	2.93	0.26	8	4	3.5	2.25	178	60	12	1.5	2000

BWLS Series

BWLS Series is the newest in open type ferrite wire wound chip inductors. The wire wound ferrite construction supports higher SRF, lower DCR and superior Q values than other ferrite chip inductors.

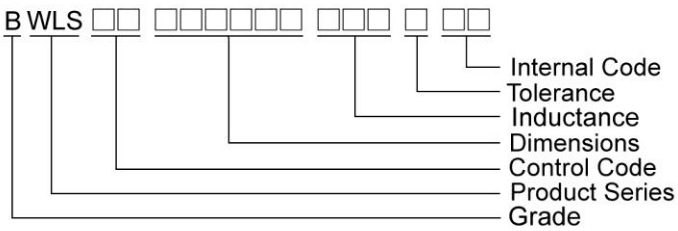
Features

- RoHS compliant
- Very strong solderability by reflow soldering and soldering iron
- Highly accurate dimensions
- Can be mounted automatically
- Terminals are highly resistant to external forces
- Highly resistant to mechanical shocks and pressure
- Highly reliable in environments of sudden temperature change and humidity
- Low DCR & better Q value in ferrite series

Applications

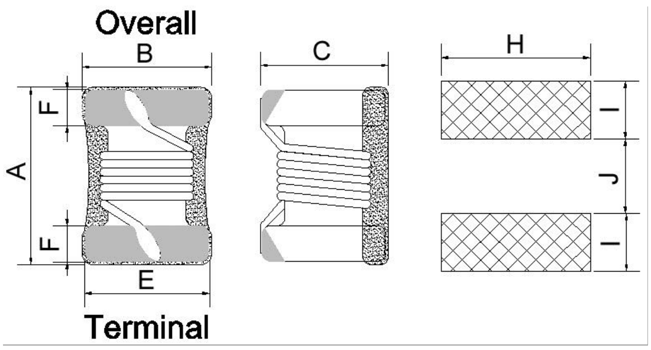
- Telecom and datacom applications such as xDSL
- Cable modem
- Set-top box
- CATV filter/tuner
- Wireless LAN, etc

Product Identification

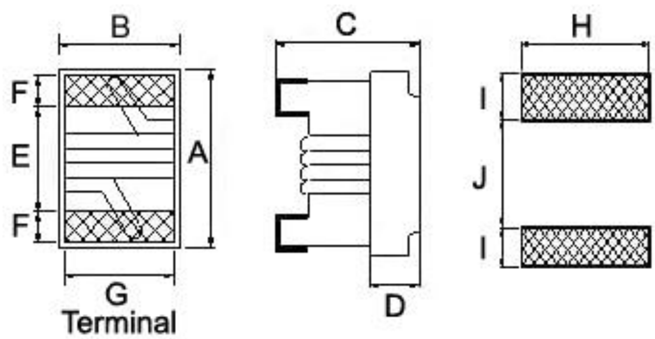


Shape and Dimensions / Recommended Pattern

BWLS00060404



BWLS00100606/161109/241715/302522



Dimensions in mm

TYPE	A Max	B Max	C Max	D	E	F	G	H	I	J
BWLS00060404	0.58	0.46	0.45	-	0.38	0.12	-	0.46	0.18	0.22
BWLS00100606	1.02±0.1	0.55±0.1	0.56±0.1	0.25	0.54	0.23	0.50	0.65	0.38	0.44
BWLS00161109	$1.6^{+0.2}_{-0.1}$	1.1±0.1	$0.9^{+0.2}_{-0.1}$	0.38	0.86	0.33	0.76	1.02	0.64	0.64
BWLS00241715	2.4	1.72	1.52	0.70	1.02	0.50	1.27	1.78	1.02	0.76
BWLS00302522	2.99	2.50	2.20	0.70	1.52	0.51	2.03	2.54	1.02	1.27

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	SRF (MHz)Min.	RDC (Ω)Max.	Irms (mA)Typ.
BWLS000604042N2□00	2.2	10	100	5	3000	0.09	1600
BWLS000604046N8□00	6.8	10 / 5	100	6	2400	0.11	950
BWLS000604047N8□00	7.8	10 / 5	100	7	2500	0.11	1050
BWLS0006040415N□00	15	10 / 5	100	7	2300	0.12	750
BWLS0006040417N□00	17	10 / 5	100	7	2400	0.13	750
BWLS0006040426N□00	26	10 / 5	100	7	2200	0.20	750
BWLS0006040428N□00	28	10 / 5	100	7	2400	0.2.	700
BWLS0006040439N□00	39	10 / 5	100	7	2300	0.24	580
BWLS0006040443N□00	43	10 / 5	100	7	2200	0.24	600
BWLS0006040456N□00	56	10 / 5	100	7	2200	0.26	550
BWLS0006040459N□00	59	10 / 5	100	7	2200	0.26	500
BWLS0006040476N□00	76	10 / 5	100	7	2000	0.30	500
BWLS0006040478N□00	78	10 / 5	100	7	2000	0.30	500
BWLS00060404R10□00	100	10 / 5	100	7	1500	0.41	430
BWLS00060404R13□00	130	10 / 5	100	7	1500	0.44	400
BWLS00060404R16□00	160	10 / 5	100	7	1400	0.71	350
BWLS00060404R20□00	200	10 / 5	50	9	1400	0.95	260

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 40℃ ~ 105℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

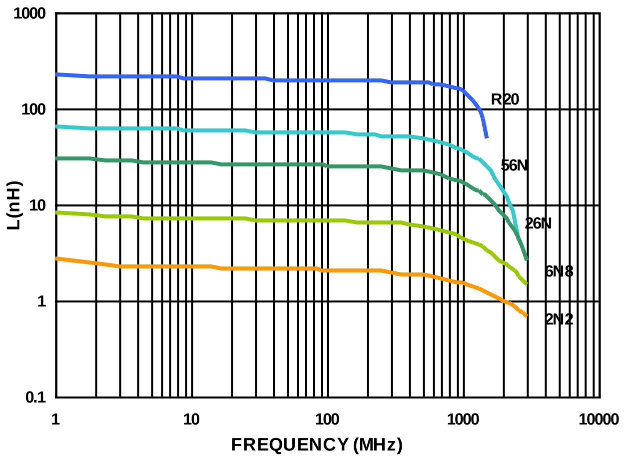
  SRF：Agilent E4991A

  RDC：HP4287

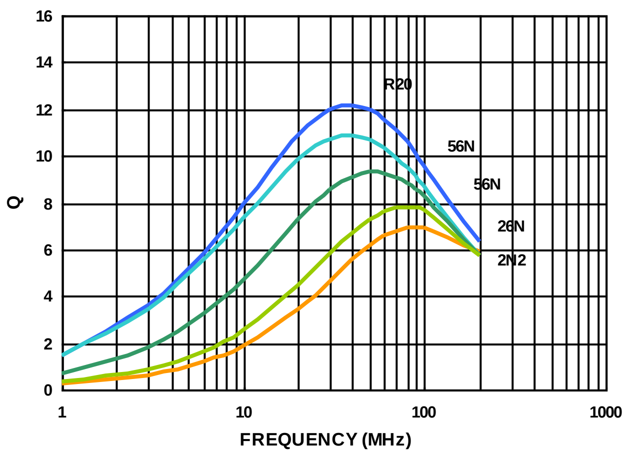
  Irms：HP4284A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	SRF (MHz)Typ.	RDC (Ω) Max	Irms (mA)Typ.
BWLS0010060618N☐00	0.018	10 / 5	100	10	2600	0.055	1600
BWLS0010060620N☐00	0.020	10 / 5	100	10	2600	0.050	1600
BWLS0010060622N☐00	0.022	10	100	10	2500	0.072	1300
BWLS0010060633N☐00	0.033	10 / 5	100	10	2300	0.060	1400
BWLS0010060636N☐00	0.036	10 / 5	100	10	2300	0.092	1000
BWLS0010060639N☐00	0.039	10 / 5	100	10	2200	0.150	830
BWLS0010060651N☐00	0.051	10	100	10	1930	0.070	1100
BWLS0010060656N☐00	0.056	10	100	10	1900	0.125	900
BWLS0010060672N☐00	0.072	10 / 5	100	10	1650	0.100	900
BWLS0010060678N☐00	0.078	10 / 5	100	10	1600	0.190	850
BWLS00100606R10☐00	0.10	10	100	9	1400	0.160	900
BWLS00100606R14☐00	0.14	10 / 5	50	11	1220	0.260	540
BWLS00100606R18☐00	0.18	10	50	11	1150	0.330	560
BWLS00100606R20☐00	0.20	10 / 5	50	11	1000	0.440	400
BWLS00100606R22☐00	0.22	10 / 5	50	11	1150	0.530	380
BWLS00100606R25☐00	0.25	10 / 5	25	11	900	0.360	520
BWLS00100606R27☐00	0.27	10	25	11	860	0.550	360
BWLS00100606R30☐00	0.30	10 / 5	25	11	860	0.410	420
BWLS00100606R33☐00	0.33	10 / 5	7.9	11	820	0.680	350
BWLS00100606R36☐00	0.36	10 / 5	7.9	11	810	0.575	360
BWLS00100606R39☐00	0.39	10 / 5	7.9	11	760	0.890	300
BWLS00100606R42☐00	0.42	10 / 5	7.9	11	700	1.100	340
BWLS00100606R47☐00	0.47	10	7.9	11	650	0.730	310
BWLS00100606R56☐00	0.56	10 / 5	7.9	11	600	1.100	200

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 40℃ ~ 105℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient with current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

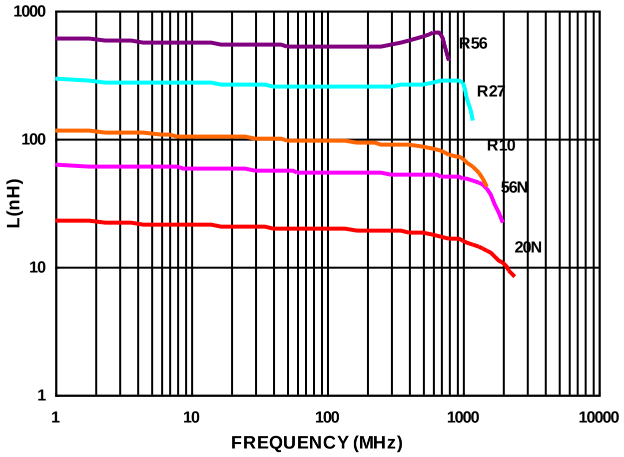
  SRF：Agilent E4991A

  RDC：Chroma 16502

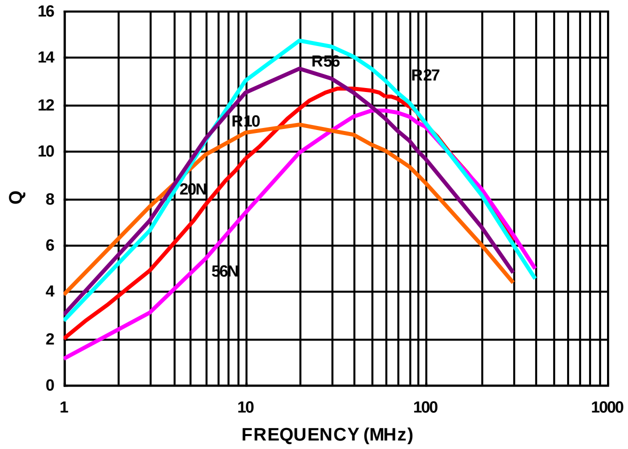
  Irms：HP4284A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

*Typical **L** vs. Frequency*



*Typical **Q** vs. Frequency*



Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	SRF (MHz) Min	RDC (Ω) Max	IDC (mA)	Color
BWLS0016110947N☐00	0.047	10 / 5	7.9	17	1700	0.075	1500	Black
BWLS0016110972N☐00	0.072	10 / 5	7.9	17	1700	0.12	1500	Brown
BWLS00161109R10☐00	0.10	10 / 5	7.9	17	1650	0.13	1500	Red
BWLS00161109R12☐00	0.12	10 / 5	7.9	17	1350	0.15	1500	Orange
BWLS00161109R15☐00	0.15	10 / 5	7.9	17	1350	0.15	1450	Yellow
BWLS00161109R18☐00	0.18	10 / 5	7.9	17	1150	0.15	1400	Green
BWLS00161109R22☐00	0.22	10 / 5	7.9	17	1050	0.16	1350	Blue
BWLS00161109R24☐00	0.24	10 / 5	7.9	17	1050	0.19	1300	Violet
BWLS00161109R27☐00	0.27	10 / 5	7.9	17	1050	0.30	1050	Gray
BWLS00161109R33☐00	0.33	10 / 5	7.9	17	850	0.46	1200	White
BWLS00161109R39☐00	0.39	10 / 5	7.9	17	810	0.51	1200	Black
BWLS00161109R47☐00	0.47	10 / 5	7.9	17	720	0.62	1050	Brown
BWLS00161109R56☐00	0.56	10 / 5	7.9	17	600	0.44	850	Red
BWLS00161109R68☐00	0.68	10 / 5	7.9	17	600	0.52	850	Orange
BWLS00161109R78☐00	0.78	10 / 5	7.9	17	460	0.83	850	Yellow
BWLS00161109R82☐00	0.82	10 / 5	7.9	17	480	0.69	750	Green
BWLS00161109R91☐00	0.91	10 / 5	7.9	17	330	0.76	670	Black
BWLS001611091R0☐00	1.0	10 / 5	7.9	18	310	0.81	600	Blue
BWLS001611091R2☐00	1.2	10 / 5	7.9	17	270	0.87	550	Violet
BWLS001611091R5☐00	1.5	10 / 5	7.9	17	270	1.06	540	Gray
BWLS001611091R8☐00	1.8	10 / 5	7.9	17	230	1.10	520	White
BWLS001611092R2☐00	2.2	10 / 5	7.9	17	140	1.20	500	Black
BWLS001611092R7☐00	2.7	10 / 5	7.9	17	105	1.50	480	Brown
BWLS001611093R3☐00	3.3	10 / 5	7.9	17	84	1.50	440	Red
BWLS001611093R9☐00	3.9	10 / 5	7.9	17	80	1.60	430	Orange
BWLS001611094R7☐00	4.7	10 / 5	7.9	18	69	2.10	420	Yellow
BWLS001611095R6☐00	5.6	10 / 5	7.9	18	65	2.60	400	Green
BWLS001611096R8☐00	6.8	10 / 5	7.9	19	55	3.10	400	Blue
BWLS001611097R8☐00	7.8	10 / 5	7.9	17	47	3.50	400	Violet
BWLS001611098R2☐00	8.2	10 / 5	7.9	17	42	3.80	400	Gray
BWLS00161109100☐00	10	10 / 5	7.9	19	40	4.80	300	White

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 40℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value without current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

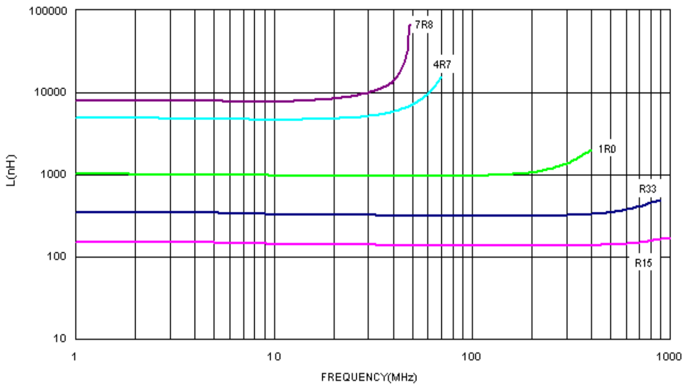
  SRF：Agilent HP8753D/Agilent E4991A

  RDC：Chroma 16502

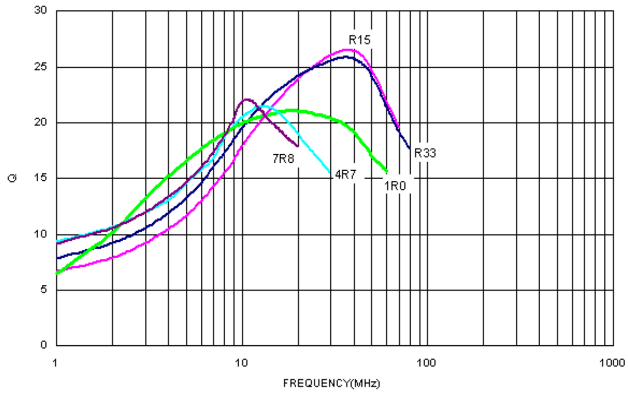
  IDC：HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

*Typical **L** vs. Frequency*



*Typical **Q** vs. Frequency*



Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	SRF (MHz) Min	RDC (Ω) Max	IDC (mA)	Color
BWLS0024171578N□00	0.078	10 / 5	7.9	19	1440	0.06	2000	Black
BWLS0024171590N□00	0.090	10	7.9	19	1200	0.07	2000	Red
BWLS00241715R11□00	0.11	10 / 5	7.9	19	1200	0.07	2000	Brown
BWLS00241715R47□00	0.47	10 / 5	7.9	19	480	0.40	800	Red
BWLS00241715R56□00	0.56	10 / 5	7.9	35	480	0.40	800	Yellow
BWLS00241715R68□00	0.68	10 / 5	7.9	20	480	0.40	800	Orange
BWLS00241715R91□00	0.91	10 / 5	7.9	20	400	0.69	700	Yellow
BWLS002417151R0□00	1.0	10 / 5	7.9	20	400	0.69	700	Yellow
BWLS002417151R2□00	1.2	10 / 5	7.9	20	330	0.83	700	Red
BWLS002417151R5□00	1.5	10 / 5	7.9	20	330	0.83	700	Green
BWLS002417151R8□00	1.8	10 / 5	7.9	20	300	1.00	650	Blue
BWLS002417152R2□00	2.2	10 / 5	7.9	20	250	1.10	650	Violet
BWLS002417152R7□00	2.7	10 / 5	7.9	23	200	1.25	650	Gray
BWLS002417153R3□00	3.3	10 / 5	7.9	23	160	1.45	650	White
BWLS002417153R9□00	3.9	10 / 5	7.9	23	90	1.50	600	Black
BWLS002417154R7□00	4.7	10 / 5	7.9	20	70	1.60	530	Brown
BWLS002417155R6□00	5.6	10 / 5	7.9	20	65	1.70	500	Red
BWLS002417156R8□00	6.8	10 / 5	7.9	20	45	1.95	470	Orange
BWLS002417158R2□00	8.2	10 / 5	2.5	16	45	2.10	450	Yellow
BWLS00241715100□00	10	10 / 5	2.5	16	40	2.40	400	Green
BWLS00241715120□00	12	10 / 5	2.5	16	38	3.20	360	Red
BWLS00241715150□00	15	10 / 5	2.5	16	30	3.55	350	Blue
BWLS00241715180□00	18	10 / 5	2.5	16	25	4.90	300	Orange
BWLS00241715220□00	22	10 / 5	2.5	16	20	5.45	270	Violet
BWLS00241715270□00	27	10 / 5	2.5	16	19	7.80	240	Gray
BWLS00241715330□00	33	10 / 5	2.5	16	16	9.50	210	White
BWLS00241715470□00	47	10 / 5	2.5	16	15	14.50	180	Brown

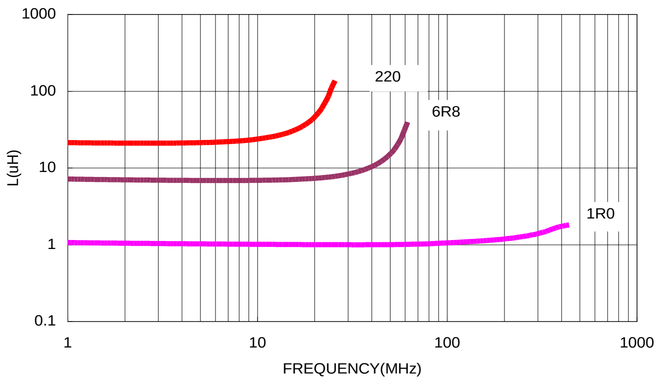
Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 40℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value without current
- Measure Equipment：

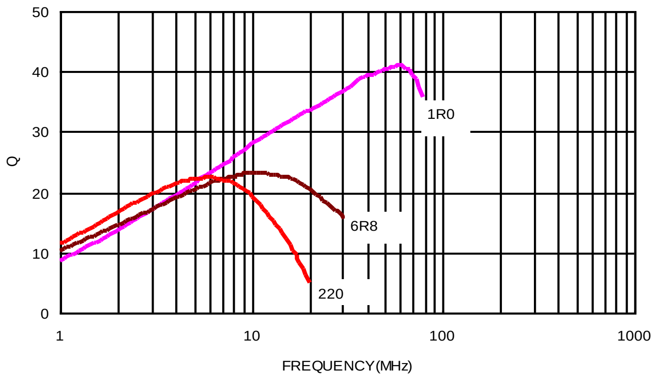
  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent E4991A
  RDC：HP4338B or Chroma 16502
  IDC：HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

***T**ypical **L** vs. **F**requency*



***T**ypical **Q** vs. **F**requency*



Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	IDC (mA)	Color Coding 1ST	2ND	3RD
BWLS003025221R2□00	1.2	10 / 5	7.9	55	50	350	0.50	1200	Brown	Red	Red
BWLS003025221R5□00	1.5	10 / 5	7.9	58	50	300	0.65	1200	Brown	Green	Red
BWLS003025221R8□00	1.8	10 / 5	7.9	54	50	280	0.75	1050	Brown	Gray	Red
BWLS003025222R2□00	2.2	10 / 5	7.9	48	50	250	0.90	950	Red	Red	Red
BWLS003025222R7□00	2.7	10 / 5	7.9	51	50	200	1.00	950	Red	Violet	Red
BWLS003025223R3□00	3.3	10 / 5	7.9	58	50	200	1.15	900	Orange	Orange	Red
BWLS003025223R9□00	3.9	10 / 5	7.9	37	7.9	170	1.25	850	Orange	White	Red
BWLS003025224R7□00	4.7	10 / 5	7.9	37	7.9	130	1.35	700	Yellow	Violet	Red
BWLS003025225R6□00	5.6	10 / 5	7.9	36	7.9	110	1.45	700	Green	Blue	Red
BWLS003025226R8□00	6.8	10 / 5	7.9	33	7.9	105	1.60	600	Blue	Gray	Red
BWLS003025228R2□00	8.2	10 / 5	7.9	40	7.9	90	1.80	550	Gray	Red	Red
BWLS00302522100□00	10	10 / 5	7.9	40	7.9	85	2.40	500	Brown	Black	Orange
BWLS00302522120□00	12	10 / 5	7.9	40	7.9	80	2.40	450	Brown	Red	Orange
BWLS00302522150□00	15	10 / 5	7.9	35	7.9	38	2.40	450	Brown	Green	Orange
BWLS00302522390□00	39	10 / 5	2.5	33	2.5	26	10	170	Orange	White	Orange

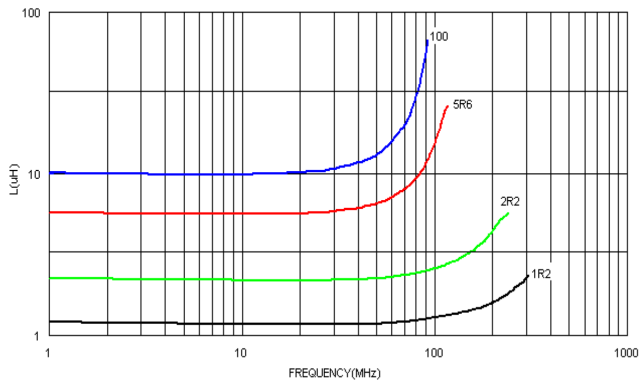
Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 40℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value without current
- Measure Equipment：

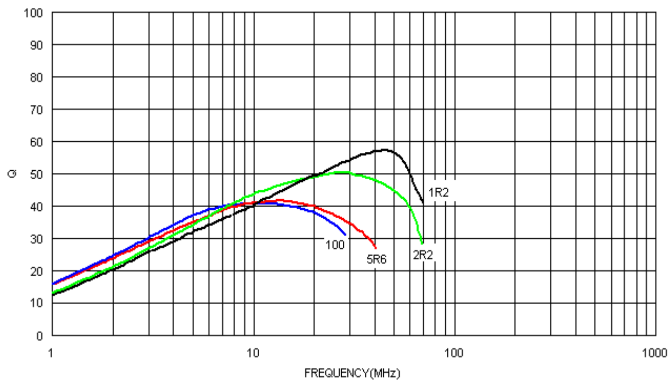
L & Q：Agilent E4991A+Agilent HP16197A
SRF：Agilent E4991A
RDC：HP4338B or Chroma 16502
IDC：HP4284A+HP42841A/HP4285A+HP42841A

Test Instruments：Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency



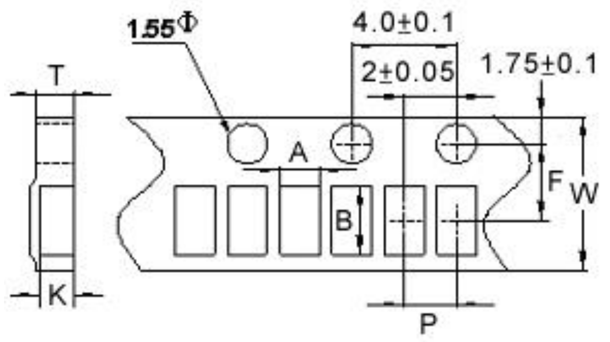
Typical Q vs. Frequency



Packaging Specifications

Tape Dimensions

Figure 1



Tape Material

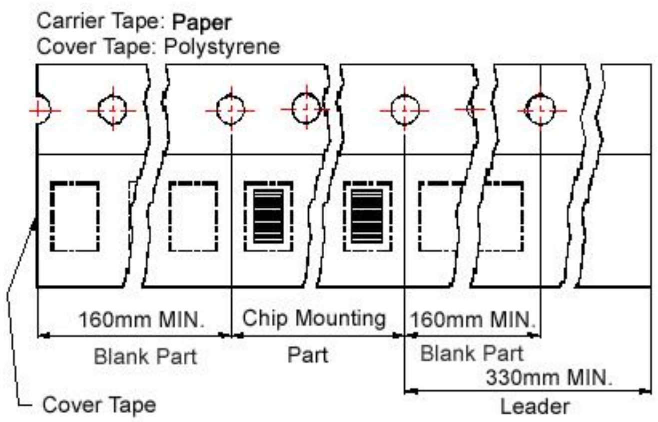
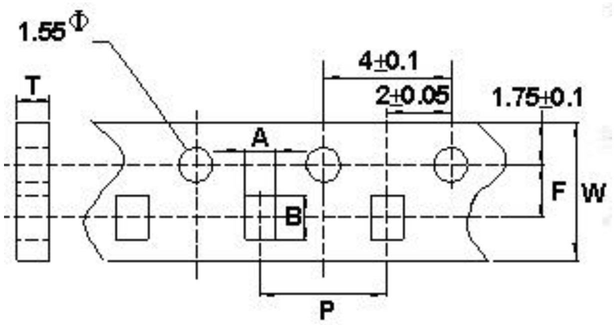


Figure 2



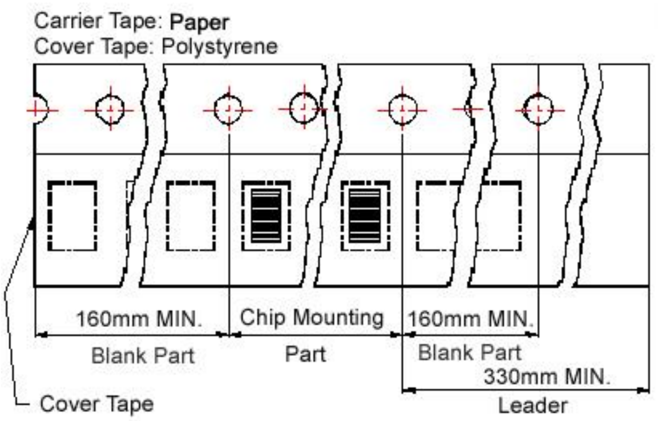
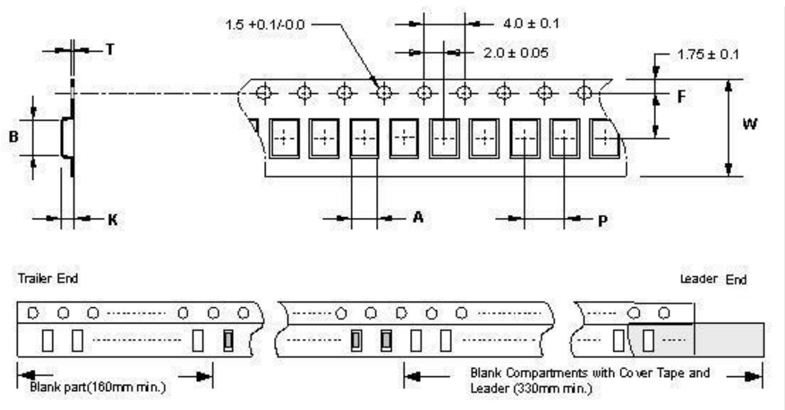
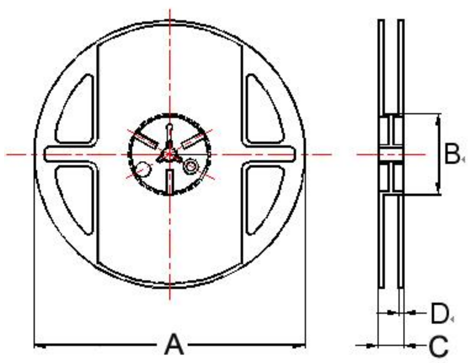


Figure 3



Reel Dimensions



Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity
		A	B	T	W	P	F	K	A	B	C	D	PCS / REEL
BWLS00060404	1	0.44	0.64	0.61	8	2	3.5	045	178	60	12	1.5	4000
BWLS00100606	1	0.67	1.20	0.75	8	2	3.5	0.59	178	60	12	1.5	4000
BWLS00161109	2	1.25	1.90	1.05	8	4	3.5	-	178	60	12	1.5	4000
BWLS00241715	3	1.60	2.42	0.22	8	4	3.5	1.45	178	60	12	1.5	2000
BWLS00302522	3	2.40	2.93	0.26	8	4	3.5	2.25	178	60	12	1.5	2000

BWLM Series

BWLM Series is the newest in open type ferrite wire wound chip inductors. The wire wound ferrite construction supports higher SRF, lower DCR and superior Q values than other ferrite chip inductors.

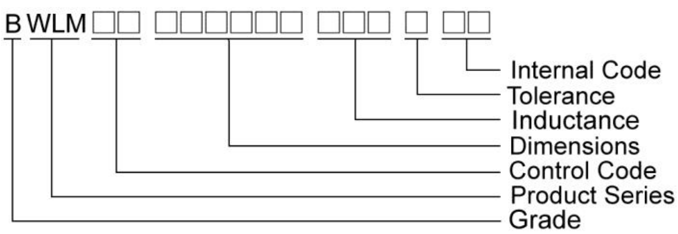
Features

- RoHS compliant
- Very strong solderability by reflow soldering and soldering iron
- Highly accurate dimensions
- Can be mounted automatically
- Terminals are highly resistant to external forces
- Highly resistant to mechanical shocks and pressure
- Highly reliable in environments of sudden temperature change and humidity
- Low DCR & better Q value in ferrite series

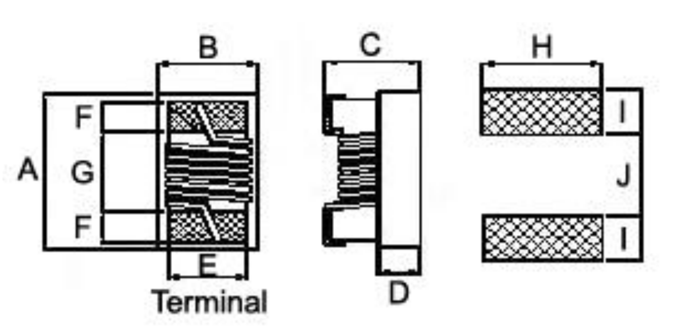
Applications

- Telecom and datacom applications such as xDSL
- Cable modem
- Set-top box
- CATV filter/tuner
- Wireless LAN, etc

Product Identification



Shape and Dimensions / Recommended Pattern



Dimensions in mm

TYPE	A	B	C	D	E	F	G	H	I	J
BWLM00110706	1.1±0.1	0.7±0.1	0.6±0.1	0.25	0.5	0.25	0.5	0.6	0.50	0.4
BWLM00181009	1.8±0.1	1.0±0.1	0.9±0.1	0.60	0.8	0.40	0.85	1.0	0.75	0.7

Electrical Characteristics

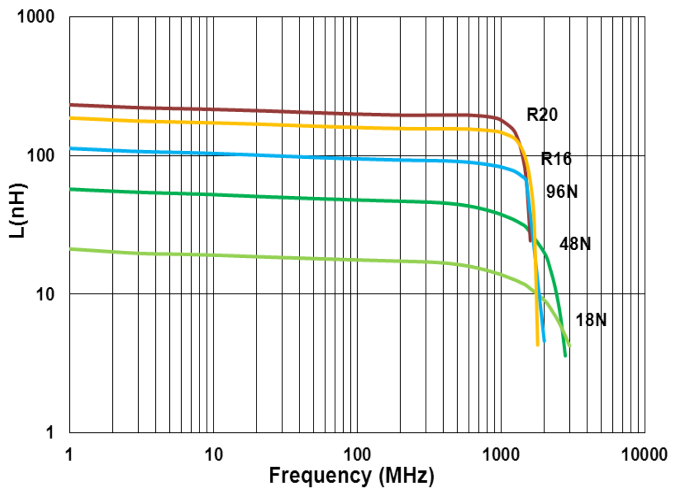
Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max
BWLM0011070618N□00	18	5	100	3000	0.046	1400
BWLM0011070633N□00	33	5	100	1800	0.065	1300
BWLM0011070648N□00	48	5	100	1400	0.078	1100
BWLM0011070670N□00	70	5	100	1300	0.12	820
BWLM0011070696N□00	96	5	100	1100	0.16	730
BWLM00110706R13□00	130	5	100	1000	0.23	640
BWLM00110706R16□00	160	5	100	900	0.33	480
BWLM00110706R20□00	200	5	100	800	0.47	390

Note: When ordering, please specify tolerance code. Tolerance : J=±5%

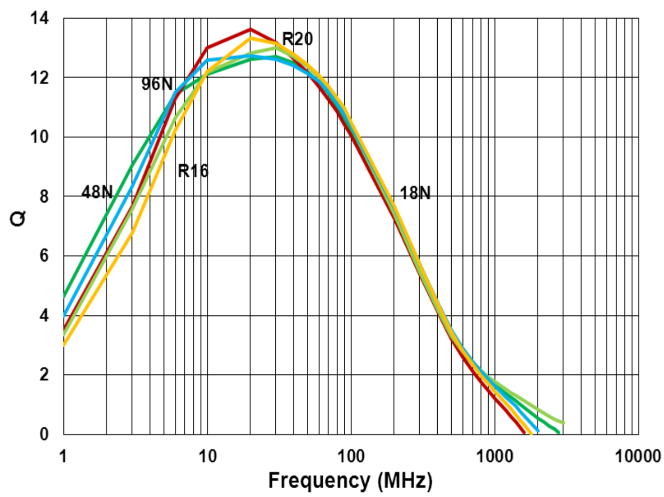
- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 20℃ temperature rise from 25℃ ambient with current
- Measure Equipment：
  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent E4991A
  RDC：HP4338B or Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A
- Offset value ：-0.556nH

Test Instruments：Agilent E4991A Material/Impedance Analyzer

Typical L vs. Frequency



Typical Q vs. Frequency



Electrical Characteristics

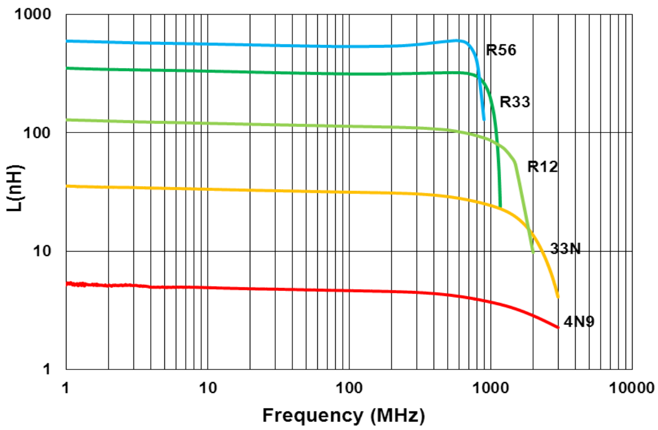
Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max
BWLM001810094N9□00	4.9	±0.5nH	10	2300	0.015	2600
BWLM0018100915N□00	15	5	10	2000	0.025	2200
BWLM0018100933N□00	33	5	10	1800	0.035	1700
BWLM0018100955N□00	55	5	10	1600	0.045	1500
BWLM0018100985N□00	85	5	10	1380	0.060	1400
BWLM00181009R10□00	100	10	10	1260	0.10	1000
BWLM00181009R12□00	120	5	10	1200	0.085	1100
BWLM00181009R16□00	160	5	10	900	0.10	1000
BWLM00181009R21□00	210	5	10	720	0.15	800
BWLM00181009R27□00	270	5	10	660	0.16	750
BWLM00181009R33□00	330	5	10	600	0.25	630
BWLM00181009R39□00	390	5	10	570	0.28	620
BWLM00181009R47□00	470	5	10	555	0.45	500
BWLM00181009R56□00	560	5	10	540	0.48	450
BWLM00181009R65□00	650	5	10	510	0.52	430

Note: When ordering, please specify tolerance code. Tolerance : D=±0.5nH , J=±5% , K=±10%

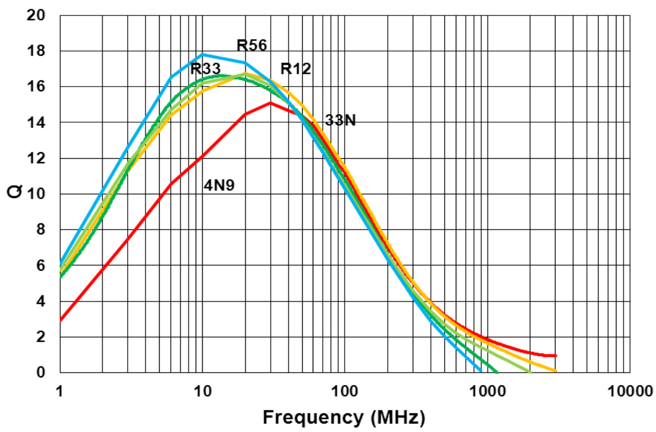
- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 20℃ temperature rise from 25℃ ambient with current
- Measure Equipment：
  L & Q：Agilent E4991A+Agilent HP16197A
  SRF：Agilent E4991A
  RDC：HP4338B or Chroma 16502
  Irms：HP4284A+HP42841A/HP4285A+HP42841A
- Offset value ：-0.771nH

Test Instruments：Agilent E4991A Material/Impedance Analyzer

*Typical **L** vs. Frequency*



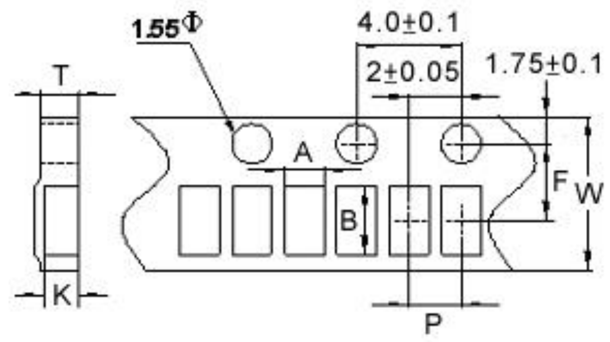
*Typical **Q** vs. Frequency*



Packaging Specifications

Tape Dimensions | **Tape Material**

Figure 1



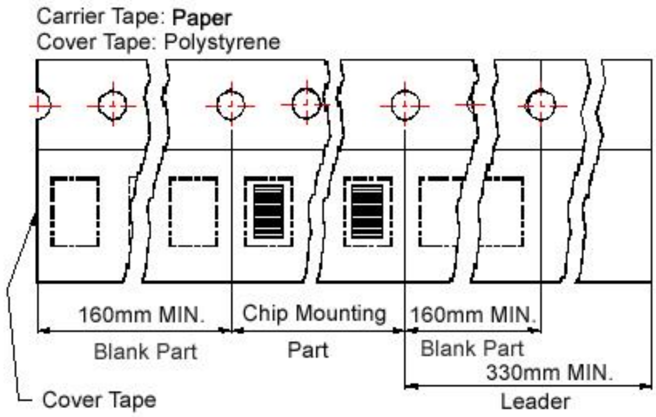
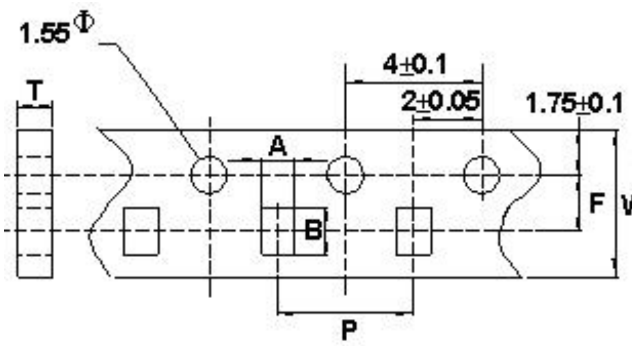
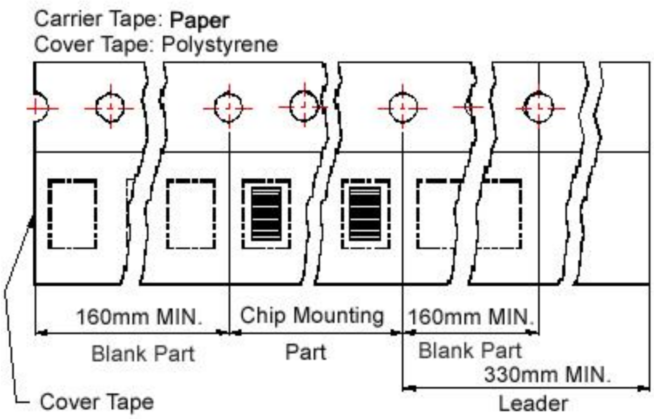
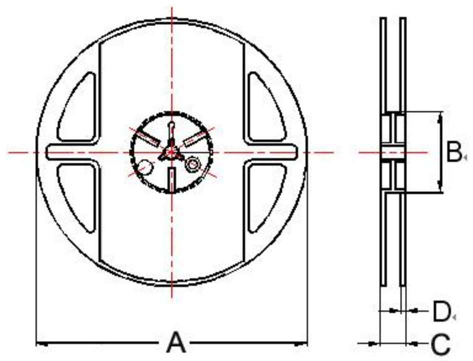


Figure 2





Reel Dimensions



Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity
		A	B	T	W	P	F	K	A	B	C	D	PCS / REEL
BWLM00110706	1	0.8	1.2	0.75	8	2	3.5	0.62	178	60	12	1.5	4000
BWLM00181009	2	1.2	2.0	1.1	8	4	3.5	-	178	60	12	1.5	4000

BWPS Series

BWPS series is the newest shielding type ferrite wire wound chip inductor. This wire wound ferrite construction provides extremely low DCR and high rating current.

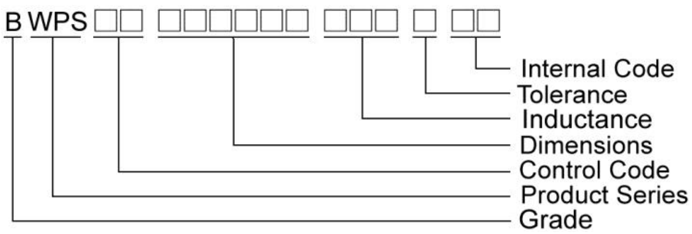
Features

- RoHS compliant
- Shielded power inductors
- Specially designed ferrite cover provides magnetic shielding
- Best possible surface for pick and place handling

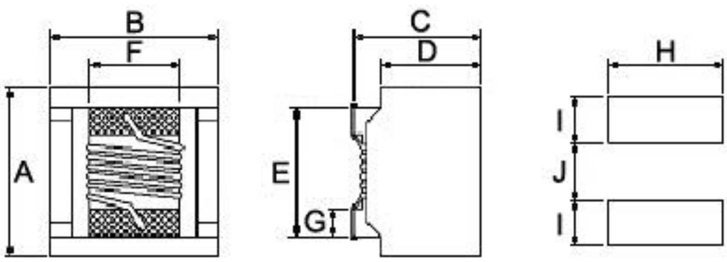
Applications

- Notebook computers
- PC cards
- Wireless communication
- Handheld devices

Product Identification



Shape and Dimensions / Recommended Pattern



Dimensions in mm

TYPE	A Max	B Max	C Max	D	E	F	G	H	I	J
BWPS00383829	3.81	3.81	2.94	2.20	2.54	2.03	0.51	2.54	1.02	1.27
BWPS00383830	3.81	3.81	3.05	2.20	2.54	2.03	0.51	2.54	1.02	1.27

BWPS00383829 at 1R0~331/ 561~102

BWPS0038383 at 471

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	Test Frequency (MHz)	SRF (MHz) Typ.	RDC (Ω) Max	IDC (A)
BWPS003838291R0☐00	1.0	20 / 10	0.1	26	1	344	0.05	3.0
BWPS003838291R5☐00	1.5	20 / 10	0.1	26	1	260	0.08	2.8
BWPS003838291R8☐00	1.8	20 / 10	0.1	28	1	225	0.09	2.1
BWPS003838292R7☐00	2.7	20 / 10	0.1	30	1	185	0.14	1.5
BWPS003838293R9☐00	3.9	20 / 10	0.1	30	1	172	0.29	1.2
BWPS003838294R7☐00	4.7	20 / 10	0.1	30	1	157	0.35	1.1
BWPS003838295R6☐00	5.6	20 / 10	0.1	30	1	150	0.39	1.1
BWPS003838296R8☐00	6.8	20 / 10	0.1	30	1	110	0.58	0.9
BWPS00383829100☐00	10	20 / 10	0.1	30	1	95	0.75	0.82
BWPS00383829150☐00	15	20 / 10	0.1	30	1	75	1.15	0.70
BWPS00383829220☐00	22	20 / 10	0.1	33	1	30	1.40	0.65
BWPS00383829330☐00	33	20 / 10	0.1	33	1	21	1.61	0.52
BWPS00383829390☐00	39	20 / 10	0.1	33	1	18	1.85	0.46
BWPS00383829470☐00	47	20 / 10	0.1	33	1	15	2.20	0.43
BWPS00383829680☐00	68	20 / 10	0.1	33	1	12	3.80	0.33
BWPS00383829820☐00	82	20 / 10	0.1	33	1	10	4.30	0.32
BWPS00383829101☐00	100	20 / 10	0.1	33	1	8	4.80	0.31
BWPS00383829121☐00	120	20 / 10	0.1	33	1	8	5.0	0.25
BWPS00383829151☐00	150	20 / 10	0.1	33	1	5.8	6.5	0.24
BWPS00383829221☐00	220	20 / 10	0.1	33	1	5.5	12.0	0.22
BWPS00383829331☐00	330	20 / 10	0.1	33	1	3.8	17.0	0.20
BWPS00383830471☐00	470	20 / 10	0.1	33	1	3.1	19.0	0.16
BWPS00383829561☐00	560	20 / 10	0.1	33	1	2.8	18.4	0.13
BWPS00383829681☐00	680	20 / 10	0.1	33	1	2.5	24.0	0.12
BWPS00383829821☐00	820	20 / 10	0.1	23	1	2.0	26.0	0.10
BWPS00383829102☐00	1000	20 / 10	0.1	20	1	1.5	29.2	0.10

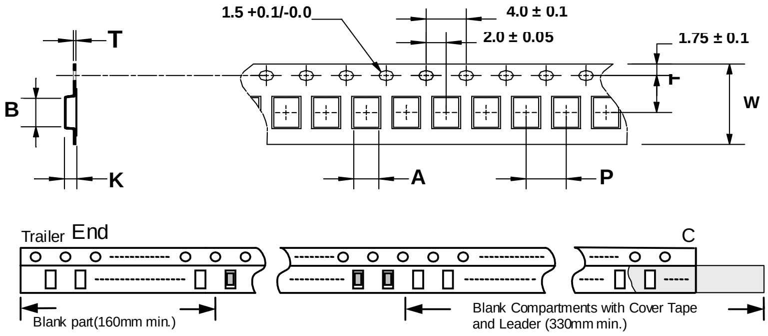
Note: When ordering, please specify tolerance code. Tolerance : K=±10% , M=±20%

- Operating temperature range - 40℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value without current
- Measure Equipment：

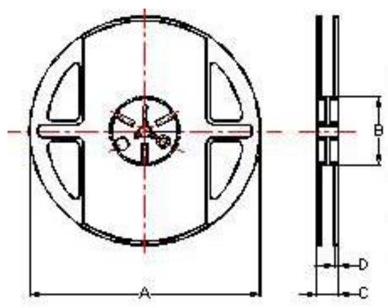
  L：Agilent HP4285A
  Q：Agilent HP4291A
  SRF：Agilent HP4291A
  RDC：HP4338B or Chroma 16502
  IDC：CHEN HWA1061+301A

Packaging Specifications

Tape Dimensions



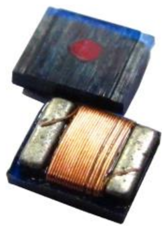
Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity
	A	B	T	W	P	F	K	A	B	C	D	PCS / REEL
BWPS00383829	3.85	3.85	0.25	12	8	5.5	2.85	178	60	16	1.4	750
BWPS00383830												

BWLT Series



BWLT series is the newest open type ferrite wire wound chip inductors. This wire wound ferrite construction supports thinness for low profile application.

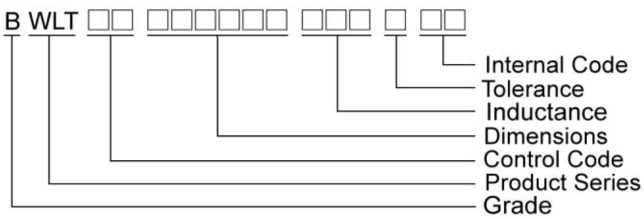
Features

- RoHS compliant
- At just 1.05mm in height, these are one of Chilisin's lowest profile surface mount inductors
- Wire wound ferrite design supports lower Rdc, higher current ratings and exceptional Q values
- Inductance values from 0.12 to 39uH

Applications

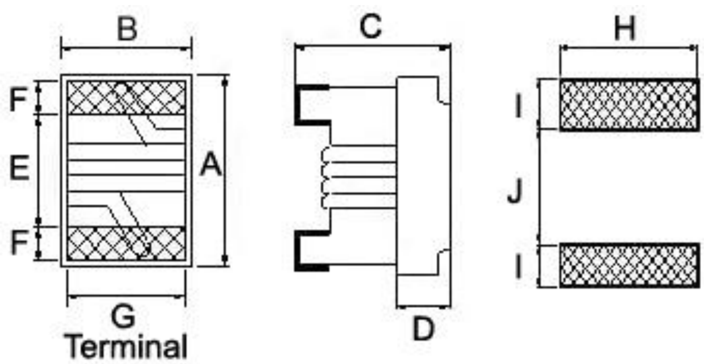
- Boost IC for tiny panels of C-STN, TFT-LCD and OLED in backlight
- Buck/Boost IC using in DC to DC converter
- LC filter in power as well as signal lines

Product Identification



Shape and Dimensions / Recommended Pattern

BWLT00241810/373110



Dimensions in mm

TYPE	A Max	B Max	C Max	D Ref	E	F	G	H	I	J
BWLT00241810	2.40	1.85	1.05	0.70	1.02	0.50	1.27	1.78	1.02	0.76
BWLT00373110	3.75	3.10	1.05	0.65	1.80	0.65	2.35	2.70	1.00	2.00

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max	Color
BWLT00241810R12□00	0.12	10 / 5	25.2	22	1500	0.33	1200	Black
BWLT00241810R15□00	0.15	10 / 5	25.2	22	1100	0.33	1200	Brown
BWLT00241810R18□00	0.18	10 / 5	25.2	22	1100	0.36	1100	Red
BWLT00241810R22□00	0.22	10 / 5	25.2	22	1100	0.39	1100	Orange
BWLT00241810R27□00	0.27	10 / 5	25.2	22	950	0.43	1050	Yellow
BWLT00241810R33□00	0.33	10 / 5	25.2	22	650	0.46	900	Green
BWLT00241810R39□00	0.39	10 / 5	25.2	22	640	0.48	850	Blue
BWLT00241810R47□00	0.47	10 / 5	25.2	22	570	0.65	800	Violet
BWLT00241810R56□00	0.56	10 / 5	25.2	22	540	0.67	770	Gray
BWLT00241810R68□00	0.68	10 / 5	25.2	22	500	0.73	750	White
BWLT00241810R82□00	0.82	10 / 5	25.2	22	480	0.85	730	Black
BWLT002418101R0□00	1.0	10 / 5	7.96	15	470	0.87	720	Brown
BWLT002418101R2□00	1.2	10 / 5	7.96	15	450	0.97	690	Red
BWLT002418101R5□00	1.5	10 / 5	7.96	15	400	1.10	670	Orange
BWLT002418101R8□00	1.8	10 / 5	7.96	15	340	1.15	650	Yellow
BWLT002418102R2□00	2.2	10 / 5	7.96	15	265	1.28	630	Green
BWLT002418102R7□00	2.7	10 / 5	7.96	15	235	1.40	620	Blue
BWLT002418103R3□00	3.3	10 / 5	7.96	15	190	1.62	580	Violet
BWLT002418103R9□00	3.9	10 / 5	7.96	15	180	1.75	570	Gray
BWLT002418104R7□00	4.7	10 / 5	7.96	13	160	1.95	550	White
BWLT002418105R6□00	5.6	10 / 5	7.96	15	120	2.14	540	Black
BWLT002418106R8□00	6.8	10 / 5	7.96	15	45	2.28	520	Brown
BWLT002418108R2□00	8.2	10 / 5	7.96	15	42	2.55	500	Red
BWLT00241810100□00	10	10 / 5	2.52	10	38	2.70	450	Orange
BWLT00241810120□00	12	10 / 5	2.52	10	33	4.20	400	Yellow
BWLT00241810150□00	15	10 / 5	2.52	10	30	4.80	380	Green
BWLT00241810180□00	18	10 / 5	2.52	10	25	5.74	300	Blue
BWLT00241810220□00	22	10 / 5	2.52	10	23	7.75	260	Violet
BWLT00241810270□00	27	10 / 5	2.52	10	21	10.0	230	Gray
BWLT00241810330□00	33	10 / 5	2.52	10	16	13.5	200	White
BWLT00241810390□00	39	10 / 5	2.52	10	15	16.0	190	Black

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 25℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value without current
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

  SRF：Agilent E4991A

  RDC：HP4338B or Chroma 16502

  IDC：HP4284A+HP42841A/HP4285A+HP42841A

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Typ.	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max	Color Coding 1ST	2ND	3RD
BWLT003731101R0□00	1.0	10 / 5	7.96	20	350	0.45	1500	Brown	Black	Red
BWLT003731101R2□00	1.2	10 / 5	7.96	20	330	0.49	1300	Brown	Red	Red
BWLT003731101R5□00	1.5	10 / 5	7.96	20	310	0.68	1200	Brown	Green	Red
BWLT003731101R8□00	1.8	10 / 5	7.96	20	290	0.72	1150	Brown	Gray	Red
BWLT003731102R2□00	2.2	10 / 5	7.96	20	270	1.02	1020	Red	Red	Red
BWLT003731102R7□00	2.7	10 / 5	7.96	20	265	1.15	1000	Red	Violet	Red
BWLT003731103R3□00	3.3	10 / 5	7.96	20	195	1.20	970	Orange	Orange	Red
BWLT003731103R9□00	3.9	10 / 5	7.96	20	170	1.35	910	Orange	White	Red
BWLT003731104R7□00	4.7	10 / 5	7.96	20	155	1.48	880	Yellow	Violet	Red
BWLT003731105R6□00	5.6	10 / 5	7.96	20	125	1.65	820	Green	Blue	Red
BWLT003731106R8□00	6.8	10 / 5	7.96	20	110	1.68	750	Blue	Gray	Red
BWLT003731108R2□00	8.2	10 / 5	7.96	20	100	1.88	700	Gray	Red	Red
BWLT00373110100□00	10	10 / 5	2.52	16	85	2.90	610	Brown	Black	Orange
BWLT00373110120□00	12	10 / 5	2.52	16	70	3.05	540	Brown	Red	Orange
BWLT00373110150□00	15	10 / 5	2.52	16	65	3.45	500	Brown	Green	Orange
BWLT00373110180□00	18	10 / 5	2.52	16	55	4.79	420	Brown	Gray	Orange
BWLT00373110220□00	22	10 / 5	2.52	16	50	5.20	350	Red	Red	Orange

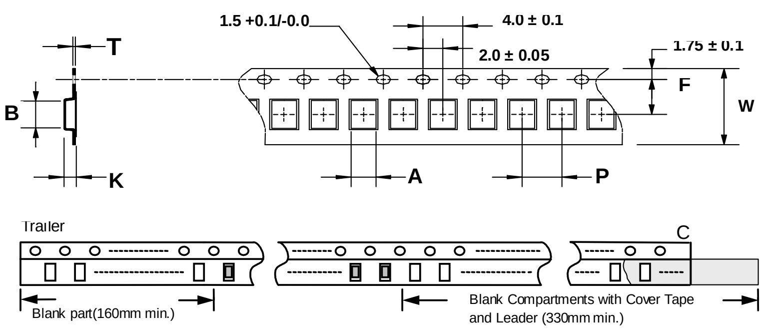
Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10%

- Operating temperature range - 25℃ ~ 105℃(Including self - temperature rise)
- IDC for Inductance drop 10% from its value without current
- Measure Equipment：

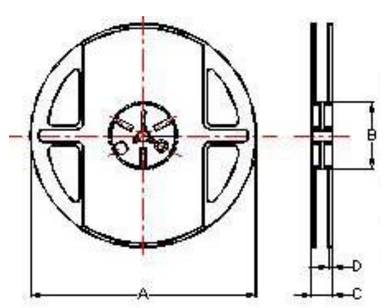
L & Q：Agilent E4991A+Agilent HP16197A
SRF：Agilent E4991A
RDC：HP4338B or Chroma 16502
IDC：HP4284A+HP42841A/HP4285A+HP42841A

Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions A	B	T	W	P	F	K	Reel Dimensions A	B	C	D	Quantity PCS / REEL
BWLT00241810	1.85	2.45	0.23	8	4	3.5	1.0	178	60	12	1.5	2000
BWLT00373110	3.05	3.70	0.25	12	4	5.5	1.1	178	60	12	1.5	2000

BWQV Series

BWQV Series comes in 2 sizes with wide inductance range, high Q value at high frequencies and low DC resistance.

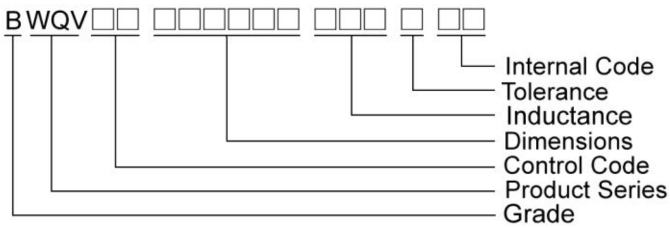
Features

- RoHS compliant
- Miniature chip inductors wound on a special ferrite core
- High Q value at high frequencies and low DC resistance
- Wide inductance range
- Excellent solder heat resistance
- Both flow and reflow soldering methods can be employed

Applications

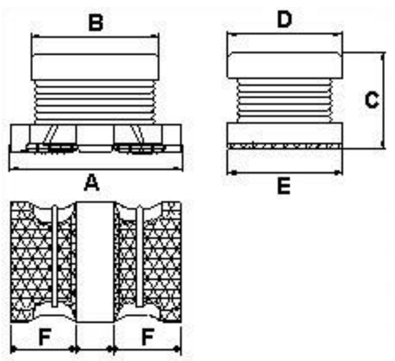
- Personal, cordless phone
- High Freq. communication products
- GPS (global position system)
- Personal computers

Product Identification

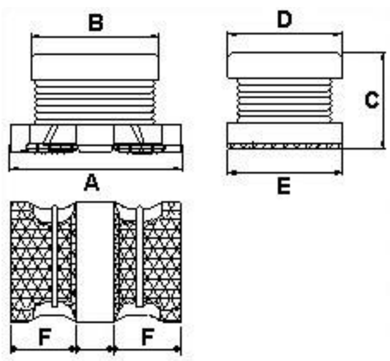


Shape and Dimensions

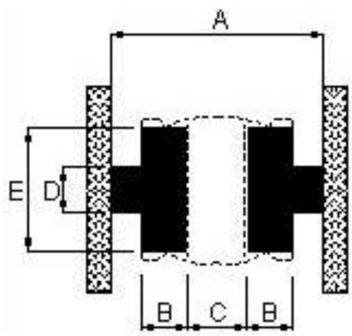
BWQV00322520



BWQV00453226



Recommended Pattern



Dimensions in mm

TYPE	Shape and Dimensions						Recommended Pattern				
	A	B	C	D	E	F	A	B	C	D	E
BWQV00322520	3.2±0.3	2.5±0.2	2.0±0.2	2.5±0.2	2.5±0.2	0.95±0.3	5.5	1.0	1.3	1.0	2.0
BWQV00453226	4.5±0.3	3.6±0.2	2.6±0.2	3.2±0.2	3.2±0.2	1.45±0.3	7.5	1.5	1.5	1.5	3.0

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Rated current (mA)
BWQV00322520R47□00	0.47	20	1	20	1	150	0.06	1100
BWQV00322520R82□00	0.82	20	1	20	1	120	0.25	450
BWQV003225201R0□00	1.0	20	1	20	1	100	0.50	445
BWQV003225201R2□00	1.2	20	1	20	1	100	0.60	425
BWQV003225201R5□00	1.5	20 / 10	1	20	1	75	0.60	400
BWQV003225201R8□00	1.8	20 / 10	1	20	1	60	0.70	390
BWQV003225202R2□00	2.2	20 / 10	1	20	1	50	0.80	370
BWQV003225202R7□00	2.7	20 / 10	1	20	1	43	0.90	320
BWQV003225203R3□00	3.3	20 / 10	1	20	1	38	1.0	300
BWQV003225203R9□00	3.9	20 / 10	1	20	1	35	1.1	290
BWQV003225204R7□00	4.7	20 / 10	1	20	1	31	1.2	270
BWQV003225205R6□00	5.6	20 / 10	1	20	1	28	1.3	250
BWQV003225206R8□00	6.8	20 / 10	1	20	1	25	1.5	240
BWQV003225208R2□00	8.2	20 / 10	1	20	1	23	1.6	225
BWQV00322520100□00	10	20 / 10	1	35	1	20	1.8	190
BWQV00322520120□00	12	20 / 10	1	35	1	18	2.0	180
BWQV00322520150□00	15	20 / 10	1	35	1	16	2.2	170
BWQV00322520180□00	18	20 / 10	1	35	1	15	2.5	165
BWQV00322520220□00	22	20 / 10 / 5	1	35	1	14	2.8	150
BWQV00322520270□00	27	20 / 10	1	35	1	13	3.1	125
BWQV00322520330□00	33	20 / 10 / 5	1	40	1	12	3.5	115
BWQV00322520390□00	39	20 / 10	1	40	1	11	3.9	110
BWQV00322520470□00	47	20 / 10	1	40	1	11	4.3	100
BWQV00322520560□00	56	20 / 10	1	40	1	10.0	4.9	85
BWQV00322520680□00	68	20 / 10 / 5	1	40	1	9.0	5.5	80
BWQV00322520820□00	82	20 / 10 / 5	1	40	1	8.5	6.2	70
BWQV00322520101□00	100	20 / 10 / 5	1	40	0.796	8.0	7.0	80
BWQV00322520121□00	120	20 / 10	1	40	0.796	7.5	8.0	75
BWQV00322520151□00	150	20 / 10	1	40	0.796	7.0	9.3	70
BWQV00322520181□00	180	20 / 10	1	40	0.796	6.0	10.2	65
BWQV00322520221□00	220	20 / 10	1	40	0.796	5.5	11.8	65
BWQV00322520271□00	270	20 / 10	1	40	0.796	5.0	12.5	65
BWQV00322520331□00	330	20 / 10	1	40	0.796	5.0	13.0	65
BWQV00322520391□00	390	20 / 10	1	50	0.796	5.0	22.0	50
BWQV00322520471□00	470	20 / 10	0.001	50	0.796	5.0	25.0	45
BWQV00322520561□00	560	20 / 10 / 5	0.001	50	0.796	2.0	28.0	40

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10% , M=±20%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Rated Current：Self temperature rise shall be limited to 35℃Max Inductance drop 10% typ.
- Measure Equipment：

  L：Agilent HP4285A(1MHz)/Agilent HP4192A(1kHz)

  Q：Agilent HP4285A

  SRF：Agilent HP4286A

  RDC：HP4338B or Chroma 16502

  Rated Current：HP4284A+HP42841A

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Rated current (mA)
BWQV004532261R0□00	1.0	20	1	20	1	120	0.20	500
BWQV004532261R2□00	1.2	20	1	20	1	100	0.20	500
BWQV004532261R5□00	1.5	20	1	20	1	85	0.30	500
BWQV004532261R8□00	1.8	20	1	20	1	75	0.30	500
BWQV004532262R2□00	2.2	20	1	20	1	62	0.30	500
BWQV004532262R7□00	2.7	20	1	20	1	53	0.32	500
BWQV004532263R3□00	3.3	20	1	20	1	47	0.35	500
BWQV004532263R9□00	3.9	20	1	20	1	41	0.38	500
BWQV004532264R7□00	4.7	20 / 10	1	30	1	38	0.40	500
BWQV004532265R6□00	5.6	20 / 10	1	30	1	33	0.47	500
BWQV004532266R8□00	6.8	20 / 10	1	30	1	31	0.50	450
BWQV004532268R2□00	8.2	20 / 10	1	30	1	27	0.56	450
BWQV00453226100□00	10	20 / 10	1	35	1	23	0.56	400
BWQV00453226120□00	12	20 / 10	1	35	1	21	0.62	380
BWQV00453226150□00	15	20 / 10 / 5	1	35	1	19	0.73	360
BWQV00453226180□00	18	20 / 10	1	35	1	17	0.82	340
BWQV00453226220□00	22	20 / 10 / 5	1	35	1	15	0.94	320
BWQV00453226270□00	27	20 / 10 / 5	1	35	1	14	1.1	300
BWQV00453226330□00	33	20 / 10	1	35	1	12	1.2	270
BWQV00453226390□00	39	20 / 10 / 5	1	35	1	11	1.4	240
BWQV00453226470□00	47	20 / 10 / 5	1	35	1	10	1.5	220
BWQV00453226560□00	56	20 / 10	1	35	1	9.3	1.7	200
BWQV00453226680□00	68	20 / 10 / 5	1	35	1	8.4	1.9	180
BWQV00453226820□00	82	20 / 10	1	35	1	7.5	2.2	170
BWQV00453226101□00	100	20 / 10 / 5	1	40	0.796	6.8	2.5	160
BWQV00453226121□00	120	20 / 10	1	40	0.796	6.2	3.0	150
BWQV00453226151□00	150	20 / 10	1	40	0.796	5.5	3.7	130
BWQV00453226181□00	180	20 / 10	1	40	0.796	5.0	4.5	120
BWQV00453226221□00	220	20 / 10 / 5	1	40	0.796	4.5	5.4	110
BWQV00453226271□00	270	20 / 10	1	40	0.796	4.0	6.8	100
BWQV00453226331□00	330	20 / 10	1	40	0.796	3.6	8.2	95
BWQV00453226391□00	390	20 / 10 / 5	1	40	0.796	3.3	9.7	90
BWQV00453226471□00	470	20 / 10 / 5	0.001	40	0.796	3.0	11.8	80
BWQV00453226561□00	560	20 / 10 / 5	0.001	40	0.796	2.7	14.5	70

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10% , M=±20%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Rated Current：Self temperature rise shall be limited to 35℃Max Inductance drop 10% typ.
- Measure Equipment：

  L：Agilent HP4285A(1MHz)/Agilent HP4192A(1kHz)

  Q：Agilent HP4285A

  SRF：Agilent HP4291A

  RDC：HP4338B or Chroma 16502

  Rated Current：HP4284A+HP42841A

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Rated current (mA)
BWQV00453226681□00	680	20 / 10	0.001	40	0.796	2.5	17.5	65
BWQV00453226821□00	820	20 / 10	0.001	40	0.796	2.2	20.5	60
BWQV00453226102□00	1000	20 / 10 / 5	0.001	40	0.252	2.0	25.0	50
BWQV00453226122□00	1200	20 / 10	0.001	40	0.252	1.8	30.0	45
BWQV00453226152□00	1500	20 / 10	0.001	40	0.252	1.6	37.0	40
BWQV00453226182□00	1800	20 / 10	0.001	40	0.252	1.5	45.0	35
BWQV00453226222□00	2200	20 / 10 / 5	0.001	40	0.252	1.3	50.0	30

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10% , M=±20%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Rated Current：Self temperature rise shall be limited to 35℃Max Inductance drop 10% typ.
- Measure Equipment：

  L：Agilent HP4285A(1MHz)/Agilent HP4192A(1kHz)

  Q：Agilent HP4285A

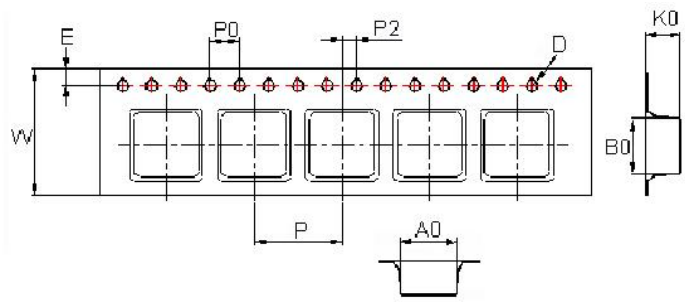
  SRF：Agilent HP4291A

  RDC：HP4338B or Chroma 16502

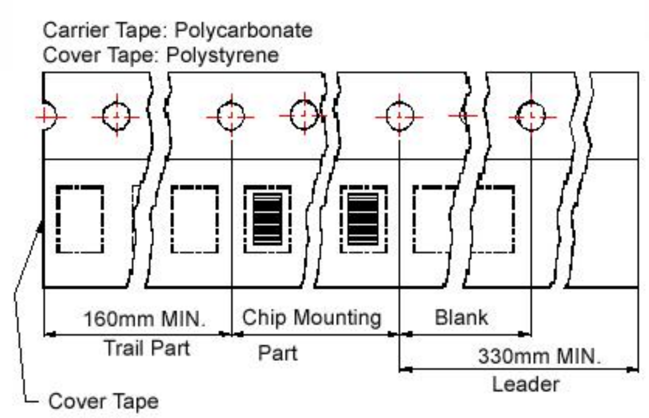
  Rated Current：HP4284A+HP42841A

Packaging Specifications

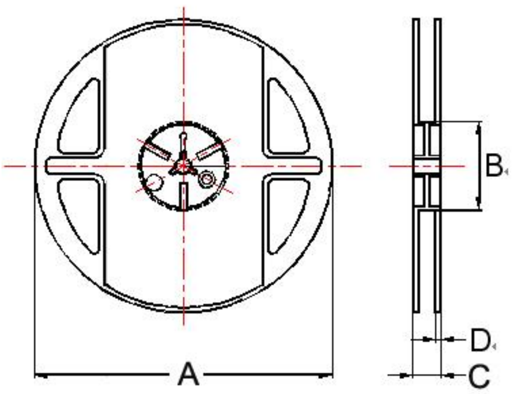
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions									Reel Dimensions				Quantity
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	PCS / REEL
BWQV00322520	2.85	3.60	2.25	1.5	1.75	8	4	4	2	178	60	9	1.5	2000
BWQV00453226	3.60	4.90	3.00	1.5	1.75	12	8	4	2	178	60	13.2	1.5	500

BWQC Series

The BWQC Series is a type of miniature wire-wound chip inductor designed on a special ferrite core. They are excellent for use in DC power supply circuits.

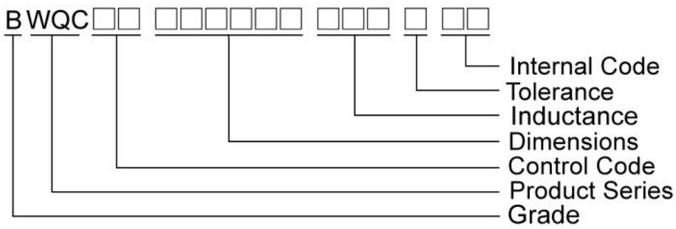
Features

- RoHS compliant
- Low DC resistance, high current capacity, and high impedance characteristics
- Excellent solder heat resistance
- Both flow and reflow soldering methods can be employed
- Available in 4 sizes

Applications

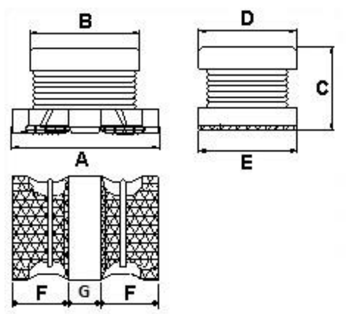
- Personal computers
- Disk drives and computer peripherals
- Pagers, cordless phone
- DC power supply circuit

Product Identification



Shape and Dimensions

BWQC00322520/322520_L1



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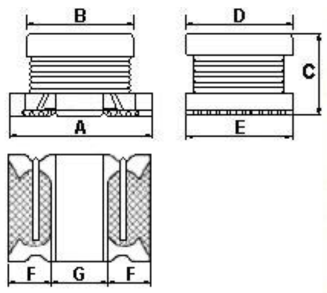
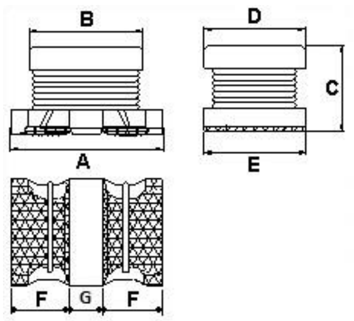


BWQC00453226

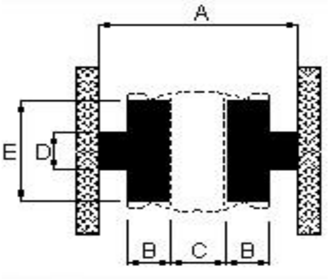


Dimensions in mm

TYPE	A	B	C	D	E	F	G
BWQC00322516	3.2 ± 0.3	2.5 ± 0.2	1.55± 0.15	2.5 ± 0.2	2.5 ± 0.2	0.95 ± 0.3	1.3 ± 0.2
BWQC00322516_H1	3.2 ± 0.3	2.5 ± 0.2	1.55± 0.15	2.5 ± 0.2	2.5 ± 0.2	0.95 ± 0.3	1.3 ± 0.2
BWQC00322520	3.2 ± 0.3	2.5 ± 0.2	2.0 ± 0.2	2.5 ± 0.2	2.5 ± 0.2	0.95 ± 0.3	1.3 ± 0.2
BWQC00322520_L1	3.2 ± 0.3	2.5 ± 0.2	2.0 ± 0.2	2.5 ± 0.2	2.5 ± 0.2	0.95 ± 0.3	1.3 ± 0.2
BWQC00453226	4.5 ± 0.3	3.6 ± 0.2	2.6 ± 0.2	3.2 ± 0.2	3.2 ± 0.2	1.45 ± 0.3	1.6 ± 0.2

Recommended Pattern

BWQC00322516/322516_H1



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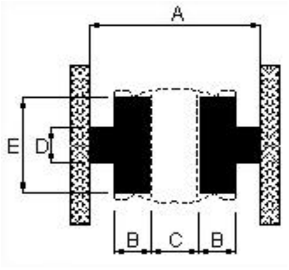


Dimensions in mm

TYPE	A	B	C	D	E
BWQC00322516	5.5	1.0	1.3	1.0	2.0
BWQC00322516_H1	5.5	1.0	1.3	1.0	2.0
BWQC00322520	5.5	1.0	1.3	1.0	2.0
BWQC00322520_L1	5.5	1.0	1.3	1.0	2.0
BWQC00453226	7.5	1.5	1.5	1.5	3.0

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω±20%)	Rated current (mA)	Irms (mA)
BWQC00322516R47□H1	0.47	30	1	100	0.030	3400	2550
BWQC003225161R0□H1	1.0	30 / 20	1	100	0.045	2300	2050
BWQC003225161R5□H1	1.5	30	1	70	0.057	1750	1750
BWQC003225162R2□H1	2.2	30 / 20	1	70	0.076	1550	1600
BWQC003225163R3□H1	3.3	30 / 20	1	50	0.120	1250	1200
BWQC003225164R7□H1	4.7	30 / 20	1	40	0.180	1000	1000
BWQC003225166R8□H1	6.8	30 / 20	1	40	0.240	850	850
BWQC00322516100□H1	10	30 / 20	1	30	0.380	750	700
BWQC00322516150□H1	15	30 / 20	1	25	0.700	550	500
BWQC00322516220□H1	22	30 / 20	1	20	0.810	500	450
BWQC00322516330□H1	33	30 / 20	1	14	1.050	360	320
BWQC00322516470□H1	47	30 / 20	1	11	1.480	280	240

Note: When ordering, please specify tolerance code. Tolerance : M=±20% ,T=±30%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Rated Current：Self temperature rise shall be limited to 35℃ Max Inductance drop 10% typ.
- Measure Equipment：

L：Agilent HP4192A
SRF：Agilent HP4291A
RDC：Chroma 16502
Rate Current：HP4284A+HP42841A

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω±30%)	Rated current (mA)
BWQC003225162R2□00	2.2	20	1	64	0.097	790
BWQC003225163R3□00	3.3	20	1	50	0.12	710
BWQC003225166R8□00	6.8	20	1	32	0.25	540
BWQC00322516100□00	10	20 / 10	1	26	0.30	350
BWQC00322516220□00	22	20 / 10	1	19	0.71	250
BWQC00322516101□00	100	20 / 10	1	10	3.50	100

Note: When ordering, please specify tolerance code. Tolerance : K=±10% , M=±20%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Rated Current for Inductance drop 10% from its value with current
- Measure Equipment：

  L：Agilent HP4192A

  SRF：Agilent HP4287A

  RDC：Chroma 16502

Electrical Characteristics (LOW DCR Type)

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω±30%)	Rated current (mA)
BWQC00322520R15□L1	0.15	20	1	400	0.028	1450
BWQC00322520R27□L1	0.27	20	1	250	0.034	1250
BWQC00322520R47□L1	0.47	20	1	150	0.042	1100
BWQC003225201R0□L1	1.0	20	1	100	0.060	1000
BWQC003225201R5□L1	1.5	20	1	85	0.085	900
BWQC003225202R2□L1	2.2	20	1	64	0.097	790
BWQC003225203R3□L1	3.3	20	1	55	0.13	700
BWQC003225204R7□L1	4.7	20 / 10	1	43	0.15	650
BWQC003225206R8□L1	6.8	20	1	30	0.21	600
BWQC00322520100□L1	10	20 / 10	1	26	0.30	450

Note: When ordering, please specify tolerance code. Tolerance : K=±10% , M=±20%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Rated Current：Self temperature rise shall be limited to 35℃ Max Inductance drop 10% typ.
- Measure Equipment：

  L：Agilent HP4192A

  SRF：Agilent HP4291A

  RDC：Chroma 16502

  Rate Current：HP4284A+HP42841A

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω±30%)	Rated current (mA)
BWQC00322520R47□00	0.47	20	1	150	0.042	1100
BWQC003225201R0□00	1.0	20	1	96	0.09	1000
BWQC003225202R2□00	2.2	20	1	64	0.13	600
BWQC003225203R3□00	3.3	20 / 10	1	60	0.15	600
BWQC003225203R9□00	3.9	20	1	50	0.16	500
BWQC003225204R7□00	4.7	20	1	43	0.20	450
BWQC003225206R8□00	6.8	20	1	30	0.26	400
BWQC00322520100□00	10	20 / 10	1	26	0.44	300
BWQC00322520150□00	15	20 / 10	1	22	0.55	350
BWQC00322520220□00	22	20 / 10	1	19	0.71	250
BWQC00322520270□00	27	20 / 10	1	15	0.90	230
BWQC00322520330□00	33	20 / 10	1	15	1.10	200
BWQC00322520470□00	47	20 / 10	1	15	1.30	170
BWQC00322520560□00	56	20 / 10	1	12	2.30	150
BWQC00322520101□00	100	20 / 10	1	10	3.50	100
BWQC00322520151□00	150	20 / 10 / 5	1	7	6.00	80
BWQC00322520221□00	220	20 / 10 / 5	1	6.8	8.40	70
BWQC00322520271□00	270	20 / 10	1	6	10.0	65
BWQC00322520331□00	330	20 / 10 / 5	1	5.6	10.0	60
BWQC00322520391□00	390	20 / 10	1	5	17.0	60
BWQC00322520471□00	470	20 / 10	0.001	5	19.0	60
BWQC00322520561□00	560	20 / 10	0.001	5	22.0	60

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10% , M=±20%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Rated Current：Self temperature rise shall be limited to 35℃ Max Inductance drop 10% typ.
- Measure Equipment：

  L：Agilent HP4192A

  SRF：Agilent HP4291A

  RDC：Chroma 16502

  Rate Current：HP4284A+HP42841A

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max.	Rated current (mA)
BWQC004532261R0□00	1.0	20	1	100	0.08	1080
BWQC004532261R5□00	1.5	20	1	85	0.09	1000
BWQC004532261R8□00	1.8	20	1	65	0.10	900
BWQC004532262R2□00	2.2	20 / 10	1	60	0.11	900
BWQC004532263R3□00	3.3	20	1	47	0.13	800
BWQC004532264R7□00	4.7	20 / 10	1	35	0.15	750
BWQC004532266R8□00	6.8	20 / 10	1	30	0.20	720
BWQC00453226100□00	10	20 / 10 / 5	1	23	0.24	650
BWQC00453226150□00	15	20 / 10 / 5	1	20	0.32	570
BWQC00453226220□00	22	20 / 10 / 5	1	15	0.60	420
BWQC00453226330□00	33	20 / 10 / 5	1	12	1.0	310
BWQC00453226470□00	47	20 / 10 / 5	1	10	1.1	280
BWQC00453226680□00	68	20 / 10 / 5	1	8.4	1.7	220
BWQC00453226101□00	100	20 / 10 / 5	1	6.8	2.2	190
BWQC00453226151□00	150	20 / 10 / 5	1	5.5	3.5	130
BWQC00453226221□00	220	20 / 10 / 5	1	4.5	4.0	110
BWQC00453226331□00	330	20 / 10 / 5	1	3.6	6.8	100
BWQC00453226471□00	470	20 / 10 / 5	1	3.0	8.5	90
BWQC00453226561□00	560	20 / 10 / 5	0.001	2.5	10.4	80
BWQC00453226681□00	680	20 / 10 / 5	0.001	2.2	14.7	70
BWQC00453226821□00	820	20 / 10 / 5	0.001	2.0	20.0	60
BWQC00453226102□00	1000	20 / 10 / 5	0.001	2.0	27.9	50
BWQC00453226152□00	1500	20 / 10 / 5	0.001	1.8	35.0	40

Note: When ordering, please specify tolerance code. Tolerance : J=±5% , K=±10% , M=±20%

- Operating temperature range－40℃～125℃(Including self - temperature rise)
- Rated Current：Self temperature rise shall be limited to 35℃ Max Inductance drop 10% typ.
- Measure Equipment：

  L：Agilent HP4192A

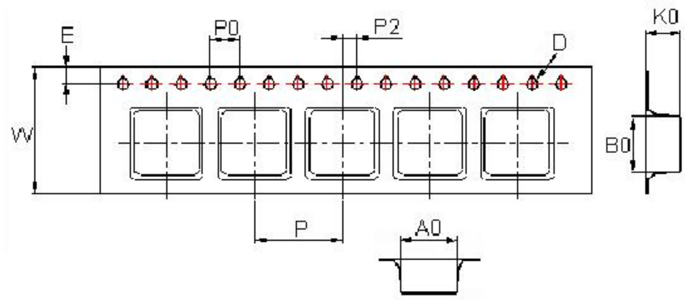
  SRF：Agilent HP4291A

  RDC：Chroma 16502

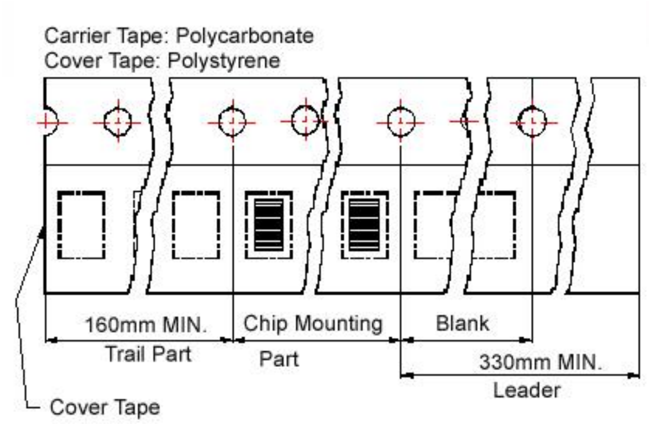
  Rate Current：HP4284A+HP42841A

Packaging Specifications

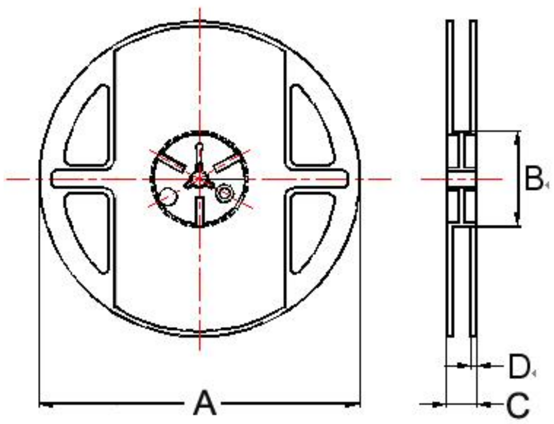
Tape Dimensions



Tape Material



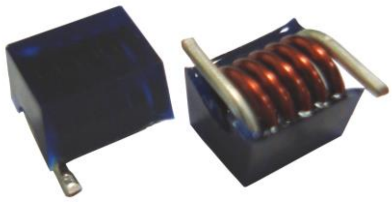
Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions									Reel Dimensions				Quantity
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	PCS / REEL
BWQC00322516	2.85	3.56	1.80	1.55	1.75	8	4	4	2	178	60	9	1.5	2000
BWQC00322516_H1	2.85	3.56	1.80	1.55	1.75	8	4	4	2	178	60	9	1.5	2000
BWQC00322520	2.85	3.60	2.25	1.5	1.75	8	4	4	2	178	60	9	1.5	2000
BWQC00322520_L1	2.85	3.60	2.25	1.5	1.75	8	4	4	2	178	60	9	1.5	2000
BWQC00453226	3.60	4.90	3.00	1.5	1.75	12	8	4	2	178	60	13.2	1.5	500

BWSM Series



Air core inductors feature high Q and high current handling. Solder coated leads ensure reliable soldering.

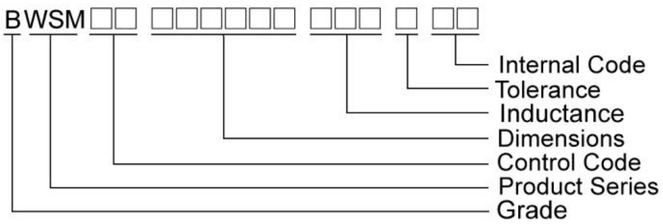
Features

- High Q
- High Current
- Low loss
- Low DCR

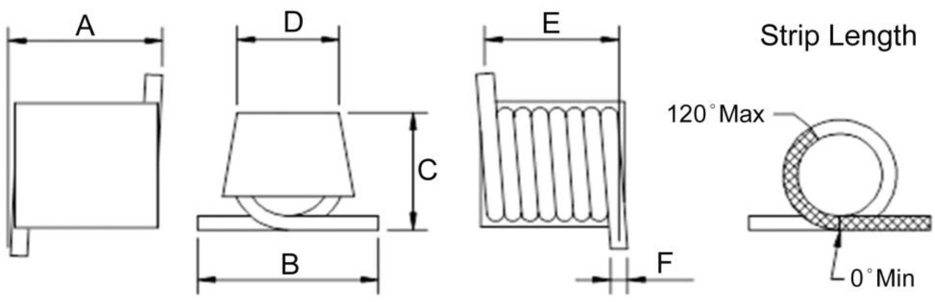
Applications

- Base Station
- LNA
- LNB
- Satellite

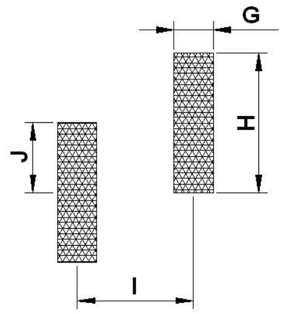
Product Identification



Shape and Dimensions



Recommended Pattern



Dimensions

	A	B	C	D	E	F	G	H	I	J
BWSM00506442	4.94Max	6.34Max	4.18Max	3.5±0.3	4.3±0.4	0.7Max	1.48	5.16	4.32	2.62

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Q Min	Test Frequency (MHz)	SRF (GHz) Min	RDC (mΩ) Max	Irms (A) Typ
BWSM0050644222N□00	22	2 / 5	100	150	1.9	4.2	3.0
BWSM0050644227N□00	27	2 /,5	100	150	1.7	4.0	3.5
BWSM0050644233N□00	33	2 /,5	100	150	1.5	4.8	3.0
BWSM0050644239N□00	39	2 / 5	100	150	1.1	4.8	3.0
BWSM0050644247N□00	47	2 / 5	100	150	1.1	5.8	3.0
BWSM0050644256N□00	56	2 / 5	100	150	0.95	6.3	3.0
BWSM0050644268N□00	68	2 / 5	100	150	0.85	8.5	2.5
BWSM0050644282N□00	82	2 / 5	100	150	0.75	9.4	2.5

Note: When ordering, please specify tolerance code. Tolerance: G=±2% , J=±5%

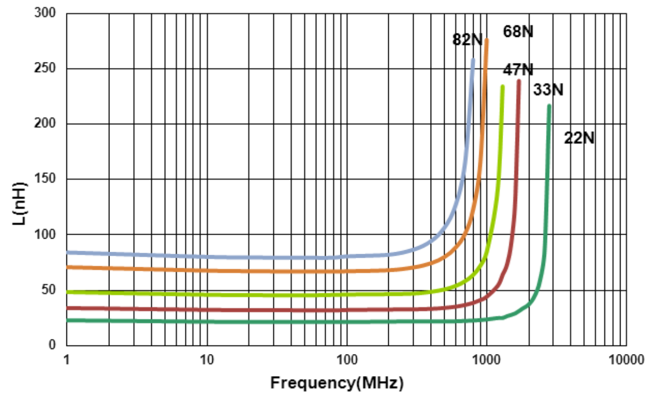
- Operating temperature range - 40℃ ~ 125℃(Including self - temperature rise)
- Irms for a 15℃ temperature rise from 25℃ ambient.
- Measure Equipment：

  L & Q：Agilent E4991A+Agilent HP16197A

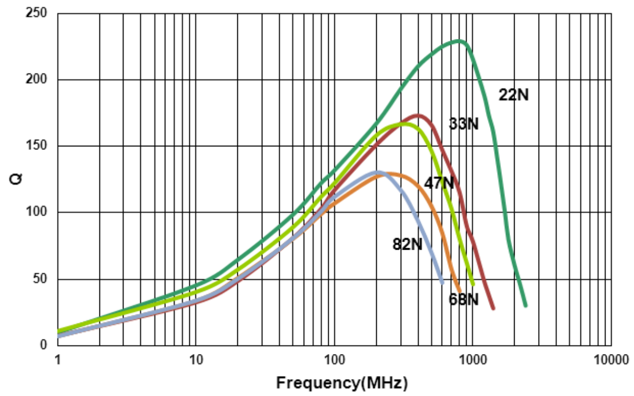
  RDC: Chroma 16502

  Irms：HP4284A+HP42841A/HP4285A+HP42841A

Typical L vs. Frequency

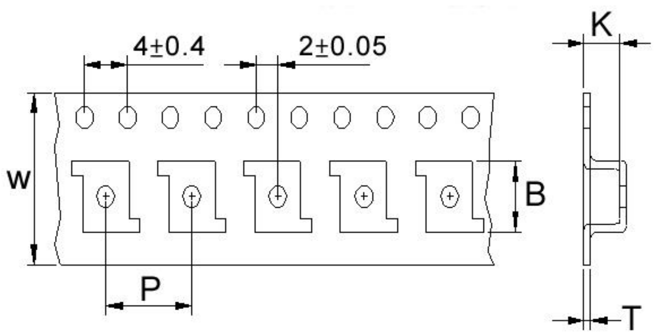


Typical Q vs. Frequency

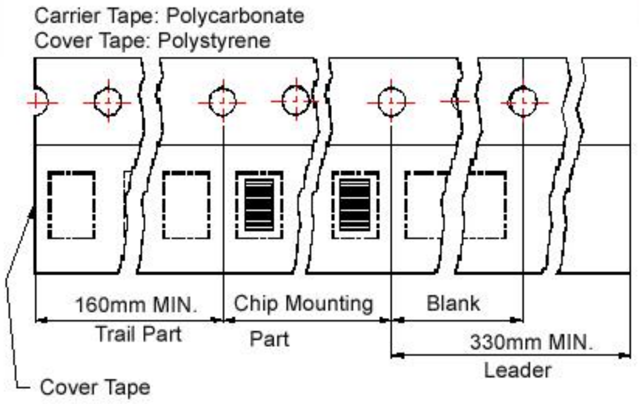


Packaging Specifications

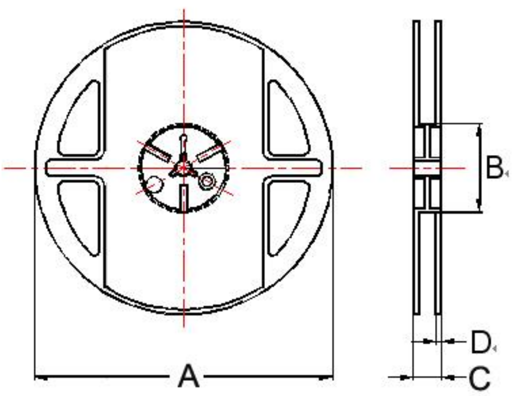
Tape Dimensions



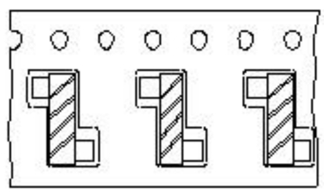
Tape Material



Reel Dimensions



Orientation



Dimensions in mm

TYPE	Tape Dimensions					Reel Dimensions				Quantity
	B	T	W	P	K	A	B	C	D	PCS / REEL
BWSM00506442	5.2	0.4	12	8	3.9	178	60.2	16	1.4	500

BTCA Series

Chilisin offer multilayer devices of Low-Temperature Cofired Ceramics for applications in wireless communication as WLAN, Bluetooth etc. Our commitment is to meet your goals through extensive technological innovation, excellent quality, short lead time and high volume production capability.

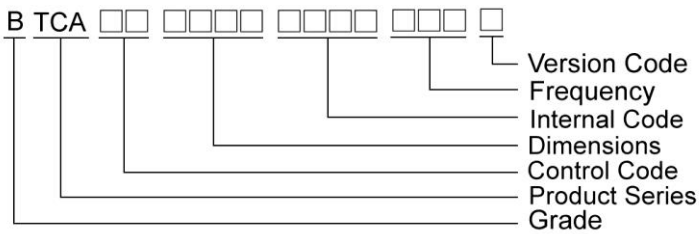
Features

- Monolithic SMD with small
- Low-profile and light-weight type

Applications

- Bluetooth
- 2.4GHz Wireless LAN
- Home RF
- Consumer electronic

Product Identification



Shape and Dimensions

FIG1

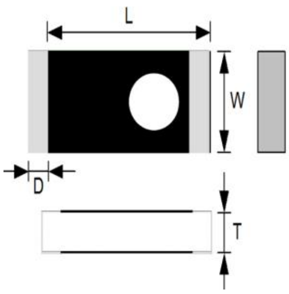


FIG2

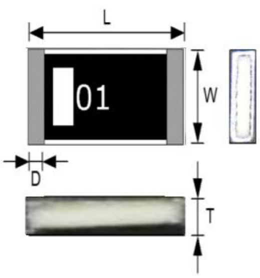


FIG3

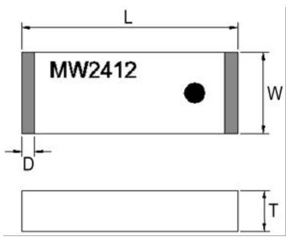
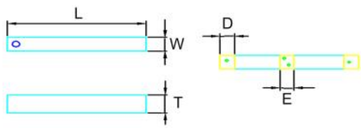


FIG4



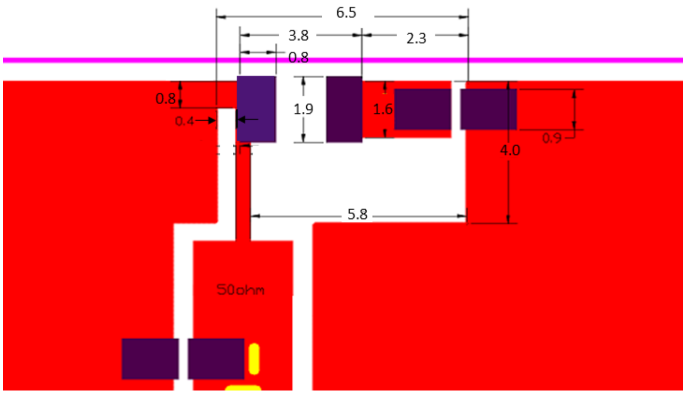
Dimensions in mm

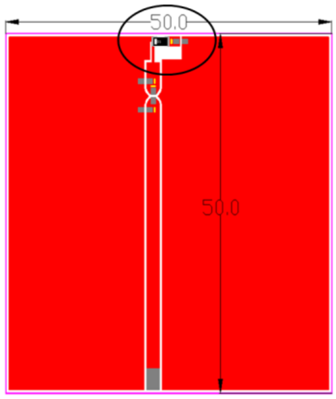
TYPE	FIG	L	W	D	T
BTCA003216080025GE	1	3.2±0.2	1.6±0.2	0.5±0.2	0.5±0.2
BTCA00321609002G4W	2	3.0±0.2	1.5±0.2	0.2±0.2	0.5±0.2
BTCA00321609005G0W	2	3.2±0.2	1.6±0.2	0.5±0.2	0.5±0.2
BTCA005020100025GM	3	5.0±0.4	2.0±0.4	0.3±0.2	1.0±0.2

Recommended Pattern

PC Board Pattern

BTCA00321609002G4W





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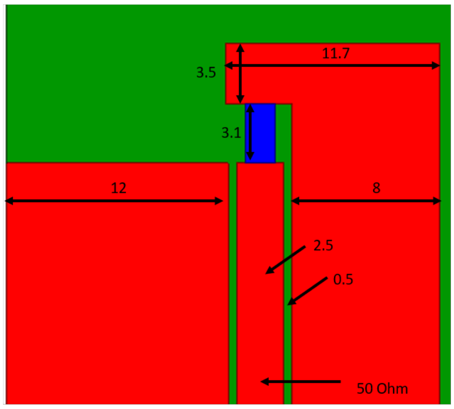

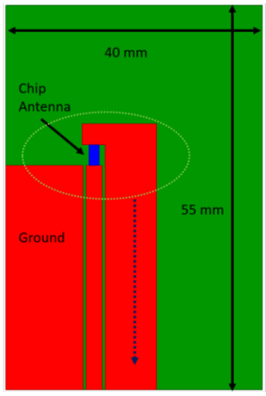

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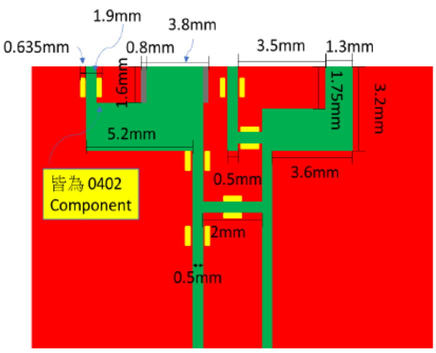

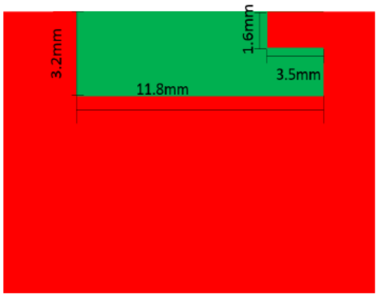

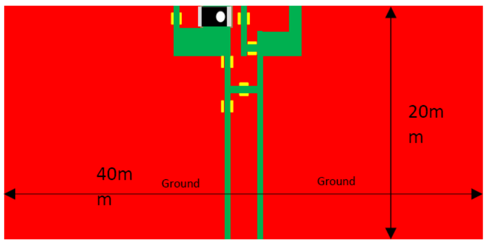

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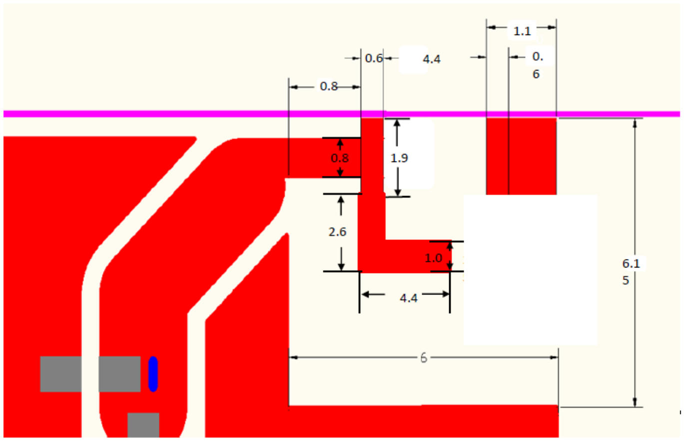
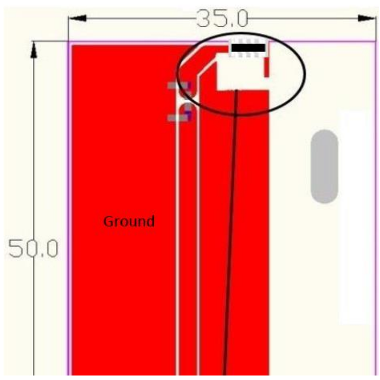




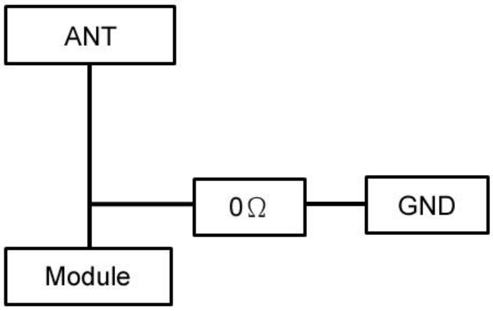
Electrical Characteristics

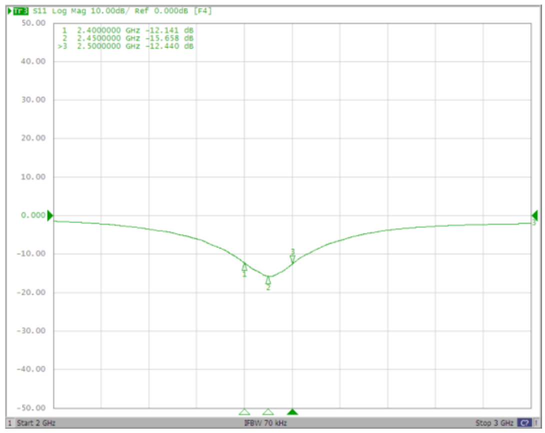
Part Number	Impedance (Ω)	Test Frequency (GHz)	Bandwidth* (MHz)	Peak Gain* (dBi)	VSWR (Max)	Polarization
BTCA00321609002G4W	50	2.4	100	0~1	2	Linear
BTCA00321609005G0W	50	5	100	-0.3~1.3	2	Linear
BTCA003216080025GE	50	2.4 5	100	1~2	2	Linear
BTCA005020100025GM	50	2.4 5	100	3.2	2	Linear

Note: *Depend on PCB layout.

Test Instruments： Agilent E4991A Material/Impedance Analyzer

BTCA00321609002G4W





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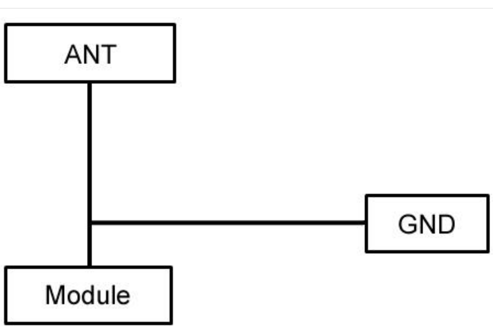

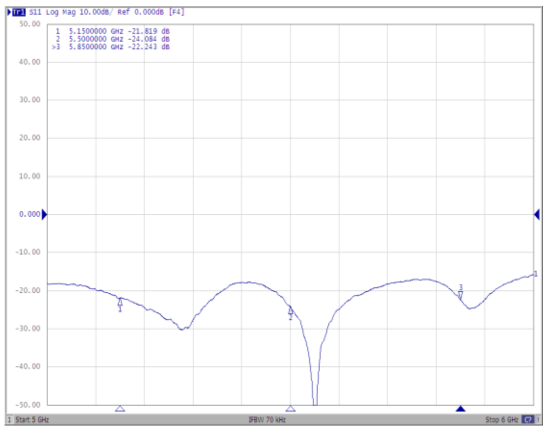

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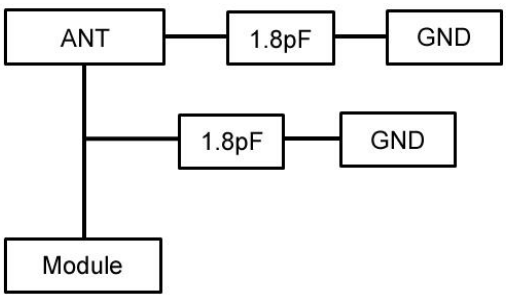
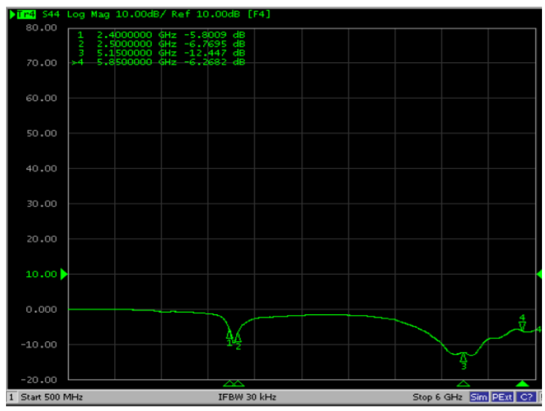
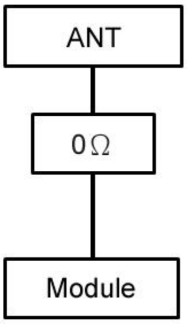
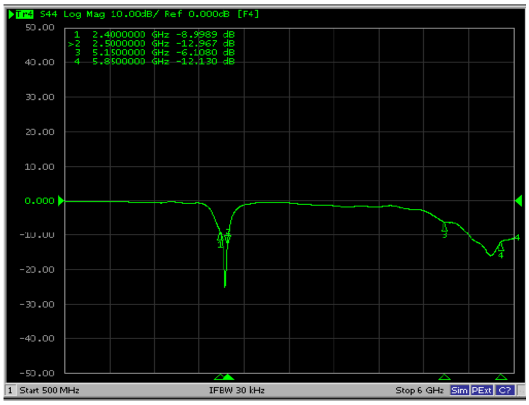




Test Instruments：Agilent E4991A Material/Impedance Analyzer

BTCA005020100025GM



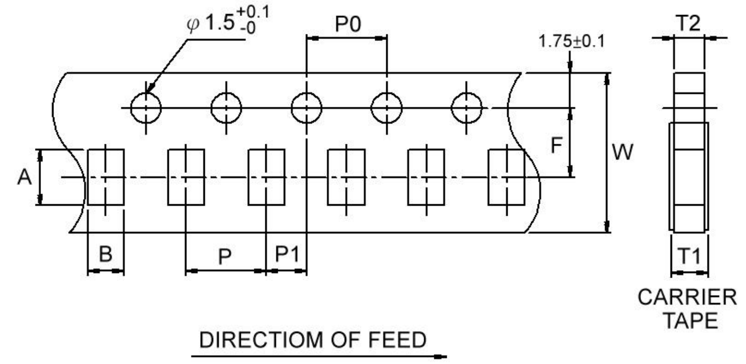


Packaging Specifications

Tape Dimensions

Reel Dimensions

FIG 1



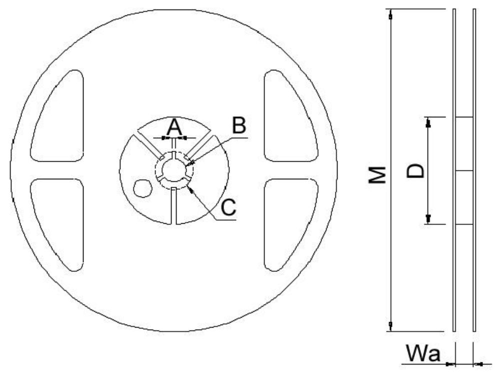
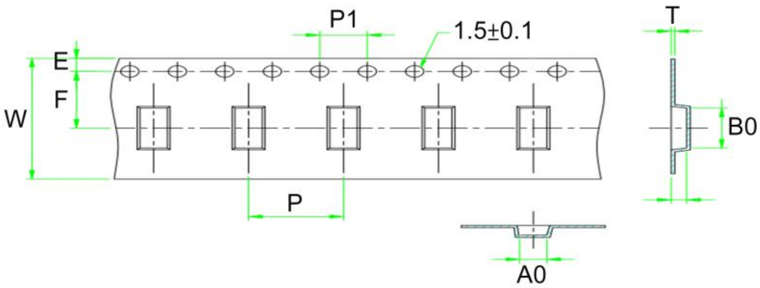
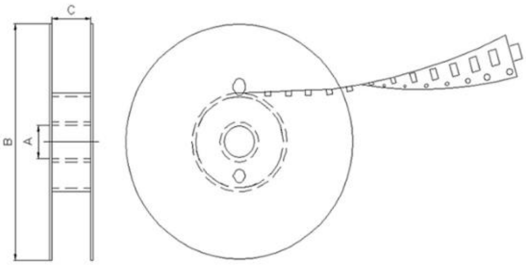


FIG 2



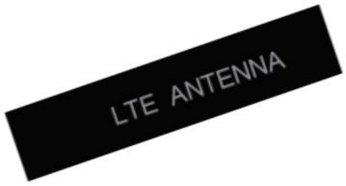


Dimensions

TYPE	FIG	Tape Dimensions									Reel Dimensions						Quantity
		A	B	T1	W	P	P0	P1	F	T2	Wa	M	A	B	C	D	PCS / REEL
BTCA00321605	1	3.5	1.9	0.75	8	4	4	2	3.5	0.75	9	178	2	13.5	21	60	5000
											12	178	2	13.2	17.7	60	

TYPE	FIG	Tape Dimensions									Reel Dimensions				Quantity
		A0	B0	T	E	W	P	P0	F	K0	A	B	C	D	PCS / REEL
BTCA005020	2	2.3	5.3	0.3	1.75	16	8	4	7.5	1.3	100	330	12	-	5000

BTPA Series



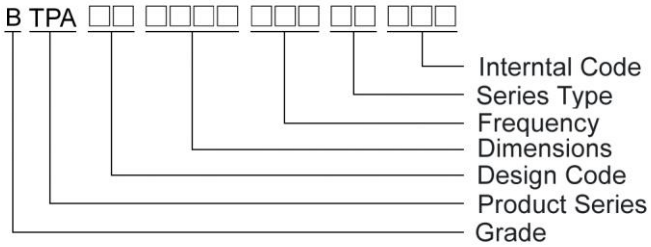
Features

- Small size low-profile, low cost and lightweight type
- Wide bandwidth and Omni-directional
- Supported with Dip-type, SMD, and Co-axial cable connecting
- Customized

Applications

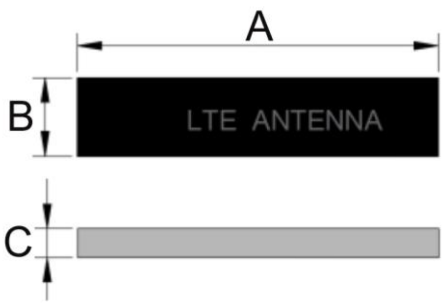
- Bluetooth, Wireless Router, Set Top Box and Home digital
- ISM band, Lora, Sigfox, LTE, NB-IOT, GPS, WiFi and Car use.

Product Identification

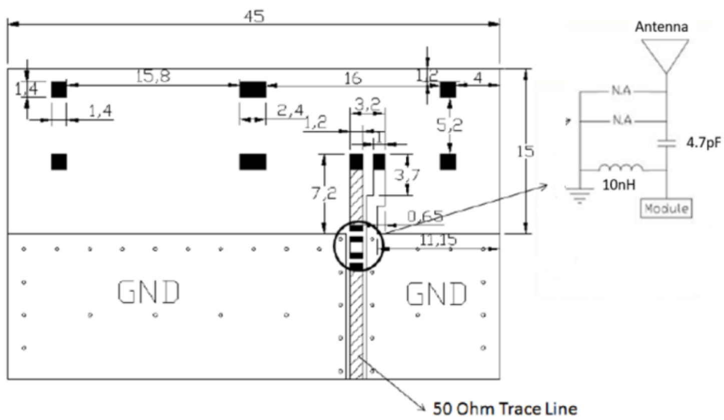


Shapes and Dimensions

FIG 1



Recommend foot print for Evaluation Board



Dimensions in mm

TYPE	FIG	A	B	C
BTPA0038084G0D1A01	1	38	8	3

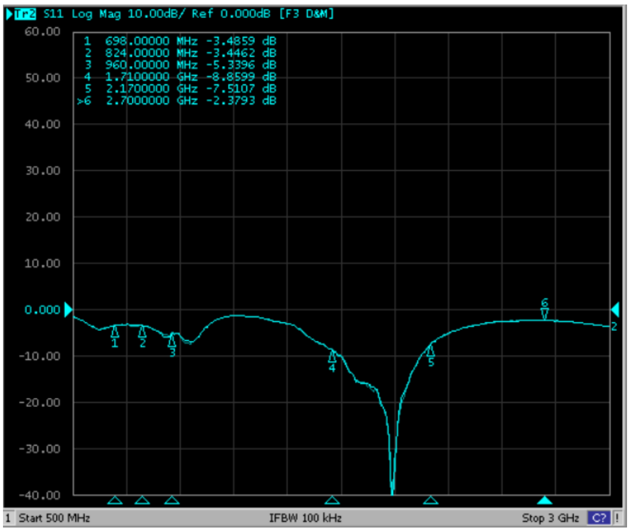
Electrical Characteristics

Part Number	Frequency Range (MHz)	Impedance (Ω)	Return Loss (dB)	Efficiency	Termination
BTPA0038084G0D1A01	698~2690	50	<-3	698~824MHz >20% 824~960MHz >40% 1710~2170MHz >50% 2170~2690MHz >40%	Ag (Environmentally-Friendly Pb

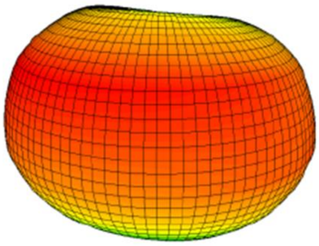
- Operating temperature range－40℃～+80℃
- Storage temperature range－45℃～+85℃

BTPA0038084G0D1A01

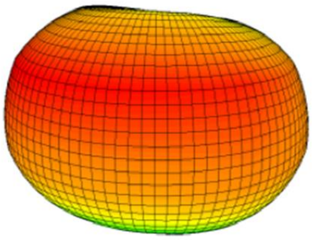
Network Analyzer Test



Peak Gain and Efficiency

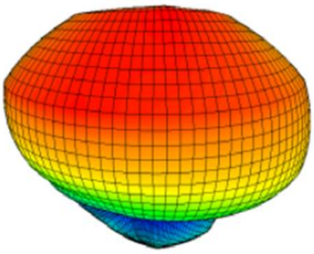


824 MHz

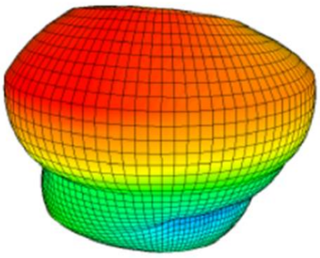


960MHz

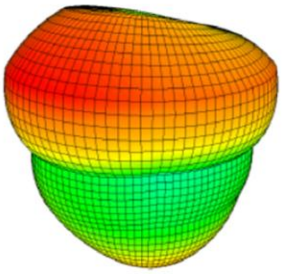
Layer	824(MHz)	915(MHz)	960(MHz)
Peak Gain(dB)	-0.52	0.12	-0.31
Efficiency(%)	54.12	58.13	52.37



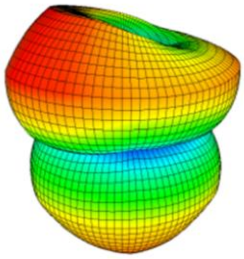
1710MHz



2170MHz



2100MHz



2700MHz

Layer	1710MHz	1809MHz	1908MHz	2170MHz
Peak Gain(dB)	1.03	1.15	1.13	1.07
Efficiency(%)	68.56	71.12	70.91	69.32

Layer	2100(MHz)	2500(MHz)	2700(MHz)
Peak Gain(dB)	2.13	1.35	1.16
Efficiency(%)	77.71	45.14	43.5

Packaging Specifications

Dimensions in mm

TYPE	FIG	Tape Dimensions									Packing Specification		Quantity
		A0	B0	T	E	W	P	P0	F	K0	Bundle	PE Bag	PCS / REEL
BTPA003808	-	-	-	-	-	-	-	-	-	-	25	100	-

BTEA Series

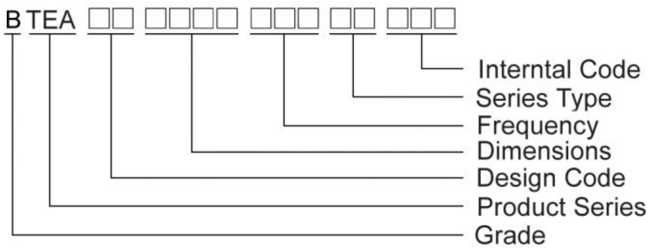
Features

- Easy installation low cost and light-weight type
- Wide bandwidth and Omni-directional
- Customized

Applications

- Bluetooth, Wireless Router, Set Top Box and Home digital
- ISM band, Lora, Sigfox, LTE, 5G, Sub 6G, WiFi 6e, NB-IOT, GPS, WiFi and Car use.

Product Identification



Shapes and Dimensions

FIG 1

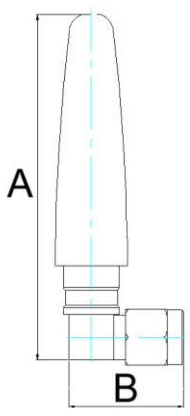


FIG 2

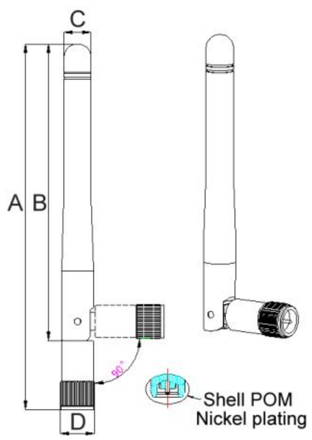


FIG 3

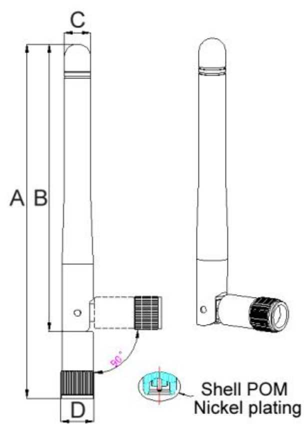
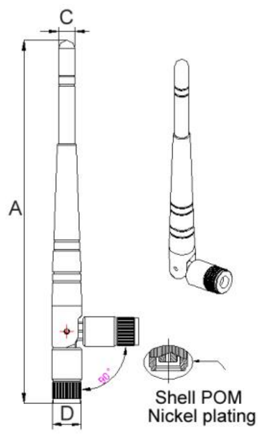


FIG 4



Dimensions in mm

TYPE	FIG	A	B	C	D
BTEA0050160G8R2A01	1	50±2	16.6±0.3	-	-
BTEA0087090G8R2A07	3	108±5	86.7±5	7.9	9.4±0.5
BTEA0087092G4R2A40	3	108.5±5	86.7±5	7.9	10±0.5
BTEA00870925GR2A07	2	108.5±5	87±5	7.8	10±0.5
BTEA0087095G0R2A03	3	108±5	86.7±5	7.8	9.95±0.5
BTEA00151325GR2A07	4	157.5±5	-	7.2	13
BTEA0015132G4R2A08	4	157.5±5	-	7.2	13

Shapes and Dimensions

FIG 5

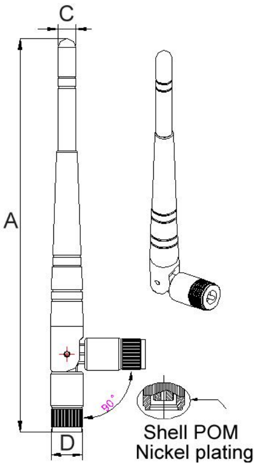


FIG 6

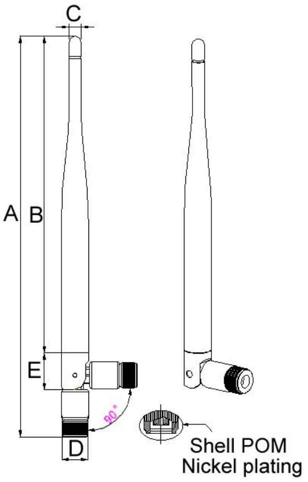


FIG 7

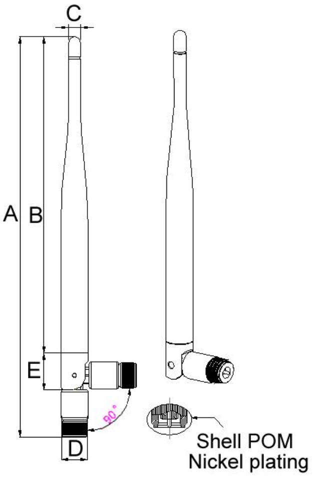
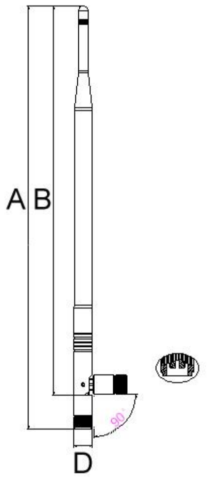


FIG 8



Dimensions in mm

TYPE	FIG	A	B	C	D	E
BTEA0015135G0R2A01	5	157.5±5	-	7.2	13	-
BTEA0017132G4R2A31	6	196±5	154±3	6	13	18
BTEA00171325GR2A05	7	196±5	154±3	6	13	18
BTEA0017135G0R2A07	6	196±5	154±3	6	13	18
BTEA00271325GR2A03	8	293±5	270±5	-	13	-

FIG 9

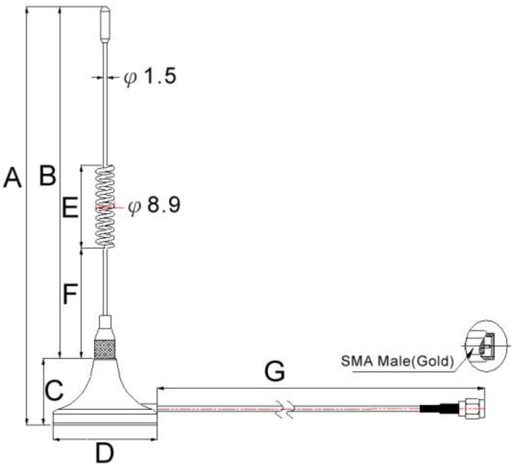
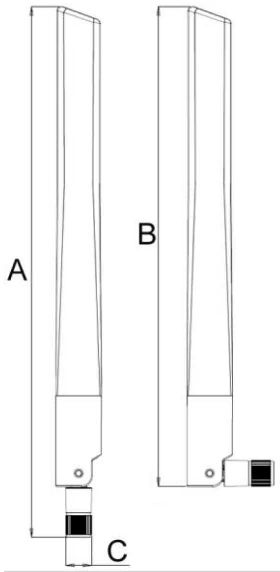


FIG 10



Dimensions in mm

TYPE	FIG	A	B	C	D	E	F	G
BTEA0027300G8R1A01	9	278.2±5	250±2	28.2	φ30	24	51.3	1000±30
BTEA0020104G0R2A02	10	203.43±3	183.95	10±0.3	-	-	-	-
BTEA0020103G8R2A01	10	203.43±3	183.95	10±0.3	-	-	-	-
BTEA0020103G9R2A01	10	203.43±3	183.95	10±0.3	-	-	-	-
BTEA0020106G0R2A01	10	203.43±3	183.95	10±0.3	-	-	-	-
BTEA0020106G0R2A02	10	203.43±3	183.95	10±0.3	-	-	-	-
BTEA0020106G0R2A05	10	203.43±3	183.95	10±0.3	-	-	-	-

Electrical Characteristics

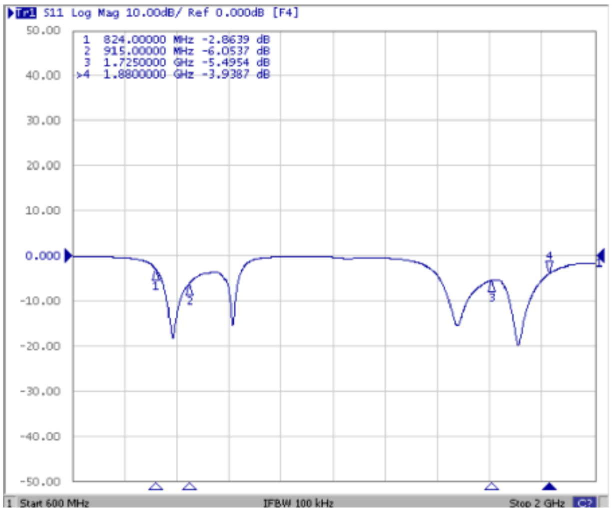
Part Number	Frequency Range (GHz)	Impedance (Ω)	Return Loss dB(Max)	VSWR (Max)	Radiation	Peak Gain (dB)	Polarization	Admitted Power (W)
BTEA0050160G8R2A01	0.824~0.915 1.725~1.88	50	-2.5	-	Omni-directional	2.56	Linear Vertical	1
BTEA0087090G8R2A07	0.824~0.96 1.71~2.17	50	-4	-	Omni-directional	-0.88 2.03	Linear Vertical	-
BTEA0087092G4R2A40	2.4~2.5	50	-10	-	Omni-directional	2	Linear Vertical	1
BTEA00870925GR2A07	2.4~2.5 5.15~5.85	50	-10	-	Omni-directional	2	Linear Vertical	1
BTEA0087095G0R2A03	5.15~5.85	50	-10	-	Omni-directional	2.36	Linear Vertical	1
BTEA00151325GR2A07	2.4~2.5 5.15~5.85	50	-10	2	Omni-directional	3±0.5	Linear	-
BTEA0015132G4R2A08	2.4~2.5	50	-10	2	Omni-directional	3	Linear	-
BTEA0015135G0R2A01	5.1~5.9	50	-10	2	Omni-directional	3±1	Linear	-
BTEA0017132G4R2A31	2.4~2.5	50	-10	-	Omni-directional	4.93	Linear Vertical	1
BTEA00171325GR2A05	2.4~2.5 5.15~5.85	50	-10	-	Omni-directional	5±1	Linear Vertical	1
BTEA0017135G0R2A07	5.15~5.85	50	-10	-	Omni-directional	5±1	Linear Vertical	1
BTEA0020103G8R2A01	3.3~3.8	50	-10	-	Omni-directional	2.69	Linear Vertical	1
BTEA0020103G9R2A01	3.3~4.9	50	-7	-	Omni-directional	4.89	Linear Vertical	1
BTEA0020104G0R2A02	0.704~0.96 1.71~2.7	50	-	5	Omni-directional	2.45 4.51	Linear Vertical	1
BTEA0020106G0R2A01	0.617~0.96 1.71~2.17 2.3~2.7 3.3~3.8 4.4~5 5.15~5.85	50	-	4	Omni-directional	0.59 3.74 3.51 3.7 4 4.87	Linear Vertical	1
BTEA0020106G0R2A02	5.925~7.125	50	-10	-	Omni-directional	5.31	Linear Vertical	1
BTEA0020106G0R2A05	2.4~2.5 5.15~5.85 5.925~6.325 6.35~6.75 6.775~7.125	50	-10	-	Omni-directional	5.65 5.94 6.42 6.87 5.42	Linear Vertical	1
BTEA00271325GR2A03	2.4~2.5 5.15~5.85	50	-10	-	Omni-directional	7±0.5	Linear Vertical	-
BTEA0027300G8R1A01	0.8~0.9 1.8~1.9 2.1	50	-10	2	Omni-directional	-	Linear Vertical	-

Physical Properties

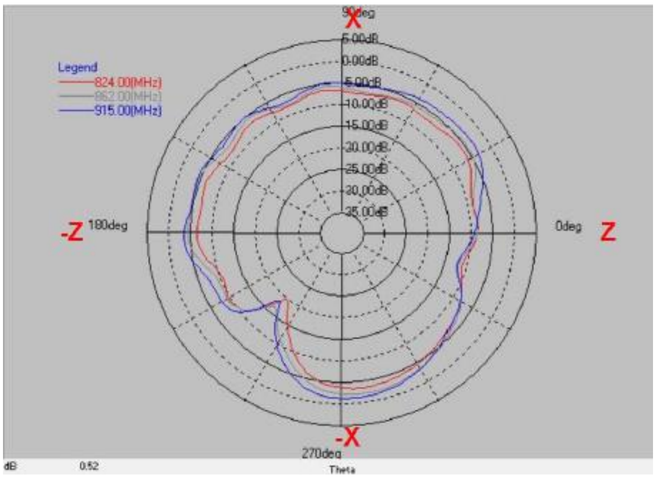
Part Number	Cable	Antenna Cover	Antenna Base	Operating Temp	Storage Temp	Color	Connector
BTEA0050160G8R2A01	RG-178	TPEE	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male 90°
BTEA0087090G8R2A07	RG-178	TPEE	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male-RP
BTEA0087092G4R2A40	RG-178	TPEE	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male-Reverse
BTEA00870925GR2A07	RG-178	TPEE	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male
BTEA0087095G0R2A03	RG-178	TPEE	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male-RP
BTEA00151325GR2A07	RG-178	TPEE	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male-RP
BTEA0015132G4R2A08	RG-178	TPEE	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male-RP
BTEA0015135G0R2A01	RG-178	TPEE	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male
BTEA0017132G4R2A31	RG-178	TPEE	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male-Reverse
BTEA00171325GR2A05	RG-178	TPEE	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male
BTEA0017135G0R2A07	RG-178	TPEE	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male-Reverse
BTEA0020103G8R2A01	RG-178	ABS	PC/PBT	-20℃~+65℃	-30℃~+70℃	Black	SMA-Male
BTEA0020103G9R2A01	RG-178	ABS	PC/PBT	-20℃~+65℃	-30℃~+70℃	Black	SMA-Male
BTEA0020104G0R2A02	RG-178	ABS	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male
BTEA0020106G0R2A01	RG-178	ABS	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-Male-RP
BTEA0020106G0R2A02	RG-178	ABS	PC/PBT	-20℃~+65℃	-30℃~+70℃	Black	SMA-PLUG
BTEA0020106G0R2A05	RG-178	ABS	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	SMA-PLUG
BTEA00271325GR2A03	RG-178	ABS	PC/PBT	-20℃~+65℃	-30℃~+75℃	Black	RP-SMA-Male
BTEA0027300G8R1A01	RG-174	ABS	PVC/SPRING	-10℃~+70℃	+40℃~+80℃	Black	SMA-PLUG

BTEA0050160G8R2A01

Return Loss S11

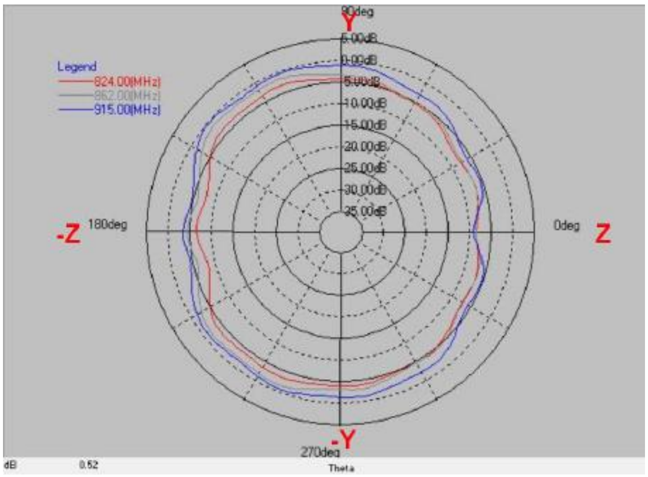


Frequency(MHz)：824~915. Pattern Field：X-Z plane



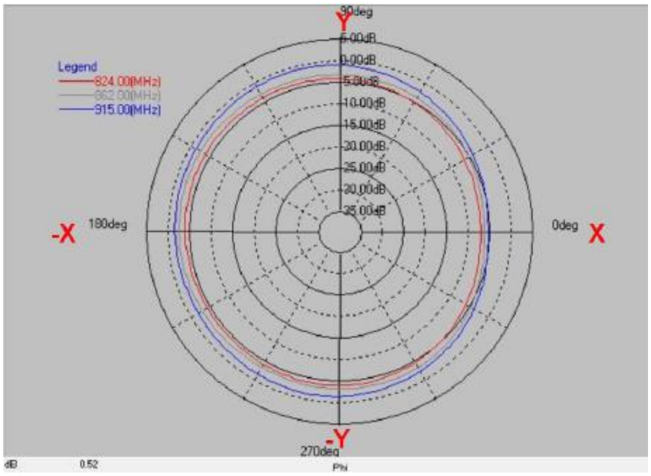
Frequency	Max value	Min value	Average
824(MHz)	-3.68 dB	-19.80 dB	-7.22 dB
862(MHz)	-2.31 dB	-16.80 dB	-6.07 dB
915(MHz)	-1.52 dB	-18.72 dB	-5.13 dB

Frequency(MHz)：824~915. Pattern Field：Y-Z plane



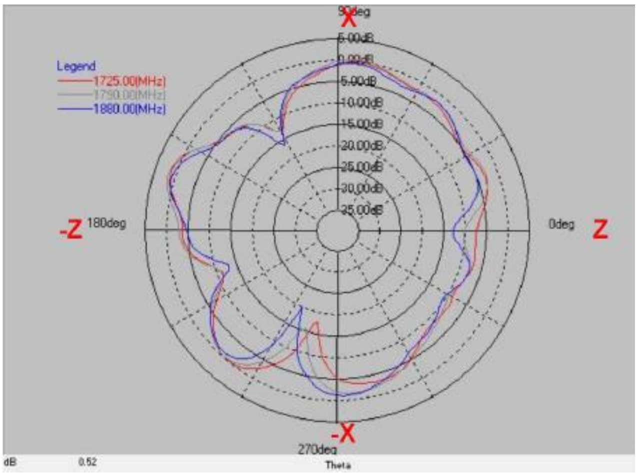
Frequency	Max value	Min value	Average
824(MHz)	-3.26 dB	-8.39 dB	-5.27 dB
862(MHz)	-1.60 dB	-8.61 dB	-4.02 dB
915(MHz)	-0.37 dB	-9.12 dB	-2.62 dB

Frequency(MHz)：824~915. Pattern Field：Y-X plane



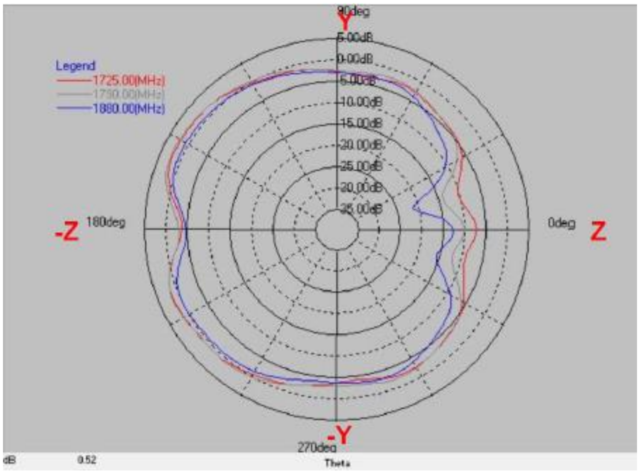
Frequency	Max value	Min value	Average
824(MHz)	-3.85 dB	-7.08 dB	-4.79 dB
862(MHz)	-2.50 dB	-6.26 dB	-3.66 dB
915(MHz)	-1.06 dB	-5.29 dB	-2.22 dB

Frequency(MHz)：1725~1880. Pattern Field：X-Z plane



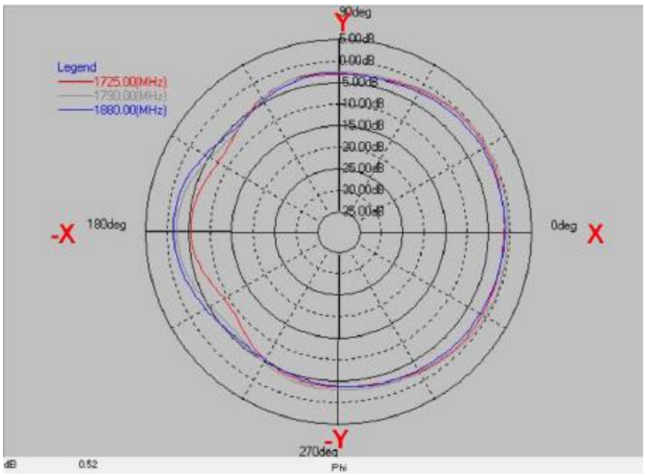
Frequency	Max value	Min value	Average
1725 (MHz)	1.20 dB	-17.94 dB	-4.00 dB
1790(MHz)	1.73 dB	-15.77 dB	-3.52 dB
1880(MHz)	0.74 dB	-20.26 dB	-4.27 dB

Frequency(MHz)：1725~1880. Pattern Field：Y-Z plane



Frequency	Max value	Min value	Average
1725 (MHz)	2.15 dB	-10.24 dB	-1.80 dB
1790(MHz)	2.56 dB	-14.06 dB	-1.55 dB
1880(MHz)	0.74 dB	-21.26 dB	-3.03 dB

Frequency(MHz)：1725~1880. Pattern Field：X-Y plane



Frequency	Max value	Min value	Average
1725 (MHz)	-0.49 dB	-9.26 dB	-3.20 dB
1790(MHz)	0.01 dB	-6.67 dB	-2.35 dB
1880(MHz)	-1.09 dB	-5.91 dB	-2.84 dB

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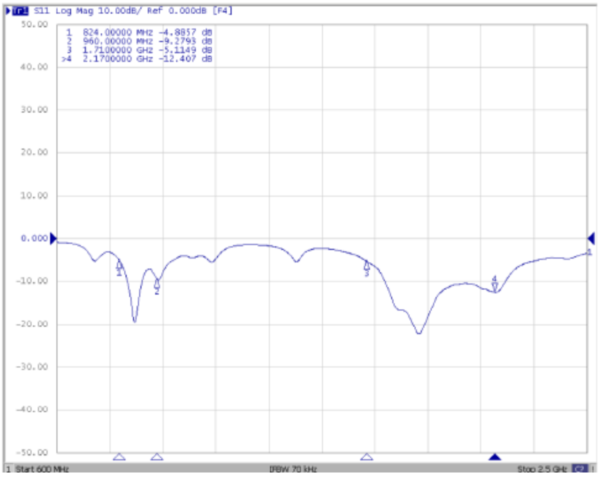
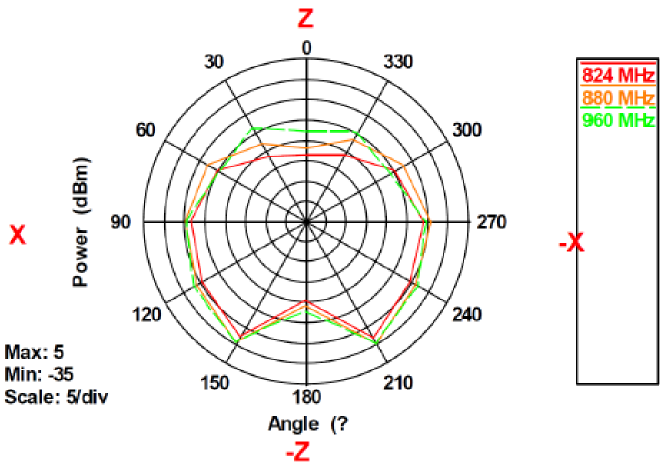
Return Loss S11

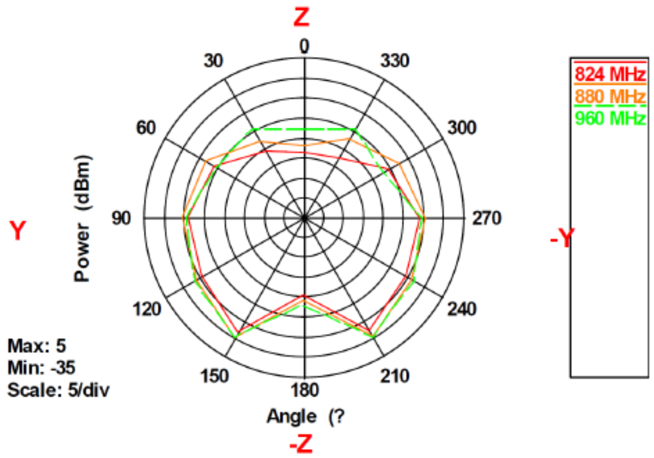


Frequency(MHz)：824~960. Pattern Field：X-Z plane



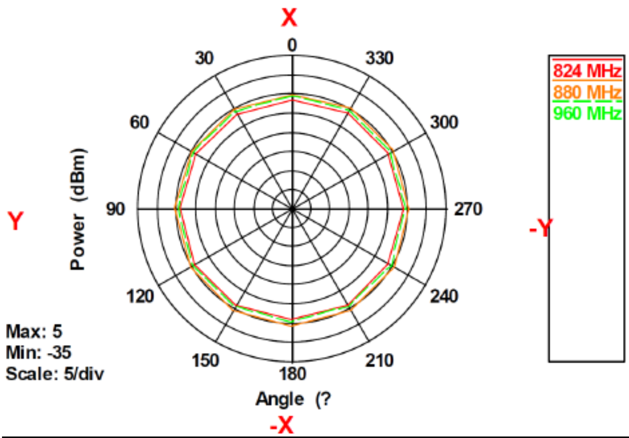
Frequency	Max value	Min value	Average
824(MHz)	-2.29 dB	-18.85 dB	-7.31 dB
880(MHz)	-0.73 dB	-17.10 dB	-5.59 dB
960(MHz)	-0.65 dB	-13.27 dB	-5.52 dB

Frequency(MHz)：824~960. Pattern Field：Y-Z plane



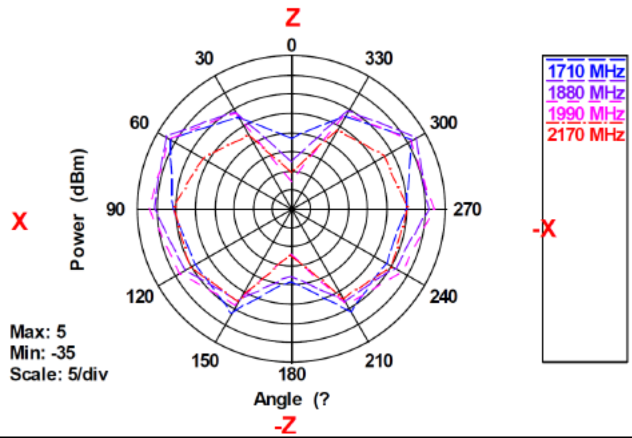
Frequency	Max value	Min value	Average
824(MHz)	-2.27 dB	-18.85 dB	-7.29 dB
880(MHz)	-0.78 dB	-17.10 dB	-5.57 dB
960(MHz)	-0.66 dB	-13.27 dB	-5.51 dB

Frequency(MHz)：824~960. Pattern Field：Y-X plane



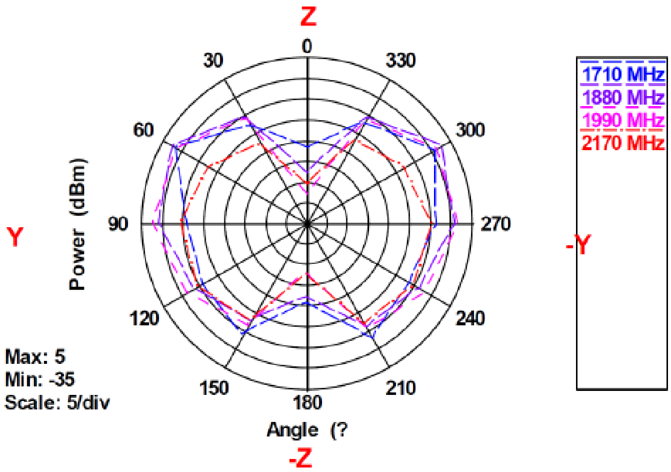
Frequency	Max value	Min value	Average
824(MHz)	-6.15 dB	-7.09 dB	-6.48 dB
880(MHz)	-4.59 dB	-5.46 dB	-4.93 dB
960(MHz)	-5.45 dB	-6.01 dB	-5.71 dB

Frequency(MHz)：1710~2170. Pattern Field：X-Z plane



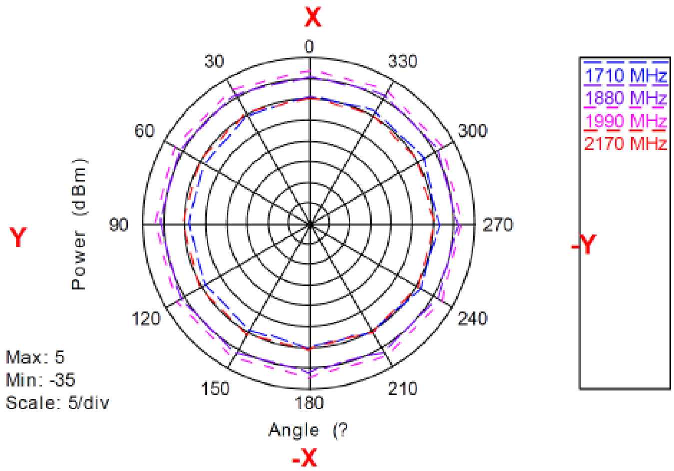
Frequency	Max value	Min value	Average
1710(MHz)	0.82 dB	-17.00 dB	-4.42 dB
1880(MHz)	2.25 dB	-22.99 dB	-2.49 dB
1990(MHz)	1.93 dB	-28.26 dB	-2.27 dB
2170(MHz)	-4.89 dB	-25.83 dB	-8.01 dB

Frequency(MHz) : 1710~2170. Pattern Field : Y-Z plane



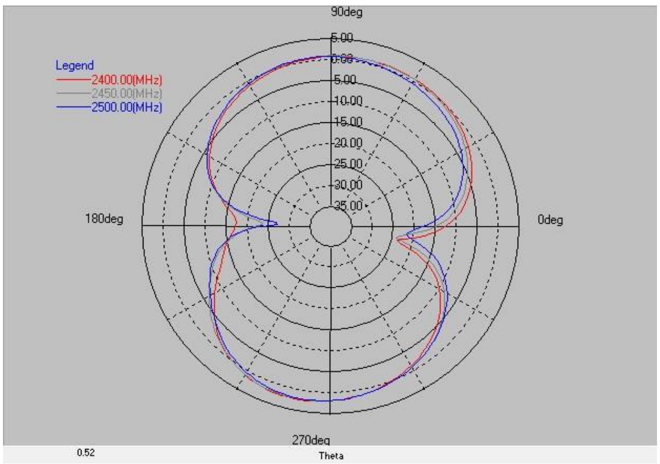
Frequency	Max value	Min value	Average
1710(MHz)	1.39 dB	-17.00 dB	-4.31 dB
1880(MHz)	2.34 dB	-22.99 dB	-2.42 dB
1990(MHz)	1.76 dB	-28.26 dB	-2.31 dB
2170(MHz)	-4.76 dB	-25.83 dB	-8.05 dB

Frequency(MHz) : 1710~2170. Pattern Field : Y-X plane



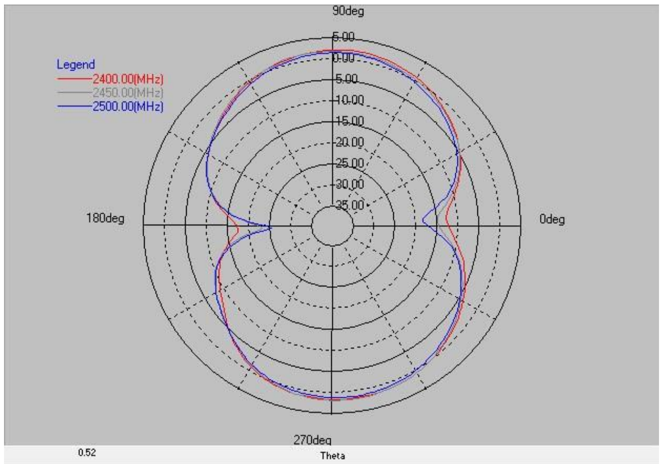
Frequency	Max value	Min value	Average
1710(MHz)	-3.50 dB	-6.20 dB	-4.87 dB
1880(MHz)	0.73 dB	0.38 dB	0.57 dB
1990(MHz)	1.93 dB	1.73 dB	1.83 dB
2170(MHz)	-4.70 dB	-5.03 dB	-4.86 dB

Pattern Field : Z-X plane, Phi=0.00deg



Layer	Max value	Min value	Average
2400(MHz)	2.15 dB	-23.78 dB	-1.96 dB
2450(MHz)	2.04 dB	-24.00 dB	-1.90 dB
2500(MHz)	1.89 dB	-27.29 dB	-2.22 dB

Pattern Field : Z-Y plane, Phi=90.00deg



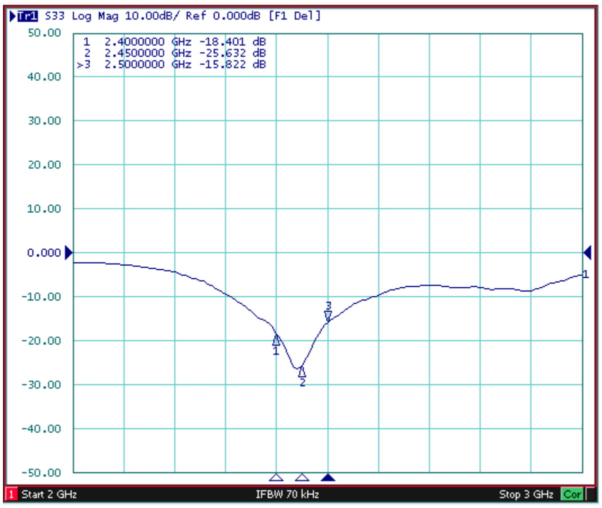
Layer	Max value	Min value	Average
2400(MHz)	1.94 dB	-17.61 dB	-1.74 dB
2450(MHz)	1.73 dB	-23.26 dB	-1.88 dB
2500(MHz)	1.23 dB	-25.61 dB	-2.37 dB

Pattern Field : X-Y plane, Theta=90.00deg

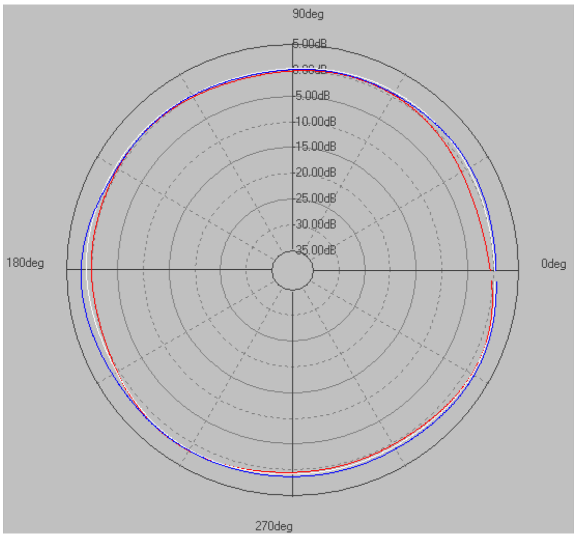
Peak Gain

BTEA0087092G4R2A40

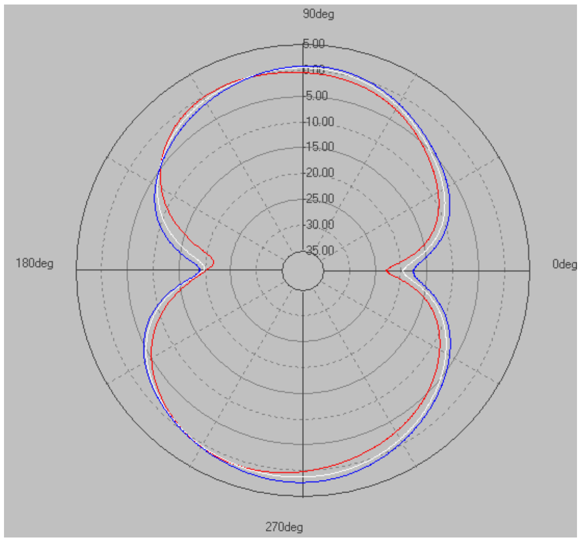
Return Loss S33



Frequency(MHz)：2400~2500. Pattern Field：V plane



Frequency(MHz)：2400~2500. Pattern Field：H plane



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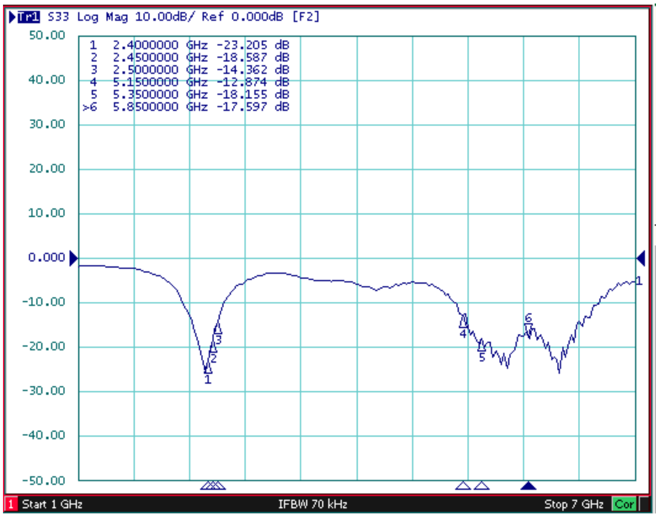
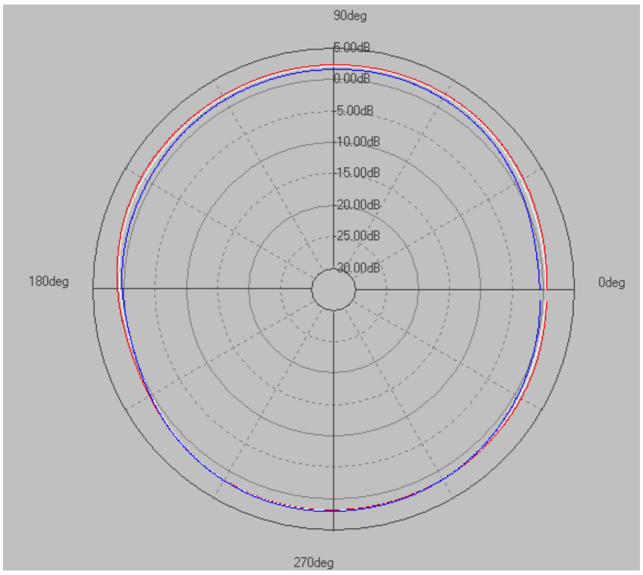
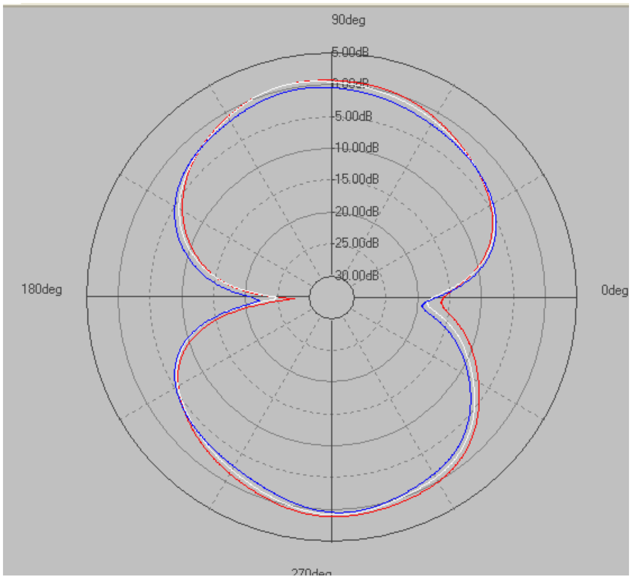
Return Loss S33



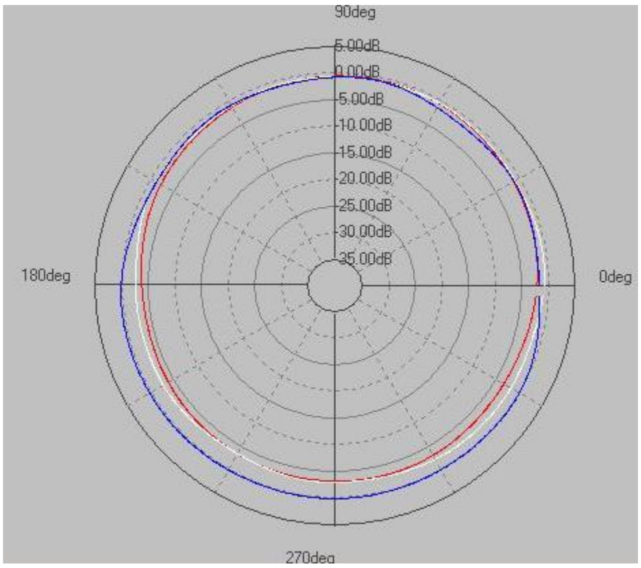
Frequency(MHz)：2400~2500. Pattern Field：H plane



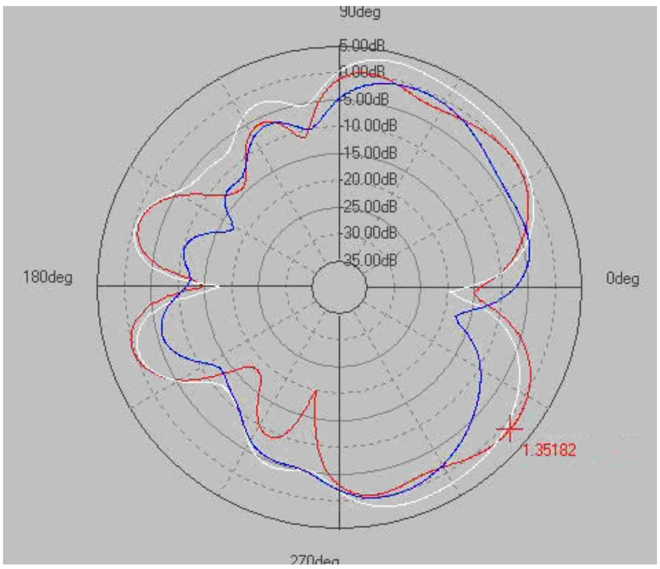
Frequency(MHz)：2400~2500. Pattern Field：E plane



Frequency(MHz)：5150-5850. Pattern Field：H plane

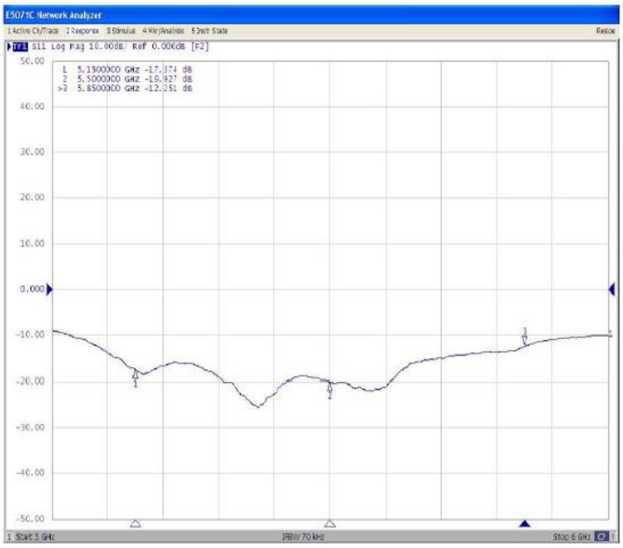


Frequency(MHz)：5150-5850. Pattern Field：E plane

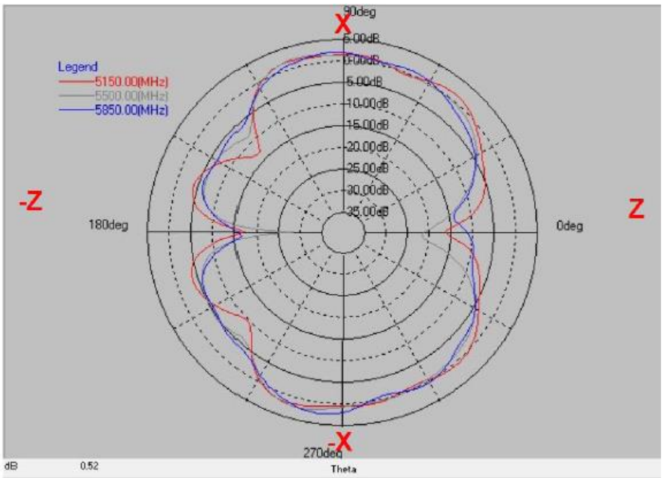


BTEA0087095G0R2A03

Return Loss S11

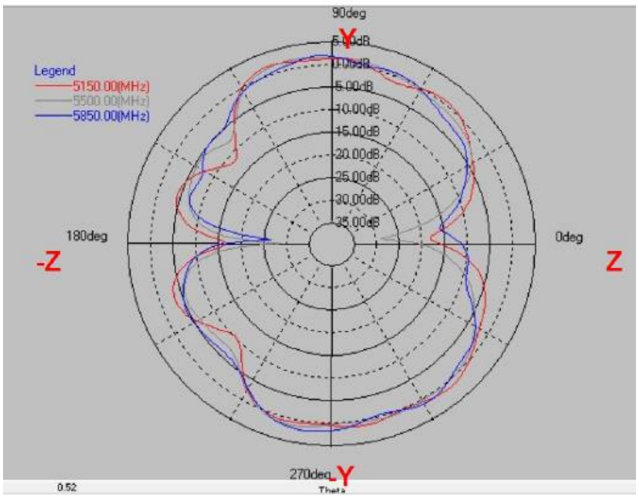


Frequency(MHz)：5150~5850. Pattern Field：Z-X plane



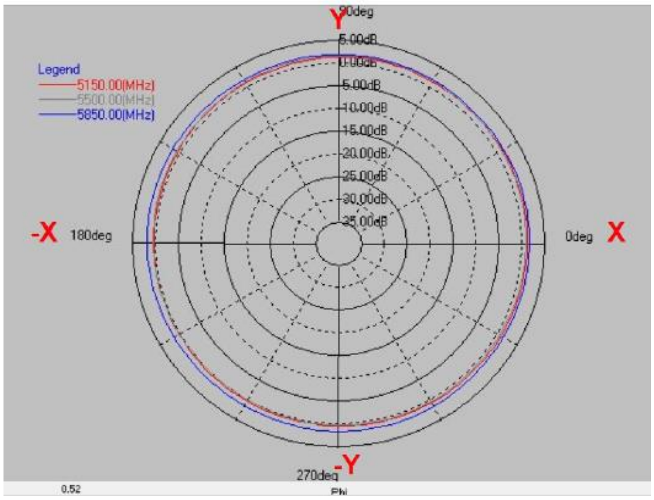
Layer	Max value	Min value	Average
5150(MHz)	1.52 dB	-17.32 dB	-1.78 dB
5550(MHz)	2.01 dB	-28.64 dB	-2.18 dB
5850(MHz)	2.36 dB	-16.51 dB	-2.06 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-Y plane



Layer	Max value	Min value	Average
5150(MHz)	1.79 dB	-18.10 dB	-1.89 dB
5550(MHz)	1.71 dB	-29.01 dB	-2.17 dB
5850(MHz)	1.86 dB	-26.43 dB	-2.14 dB

Frequency(MHz)：5150~5850. Pattern Field：X-Y plane



Layer	Max value	Min value	Average
5150(MHz)	1.44 dB	0.15 dB	0.77 dB
5550(MHz)	1.46 dB	-0.10 dB	0.73 dB
5850(MHz)	1.87 dB	1.29 dB	1.61 dB

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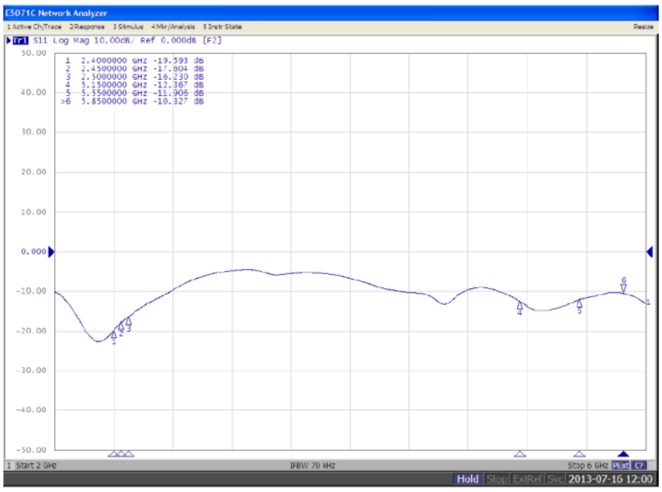
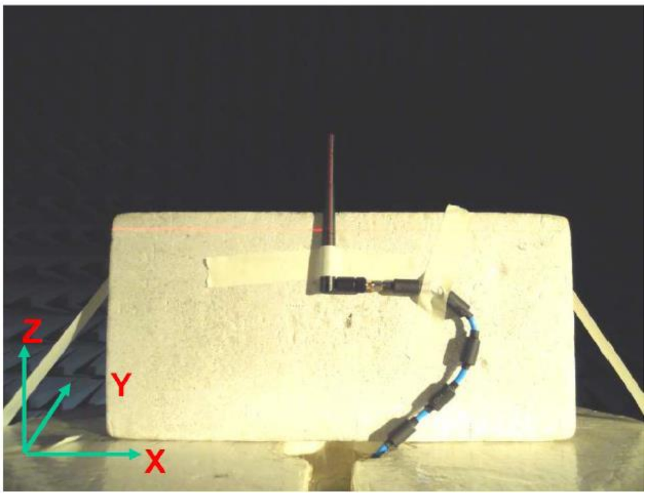
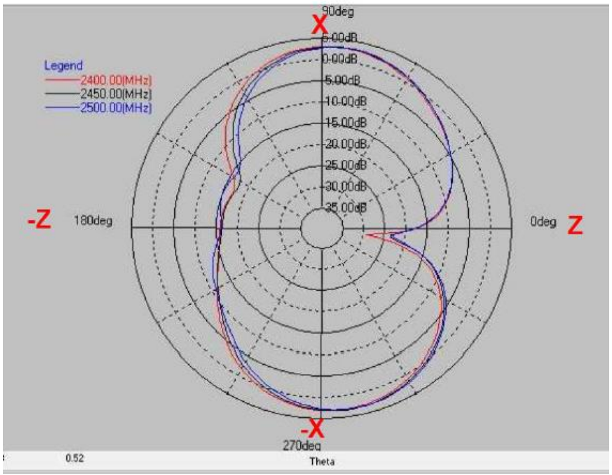
Return Loss



Experimental Setup

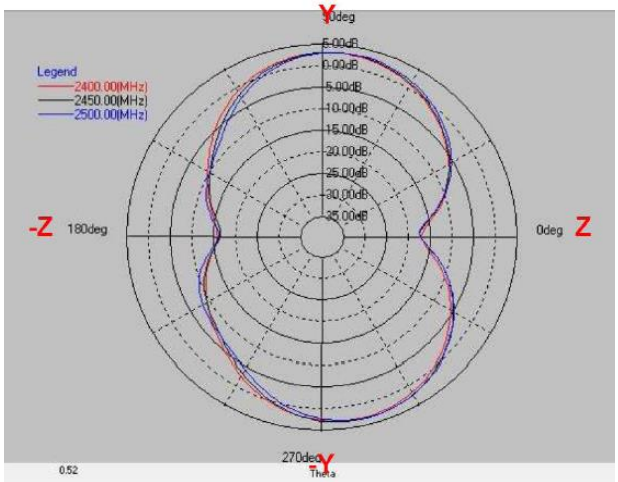


Frequency(MHz)：2400~2500. Pattern Field：X-Z plane



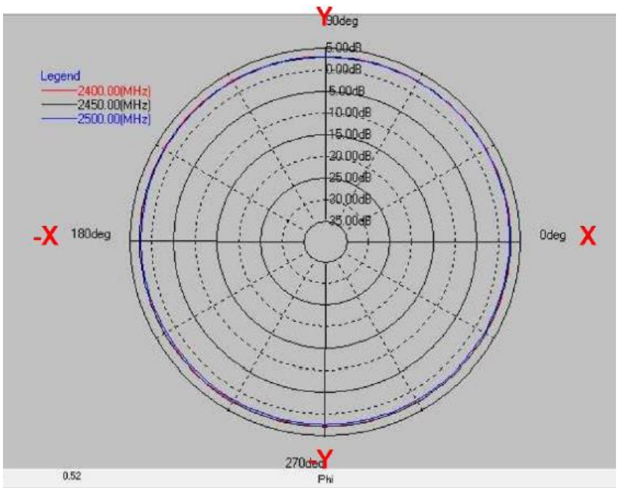
Layer	Max value	Average
2400(MHz)	2.96 dB	-1.69 dB
2450(MHz)	3.14 dB	-1.70 dB
2500(MHz)	3.05 dB	-1.84 dB

Frequency(MHz)：2400~2500. Pattern Field：Y-Z plane

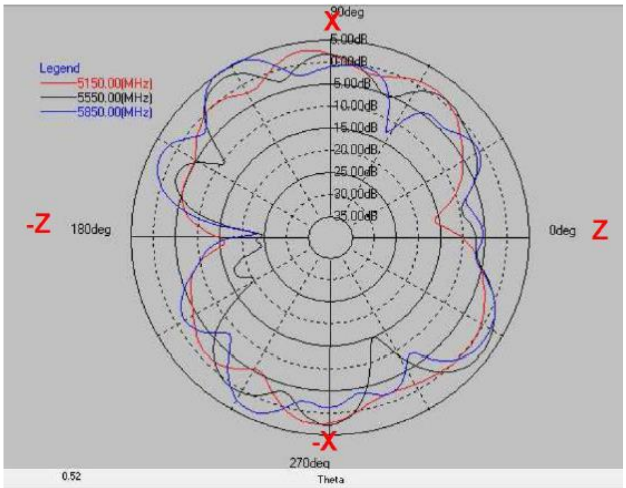


Layer	Max value	Average
2400(MHz)	3.03 dB	-1.49 dB
2450(MHz)	3.10 dB	-1.45 dB
2500(MHz)	3.09 dB	-1.54 dB

Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



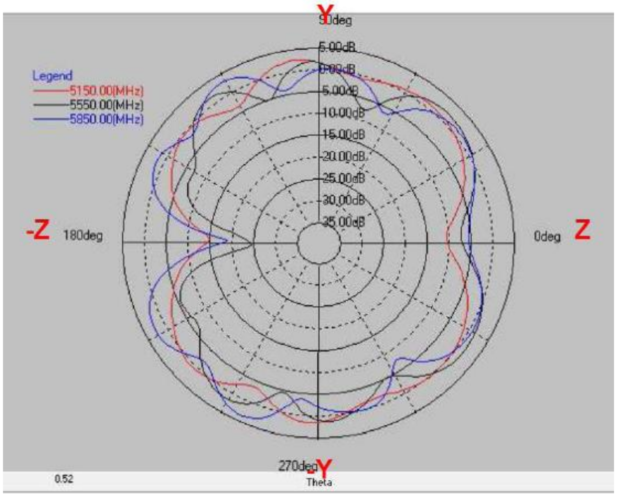
Frequency(MHz)：5150~5850. Pattern Field：X-Z plane



Layer	Max value	Average
2400(MHz)	2.96 dB	2.81 dB
2450(MHz)	2.91 dB	2.81 dB
2500(MHz)	2.80 dB	2.53 dB

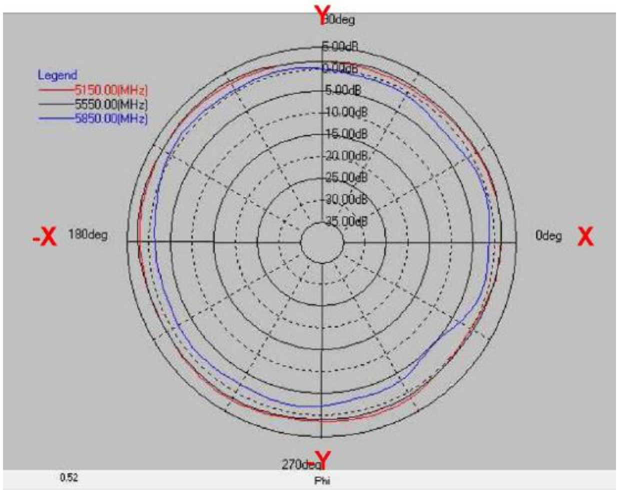
Layer	Max value	Average
5150(MHz)	2.72 dB	-1.71 dB
5550(MHz)	3.45 dB	-1.53 dB
5850(MHz)	5.63 dB	-1.05 dB

Frequency(MHz)：5150~5850. Pattern Field：Y-Z plane



Layer	Max value	Average
5150(MHz)	2.36 dB	-1.38 dB
5550(MHz)	2.03 dB	-1.48 dB
5850(MHz)	3.44 dB	-0.63 dB

Frequency(MHz)：5150~5850. Pattern Field：X-Y plane



Layer	Max value	Average
5150(MHz)	2.52 dB	1.54 dB
5550(MHz)	2.82 dB	1.63 dB
5850(MHz)	0.83 dB	-1.21 dB

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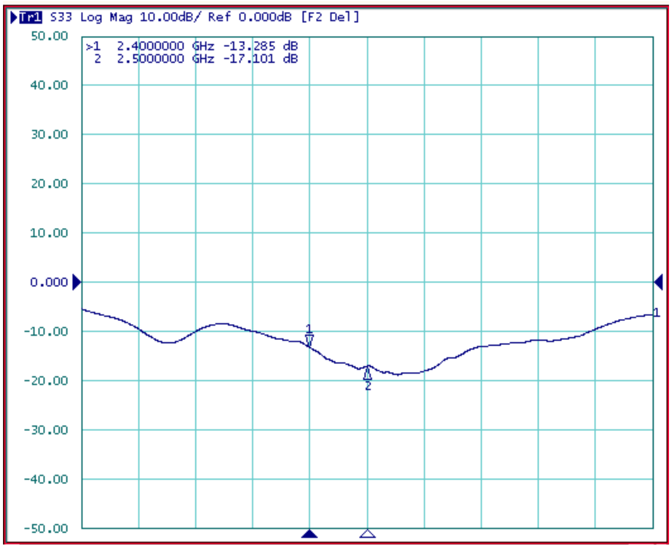
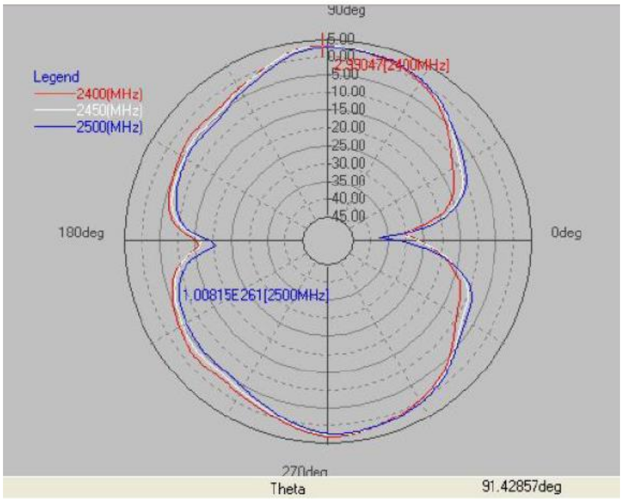
Return Loss S33

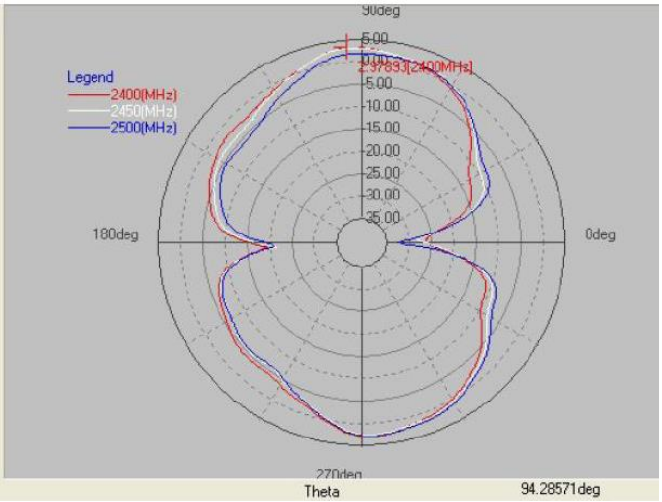


Frequency(MHz)：2400~2500. Pattern Field：X-Z plane



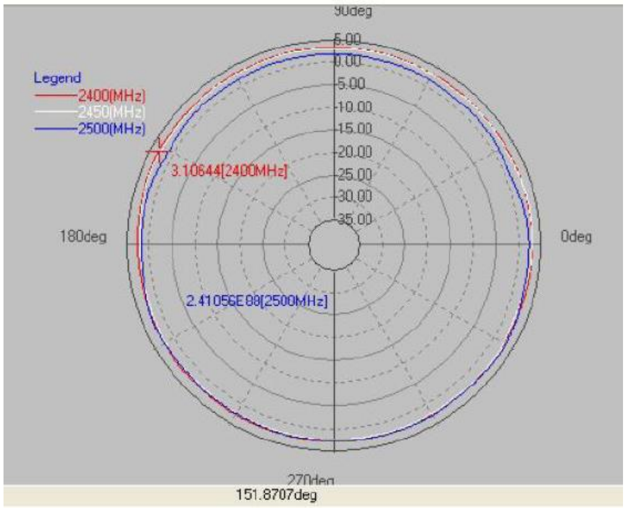
Layer	Max value	Average
2400(MHz)	2.99 dB	-2.07 dB
2450(MHz)	2.93 dB	-2.15 dB
2500(MHz)	2.30 dB	-2.51 dB

Frequency(MHz)：2400~2500. Pattern Field：Y-Z plane



Layer	Max value	Average
2400(MHz)	2.98 dB	-2.08 dB
2450(MHz)	2.86 dB	-2.19 dB
2500(MHz)	2.77 dB	-2.50 dB

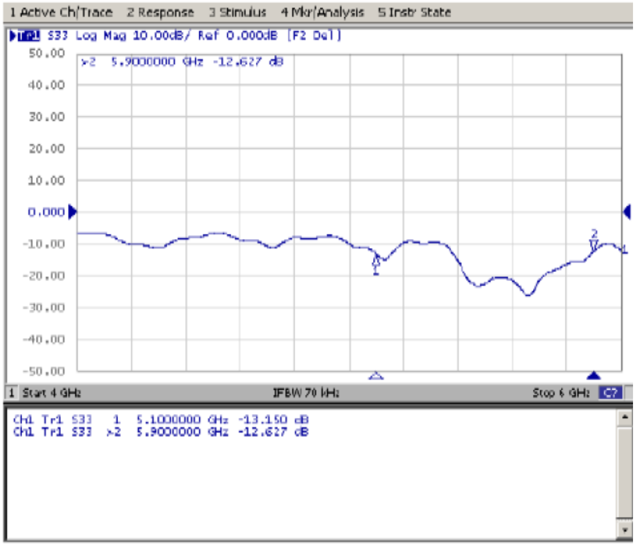
Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



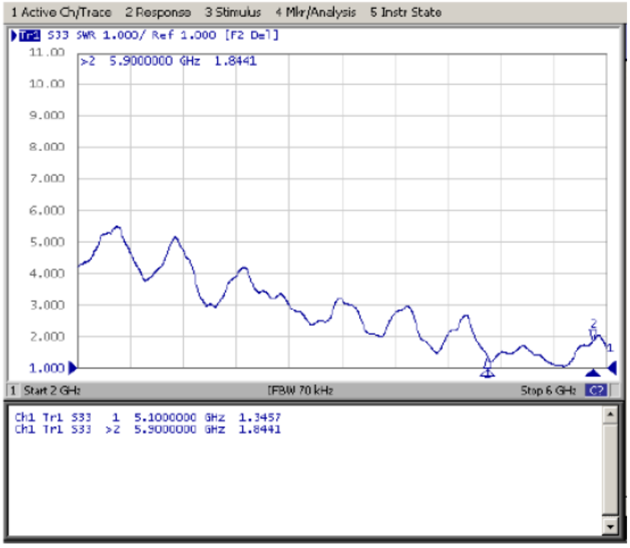
Layer	Max value	Average
2400(MHz)	3.11 dB	2.79 dB
2450(MHz)	3.15 dB	2.54 dB
2500(MHz)	3.17 dB	2.06 dB

BTEA0015135G0R2A01

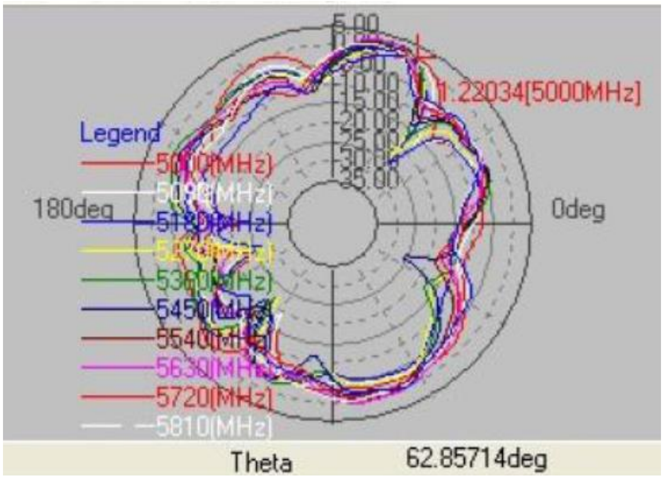
Return Loss S33



VSWR

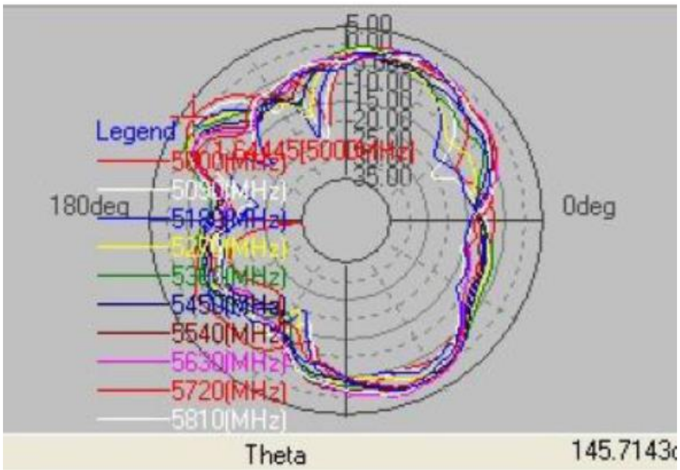


Frequency(MHz)：5000~5900. Pattern Field：X-Z plane



Layer	Max value	Average
5000(MHz)	1.22 dB	-4.52 dB
5090(MHz)	1.08 dB	-5.81 dB
5180(MHz)	0.11 dB	-6.54 dB
5270(MHz)	1.34 dB	-5.93 dB
5360(MHz)	2.54 dB	-4.58 dB
5450(MHz)	1.62 dB	-5.76 dB
5540(MHz)	2.56 dB	-4.93 dB
5630(MHz)	2.45 dB	-4.49 dB
5720(MHz)	0.74 dB	-5.92 dB
5810(MHz)	0.73 dB	-5.11 dB
5900(MHz)	0.55 dB	-6.18 dB

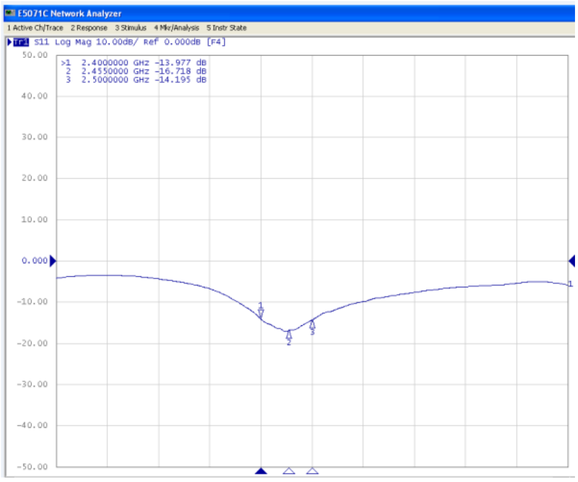
Frequency(MHz)：5000~5900. Pattern Field：Y-Z plane



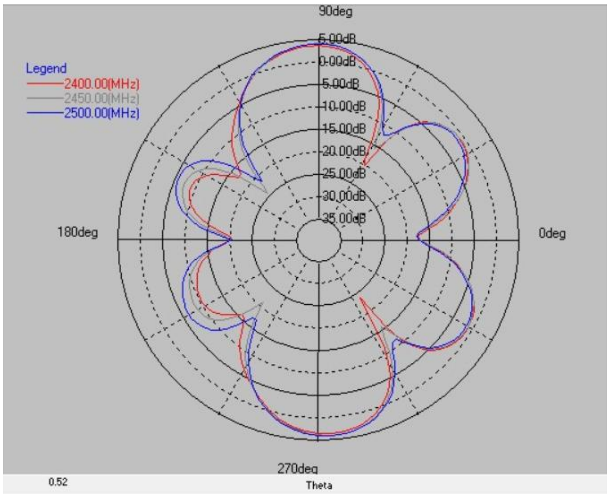
Layer	Max value	Average
5000(MHz)	1.64 dB	-4.60 dB
5090(MHz)	0.16 dB	-6.00 dB
5180(MHz)	-0.22 dB	-6.52 dB
5270(MHz)	-0.47 dB	-6.00 dB
5360(MHz)	0.36 dB	-4.84 dB
5450(MHz)	0.43 dB	-5.51 dB
5540(MHz)	0.77 dB	-4.84 dB
5630(MHz)	1.71 dB	-4.24 dB
5720(MHz)	-0.36 dB	-5.59 dB
5810(MHz)	1.26 dB	-4.95 dB
5900(MHz)	0.55 dB	-5.85 dB

BTEA0017132G4R2A31

Return Loss S11

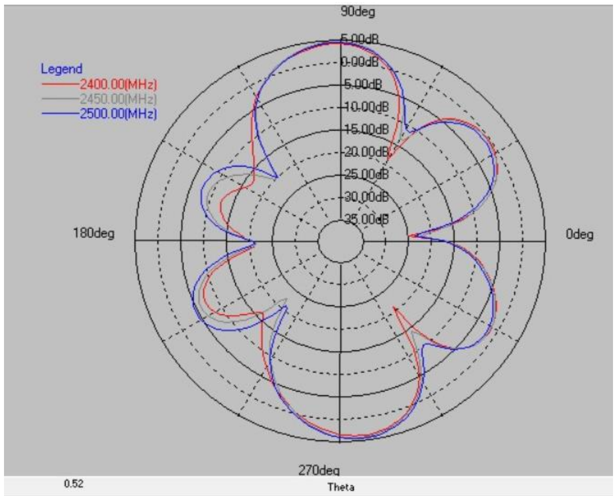


Frequency(MHz)：2400~2500. Pattern Field：Z-X plane



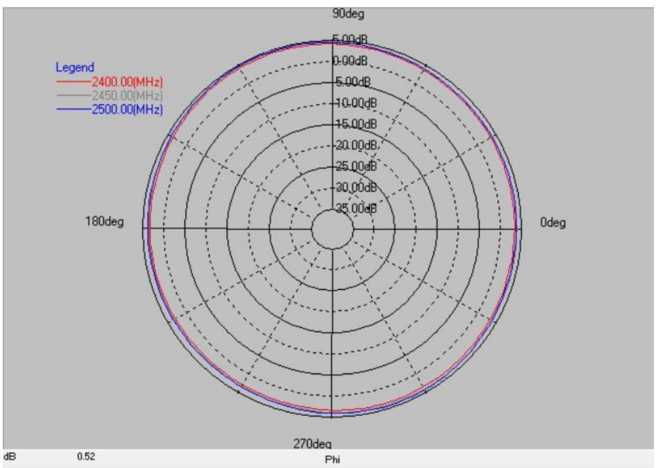
Layer	Max value	Position	Min value
2400(MHz)	3.46 dB	-86.00 deg	-23.93 dB
2450(MHz)	3.96 dB	90.00 deg	-24.55 dB
2500(MHz)	3.95 dB	-86.00 deg	-21.86 dB

Frequency(MHz)：2400~2500. Pattern Field：Z-Y plane



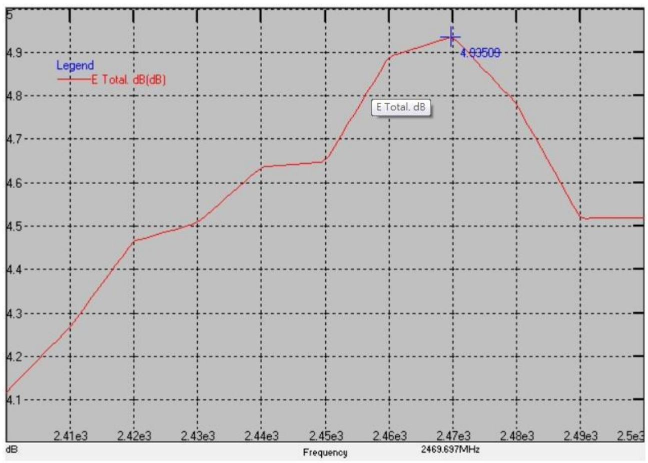
Layer	Max value	Position	Min value
2400(MHz)	4.00 dB	92.00 deg	-24.97 dB
2450(MHz)	4.46 dB	92.00 deg	-22.51 dB
2500(MHz)	4.35 dB	92.00 deg	-23.53 dB

Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



Layer	Max value	Position	Min value
2400(MHz)	4.12 dB	108.00 deg	2.80 dB
2450(MHz)	4.65 dB	112.00 deg	3.21 dB
2500(MHz)	4.52 dB	110.00 deg	3.29 dB

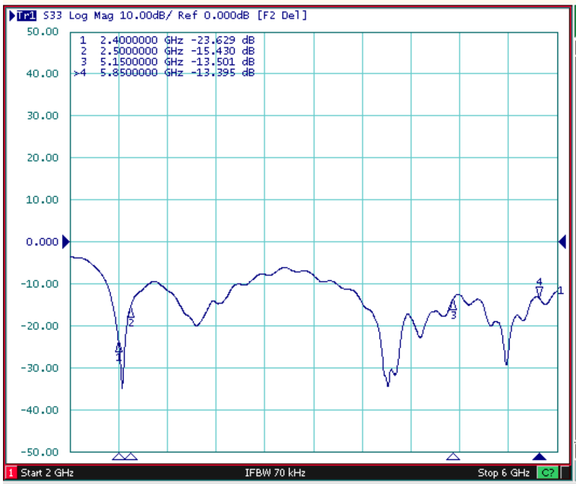
Peak Gain



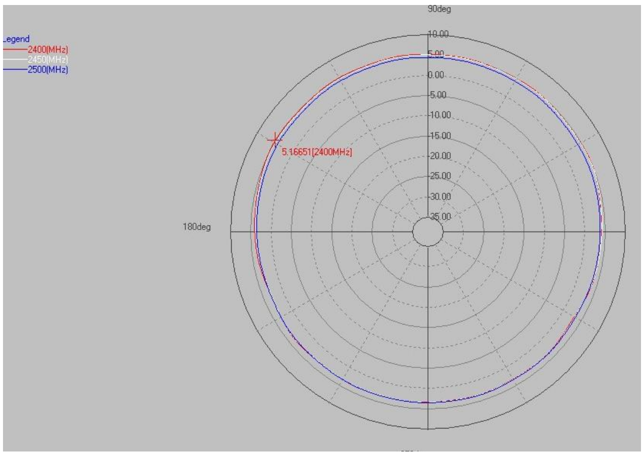
Peak Gain：Max 4.93 dBi

BTEA00171325GR2A05

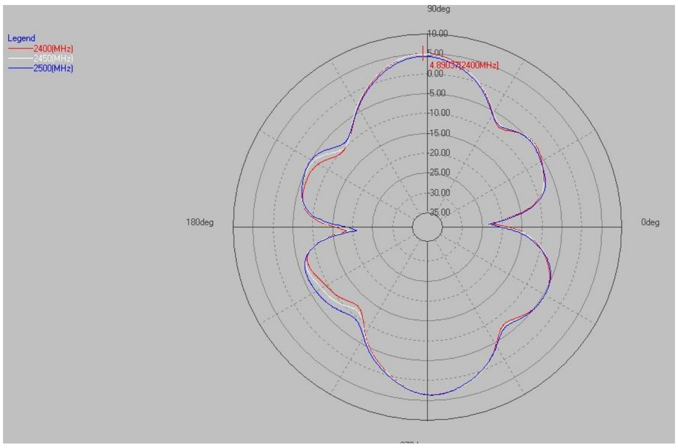
Return Loss S33



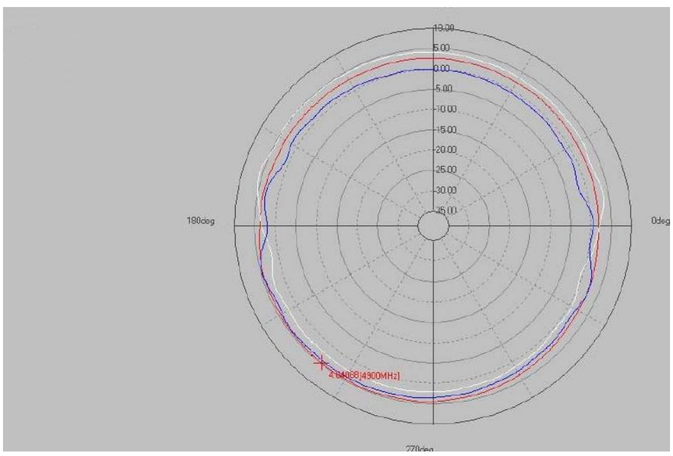
Frequency(MHz)：2400~2500. Pattern Field：H plane



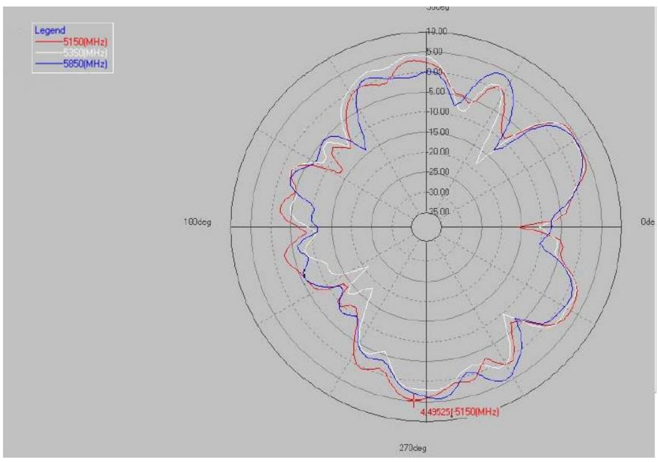
Frequency(MHz)：2400~2500. Pattern Field：E plane



Frequency(MHz)：5150-5850. Pattern Field：H plane



Frequency(MHz)：5150-5850. Pattern Field：H plane



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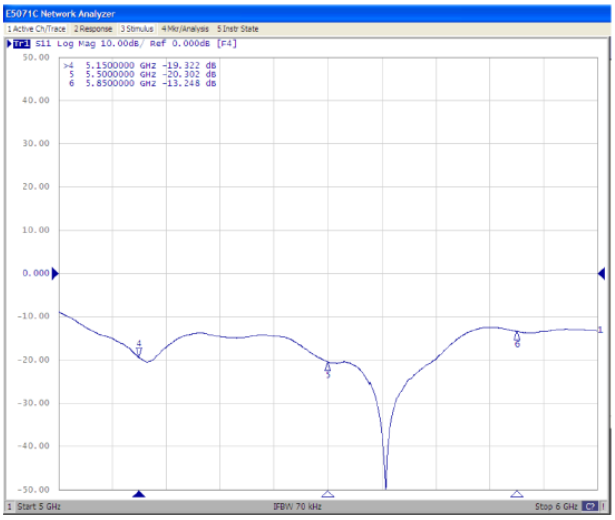
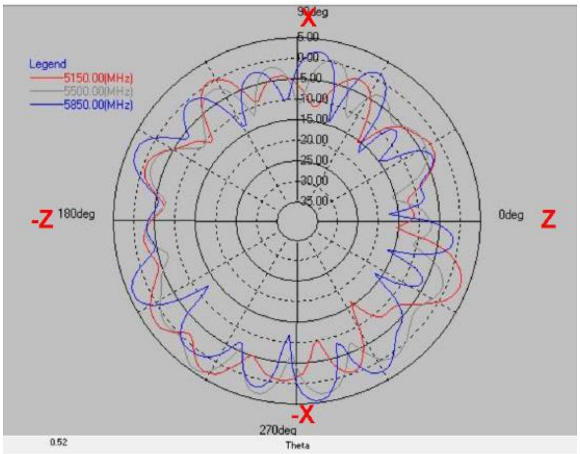
Return Loss S11

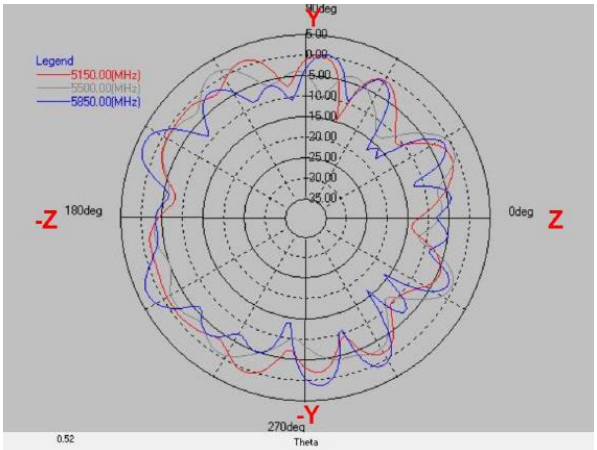


Frequency(MHz)：5150~5850. Pattern Field：Z-X plane



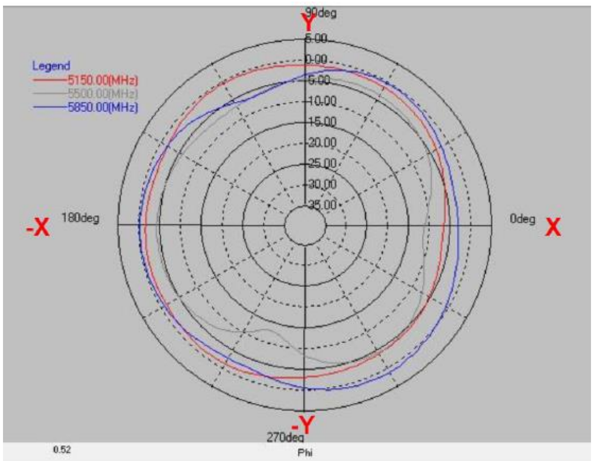
Layer	Max value	Min value	Average
5150(MHz)	3.34 dB	-16.23 dB	-2.61 dB
5500(MHz)	4.16 dB	-15.79 dB	-2.21 dB
5850(MHz)	4.32 dB	-17.42 dB	-1.71 dB

Frequency(MHz)：2400~2500. Pattern Field：Z-Y plane



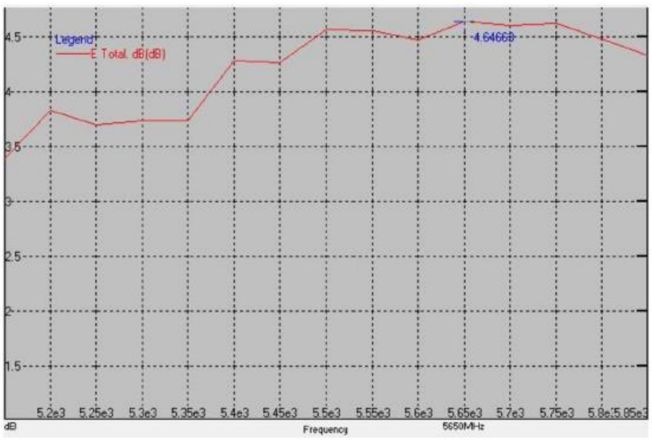
Layer	Max value	Min value	Average
5150(MHz)	1.29 dB	-14.92 dB	-3.08 dB
5500(MHz)	1.91 dB	-13.64 dB	-3.70 dB
5850(MHz)	3.34 dB	-17.69 dB	-3.01 dB

Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



Layer	Max value	Min value	Average
5150(MHz)	-0.60 dB	-6.57 dB	-2.41 dB
5500(MHz)	-3.85 dB	-13.30 dB	-6.05 dB
5850(MHz)	-0.98 dB	-6.75 dB	-1.47 dB

Peak Gain



Peak Gain：Max 4.64 dBi

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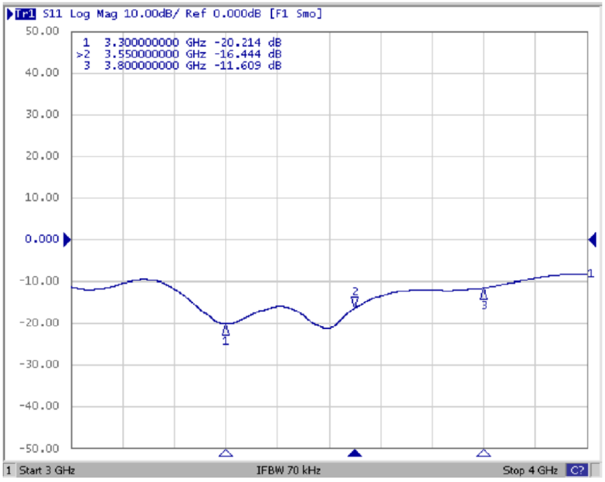
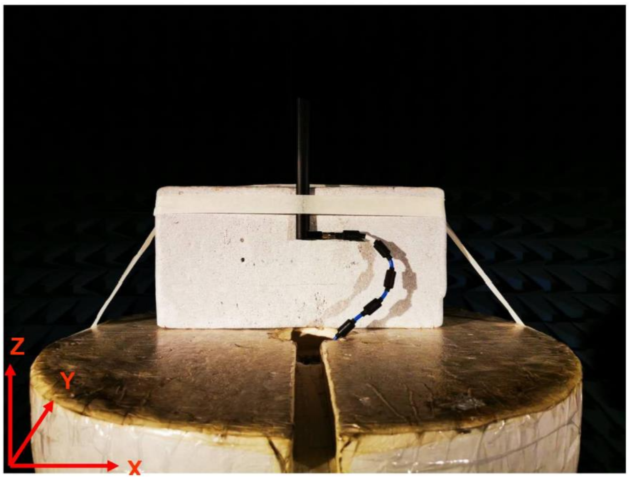
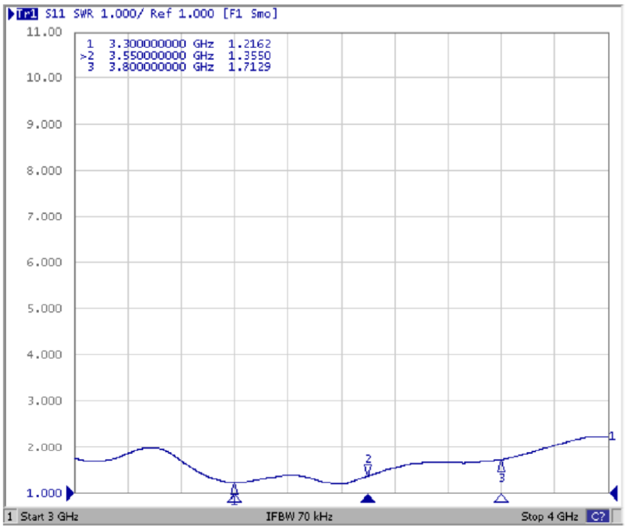
Return Loss S11



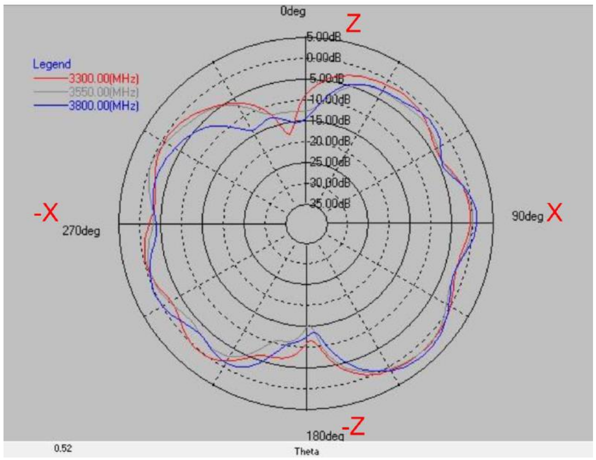
Experimental Setup



VSWR

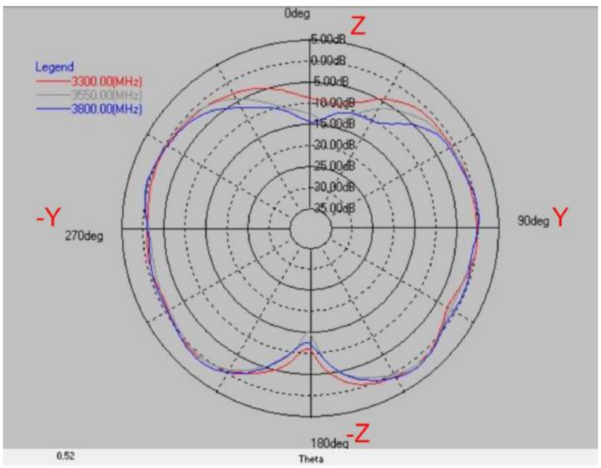


2D Gain Pattern_Antenna_ZX Cut (Phi=0)



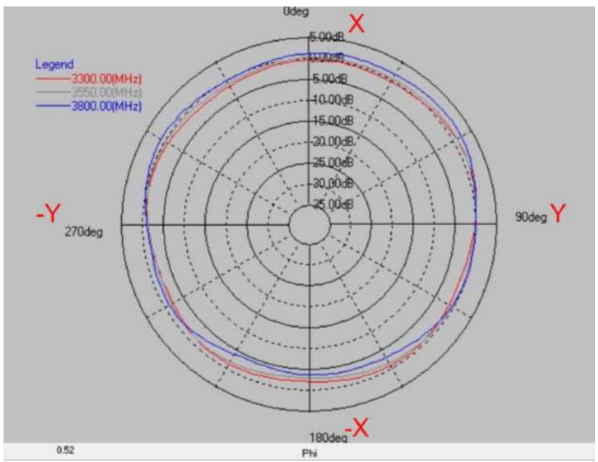
Layer	Max value	Min value	Average
3300(MHz)	1.64 dB	-18.30 dB	-2.05 dB
3550(MHz)	1.57 dB	-15.56 dB	-2.64 dB
3800(MHz)	2.53 dB	-15.60 dB	-2.45 dB

2D Gain Pattern_Antenna_ZY Cut (Phi=90)



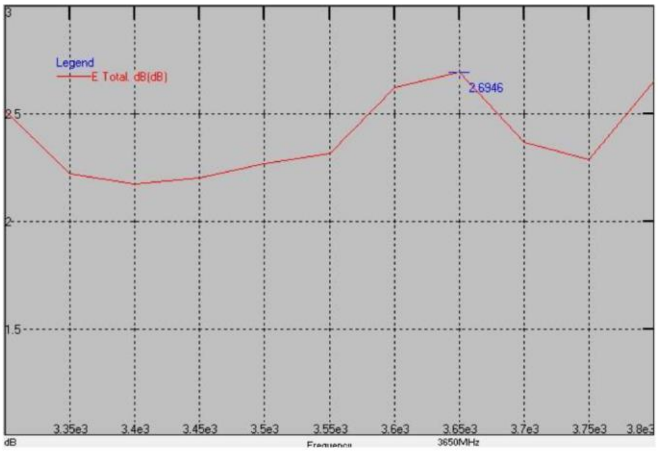
Layer	Max value	Min value	Average
3300(MHz)	1.20 dB	-11.32 dB	-1.61 dB
3550(MHz)	1.32 dB	-15.16 dB	-1.97 dB
3800(MHz)	1.77 dB	-14.75 dB	-1.85 dB

2D Gain Pattern_Antenna_XY Cut (Theta=90)

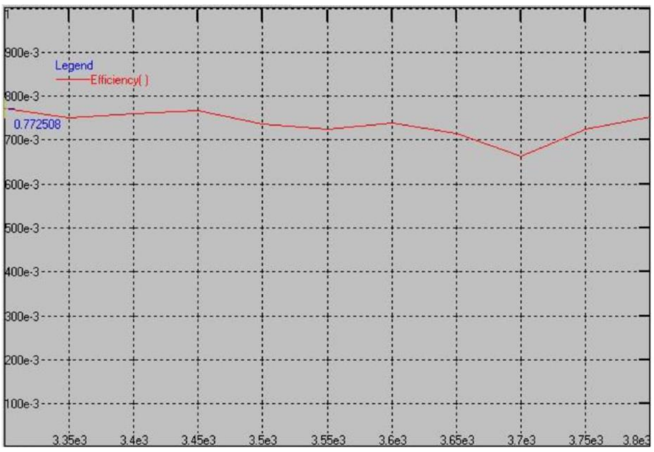


Layer	Max value	Min value	Average
3300(MHz)	1.04 dB	-2.36 dB	-0.90 dB
3550(MHz)	1.14 dB	-3.17 dB	-0.72 dB
3800(MHz)	2.33 dB	-4.43 dB	-0.27 dB

3D Peak Gain



3D Efficiency



Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
3300	2.51	77	3600	2.62	74
3350	2.22	75	3650	2.69	71
3400	2.17	76	3700	2.37	66
3450	2.20	77	3750	2.29	72
3500	2.27	74	3800	2.66	75
3550	2.31	72			

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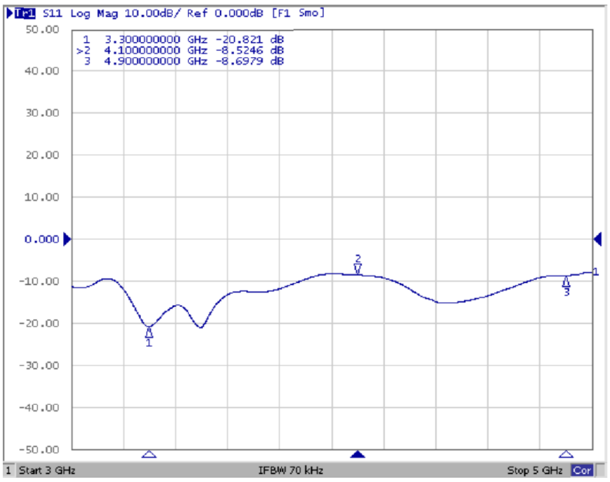
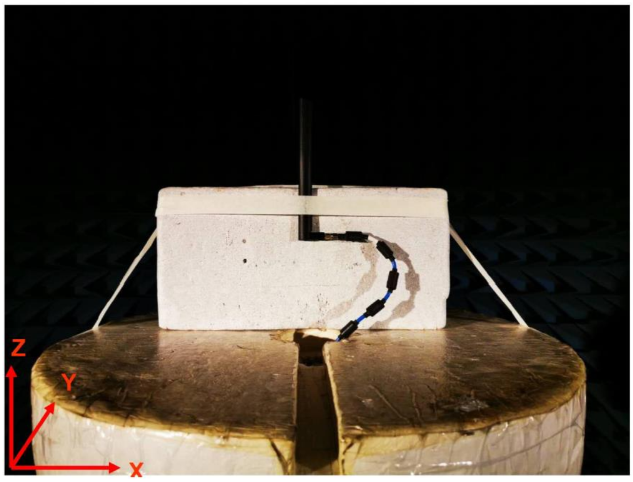
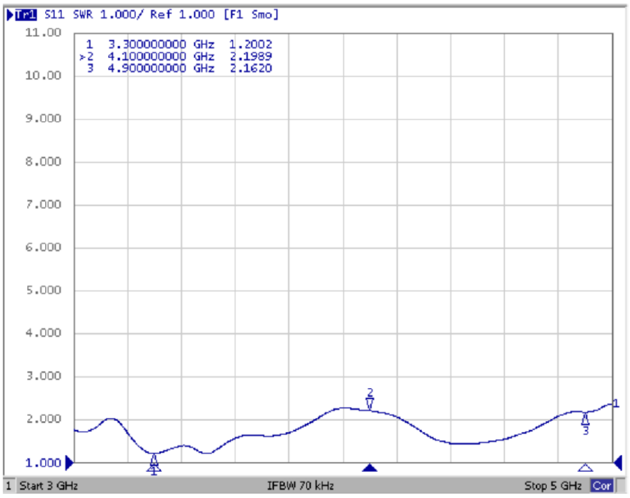
Return Loss S11



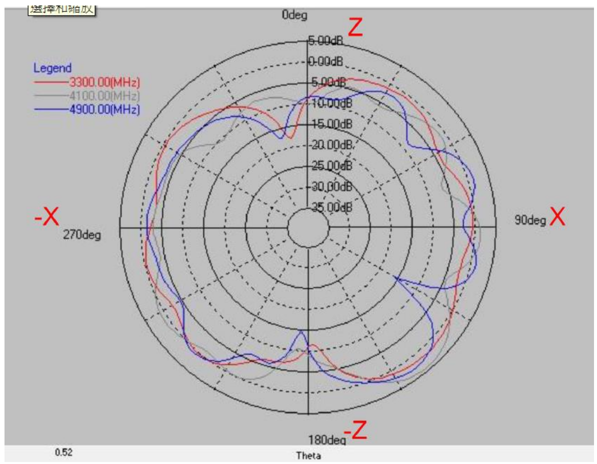
Experimental Setup



VSWR

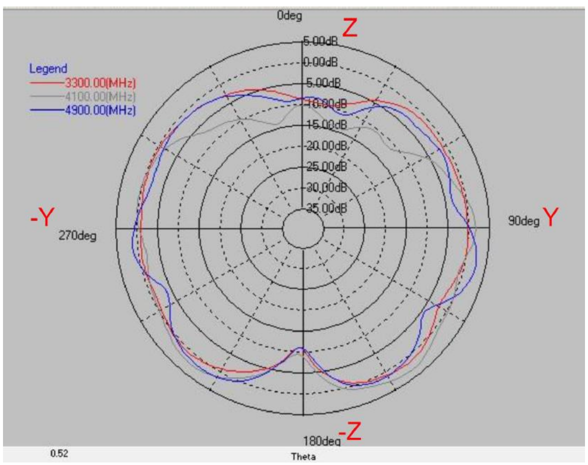


2D Gain Pattern_Antenna_ZX Cut (Phi=0)



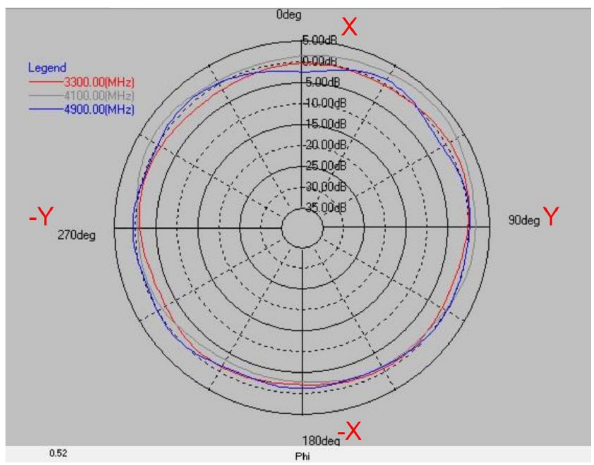
Layer	Max value	Min value	Average
3300(MHz)	1.64 dB	-18.30 dB	-2.05 dB
4100(MHz)	4.25 dB	-10.87 dB	-1.96 dB
4900(MHz)	2.55 dB	-17.75 dB	-2.61 dB

2D Gain Pattern_Antenna_ZY Cut (Phi=90)



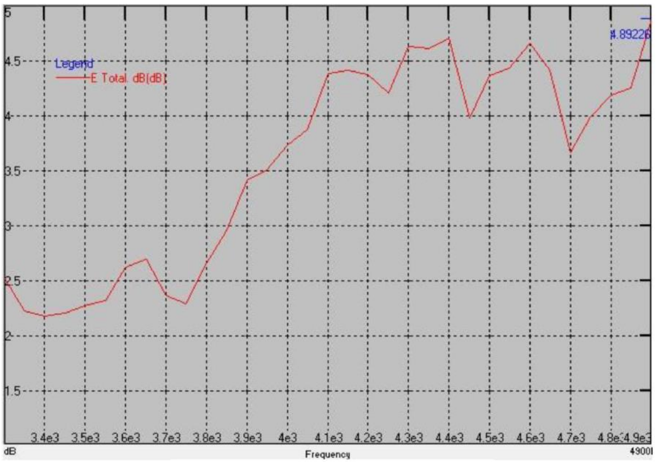
Layer	Max value	Min value	Average
3300(MHz)	1.20 dB	-11.32 dB	-1.61 dB
4100(MHz)	3.09 dB	-14.42 dB	-1.47 dB
4900(MHz)	2.63 dB	-11.22 dB	-1.61 dB

2D Gain Pattern_Antenna_XY Cut (Theta=90)

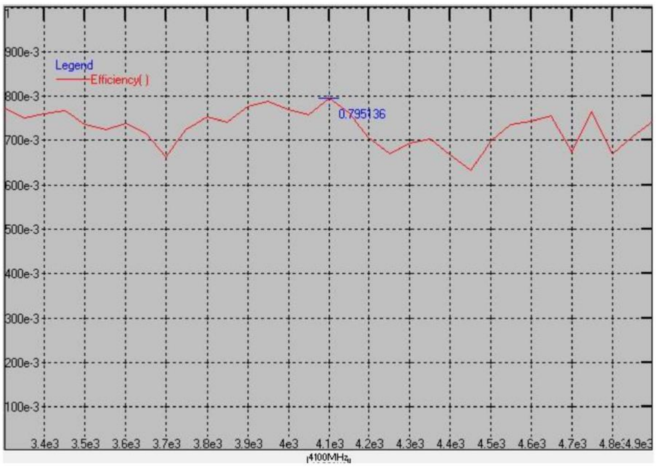


Layer	Max value	Min value	Average
3300(MHz)	1.04 dB	-2.36 dB	-0.90 dB
4100(MHz)	3.30 dB	-3.22 dB	0.54 dB
4900(MHz)	0.90 dB	-2.60 dB	-0.39 dB

3D Peak Gain



3D Efficiency



Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
3300	2.51	77	4200	4.38	70
3400	2.17	76	4300	4.63	69
3500	2.27	74	4400	4.71	67
3600	2.62	74	4500	4.37	70
3700	2.37	66	4600	4.66	74
3800	2.66	75	4700	3.67	68
3900	3.42	78	4800	4.19	67
4000	3.74	77	4900	4.89	74
4100	4.39	80			

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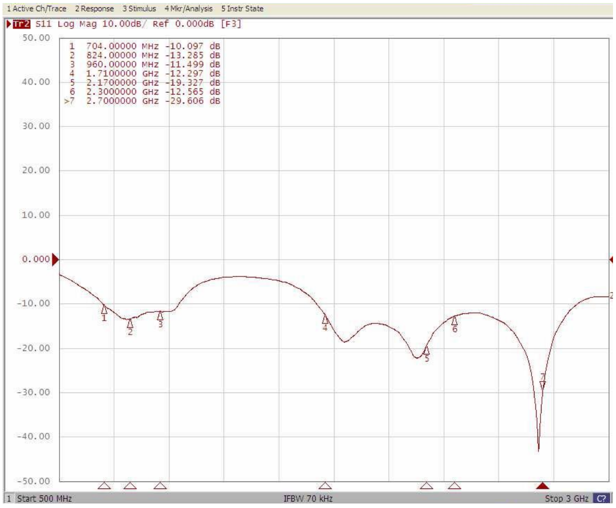
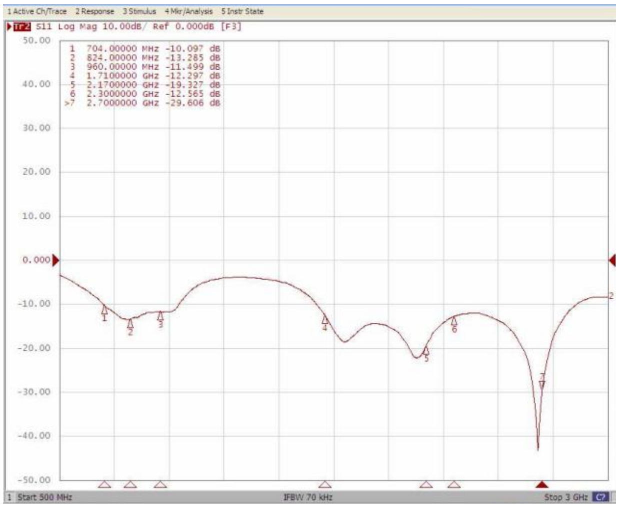
Return Loss



VSWR



Antenna Efficiency Peak Gain

Frequency (MHz)	TRP (dBi)	Peak EIRP (dBi)	E-Theta Peak Gain (dBi)	E-Phi Peak Gain (dBi)	E-Total Peak Gain (dBi)	Efficiency (%)
700	-2.82	0.83	0.43	-1.96	0.83	52.28
704	-2.64	0.98	0.55	-1.53	0.98	54.47
710	-2.39	1.23	0.69	-0.82	1.23	57.66
716	-2.05	1.57	0.75	-0.08	1.57	62.4
734	-1.53	2.61	1.53	1.25	2.61	70.28
740	-1.57	2.6	1.62	1.23	2.6	69.7
746	-1.69	2.43	1.45	1.21	2.43	67.84
751	-1.76	2.31	1.32	1.34	2.31	66.71
756	-1.88	2.21	1.16	1.4	2.21	64.8
777	-2.06	1.94	0.15	1.58	1.94	62.21
782	-2.07	1.8	0.11	1.46	1.8	62.02
787	-2.11	1.56	0.13	1.28	1.56	61.48
791	-2.21	1.31	0.06	1.06	1.31	60.18
806	-2.85	0.58	-0.1	0.02	0.58	51.86
821	-3.72	-0.34	-0.87	-1.47	-0.34	42.4
824	-3.87	-0.34	-1.06	-1.48	-0.34	40.97
836	-4.29	-0.48	-1	-1.5	-0.48	37.25
849	-4.05	-0.03	-0.71	-1.34	-0.03	39.36
862	-3.31	0.59	-0.27	-0.66	0.59	46.67
869	-2.96	0.91	-0.07	-0.41	0.91	50.58
880	-2.6	0.92	0.36	-0.73	0.92	54.92
894	-2.35	1.54	0.67	-0.34	1.54	58.1
900	-2.25	1.74	0.71	0.01	1.74	59.6
915	-2.05	2.34	0.66	0.93	2.34	62.33
925	-1.72	3.02	1.11	1.63	2.15	67.22
940	-1.15	4.2	1.54	2.97	2.31	76.81
960	-0.99	4.13	1.5	3.39	2.45	79.54

Antenna Efficiency Peak Gain

Frequency (MHz)	TRP (dBi)	Peak EIRP (dBi)	E-Theta Peak Gain (dBi)	E-Phi Peak Gain (dBi)	E-Total Peak Gain (dBi)	Efficiency (%)
1500	-4.62	0.3	-2.05	-2.12	0.3	34.5
1565	-3.46	0.21	-1.1	-1.69	0.21	45.03
1575	-2.95	1.11	-0.13	-0.88	1.11	50.73
1585	-2.39	2.09	0.82	-0.41	2.09	57.62
1592	-2.23	2.51	1.46	0.08	2.51	59.89
1602	-2.37	2.81	1.09	-0.13	2.81	57.95
1612	-3.15	2.05	0.61	-1.08	2.05	48.45
1710	-1.95	2.89	2.6	0.9	2.89	63.8
1730	-1.67	2.66	2.56	0.85	2.66	68.06
1750	-1.71	3.08	2.94	1.14	3.08	67.39
1770	-1.6	3.01	2.5	2.04	3.01	69.13
1785	-1.5	3.2	1.91	2.18	3.2	70.82
1805	-1.8	2.7	2.01	1.19	2.7	66.07
1840	-2.68	2.64	0.13	2.52	2.64	54
1850	-2.72	3.16	-0.39	2.9	3.16	53.4
1880	-1.79	3.41	1.91	3.04	3.41	66.21
1910	-1.5	3.51	1.95	2.62	3.51	70.78
1920	-1.43	2.97	2.07	2.06	2.97	71.91
1930	-1.49	3.15	2.12	2.01	3.15	70.99
1950	-1.37	2.8	2.05	2.1	2.8	72.96
1960	-1.15	3.11	2.09	2.37	3.11	76.8
1980	-0.989	2.91	2.34	2.31	2.91	79.8
1990	-0.72	3.17	3.04	2.77	3.17	84.78
2010	-0.7	3.3	3.03	2.38	3.3	85.11
2018	-0.73	3.43	3.16	2.52	3.43	84.55
2025	-0.73	3.35	3.09	2.07	3.35	84.44
2110	-0.85	3.55	2.9	3.11	3.55	82.27
2140	-0.95	4.33	2.9	4.06	4.33	80.28
2170	-1.2	4.05	2.28	3.91	4.05	75.9
2200	-1.29	3.01	2.22	2.45	3.01	74.27
2300	-1.02	4.51	2.04	3.7	4.51	78.98
2325	-1.36	3.87	1.32	3.45	3.87	73.13
2350	-1.44	4.01	1.34	3.76	4.01	71.72
2375	-1.23	3.42	0.67	2.58	3.42	75.29
2400	-0.87	3.89	1.14	3.23	3.89	81.88
2442	-1.12	3.7	0.88	3.33	3.72	77.2
2450	-1.09	3.46	1.26	3.29	3.46	77.75
2484	-1.06	3.19	0.61	2.48	3.19	78.36
2500	-1.31	3.28	1.03	3.14	3.28	73.96
2525	-1.4	3.41	0.67	3.28	3.41	72.4
2550	-1.34	4.01	1.2	3.79	4.01	73.4
2575	-1.22	3.97	0.55	3.79	3.97	75.56
2600	-1.57	3.8	1.02	3.78	3.8	69.7
2625	-2.05	3.05	0.7	2.99	3.05	62.39
2650	-2.35	2.89	0.27	2.43	2.89	58.19
2675	-2.48	3.37	-0.08	2.01	3.37	56.55
2700	-3.12	2.83	-0.06	1.57	2.83	48.8

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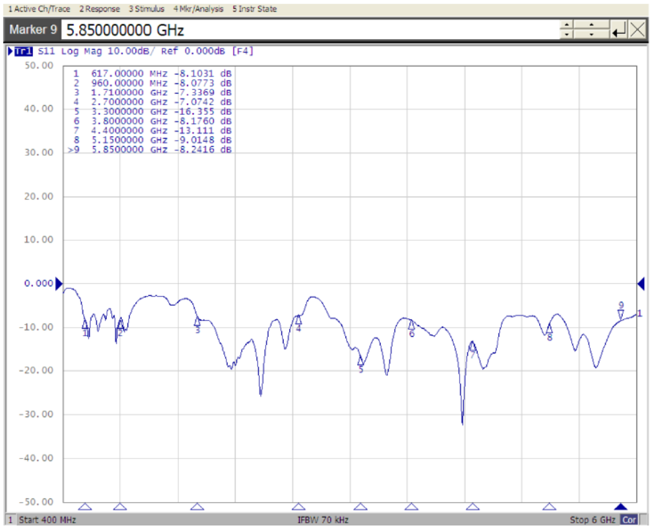
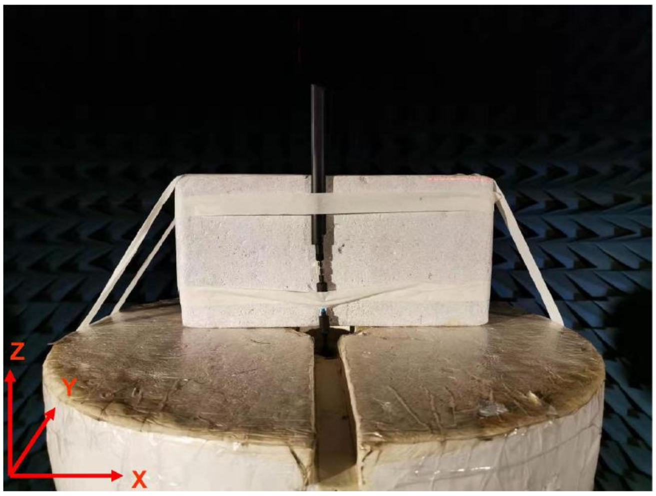
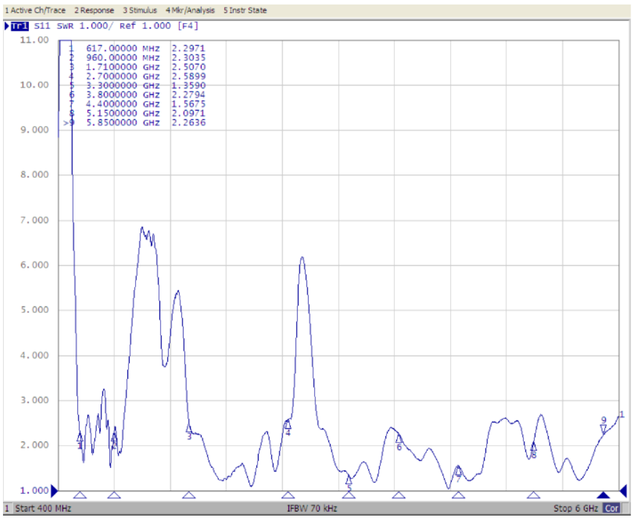
Return Loss



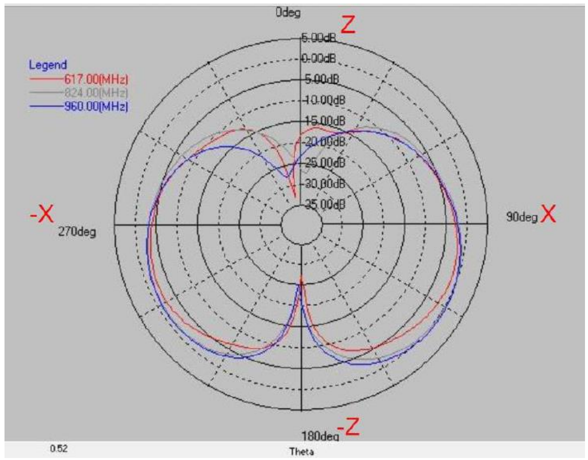
Experimental Setup



VSWR

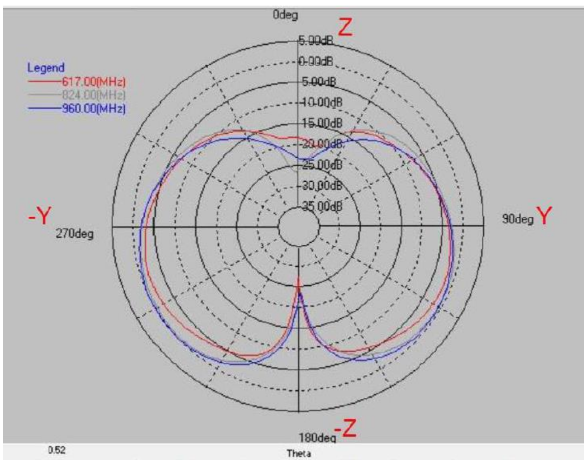


2D Gain Pattern_Antenna_ZX Cut (Phi=0)



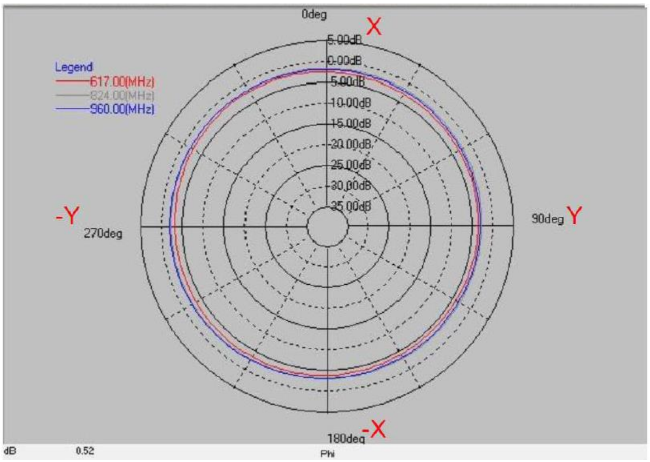
Layer	Max value	Min value	Average
617(MHz)	-1.39 dB	-33.33 dB	-5.85 dB
824(MHz)	0.22 dB	-27.68 dB	-4.37 dB
960(MHz)	0.42 dB	-28.14 dB	-4.28 dB

2D Gain Pattern_Antenna_ZY Cut (Phi=90)



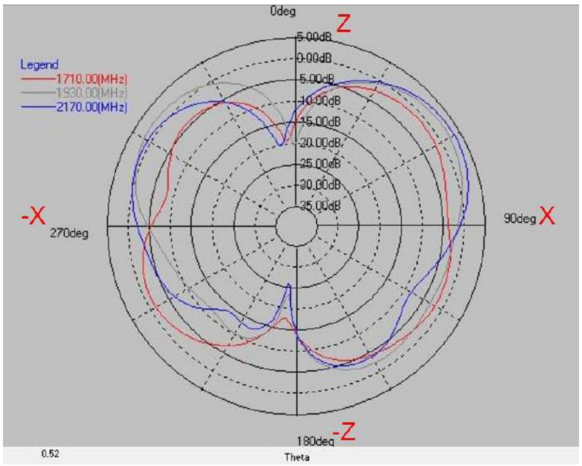
Layer	Max value	Min value	Average
617(MHz)	-1.80 dB	-27.56 dB	-5.79 dB
824(MHz)	-0.32 dB	-27.04 dB	-4.34 dB
960(MHz)	0.09 dB	-23.93 dB	-4.21 dB

2D Gain Pattern_Antenna_XY Cut (Theta=90)



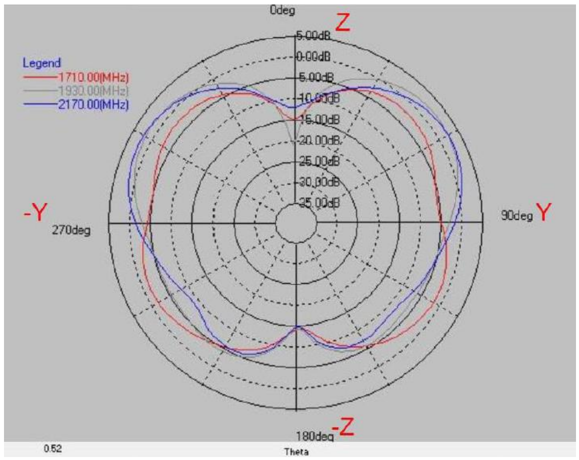
Layer	Max value	Min value	Average
617(MHz)	-2.37 dB	-4.29 dB	-3.32 dB
824(MHz)	-1.85 dB	-3.26 dB	-2.46 dB
960(MHz)	-1.93 dB	-3.48 dB	-2.58 dB

2D Gain Pattern_Antenna_ZX Cut (Phi=0)



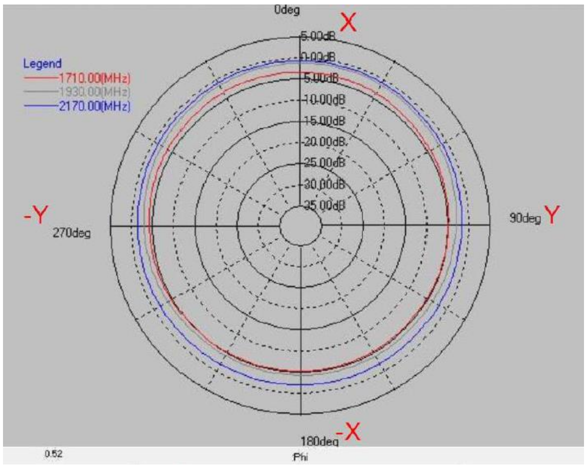
Layer	Max value	Min value	Average
1710(MHz)	-1.27 dB	-19.63 dB	-4.33 dB
1930(MHz)	2.35 dB	-23.75 dB	-2.26 dB
2170(MHz)	3.54 dB	-26.16 dB	-2.41 dB

2D Gain Pattern_Antenna_ZY Cut (Phi=90)



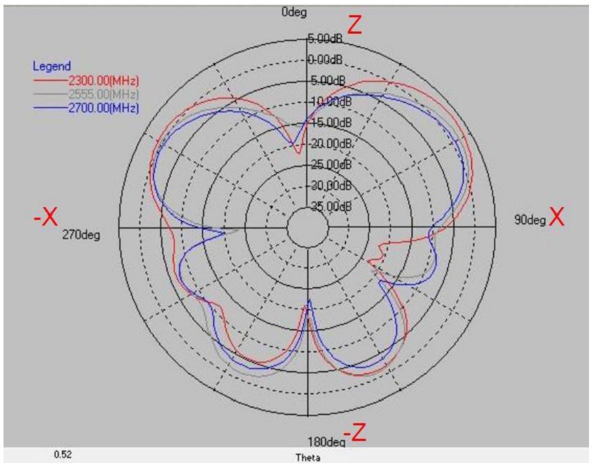
Layer	Max value	Min value	Average
1710(MHz)	-1.65 dB	-15.05 dB	-4.37 dB
1930(MHz)	2.59 dB	-21.40 dB	-2.33 dB
2170(MHz)	3.43 dB	-15.04 dB	-2.50 dB

2D Gain Pattern_Antenna_XY Cut (Theta=90)



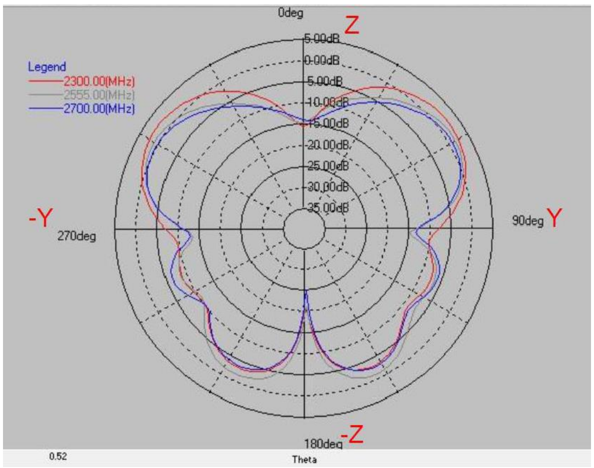
Layer	Max value	Min value	Average
1710(MHz)	-3.57 dB	-5.49 dB	-4.49 dB
1930(MHz)	-1.45 dB	-4.54 dB	-2.85 dB
2170(MHz)	-0.91 dB	-2.21 dB	-1.53 dB

2D Gain Pattern_Antenna_ZX Cut (Phi=0)



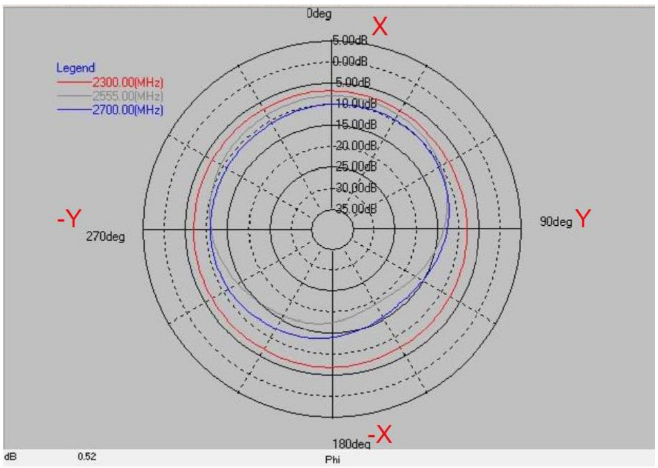
Layer	Max value	Min value	Average
2300(MHz)	3.48 dB	-23.31 dB	-2.83 dB
2555(MHz)	2.02 dB	-23.64 dB	-3.80 dB
2700(MHz)	0.79 dB	-22.71 dB	-4.96 dB

2D Gain Pattern_Antenna_ZY Cut (Phi=90)



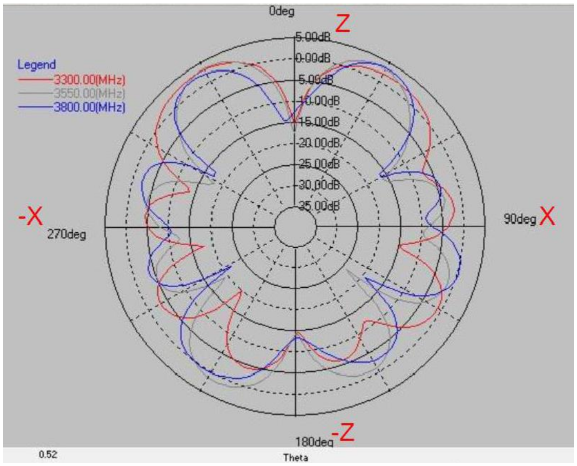
Layer	Max value	Min value	Average
2300(MHz)	2.66 dB	-20.71 dB	-2.81 dB
2555(MHz)	1.64 dB	-21.35 dB	-3.69 dB
2700(MHz)	0.80 dB	-25.15 dB	-4.63 dB

2D Gain Pattern_Antenna_XY Cut (Theta=90)



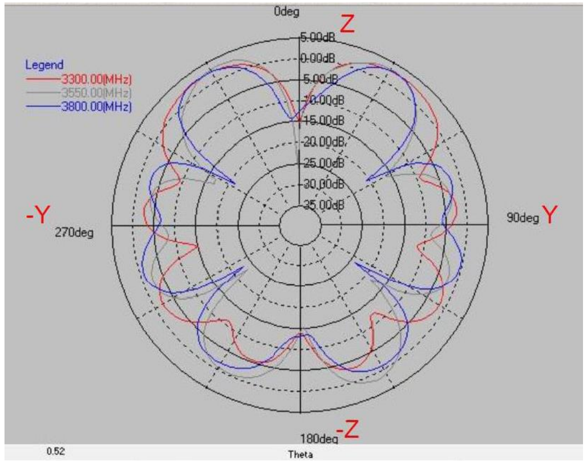
Layer	Max value	Min value	Average
2300(MHz)	-6.96 dB	-8.08 dB	-7.33 dB
2555(MHz)	-8.25 dB	-19.35 dB	-11.43 dB
2700(MHz)	-10.03 dB	-16.08 dB	-11.84 dB

2D Gain Pattern_Antenna_ZX Cut (Phi=0)



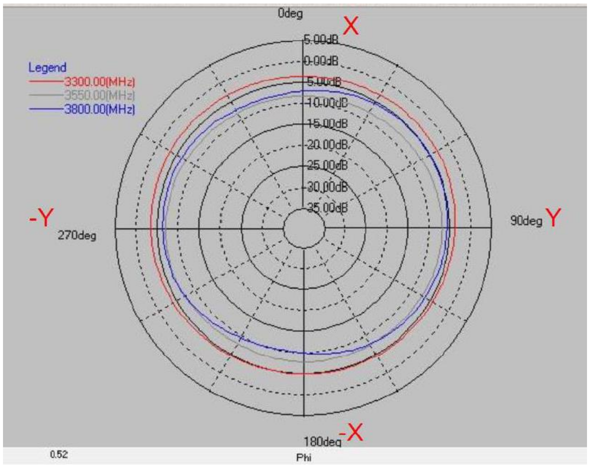
Layer	Max value	Min value	Average
3300(MHz)	3.07 dB	-20.14 dB	-2.57 dB
3550(MHz)	3.26 dB	-24.17 dB	-2.51 dB
3800(MHz)	3.43 dB	-22.01 dB	-2.77 dB

2D Gain Pattern_Antenna_ZY Cut (Phi=90)



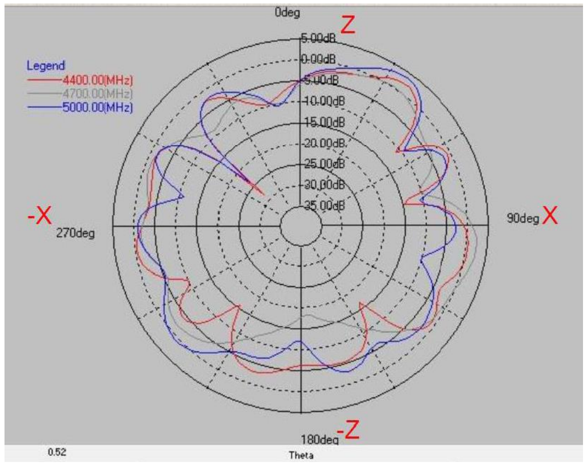
Layer	Max value	Min value	Average
3300(MHz)	2.85 dB	-15.41 dB	-2.31 dB
3550(MHz)	3.17 dB	-26.31 dB	-2.40 dB
3800(MHz)	3.01 dB	-24.18 dB	-2.64 dB

2D Gain Pattern_Antenna_XY Cut (Theta=90)



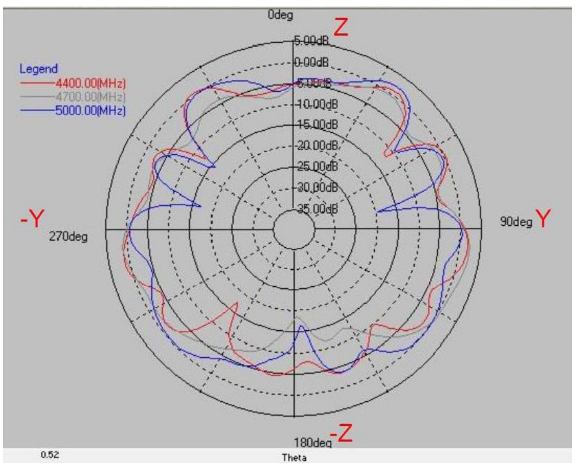
Layer	Max value	Min value	Average
3300(MHz)	-3.08 dB	-5.14 dB	-3.90 dB
3550(MHz)	-6.85 dB	-8.46 dB	-7.70 dB
3800(MHz)	-5.16 dB	-10.45 dB	-6.92 dB

2D Gain Pattern_Antenna_ZX Cut (Phi=0)



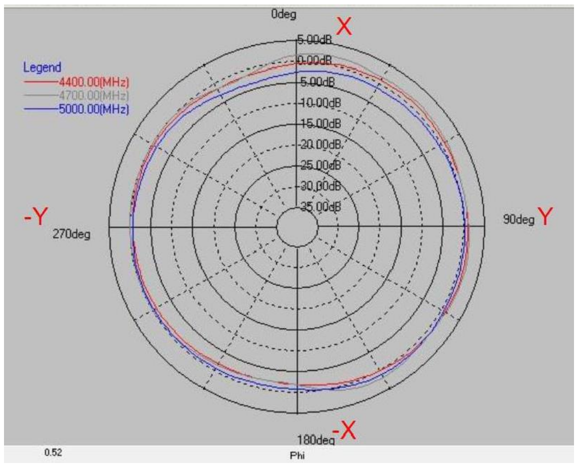
Layer	Max value	Min value	Average
4400(MHz)	2.11 dB	-28.32 dB	-3.34 dB
4700(MHz)	2.51 dB	-18.54 dB	-3.40 dB
5000(MHz)	3.59 dB	-23.84 dB	-3.01 dB

2D Gain Pattern_Antenna_ZY Cut (Phi=90)



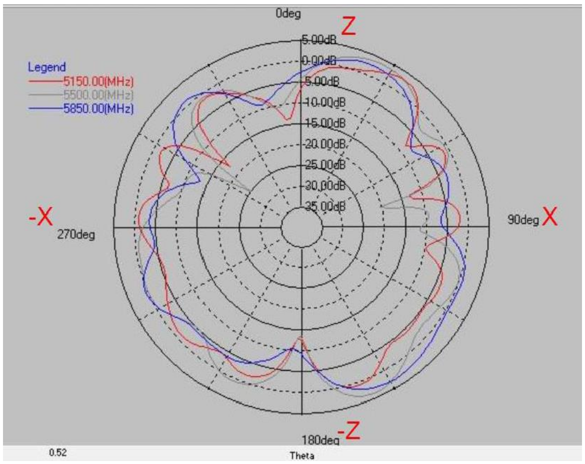
Layer	Max value	Min value	Average
4400(MHz)	1.97 dB	-17.60 dB	-2.70 dB
4700(MHz)	2.50 dB	-18.71 dB	-2.84 dB
5000(MHz)	2.13 dB	-19.53 dB	-2.61 dB

2D Gain Pattern_Antenna_XY Cut (Theta=90)



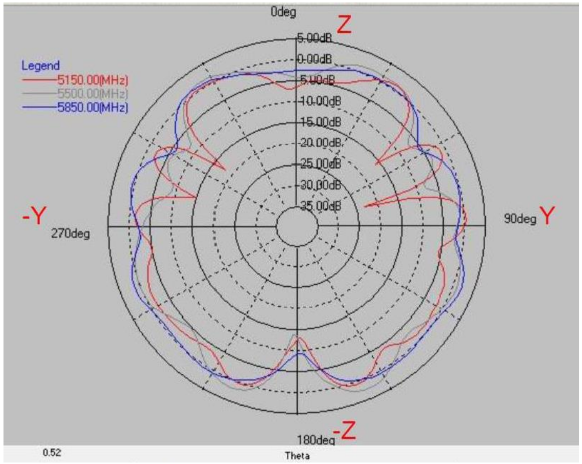
Layer	Max value	Min value	Average
4400(MHz)	1.22 dB	-2.37 dB	-0.27 dB
4700(MHz)	1.93 dB	-2.41 dB	0.43 dB
5000(MHz)	1.00 dB	-3.76 dB	-0.68 dB

2D Gain Pattern_Antenna_ZX Cut (Phi=0)



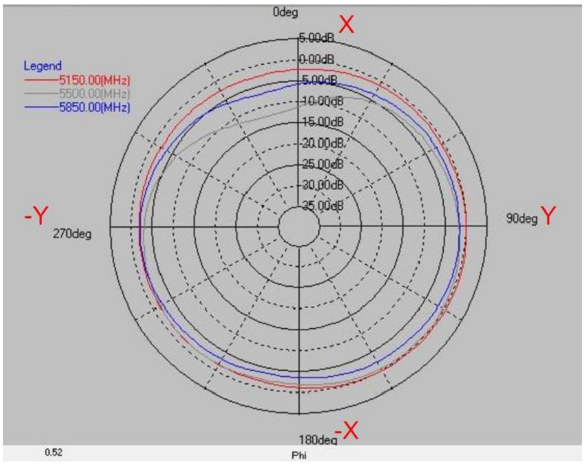
Layer	Max value	Min value	Average
5150(MHz)	3.06 dB	-17.47 dB	-2.82 dB
5500(MHz)	3.71 dB	-25.19 dB	-1.36 dB
5850(MHz)	2.94 dB	-13.40 dB	-1.46 dB

2D Gain Pattern_Antenna_ZY Cut (Phi=90)



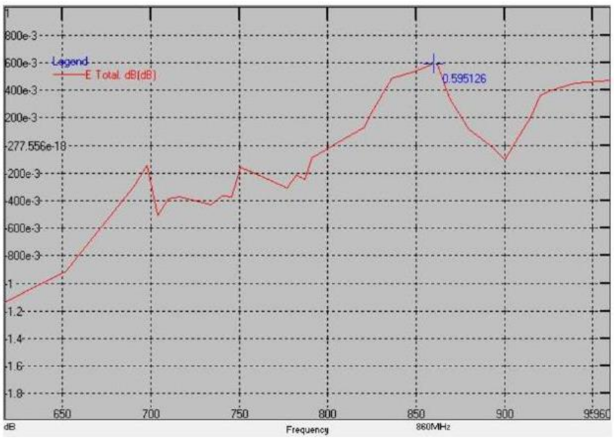
Layer	Max value	Min value	Average
5150(MHz)	1.20 dB	-23.10 dB	-2.62 dB
5500(MHz)	2.46 dB	-13.93 dB	-1.33 dB
5850(MHz)	2.03 dB	-9.55 dB	-0.79 dB

2D Gain Pattern_Antenna_XY Cut (Theta=90)

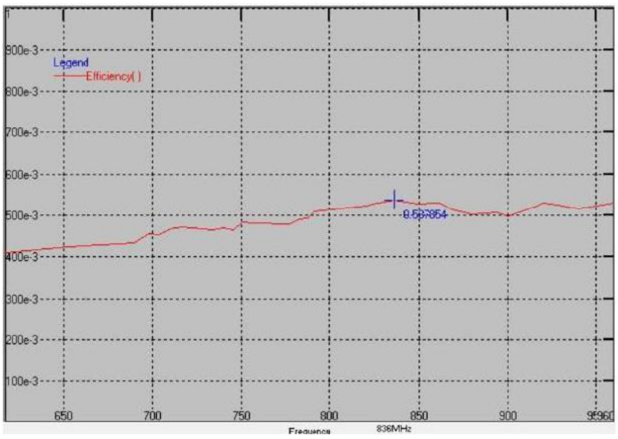


Layer	Max value	Min value	Average
5150(MHz)	0.43 dB	-2.78 dB	-1.15 dB
5500(MHz)	-0.23 dB	-12.82 dB	-3.00 dB
5850(MHz)	-1.38 dB	-7.14 dB	-2.99 dB

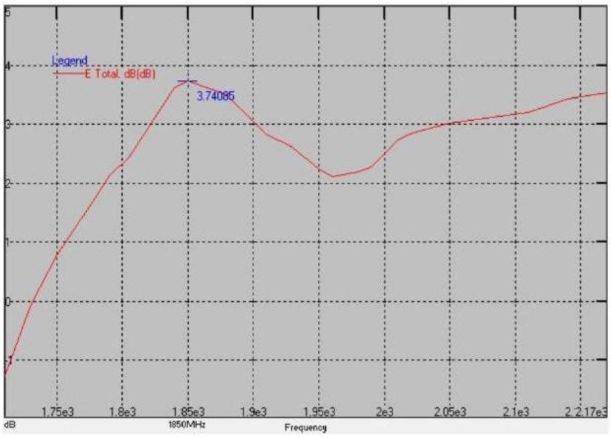
3D Peak Gain

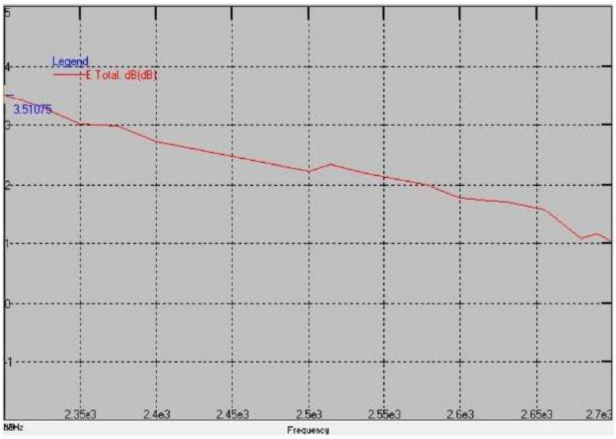


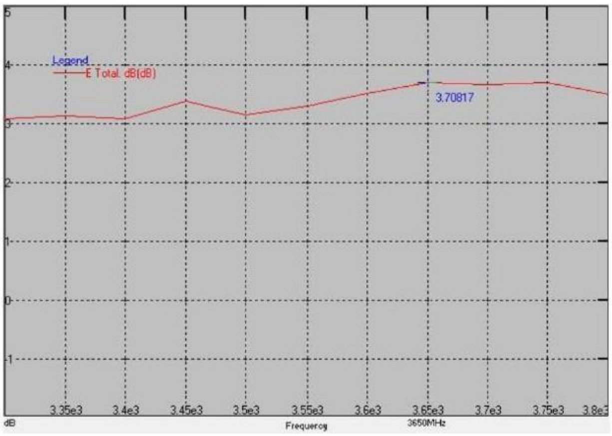
3D Efficiency

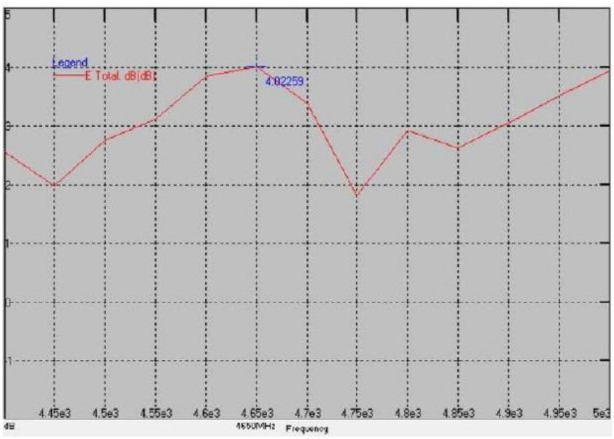


3D Peak Gain

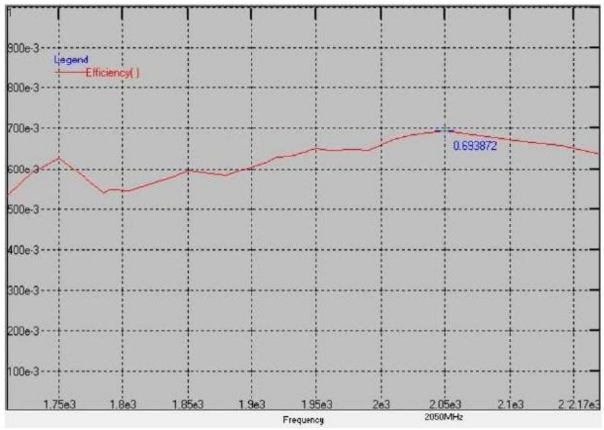


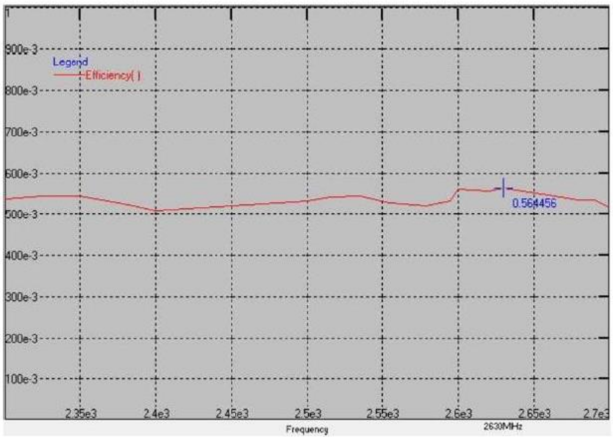


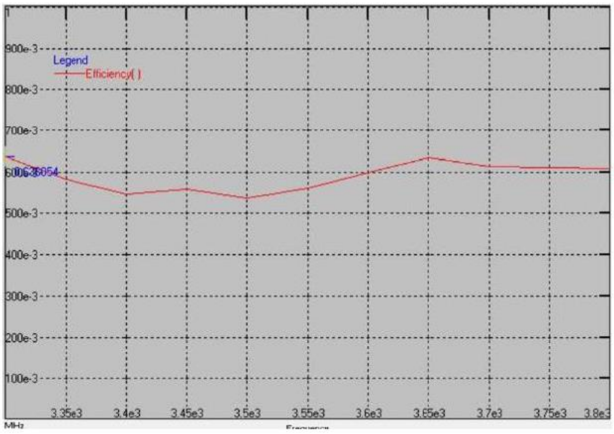


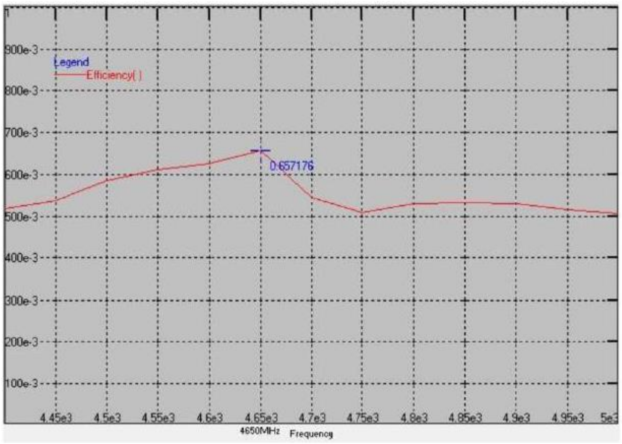


3D Efficiency

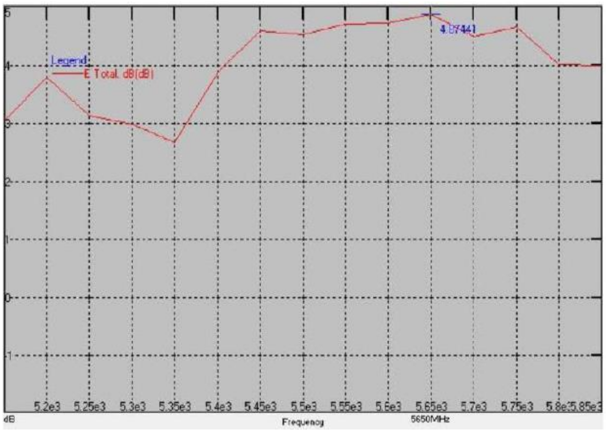




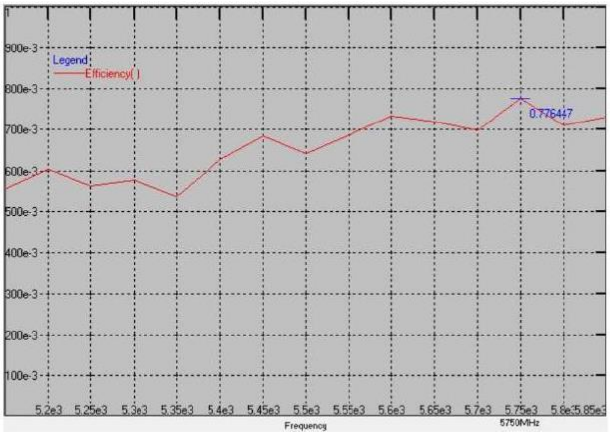




3D Peak Gain



3D Efficiency



Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
617	-1.14	41	2050	3.03	69	3750	3.70	61
690	-0.30	43	2110	3.21	67	3800	3.50	61
710	-0.39	45	2140	3.43	66	4400	2.56	52
716	-0.38	47	2170	3.54	64	4450	1.99	54
740	-0.36	47	2300	3.51	54	4500	2.75	59
756	-0.19	47	2325	3.30	55	4550	3.12	61
791	-0.09	48	2350	3.03	54	4600	3.86	63
824	0.22	51	2375	2.99	53	4650	4.02	66
836	0.48	53	2400	2.72	51	4700	3.39	54
869	0.34	54	2500	2.23	53	4750	1.81	51
880	0.12	51	2515	2.34	54	4800	2.92	53
894	-0.02	50	2535	2.21	54	4850	2.62	53
915	0.21	51	2555	2.12	53	4900	3.06	53
920	0.36	50	2579	1.99	52	4950	3.51	52
925	0.40	52	2595	1.83	53	5000	3.96	51
940	0.45	53	2620	1.73	56	5150	3.06	56
960	0.47	53	2630	1.71	56	5200	3.81	60
1710	-1.27	53	2655	1.59	55	5250	3.14	56
1750	0.79	63	2680	1.08	54	5300	3.00	58
1785	1.95	54	2690	1.17	53	5350	2.67	54
1805	2.44	54	2700	1.03	52	5400	3.88	63
1840	3.62	58	3300	3.09	64	5450	4.60	69
1880	3.50	58	3350	3.14	58	5500	4.52	64
1910	2.82	62	3400	3.09	55	5550	4.71	69
1930	2.60	63	3450	3.39	56	5600	4.73	73
1950	2.25	65	3500	3.15	54	5650	4.87	72
1980	2.20	65	3550	3.30	56	5700	4.49	70
1990	2.28	65	3600	3.52	60	5750	4.66	78
2010	2.73	67	3650	3.71	63	5800	4.01	71
2025	2.87	69	3700	3.67	61	5850	3.99	73

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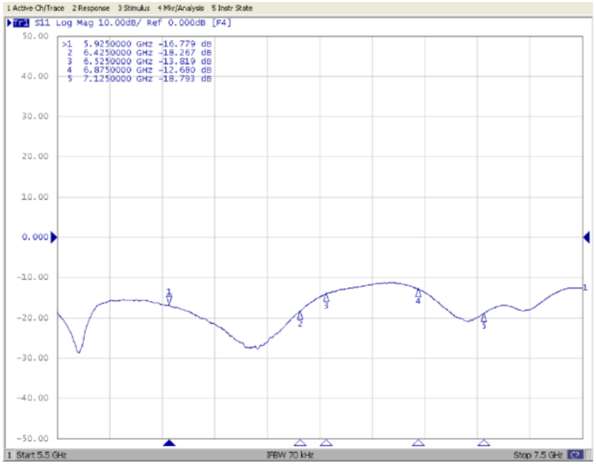
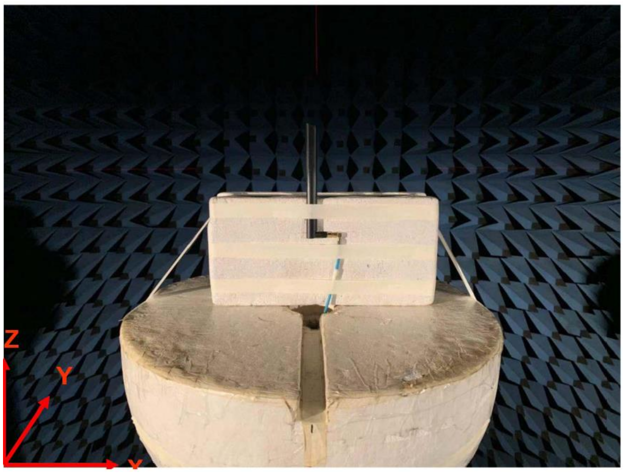
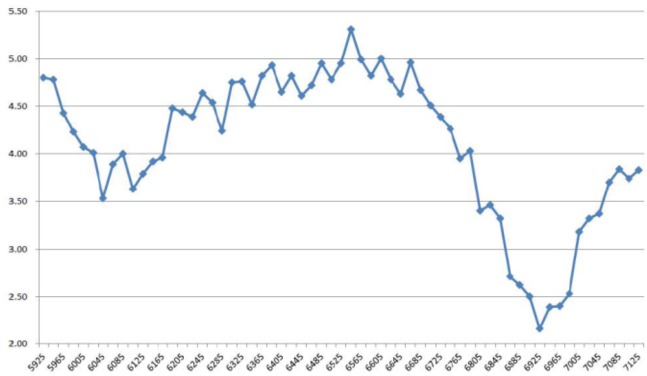
Return Loss S11



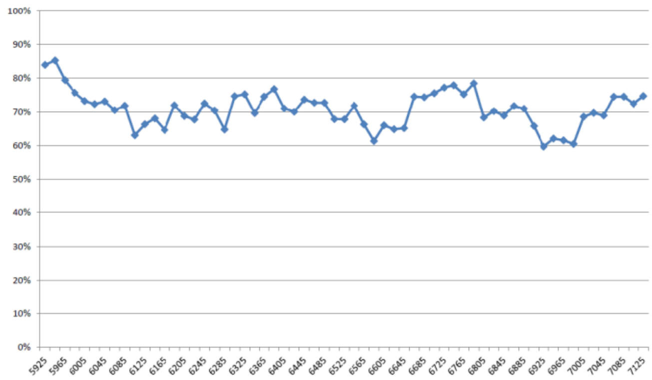
Experimental Setup



3D Peak Gain



3D Efficiency



Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
5925	4.80	84	6345	4.52	70	6765	3.95	75
5945	4.78	85	6365	4.82	75	6785	4.03	78
5965	4.43	79	6385	4.93	77	6805	3.40	68
5985	4.23	76	6405	4.65	71	6825	3.46	70
6005	4.07	73	6425	4.82	70	6845	3.32	69
6025	4.01	72	6445	4.61	74	6865	2.71	72
6045	3.53	73	6465	4.72	73	6885	2.62	71
6065	3.89	70	6485	4.95	73	6905	2.50	66
6085	4.00	72	6505	4.78	68	6925	2.16	60
6105	3.63	63	6525	4.95	68	6945	2.39	62
6125	3.79	66	6545	5.31	72	6965	2.40	62
6145	3.92	68	6565	4.99	66	6985	2.53	60
6165	3.96	65	6585	4.82	61	7005	3.18	69
6185	4.48	72	6605	5.00	66	7025	3.32	70
6205	4.44	69	6625	4.78	65	7045	3.37	69
6225	4.39	68	6645	4.63	65	7065	3.70	75
6245	4.64	73	6665	4.96	75	7085	3.84	75
6265	4.54	70	6685	4.67	74	7105	3.74	72
6285	4.24	65	6705	4.51	76	7125	3.83	75
6305	4.75	75	6725	4.39	77			
6325	4.76	75	6745	4.26	78			

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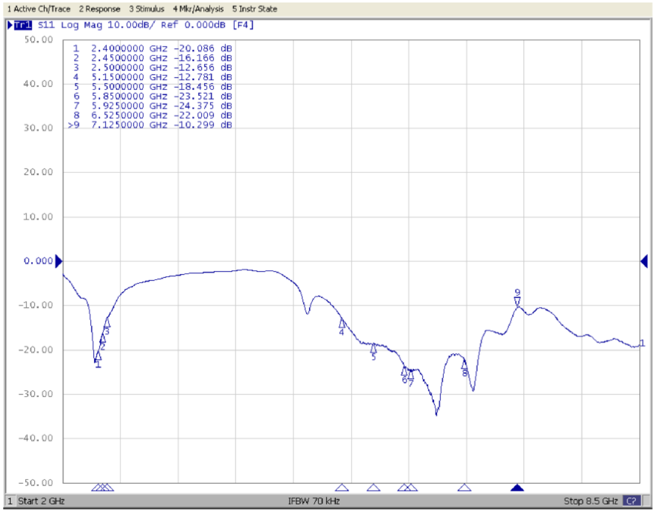
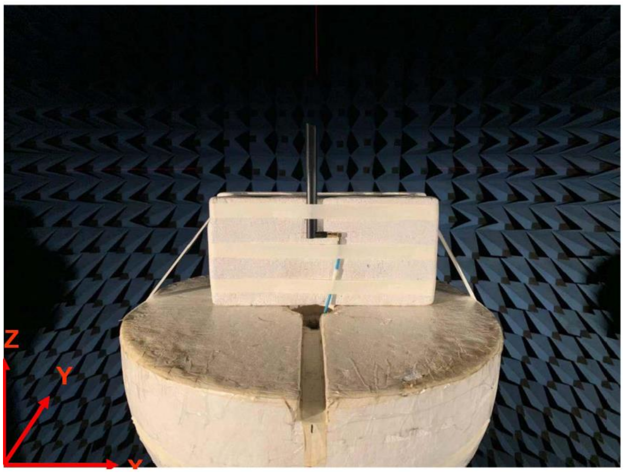
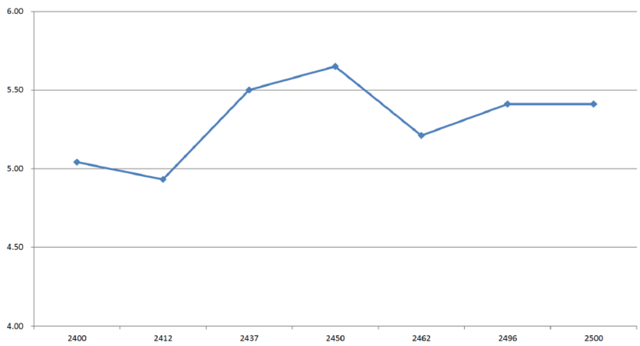
Return Loss S11



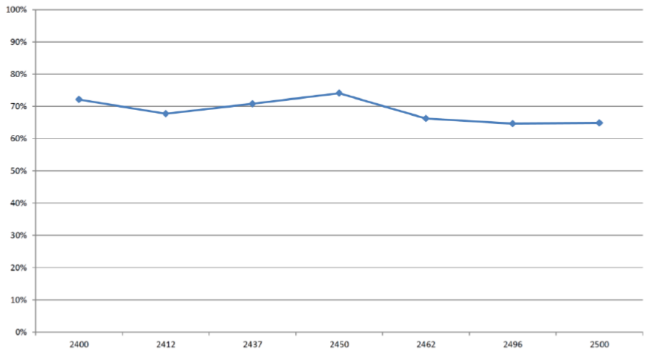
Experimental Setup

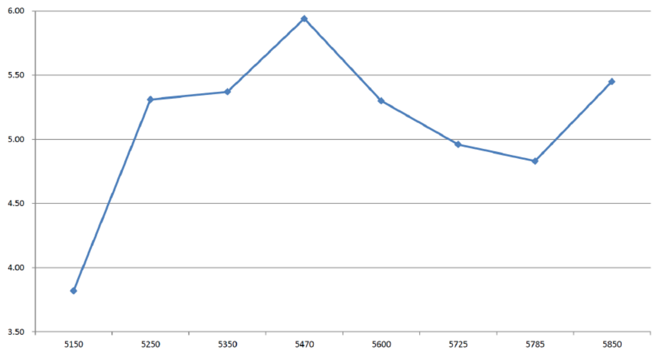


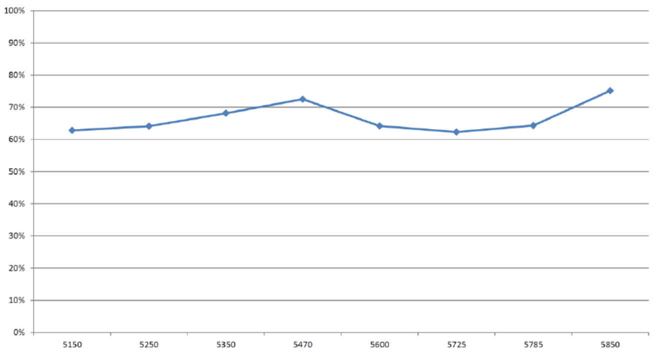
3D Peak Gain

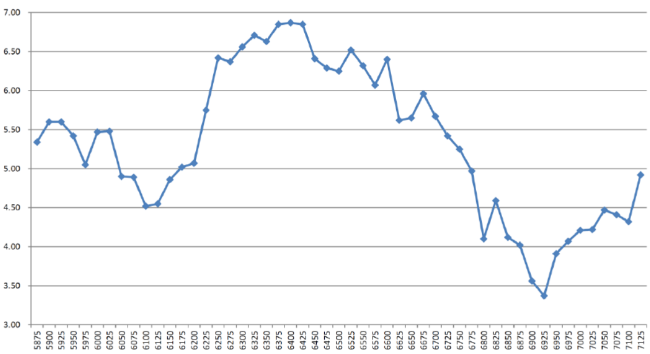


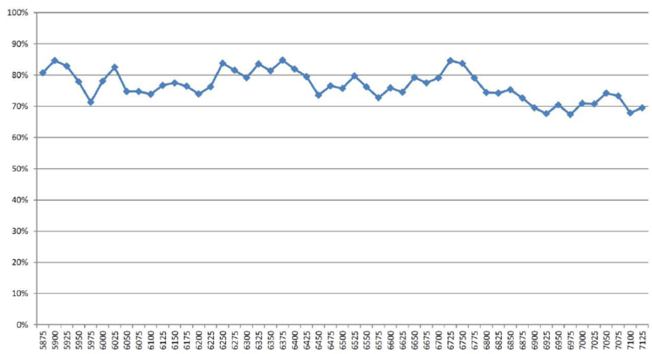
3D Efficiency











Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

Pulse a YAGEO company CHILISIN ELECTRONICS CORP.

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	5.04	72	6050	4.90	75	6600	6.40	76
2412	4.93	68	6075	4.89	75	6625	5.62	75
2437	5.50	71	6100	4.52	74	6650	5.65	79
2450	5.65	74	6125	4.55	77	6675	5.96	78
2462	5.21	66	6150	4.86	78	6700	5.67	79
2496	5.41	65	6175	5.02	76	6725	5.42	85
2500	5.41	65	6200	5.07	74	6750	5.25	84
5150	3.82	63	6225	5.75	76	6775	4.97	79
5250	5.31	64	6250	6.42	84	6800	4.10	74
5350	5.37	68	6275	6.37	82	6825	4.59	74
5470	5.94	73	6300	6.56	79	6850	4.12	75
5600	5.30	64	6325	6.71	84	6875	4.02	73
5725	4.96	62	6350	6.63	81	6900	3.56	70
5785	4.83	64	6375	6.85	85	6925	3.37	68
5850	5.45	75	6400	6.87	82	6950	3.91	70
5875	5.34	81	6425	6.85	80	6975	4.07	67
5900	5.60	85	6450	6.41	74	7000	4.21	71
5925	5.60	83	6475	6.29	77	7025	4.22	71
5950	5.42	78	6500	6.25	76	7050	4.47	74
5975	5.05	71	6525	6.52	80	7075	4.41	73
6000	5.47	78	6550	6.32	76	7100	4.32	68
6025	5.48	83	6575	6.07	73	7125	4.92	70

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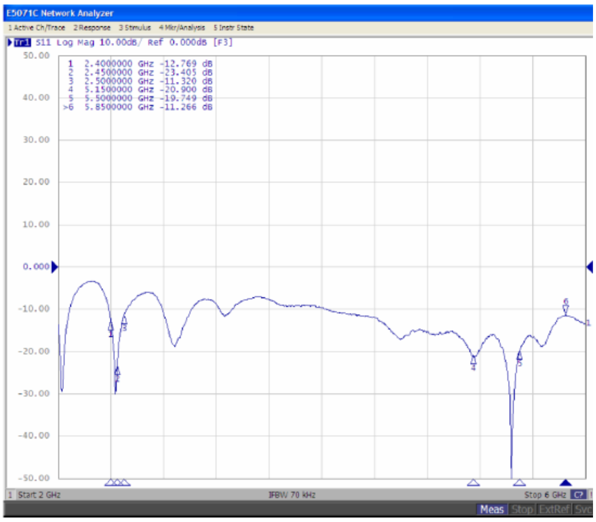
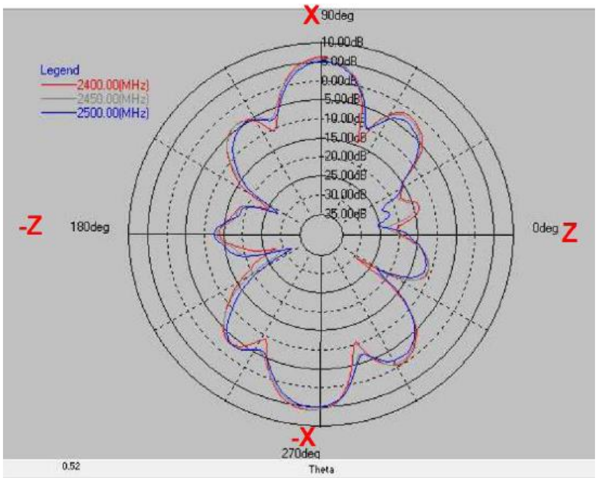
Return Loss S11

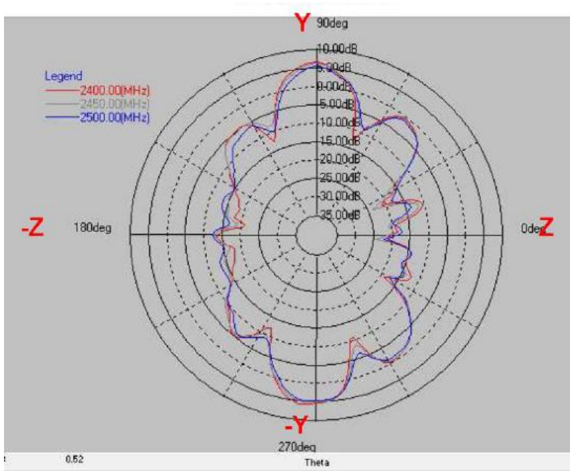


Frequency(MHz)：2400~2500. Pattern Field：X-Z plane



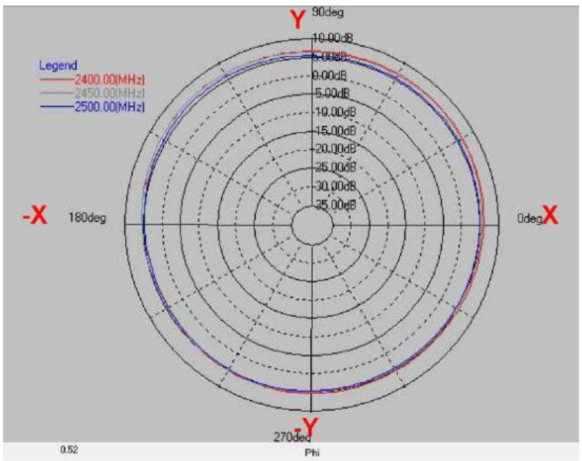
Layer	Max value	Min value	Average
2400(MHz)	6.00 dB	-29.73 dB	-2.29 dB
2450(MHz)	5.65 dB	-29.37 dB	-2.39 dB
2500(MHz)	4.97 dB	-32.12 dB	-3.07 dB

Frequency(MHz)：2400~2500. Pattern Field：Y-Z plane



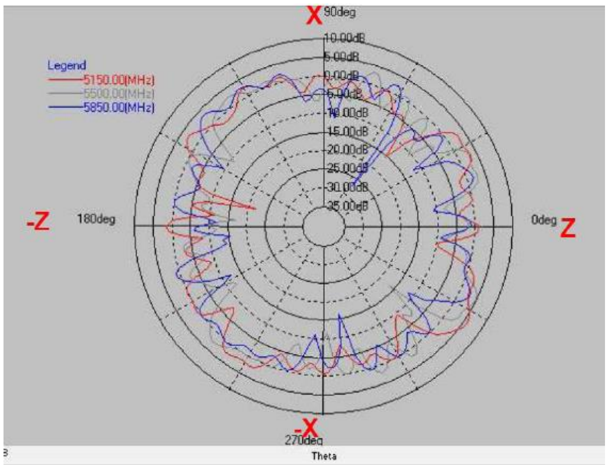
Layer	Max value	Min value	Average
2400(MHz)	6.34 dB	-21.38 dB	-2.36 dB
2450(MHz)	6.10 dB	-24.27 dB	-2.51 dB
2500(MHz)	5.19 dB	-22.16 dB	-3.04 dB

Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



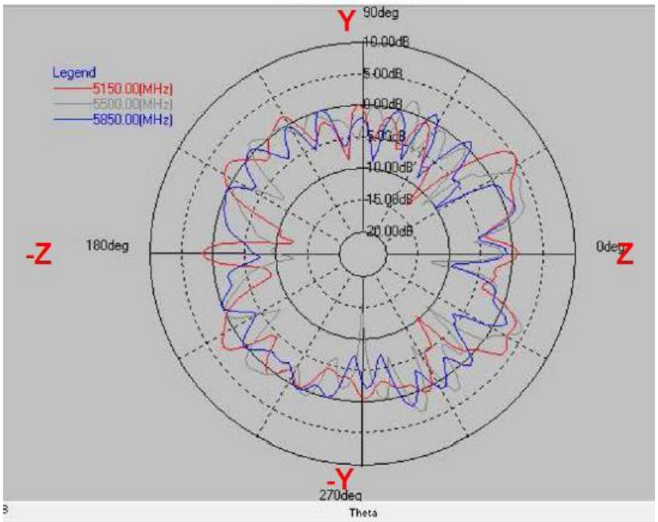
Layer	Max value	Min value	Average
2400(MHz)	6.71 dB	4.62 dB	5.79 dB
2450(MHz)	6.70 dB	4.43 dB	5.57 dB
2500(MHz)	5.84 dB	4.20 dB	4.92 dB

Frequency(MHz)：5150~5850. Pattern Field：X-Z plane



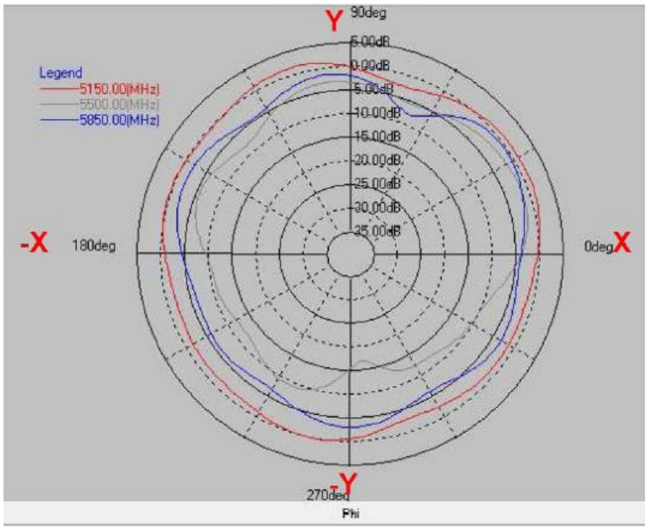
Layer	Max value	Min value	Average
5150(MHz)	5.91 dB	-21.93 dB	-0.60 dB
5500(MHz)	4.90 dB	-17.01 dB	-1.14 dB
5850(MHz)	3.15 dB	-27.21 dB	-1.72 dB

Frequency(MHz)：5150~5850. Pattern Field：Y-Z plane



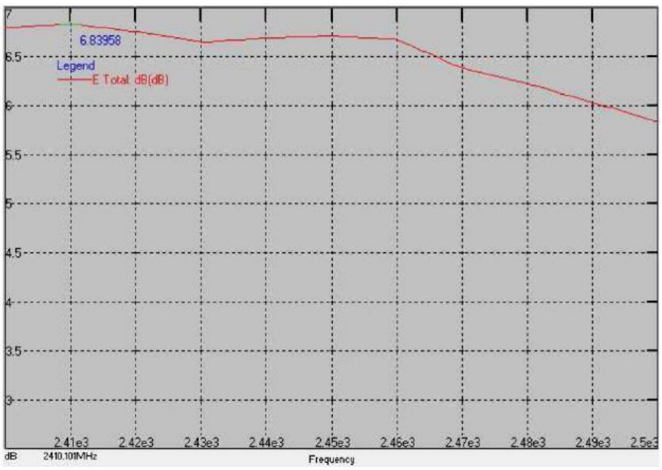
Layer	Max value	Min value	Average
5150(MHz)	5.02 dB	-13.25 dB	-0.85 dB
5500(MHz)	4.44 dB	-15.62 dB	-1.14 dB
5850(MHz)	1.87 dB	-10.07 dB	-1.75 dB

Frequency(MHz)：5150~5850. Pattern Field：X-Y plane



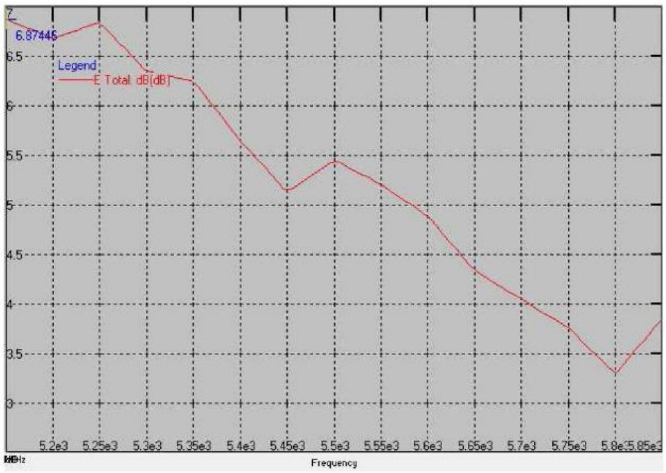
Layer	Max value	Min value	Average
5150(MHz)	1.32 dB	-2.94 dB	-0.60 dB
5500(MHz)	-1.36 dB	-17.19 dB	-6.32 dB
5850(MHz)	-0.40 dB	-7.88 dB	-3.67 dB

2.4G / Peak Gain



Peak Gain：Max 6.83 dBi

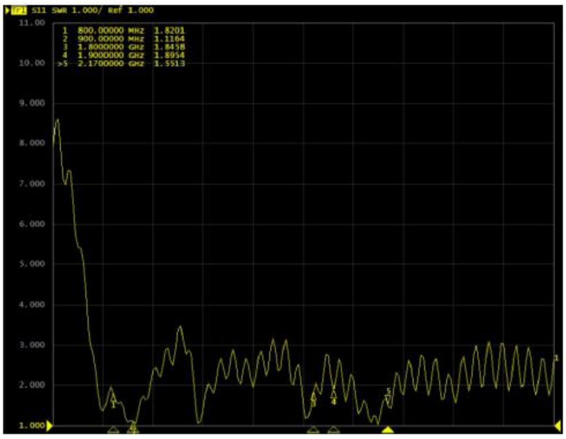
5G / Peak Gain



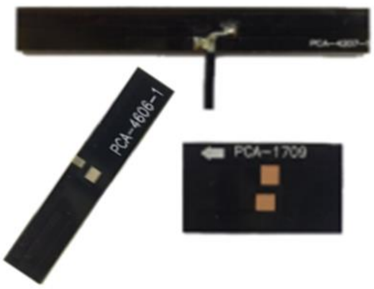
Peak Gain：Max 6.87 dBi

BTEA0027300G8R1A01

Return Loss S11



BTPA Series



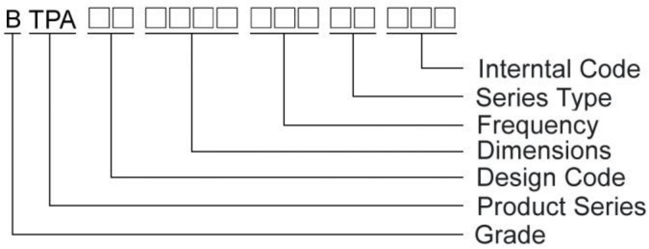
Features

- Small size low-profile, low cost and lightweight type
- Wide bandwidth and Omni-directional
- Supported with Dip-type, SMD, and Co-axial cable connecting
- Customized

Applications

- Bluetooth, Wireless Router, Set Top Box and Home digital
- ISM band, Lora, Sigfox, LTE, NB-IOT, GPS, WiFi and Car use.

Product Identification



Shapes and Dimensions

FIG 1

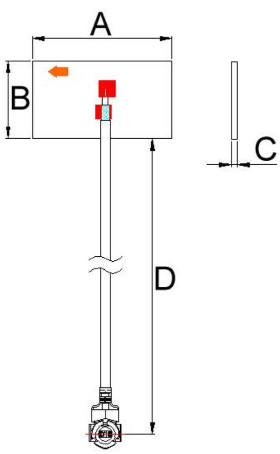


FIG 2

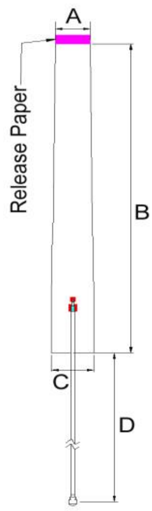
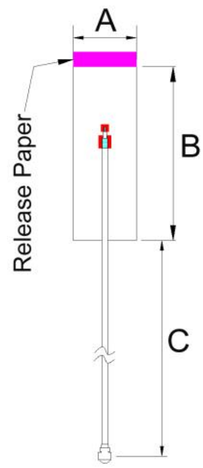


FIG 3



Dimensions in mm

TYPE	FIG	A	B	C	D
BTPA0017095G0C1B19	1	17.5	9.8	0.8	110±5
BTPA0010136G0C1A01	2	10.6	130	13	100±5
BTPA0012353G8C1A01	3	12.5	35	100±5	-
BTPA0012353G9C1A01	3	12.5	35	100±5	-

Shapes and Dimensions

FIG 4

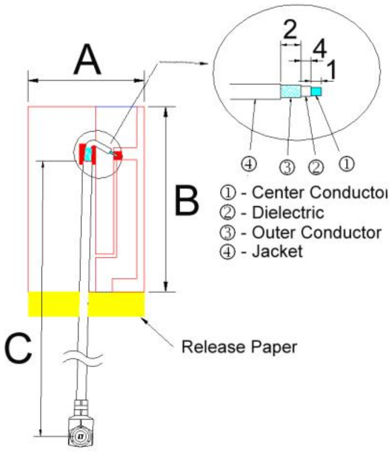


FIG 5

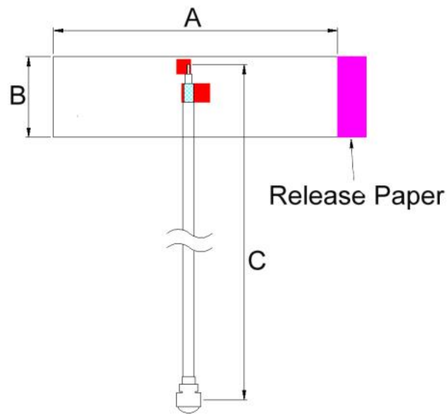


FIG 6

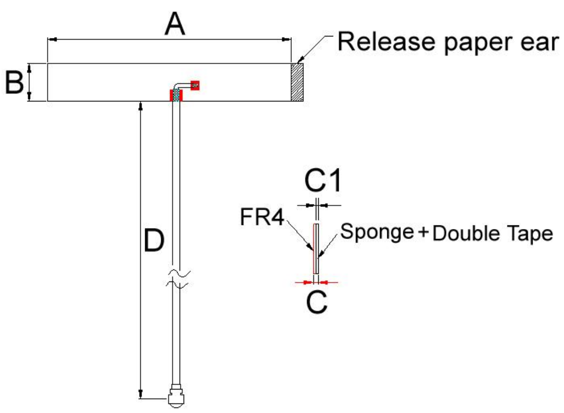
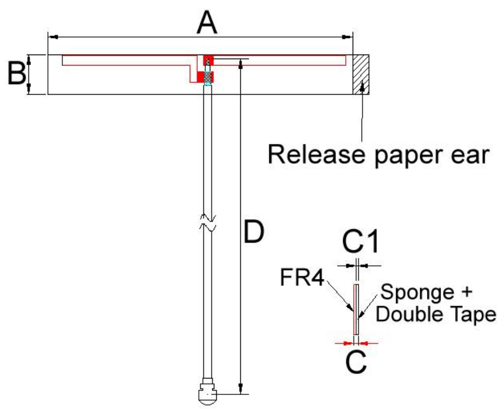


FIG 7



Dimensions in mm

TYPE	FIG	A	B	C	D
BTPA00221425GC1A09	4	14.3	22.7	143±3	-
BTPA0030082G4C1A04	5	30	8.5	220±2	-
BTPA00420725GC1A04	6	42	6.5	1.8±0.5	1.0±0.3
BTPA0046062G4C1B03	7	46.5	6	2.1±0.5	1.3±0.3

Electrical Characteristics

Part Number	Frequency Range (GHz)	Impedance (Ω)	Return Loss dB(Max)	VSWR (Max)	Radiation	Peak Gain (dB)	Polarization	Admitted Power (W)
BTPA0017095G0C1B19	5.15~5.85	50	-10	-	Omni-directional	2.67	Linear Vertical	1
BTPA0010136G0C1A01	0.617~0.96 1.71~2.17 2.3~2.7 3.3~3.8 4.4~5 5.15~5.85	50	-	4	Omni-directional	0.59 3.74 3.51 3.7 4 4.87	Linear Vertical	1
BTPA0012353G8C1A01	3.3~3.8	50	-10	-	Omni-directional	2.69	Linear Vertical	1
BTPA0012353G9C1A01	3.3~3.9	50	-7	-	Omni-directional	4.89	Linear Vertical	1
BTPA00221425GC1A09	2.4 5	50	-10	2	Omni-directional	2.78 2.53	Linear Vertical	1
BTPA0030082G4C1A04	2.4~2.5	50	-10	-	Omni-directional	3.37	Linear Vertical	1
BTPA00420725GC1A04	2.4 5	50	-10	-	Omni-directional	2.82 3.12	Linear Vertical	1
BTPA0046062G4C1B03	2.4~2.5	50	-10	2	Omni-directional	3	Linear Vertical	1
BTPA0052116G0C1A01	2.4~2.5 5.15~5.85 5.925~6.325 6.35~6.75 6.775~7.125	50	-10		Omni-directional	5.65 5.94 6.42 6.87 5.42	Linear Vertical	1

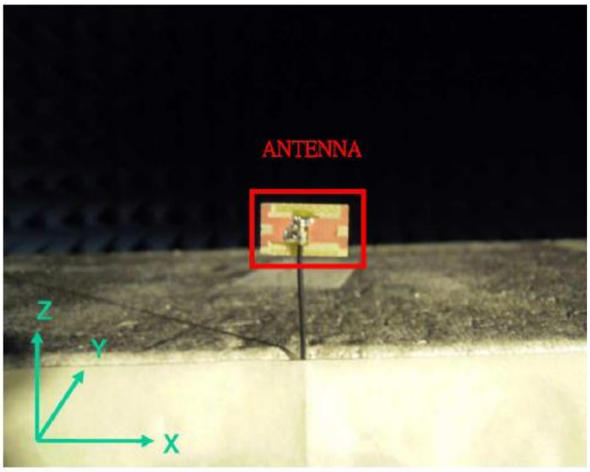
Physical Properties

Part Number	Antenna Material(Body)		Cable	Color	Connector	Double Tape	Sponge
BTPA0017095G0C1B19	FR4	Black paint OSP board	RF-113	Black	IPEX Compatible	-	-
BTPA0010136G0C1A01	FR4	Black paint OSP board	RF-113	Black	IPEX Compatible	3M 9448	-
BTPA0012353G8C1A01	FR4	Black paint OSP board	RF-113	Black	IPEX Compatible	3M 9448	-
BTPA0012353G9C1A01	FR4	Black paint OSP board	RF-113	Black	IPEX Compatible	3M 9448	-
BTPA00221425GC1A09	FR4	Black paint sneeze	RF-113	Gray	IPEX	G9000	-
BTPA0030082G4C1A04	FR4	Black paint OSP board	RF-113	Gray	IPEX Compatible	G9000	-
BTPA00420725GC1A04	FR4	Black paint OSP board	RF-113	Black	IPEX Compatible	3M 9448	EVA
BTPA0046062G4C1B03	FR4	Black paint sneeze	RF-113	Gray	IPEX	3M 9448	EVA
BTPA0052116G0C1A01	FR4	Black paint OSP board	RF-113	Black	IPEX Compatible	3M 9448	-

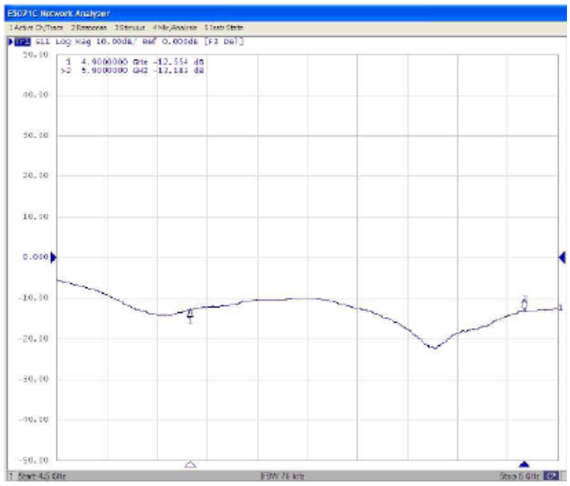
- Operating temperature range - 20℃ ~ +65℃
- Storage temperature range - 30℃ ~ +75℃

BTPA0017095G0C1B19

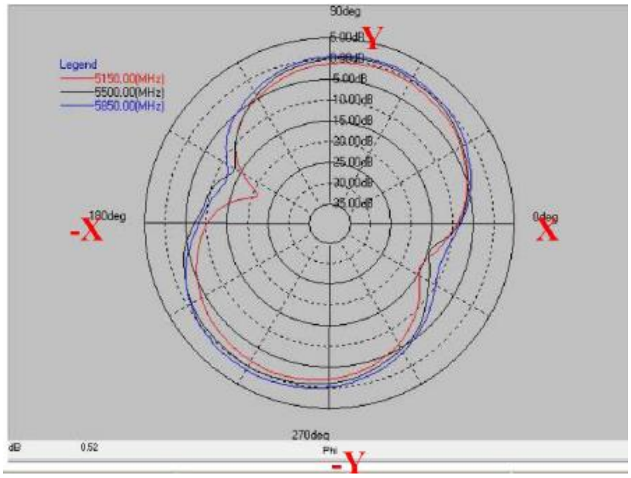
Experimental Setup



Return Loss S11

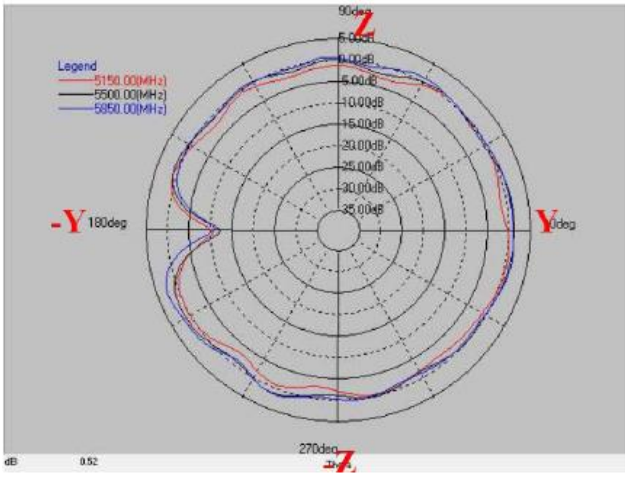


Frequency(MHz)：5150~5850. Pattern Field：X-Y plane



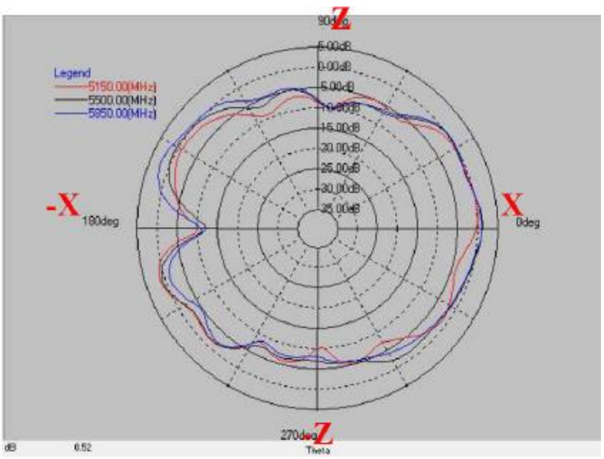
Layer	Max value	Min value	Average
5150(MHz)	-0.57 dB	-21.11 dB	-4.18 dB
5500(MHz)	0.57 Db	-14.73 dB	-2.89 dB
5850(MHz)	1.05 dB	-12.68 dB	-2.18 dB

Frequency(MHz)：5150~5850. Pattern Field：Y-Z plane



Layer	Max value	Min value	Average
5150(MHz)	0.87 dB	-10.45 dB	-1.27 dB
5500(MHz)	1.33 dB	-12.56 dB	-0.30 dB
5850(MHz)	2.67 dB	-11.11 dB	0.01 dB

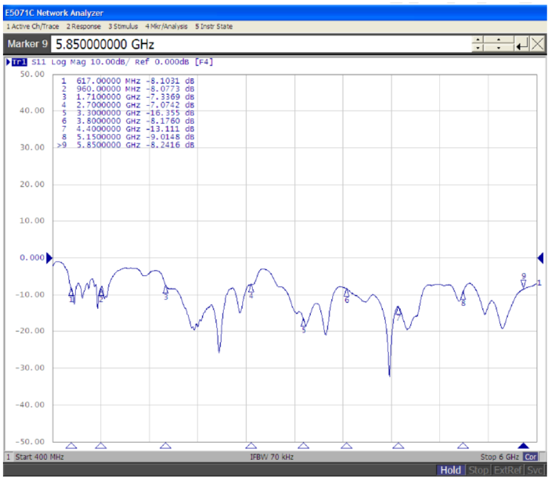
Frequency(MHz)：5150~5850. Pattern Field：X-Z plane



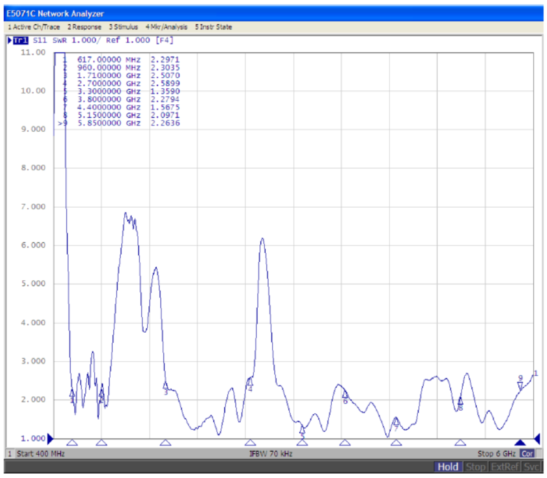
Layer	Max value	Min value	Average
5150(MHz)	1.30 dB	-10.45 dB	-3.31 dB
5500(MHz)	1.25 dB	-12.56 dB	-2.53 dB
5850(MHz)	2.25 dB	-11.19 dB	-2.43 dB

BTPA0010136G0C1A1

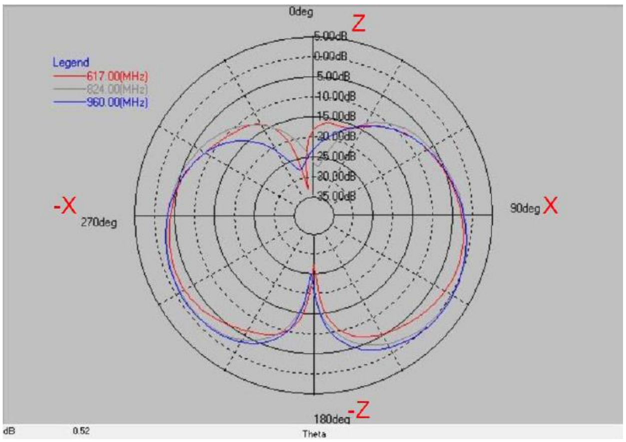
Return Loss



VSWR

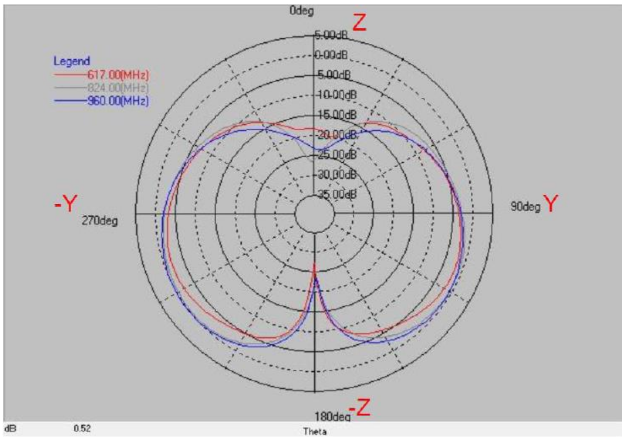


Frequency(MHz)：617~960. Pattern Field：Z-X plane



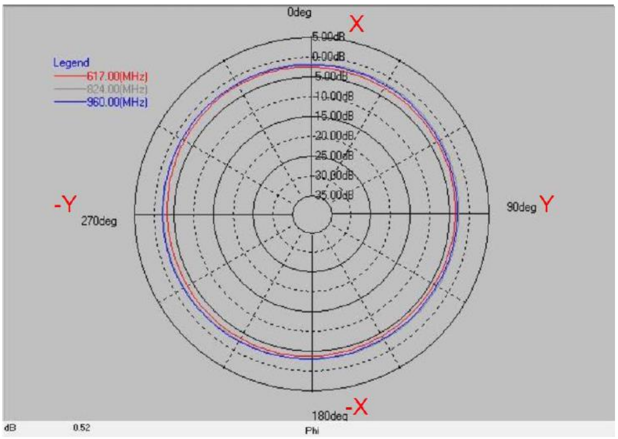
Layer	Max value	Min value	Average
617(MHz)	-1.39 dB	-33.33 dB	-5.85 dB
824(MHz)	0.22 dB	-27.68 dB	-4.37 dB
960(MHz)	0.42 dB	-28.14 dB	-4.28 dB

Frequency(MHz)：617~960. Pattern Field：Z-Y plane



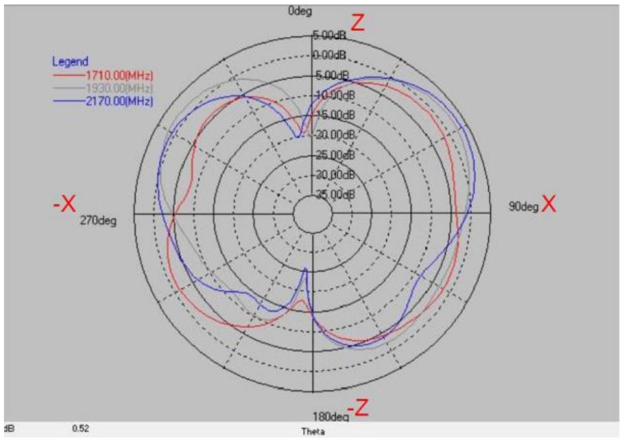
Layer	Max value	Min value	Average
617(MHz)	-1.80 dB	-27.56 dB	-5.79 dB
824(MHz)	-0.32 dB	-27.04 dB	-4.34 dB
960(MHz)	0.09 dB	-23.93 dB	-4.21 dB

Frequency(MHz)：617~960. Pattern Field：X-Y plane



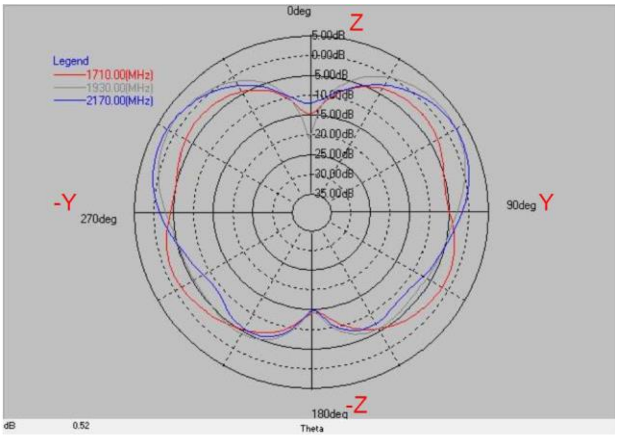
Layer	Max value	Min value	Average
617(MHz)	-2.37 dB	-4.29 dB	-3.32 dB
824(MHz)	-1.85 dB	-3.26 dB	-2.46 dB
960(MHz)	-1.93 dB	-3.48 dB	-2.58 dB

Frequency(MHz)：1710~2170. Pattern Field：Z-X plane



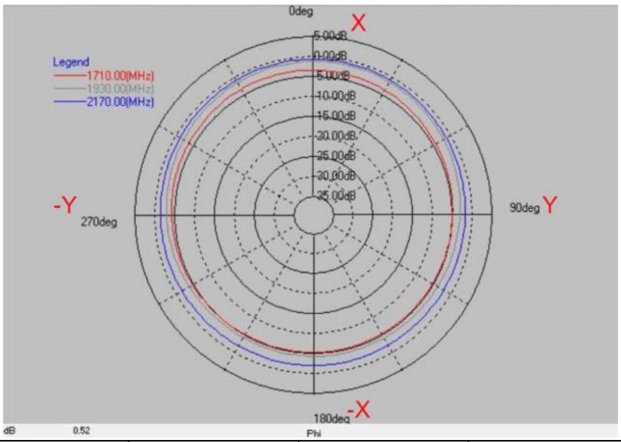
Layer	Max value	Min value	Average
1710(MHz)	-1.27 dB	-19.63 dB	-4.33 dB
1930(MHz)	2.35 dB	-23.75 dB	-2.26 dB
2170(MHz)	3.54 dB	-26.16 dB	-2.41 dB

Frequency(MHz)：1710~2170. Pattern Field：Z-Y plane



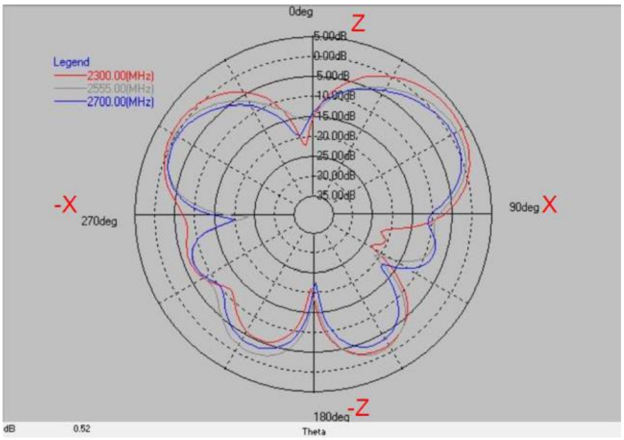
Layer	Max value	Min value	Average
1710(MHz)	-1.65 dB	-15.05 dB	-4.37 dB
1930(MHz)	2.59 dB	-21.40 dB	-2.33 dB
2170(MHz)	3.43 dB	-15.04 dB	-2.50 dB

Frequency(MHz)：1710~2170. Pattern Field：X-Y plane



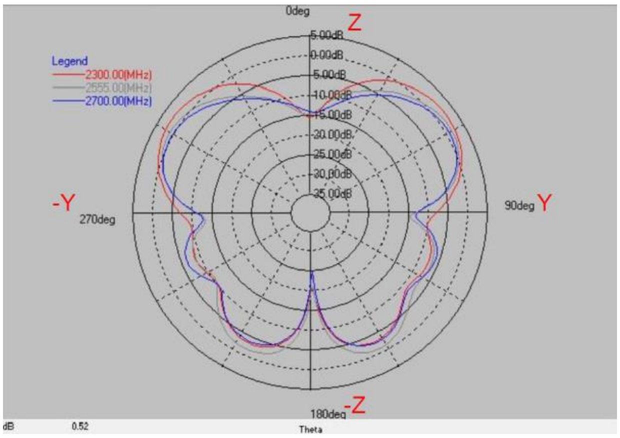
Layer	Max value	Min value	Average
1710(MHz)	-3.57 dB	-5.49 dB	-4.49 dB
1930(MHz)	-1.45 dB	-4.54 dB	-2.85 dB
2170(MHz)	-0.91 dB	-2.21 dB	-1.53 dB

Frequency(MHz)：2300~2700. Pattern Field：Z-X plane



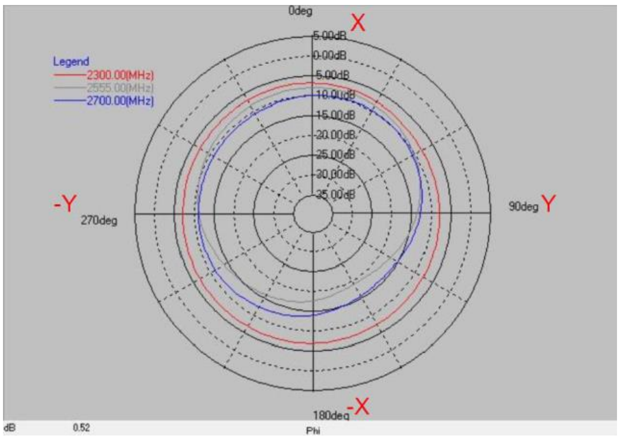
Layer	Max value	Min value	Average
2300(MHz)	3.48 dB	-23.31 dB	-2.83 dB
2555(MHz)	2.02 dB	-23.64 dB	-3.80 dB
2700(MHz)	0.79 dB	-22.71 dB	-4.96 dB

Frequency(MHz)：2300~2700. Pattern Field：Z-Y plane



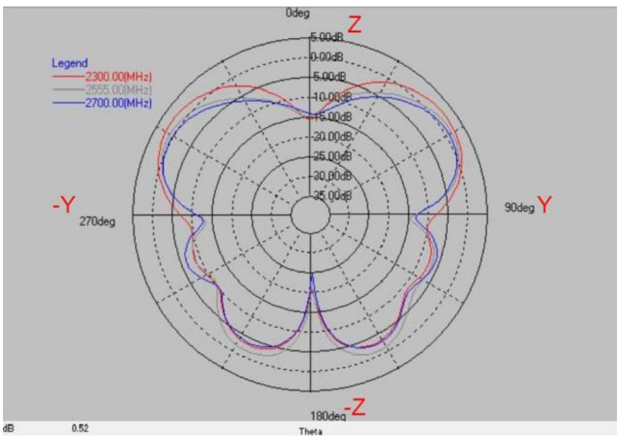
Layer	Max value	Min value	Average
2300(MHz)	2.66 dB	-20.71 dB	-2.81 dB
2555(MHz)	1.64 dB	-21.35 dB	-3.69 dB
2700(MHz)	0.80 dB	-25.15 dB	-4.63 dB

Frequency(MHz)：2300~2700. Pattern Field：X-Y plane



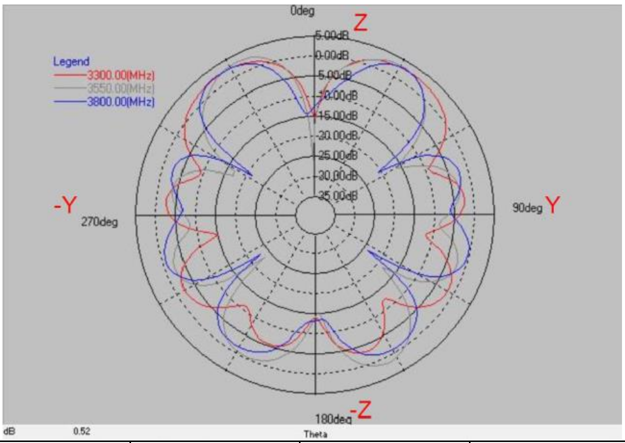
Layer	Max value	Min value	Average
2300(MHz)	-6.96 dB	-8.08 dB	-7.33 dB
2555(MHz)	-8.25 dB	-19.35 dB	-11.43 dB
2700(MHz)	-10.03 dB	-16.08 dB	-11.84 dB

Frequency(MHz)：3300~3800. Pattern Field：Z-X plane



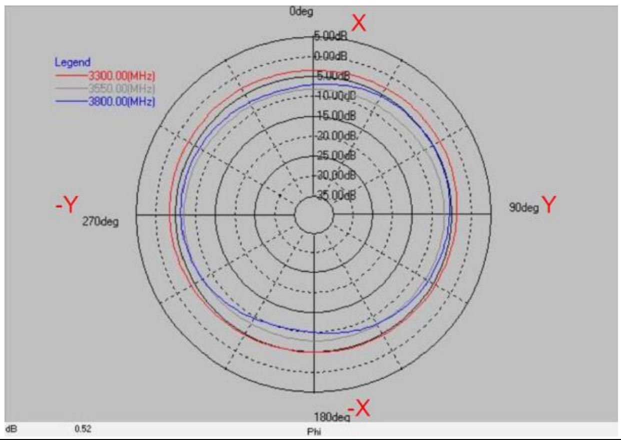
Layer	Max value	Min value	Average
3300(MHz)	3.07 dB	-20.14 dB	-2.57 dB
3550(MHz)	3.26 dB	-24.17 dB	-2.51 dB
3800(MHz)	3.43 dB	-22.01 dB	-2.77 dB

Frequency(MHz)：3300~3800. Pattern Field：Z-Y plane



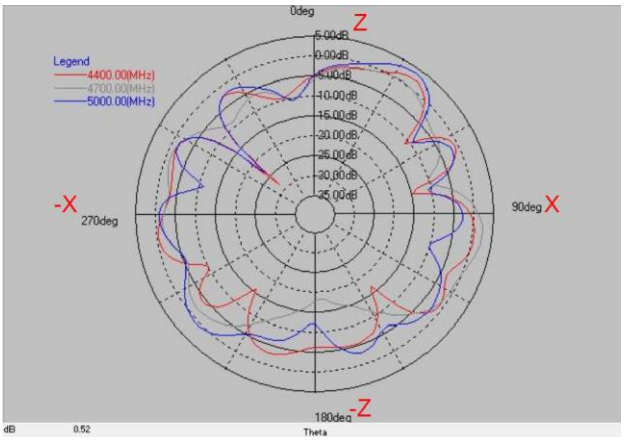
Layer	Max value	Min value	Average
3300(MHz)	2.85 dB	-15.41 dB	-2.31 dB
3550(MHz)	3.17 dB	-26.31 dB	-2.40 dB
3800(MHz)	3.01 dB	-24.18 dB	-2.64 dB

Frequency(MHz)：3300~3800. Pattern Field：X-Y plane



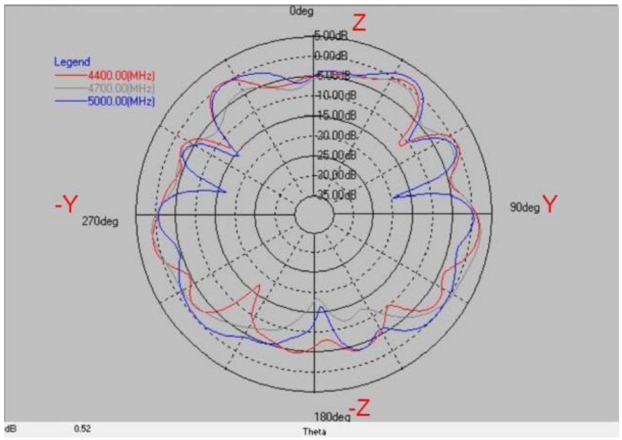
Layer	Max value	Min value	Average
3300(MHz)	-3.08 dB	-5.14 dB	-3.90 dB
3550(MHz)	-6.85 dB	-8.46 dB	-7.70 dB
3800(MHz)	-5.16 dB	-10.45 dB	-6.92 dB

Frequency(MHz)：4400~5000. Pattern Field：Z-X plane



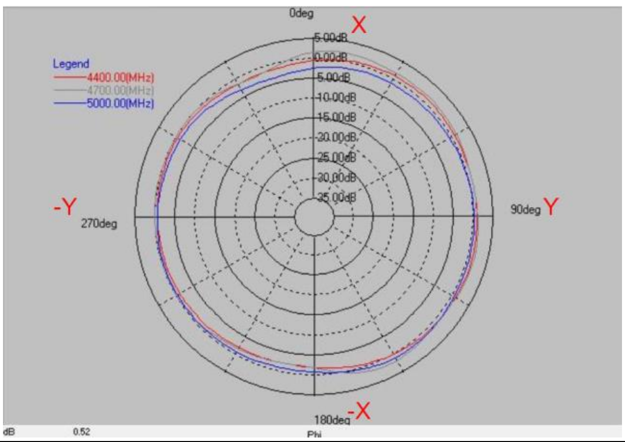
Layer	Max value	Min value	Average
4400(MHz)	2.11 dB	-28.32 dB	-3.84 dB
4700(MHz)	2.51 dB	-18.54 dB	-3.40 dB
5000(MHz)	3.59 dB	-23.84 dB	-3.01 dB

Frequency(MHz)：4400~5000. Pattern Field：Z-Y plane



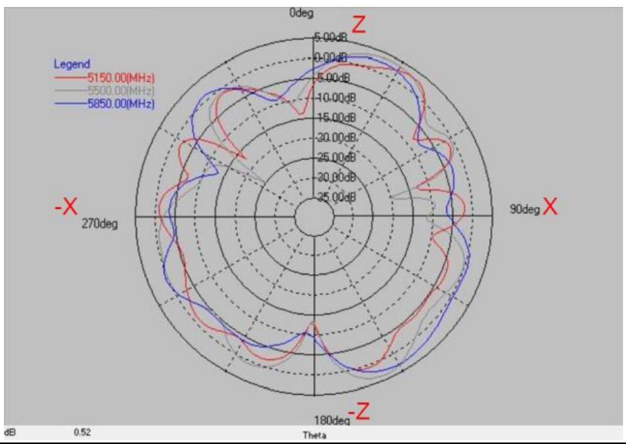
Layer	Max value	Min value	Average
4400(MHz)	1.97 dB	-17.60 dB	-2.70 dB
4700(MHz)	2.50 dB	-18.71 dB	-2.84 dB
5000(MHz)	2.13 dB	-19.53 dB	-2.61 dB

Frequency(MHz)：4400~5000. Pattern Field：X-Y plane



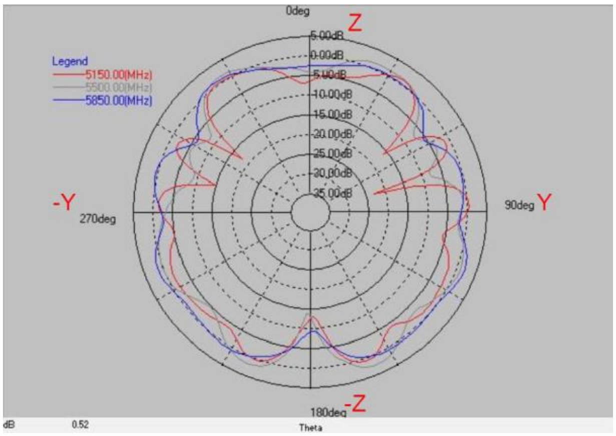
Layer	Max value	Min value	Average
4400(MHz)	1.22 dB	-2.37 dB	-0.27 dB
4700(MHz)	1.93 dB	-2.41 dB	0.43 dB
5000(MHz)	1.00 dB	-3.76 dB	-0.68 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-X plane



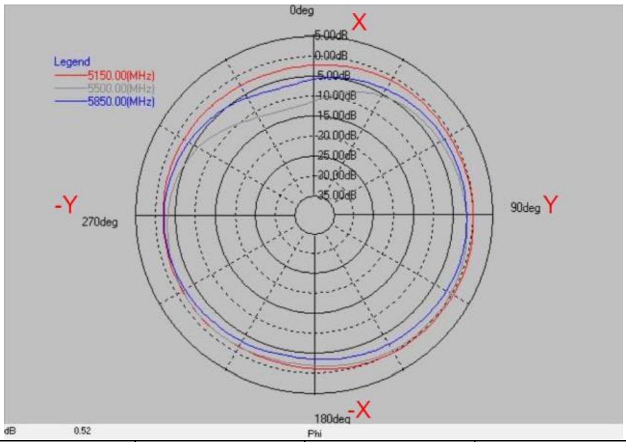
Layer	Max value	Min value	Average
5150(MHz)	3.06 dB	-17.47 dB	-2.82 dB
5500(MHz)	3.71 dB	-25.19 dB	-1.36 dB
5850MHz)	2.94 dB	-13.40 dB	-1.46 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-Y plane



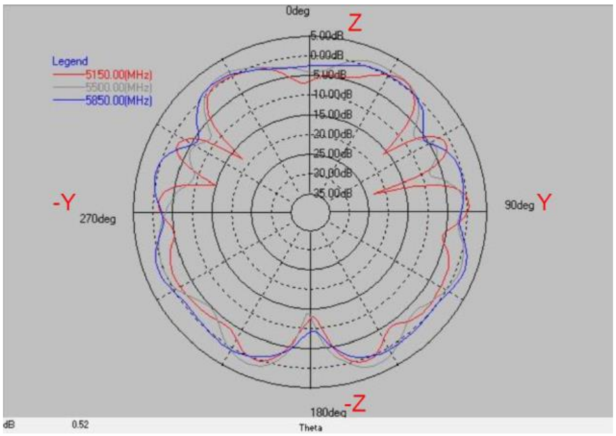
Layer	Max value	Min value	Average
5150(MHz)	1.20 dB	-23.10 dB	-2.62 dB
5500(MHz)	2.46 dB	-13.93 dB	-1.33 dB
5850MHz)	2.03 dB	-9.55 dB	-0.79 dB

Frequency(MHz)：5150~5850. Pattern Field：X-Y plane



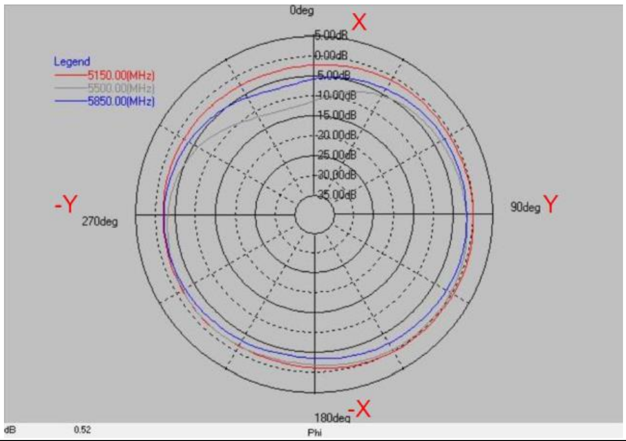
Layer	Max value	Min value	Average
5150(MHz)	0.43 dB	-2.78 dB	-1.15 dB
5500(MHz)	-0.23 dB	-12.82 dB	-3.00 dB
5850MHz)	-1.38 dB	-7.14 dB	-2.99 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-Y plane



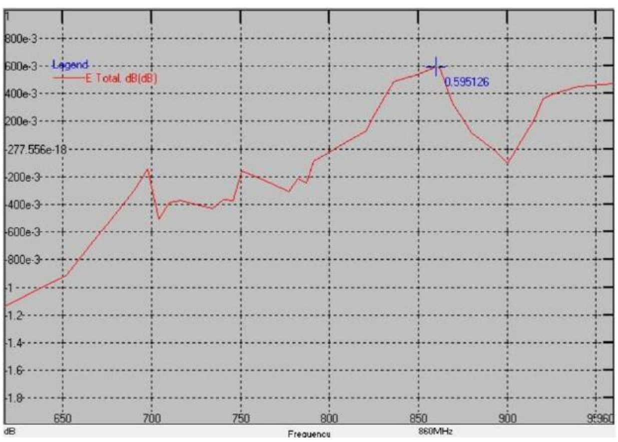
Layer	Max value	Min value	Average
5150(MHz)	1.20 dB	-23.10 dB	-2.62 dB
5500(MHz)	2.46 dB	-13.93 dB	-1.33 dB
5850MHz)	2.03 dB	-9.55 dB	-0.79 dB

Frequency(MHz)：5150~5850. Pattern Field：X-Y plane

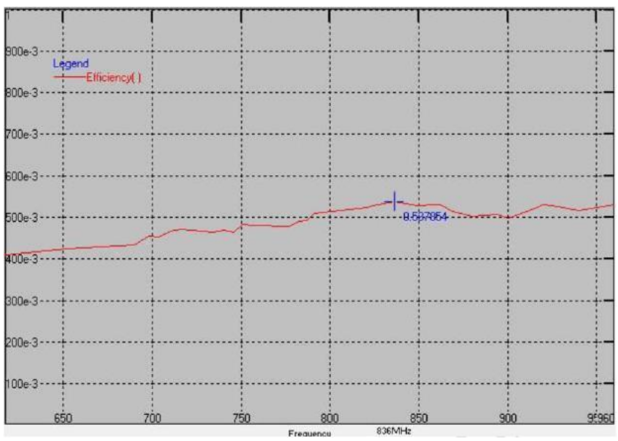


Layer	Max value	Min value	Average
5150(MHz)	0.43 dB	-2.78 dB	-1.15 dB
5500(MHz)	-0.23 dB	-12.82 dB	-3.00 dB
5850MHz)	-1.38 dB	-7.14 dB	-2.99 dB

3D Peak Gain

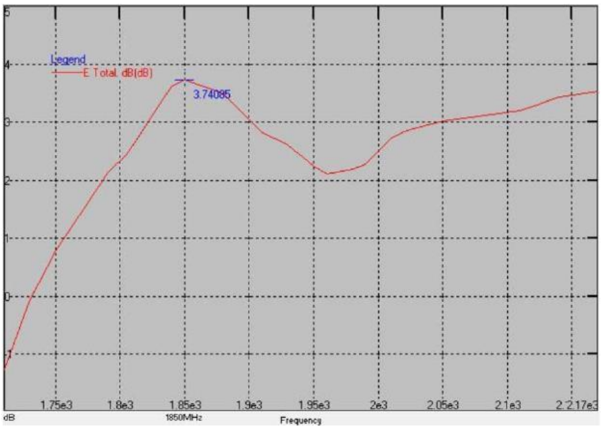


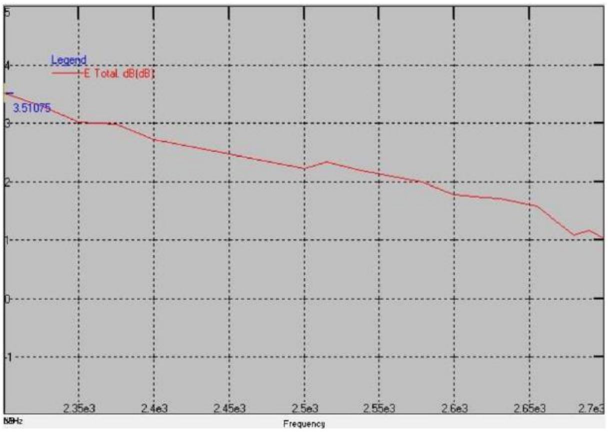
3D Efficiency

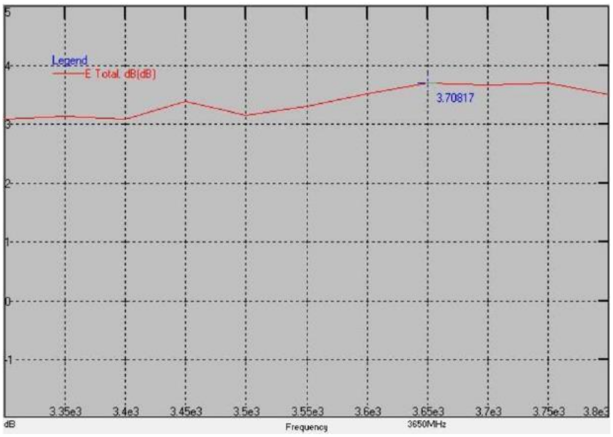


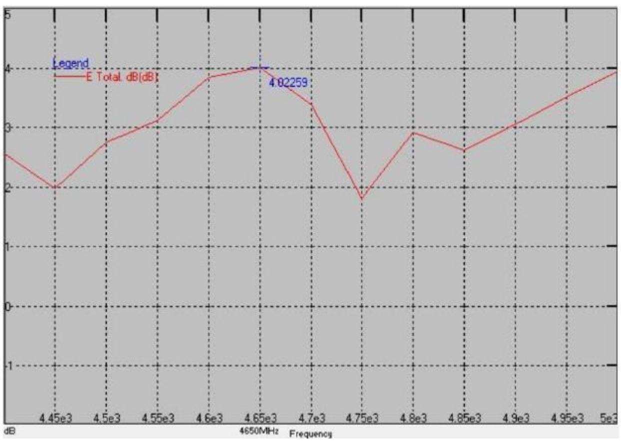
PCB Antenna BTPA Series

3D Peak Gain

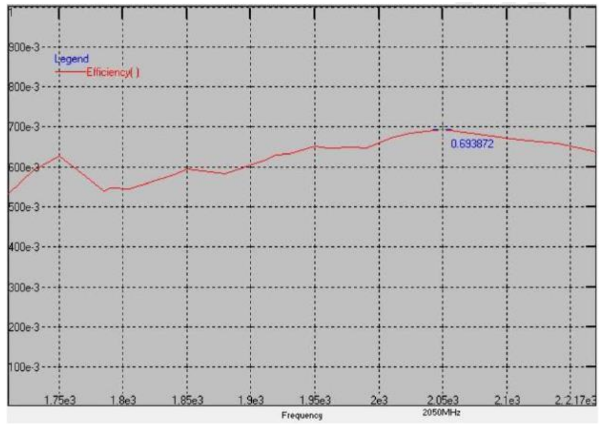


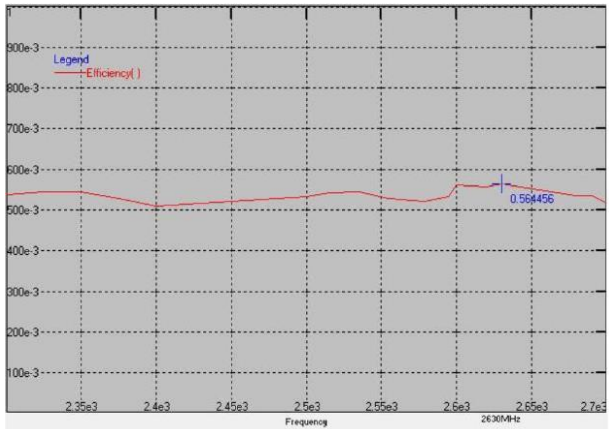


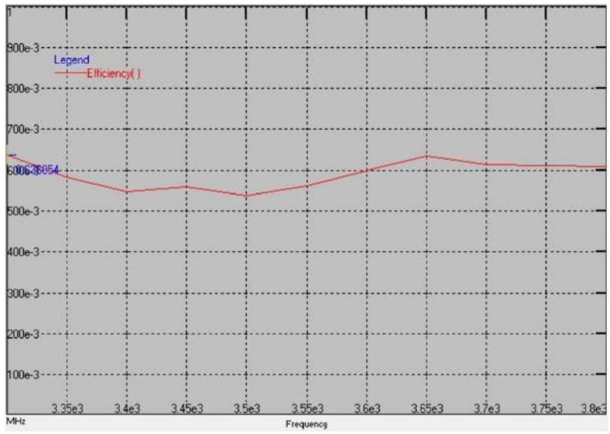


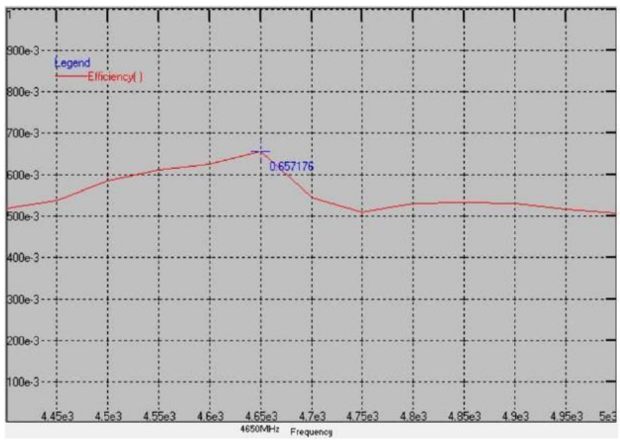


3D Efficiency









Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

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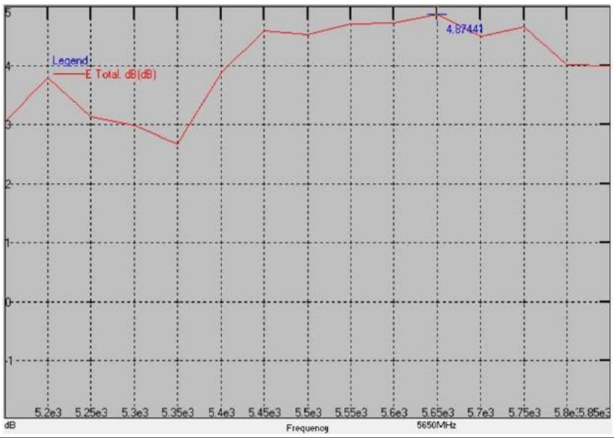
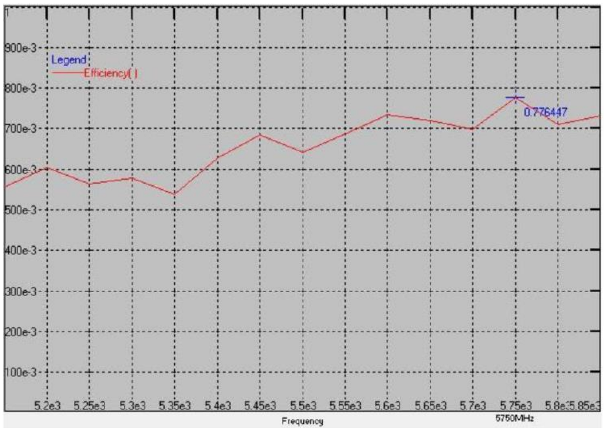
CHILISIN ELECTRONICS CORP.

3D Peak Gain



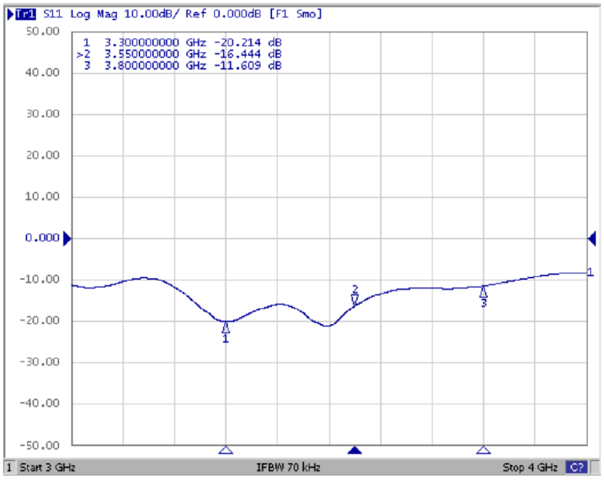
3D Efficiency



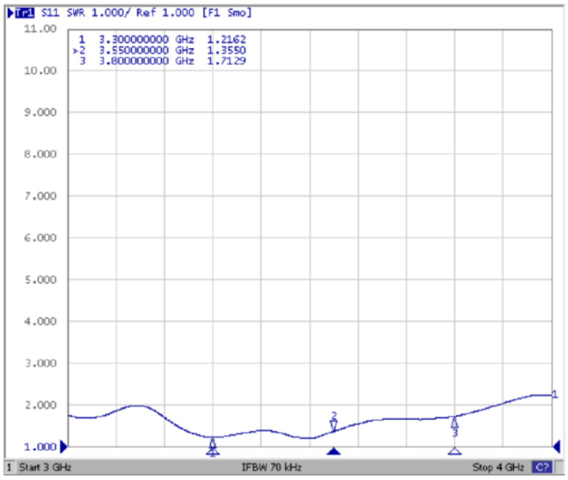
Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
617	-1.14	41	2620	1.73	56
690	-0.30	43	2630	1.71	56
710	-0.39	45	2655	1.59	55
716	-0.38	47	2680	1.08	54
740	-0.36	47	2690	1.17	53
756	-0.19	47	2700	1.03	52
791	-0.09	48	3300	3.09	64
824	0.22	51	3350	3.14	58
836	0.48	53	3400	3.09	55
869	0.34	54	3450	3.39	56
880	0.12	51	3500	3.15	54
894	-0.02	50	3550	3.30	56
915	0.21	51	3600	3.52	60
920	0.36	50	3650	3.71	63
925	0.40	52	3700	3.67	61
940	0.45	53	3750	3.70	61
960	0.47	53	3800	3.50	61
1710	-1.27	53	4400	2.56	52
1750	0.79	63	4450	1.99	54
1785	1.95	54	4500	2.75	59
1805	2.44	55	4550	3.12	61
1840	3.62	58	4600	3.86	63
1880	3.50	58	4650	4.02	66
1910	2.82	62	4700	3.39	54
1930	2.60	63	4750	1.81	51
1950	2.25	65	4800	2.92	53
1980	2.20	65	4850	2.62	53
1990	2.28	65	4900	3.06	53
2010	2.73	67	4950	3.51	52
2025	2.87	69	5000	3.96	51
2050	3.03	69	5150	3.06	56
2110	3.21	67	5200	3.81	60
2140	3.43	66	5250	3.14	56
2170	3.54	64	5300	3.00	58
2300	3.51	54	5350	2.67	54
2325	3.30	55	5400	3.88	63
2350	3.03	54	5450	4.60	69
2375	2.99	53	5500	4.52	64
2400	2.72	51	5550	4.71	69
2500	2.23	53	5600	4.73	73
2515	2.34	54	5650	4.87	72
2535	2.21	54	5700	4.49	70
2555	2.12	53	5750	4.66	78
2579	1.99	52	5800	4.01	71
2595	1.83	53	5850	3.99	73

BTPA0012353G8C1A01

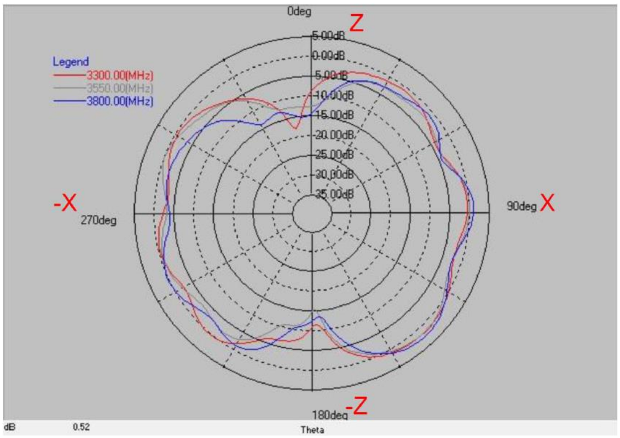
Return Loss S11



VSWR

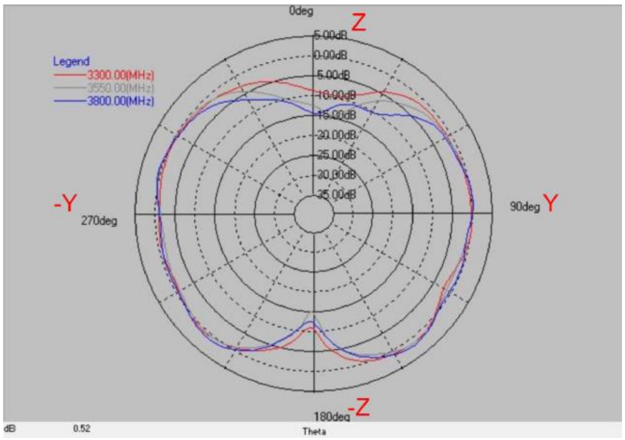


Frequency(MHz)：3300~3800. Pattern Field：Z-X plane



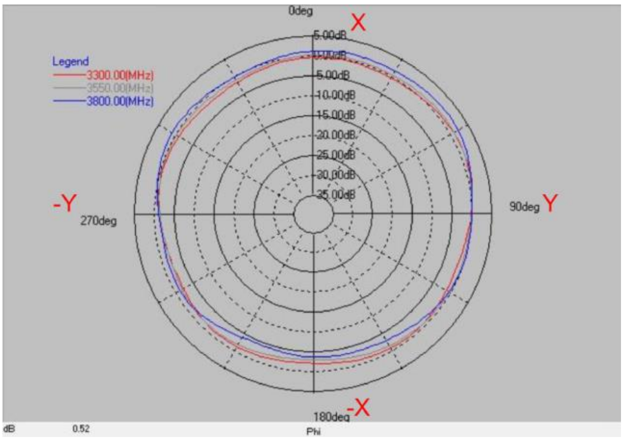
Layer	Max value	Min value	Average
3300(MHz)	1.64 dB	-18.30 dB	-2.05 dB
3550(MHz)	1.57 dB	-15.56 dB	-2.64 dB
3800(MHz)	2.53 dB	-15.60 dB	-2.45 dB

Frequency(MHz)：3300~3800. Pattern Field：Z-Y plane



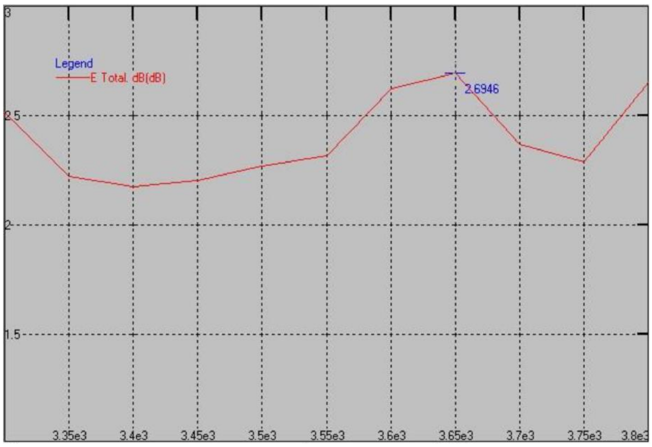
Layer	Max value	Min value	Average
3300(MHz)	1.20 dB	-11.32 dB	-1.61 dB
3550(MHz)	1.32 dB	-15.16 dB	-1.97 dB
3800(MHz)	1.77 dB	-14.75 dB	-1.85 dB

Frequency(MHz)：3300~3800. Pattern Field：X-Y plane

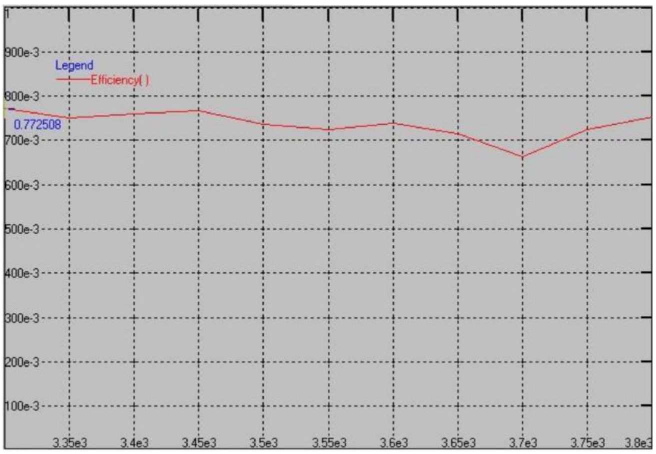


Layer	Max value	Min value	Average
3300(MHz)	1.04 dB	-2.36 dB	-0.90 dB
3550(MHz)	1.14 dB	-3.17 dB	-0.72 dB
3800(MHz)	2.33 dB	-4.43 dB	-0.27 dB

3D Peak Gain



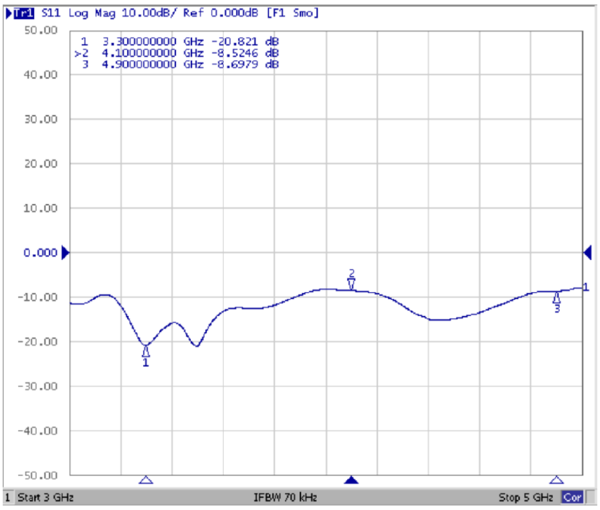
3D Efficiency



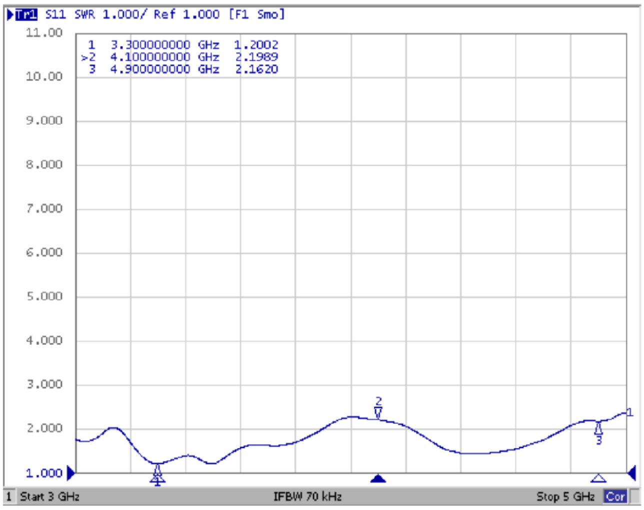
Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
3300	2.51	77	3600	2.62	74
3350	2.22	75	3650	2.69	71
3400	2.17	76	3700	2.37	66
3450	2.20	77	3750	2.29	72
3500	2.27	74	3800	2.66	75
3550	2.31	72			

BTPA0012353G9C1A01

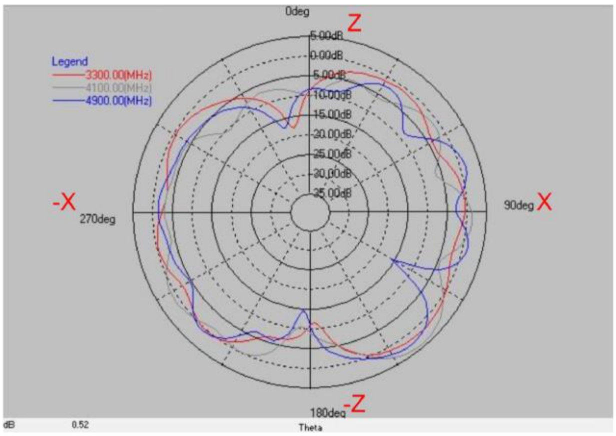
Return Loss S11



VSWR

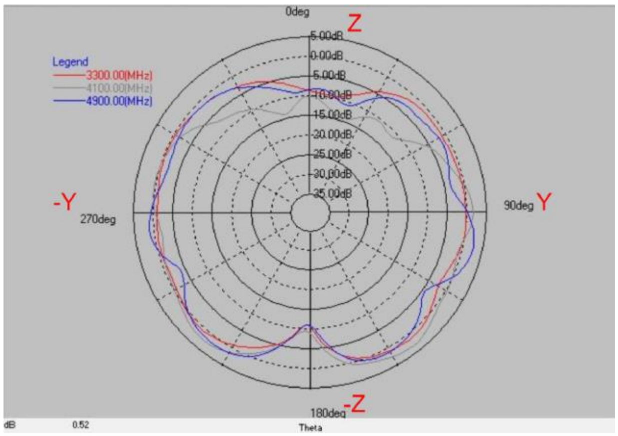


Frequency(MHz)：3300~4900. Pattern Field：Z-X plane



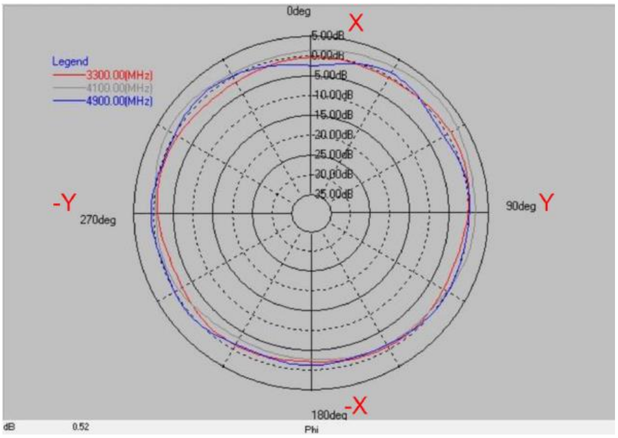
Layer	Max value	Min value	Average
3300(MHz)	1.64 dB	-18.30 dB	-2.05 dB
4100(MHz)	4.25 dB	-10.87 dB	-1.96 dB
4900(MHz)	2.55 dB	-17.75 dB	-2.61 dB

Frequency(MHz)：3300~4900. Pattern Field：Z-Y plane



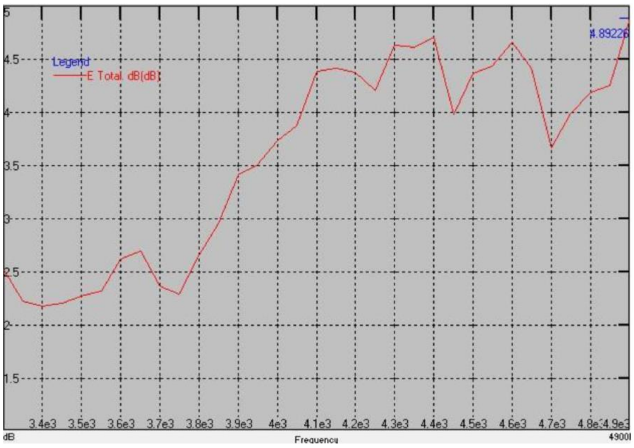
Layer	Max value	Min value	Average
3300(MHz)	1.20 dB	-11.32 dB	-1.61 dB
4100(MHz)	3.09 dB	-14.42 dB	-1.47 dB
4900(MHz)	2.63 dB	-11.22 dB	-1.61 dB

Frequency(MHz)：3300~4900. Pattern Field：X-Y plane

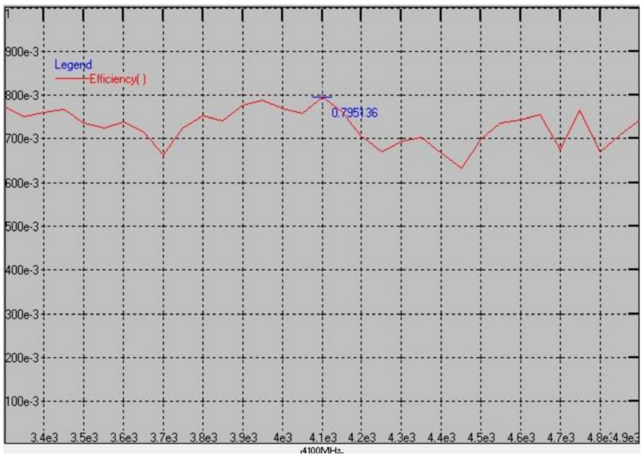


Layer	Max value	Min value	Average
3300(MHz)	1.04 dB	-2.36 dB	-0.90 dB
4100(MHz)	3.30 dB	-3.22 dB	0.54 dB
4900(MHz)	0.90 dB	-2.60 dB	-0.39 dB

3D Peak Gain



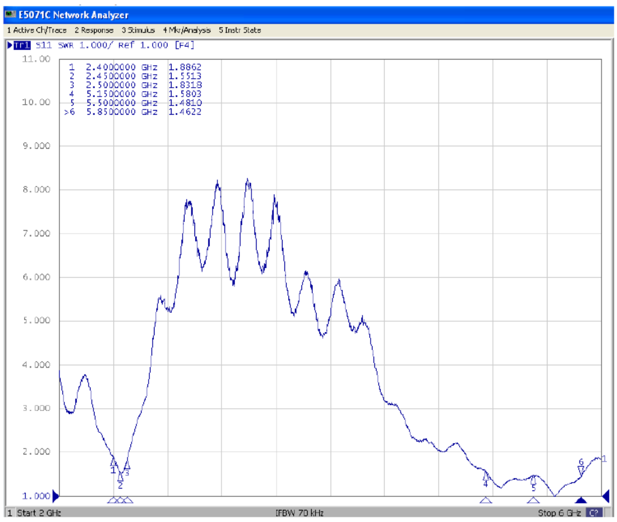
3D Efficiency



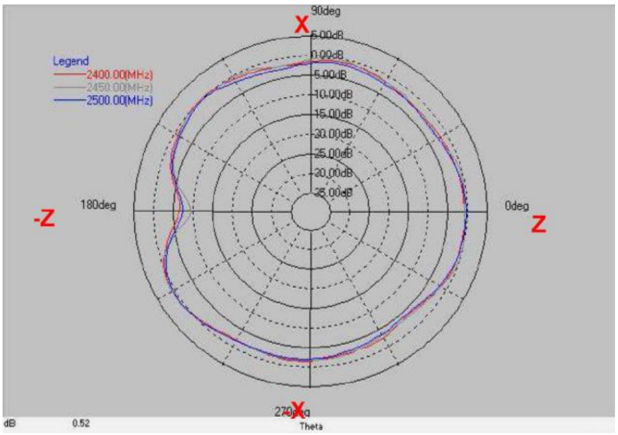
Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
3300	2.51	77	4200	4.38	70
3400	2.17	76	4300	4.63	69
3500	2.27	74	4400	4.71	67
3600	2.62	74	4500	4.37	70
3700	2.37	66	4600	4.66	74
3800	2.66	75	4700	3.67	68
3900	3.42	78	4800	4.19	67
4000	3.74	77	4900	4.89	74
4100	4.39	80			

BTPA00221425GC1A09

VSWR S11

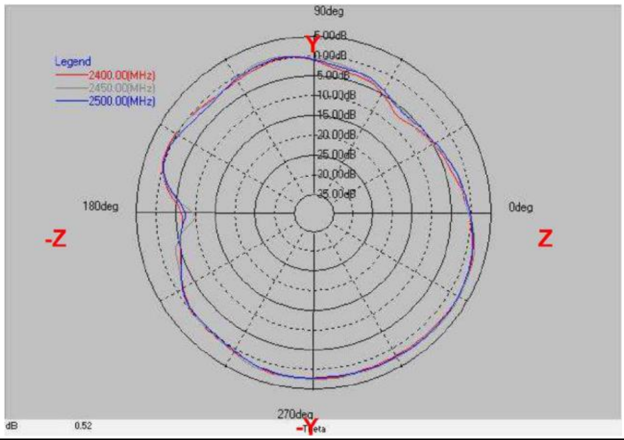


Frequency(MHz)：2400~2500. Pattern Field：Z-X plane



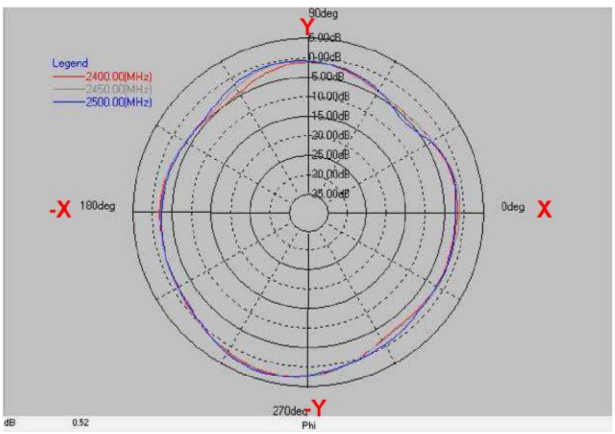
Layer	Max value	Min value	Average
2400(MHz)	0.74 dB	-6.70 dB	-1.60 dB
2450(MHz)	0.87 dB	-9.48 dB	-1.56 dB
2500(MHz)	0.53 dB	-7.47 dB	-1.94 dB

Frequency(MHz)：2400~2500. Pattern Field：Z-Y plane



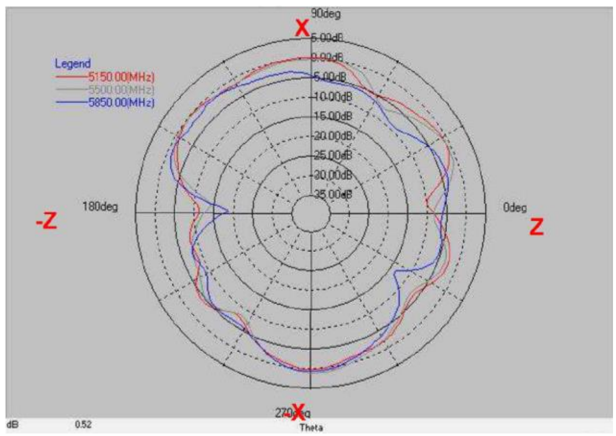
Layer	Max value	Min value	Average
2400(MHz)	2.49 dB	-7.36 dB	-0.29 dB
2450(MHz)	2.78 dB	-9.89 dB	0.00 dB
2500(MHz)	2.58 dB	-7.45 dB	-0.27 dB

Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



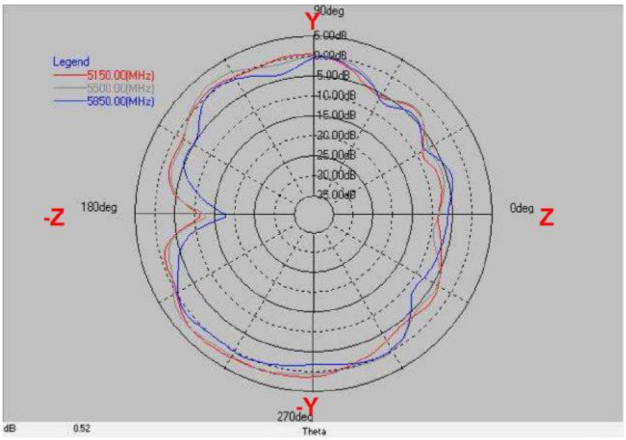
Layer	Max value	Min value	Average
2400(MHz)	2.59 dB	-5.00 dB	-1.36 dB
2450(MHz)	2.75 dB	-4.41 dB	-1.11 dB
2500(MHz)	2.86 dB	-6.11 dB	-1.14 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-X plane



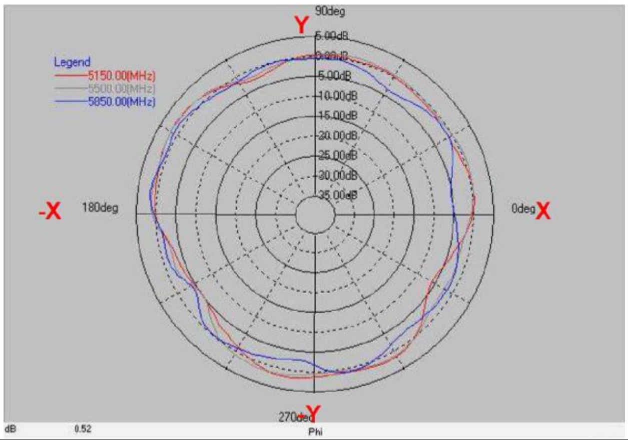
Layer	Max value	Min value	Average
5150(MHz)	0.07 dB	-11.31 dB	-2.91 dB
5500(MHz)	1.03 dB	-14.22 dB	-2.85 dB
5850(MHz)	0.55 dB	-18.79 dB	-4.20 dB

Frequency(MHz)： 5150~5850. Pattern Field： Z-Y plane



Layer	Max value	Min value	Average
5150(MHz)	2.40 dB	-11.30 dB	-1.43 dB
5500(MHz)	2.53 dB	-12.84 dB	-1.28 dB
5850(MHz)	0.87 dB	-17.84 dB	-2.76 dB

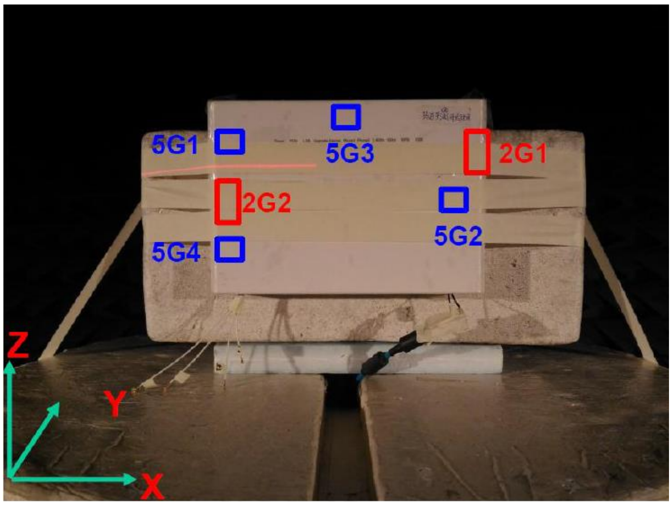
Frequency(MHz)： 5150~5850. Pattern Field： X-Y plane



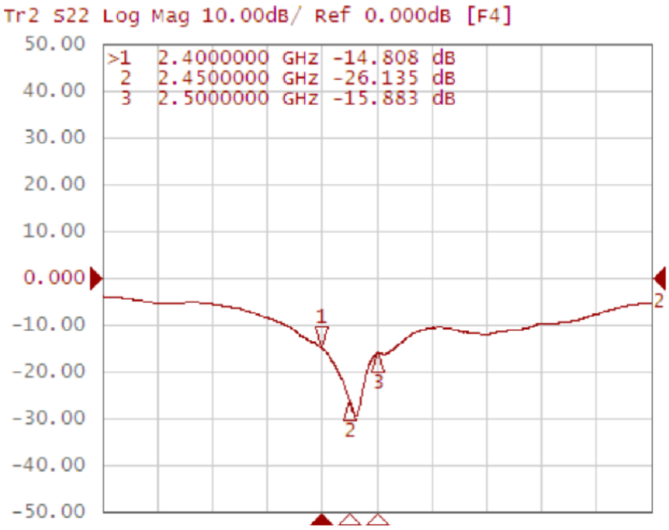
Layer	Max value	Min value	Average
5150(MHz)	1.84 dB	-5.87 dB	-0.47 dB
5500(MHz)	1.80 dB	-5.26 dB	-0.09 dB
5850(MHz)	1.86 dB	-5.27 dB	-1.23 dB

BTPA0030082G4C1A04

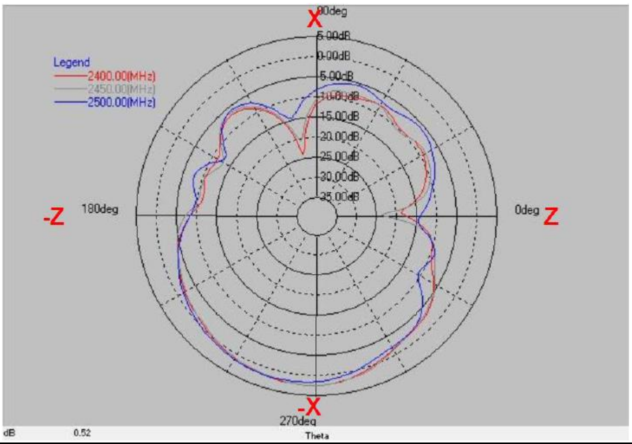
Experimental Setup



VSWR S22

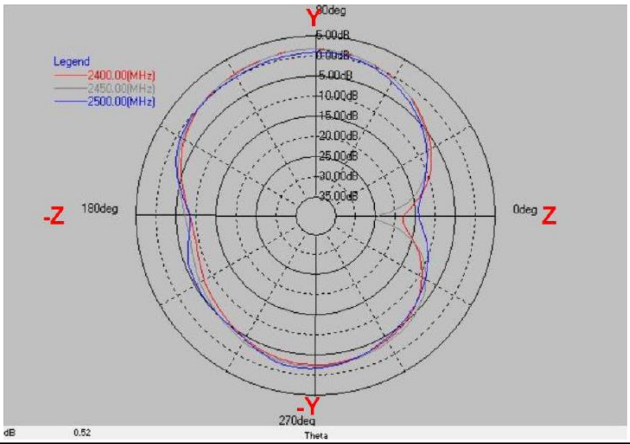


Frequency(MHz)：2400~2500. Pattern Field：Z-X plane



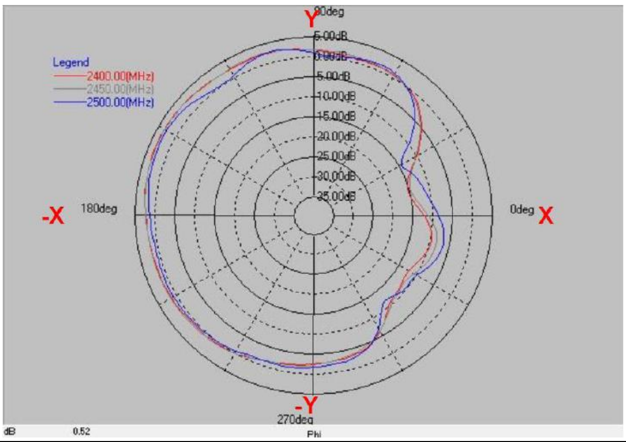
Layer	Max value	Min value	Average
2400(MHz)	2.37 dB	-24.24 dB	-3.61 dB
2450(MHz)	2.34 dB	-23.93 dB	-3.60 dB
2500(MHz)	1.81 dB	-14.70 dB	-3.64 dB

Frequency(MHz)：2400~2500. Pattern Field：Z-Y plane



Layer	Max value	Min value	Average
2400(MHz)	1.51 dB	-18.08 dB	-3.04 dB
2450(MHz)	1.53 dB	-25.15 dB	-2.83 dB
2500(MHz)	0.69 dB	-14.21 dB	-3.16 dB

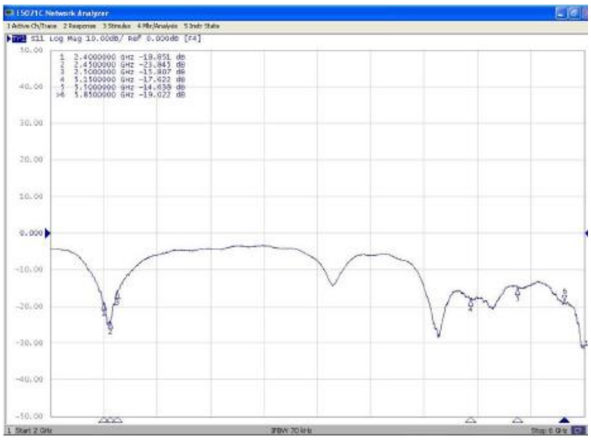
Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



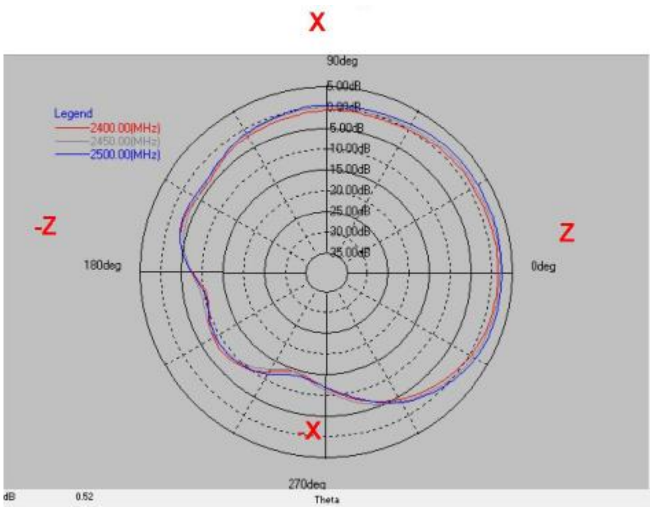
Layer	Max value	Min value	Average
2400(MHz)	3.37 dB	-15.39 dB	-0.20 dB
2450(MHz)	3.25 dB	-14.73 dB	-0.14 dB
2500(MHz)	2.75 dB	-14.49 dB	-0.72 dB

BTPA00420725GC1A04

Return Loss

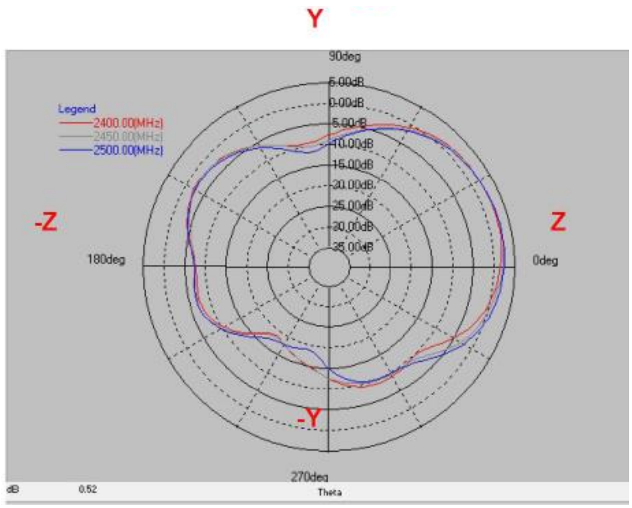


Frequency(MHz)：2400~2500. Pattern Field：Z-X plane



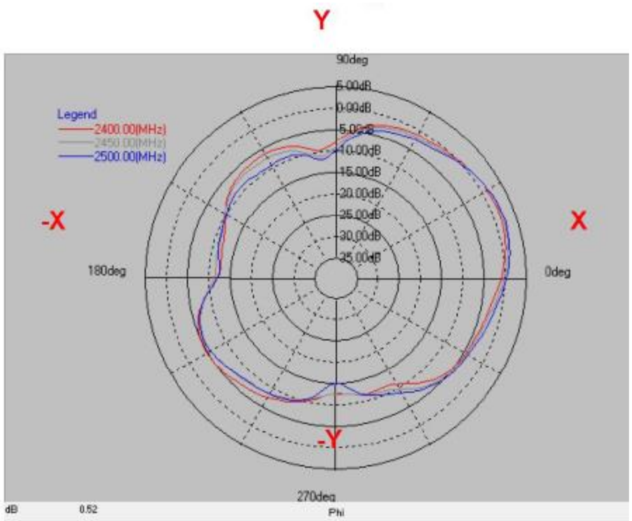
Layer	Max value	Min value	Average
2400(MHz)	1.66 dB	-14.74 dB	-2.07 dB
2450(MHz)	2.26 dB	-14.76 dB	-1.53 dB
2500(MHz)	2.58 dB	-14.02 dB	-1.02 dB

Frequency(MHz)：2400~2500. Pattern Field：Z-Y plane



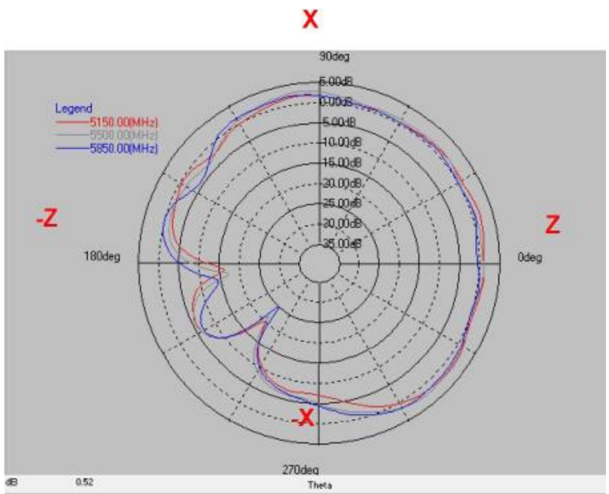
Layer	Max value	Min value	Average
2400(MHz)	2.42 dB	-18.93 dB	-3.22 dB
2450(MHz)	2.73 dB	-18.60 dB	-3.11 dB
2500(MHz)	2.82 dB	-19.18 dB	-3.03 dB

Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



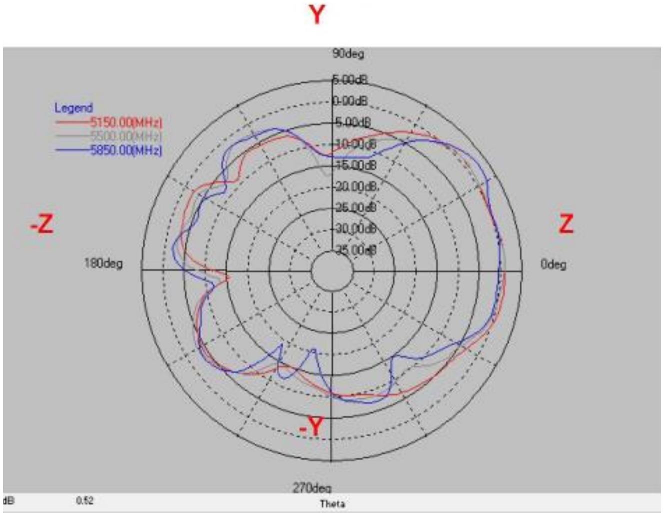
Layer	Max value	Min value	Average
2400(MHz)	1.64 dB	-12.87 dB	-4.24 dB
2450(MHz)	2.07 dB	-21.91 dB	-4.24 dB
2500(MHz)	2.28 dB	-15.30 dB	-4.22 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-X plane



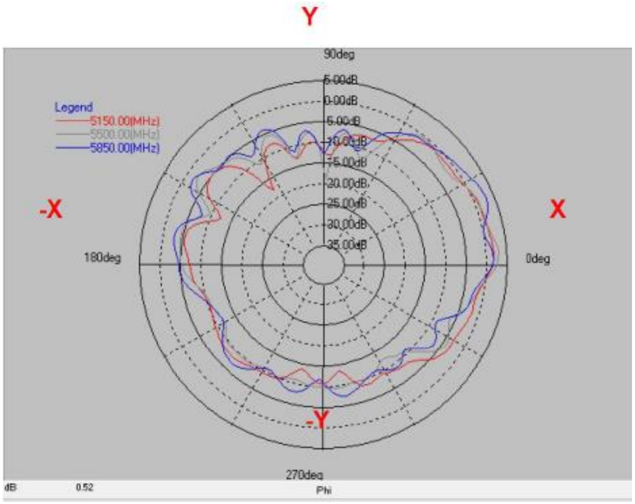
Layer	Max value	Min value	Average
5150(MHz)	1.95 dB	-19.79 dB	-0.87 dB
5500(MHz)	2.82 dB	-22.02 dB	-0.54 dB
5850(MHz)	1.93 dB	-25.20 dB	-0.86 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-Y plane



Layer	Max value	Min value	Average
5150(MHz)	1.17 dB	-15.67 dB	-3.69 dB
5500(MHz)	1.07 dB	-17.54 dB	-3.84 dB
5850(MHz)	2.86 dB	-21.22 dB	-3.87 dB

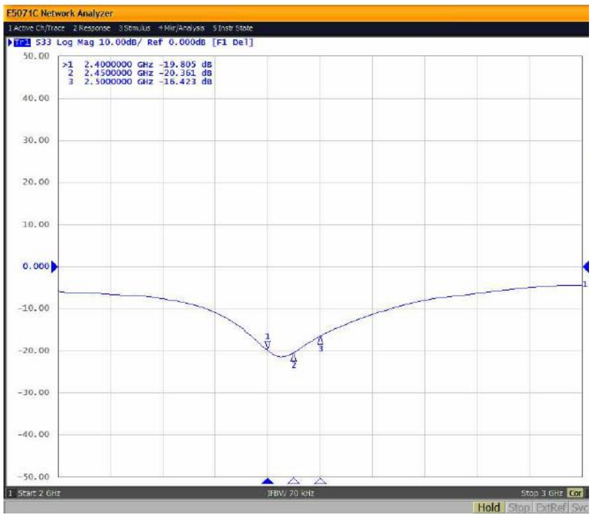
Frequency(MHz)：5150~5850. Pattern Field：X-Y plane



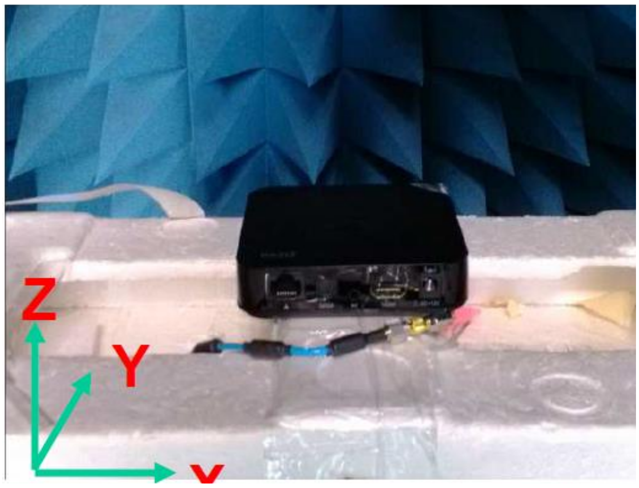
Layer	Max value	Min value	Average
5150(MHz)	1.84 dB	-18.20 dB	-4.72 dB
5500(MHz)	3.11 dB	-19.19 dB	-4.54 dB
5850(MHz)	3.12 dB	-13.07 dB	-3.99 dB

BTPA0046062G4C1B03

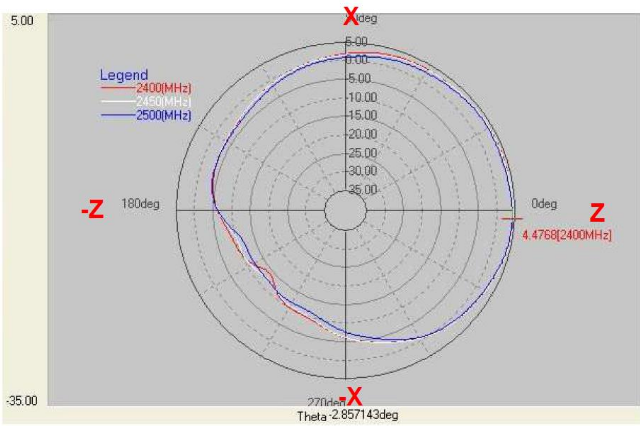
Return Loss



Experimental Setup

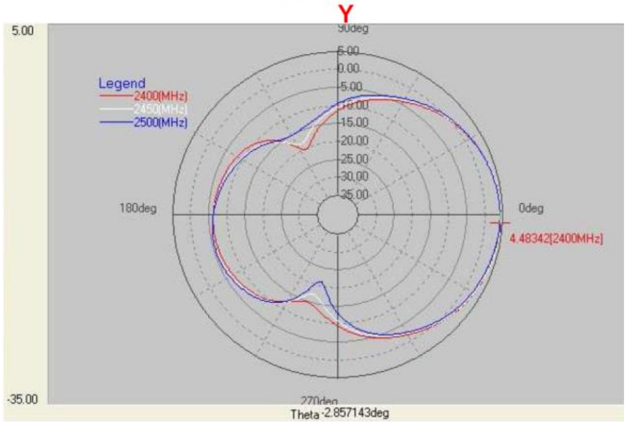


Frequency(MHz)：2400~2500. Pattern Field：X-Z plane



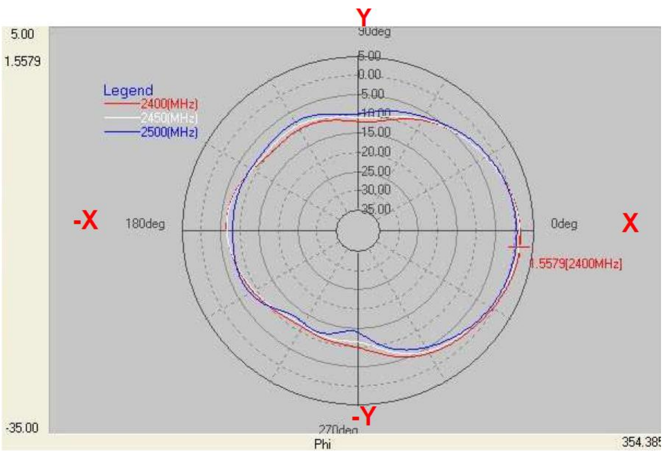
Layer	Max value	Average
2400(MHz)	4.48 dB	0.47 dB
2450(MHz)	4.61 dB	0.47 dB
2500(MHz)	4.35 dB	0.03 dB

Frequency(MHz)：2400~2500. Pattern Field：Y-Z plane



Layer	Max value	Average
2400(MHz)	4.48 dB	-1.74 dB
2450(MHz)	4.58 dB	-1.71 dB
2500(MHz)	4.28 dB	-1.89 dB

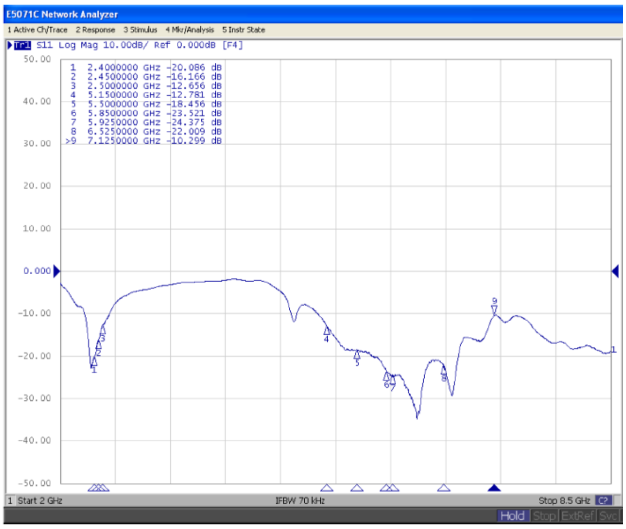
Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



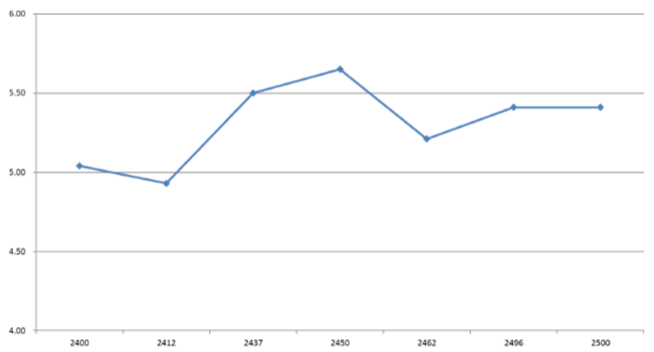
Layer	Max value	Average
2400(MHz)	1.56 dB	-4.52 dB
2450(MHz)	1.33 dB	-4.76 dB
2500(MHz)	0.58 dB	-4.93 dB

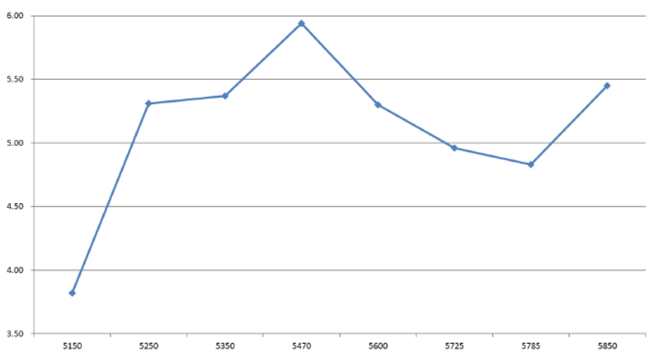
BTPA0052116G0C1A01

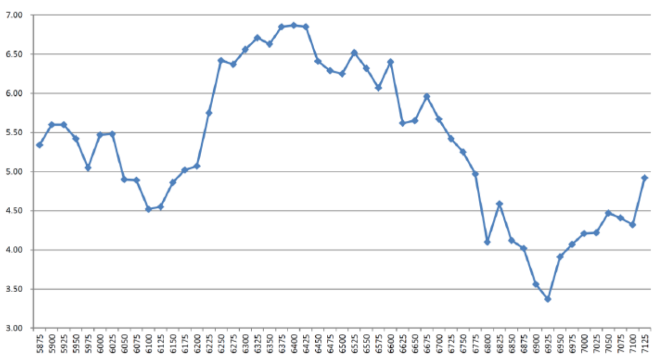
Return Loss



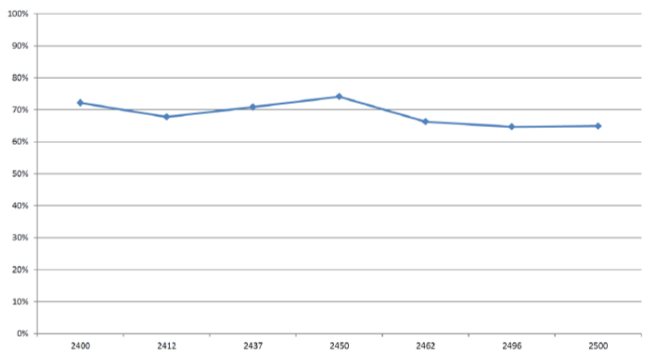
3D Peak Gain

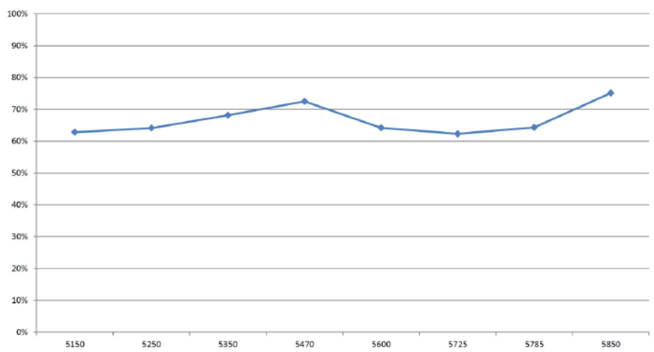


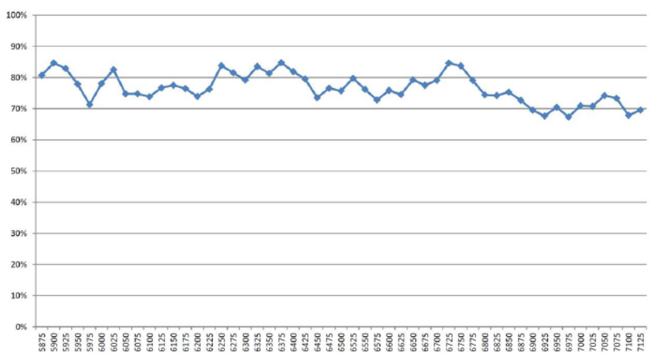




3D Efficiency







Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	5.04	72	6325	6.71	84
2412	4.93	68	6350	6.63	81
2437	5.50	71	6375	6.85	85
2450	5.65	74	6400	6.87	82
2462	5.21	66	6425	6.85	80
2496	5.41	65	6450	6.41	74
2500	5.41	65	6475	6.29	77
5150	3.82	63	6500	6.25	76
5250	5.31	64	6525	6.52	80
5350	5.37	68	6550	6.32	76
5470	5.94	73	6575	6.07	73
5600	5.30	64	6600	6.40	76
5725	4.96	62	6625	5.62	75
5785	4.83	64	6650	5.65	79
5850	5.45	75	6675	5.96	78
5875	5.34	81	6700	5.67	79
5900	5.60	85	6725	5.42	85
5925	5.60	83	6750	5.25	84
5950	5.42	78	6775	4.97	79
5975	5.05	71	6800	4.10	74
6000	5.47	78	6825	4.59	74
6025	5.48	83	6850	4.12	75
6050	4.90	75	6875	4.02	73
6075	4.89	75	6900	3.56	70
6100	4.52	74	6925	3.37	68
6125	4.55	77	6950	3.91	70
6150	4.86	78	6975	4.07	67
6175	5.02	76	7000	4.21	71
6200	5.07	74	7025	4.22	71
6225	5.75	76	7050	4.47	74
6250	6.42	84	7075	4.41	73
6275	6.37	82	7100	4.32	68
6300	6.56	79	7125	4.92	70

BTFA Series

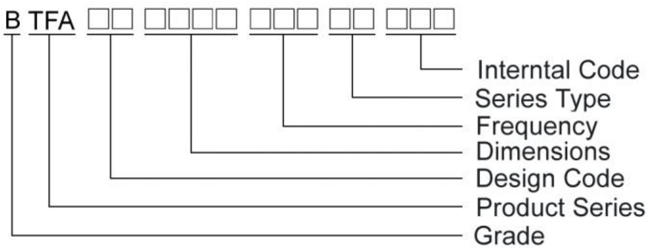
Features

- Small size low-profile, low cost and lightweight type
- Wide bandwidth and Omni-directional
- Supported with Dip-type, SMD, and Co-axial cable connecting
- Customized

Applications

- Bluetooth, Wireless Router, Set Top Box and Home digital
- ISM band, Lora, Sigfox, LTE, NB-IOT, GPS, WiFi and Car use.

Product Identification



Shapes and Dimensions

FIG 1

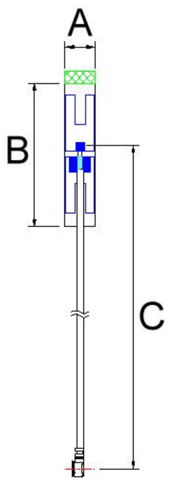


FIG 2

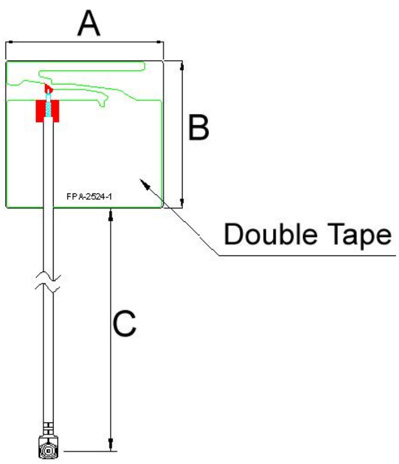
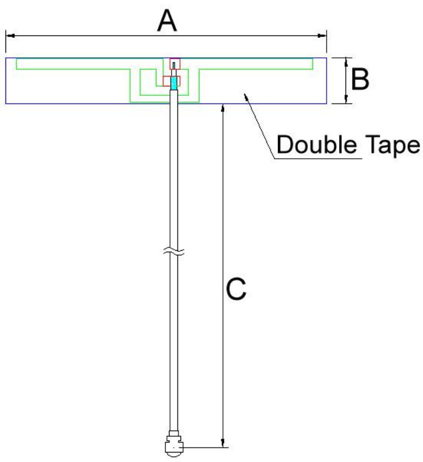


FIG 3



Dimensions in mm

TYPE	FIG	A	B	C
BTFA0024055G0C1A13	1	5.10	24.25	100±5
BTFA00252425GC1A01	2	25.3	23.6	120±5
BTFA0046062G4C1A03	3	46.5	6.65	150±5

Electrical Characteristics

Part Number	Frequency Range (GHz)	Impedance (Ω)	Return Loss dB(Max)	VSWR (Max)	Radiation	Peak Gain (dBi)	Polarization	Admitted Power (W)
BTFA0024055G0C1A13	5.15~5.85	50	-10	2	Omni-directional	4.90	Linear Vertical	1
BTFA00252425GC1A01	2.4~2.5 5.15~5.85	50	-10	2	Omni-directional	3.37 2.85	Linear Vertical	1
BTFA0046062G4C1A03	2.4~2.5	50	-10	2	Omni-directional	3.87	Linear Vertical	1

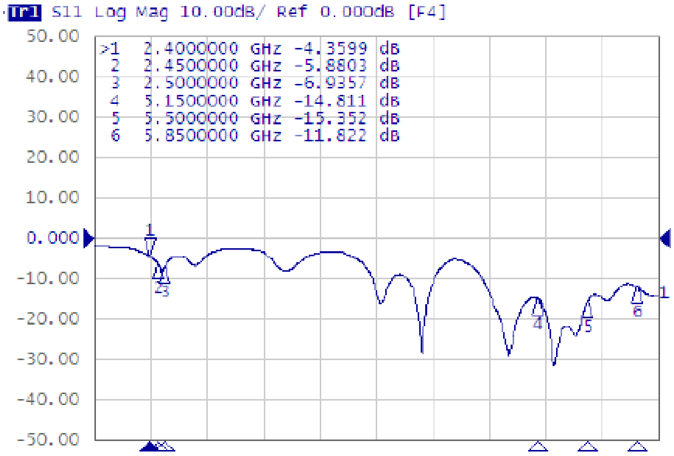
Physical Properties

Part Number	Antenna Material	Cable	Color	Connector	Double Tape
BTFA0024055G0C1A13	**FPC**	RF-113	Black	IPEX Compatible	3M 467
BTFA00252425GC1A01	FPC	RF-113	Black	TNOV	G9000
BTFA0046062G4C1A03	FPC	RF-113	Black	TNOV	G9000

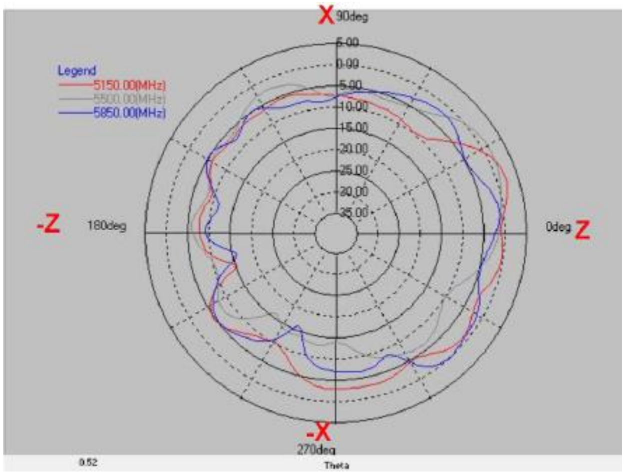
- Operating temperature range - 20℃ ~ +65℃
- Storage temperature range - 30℃ ~ +75℃

BTFA0024055G0C1A13

Return Loss S11

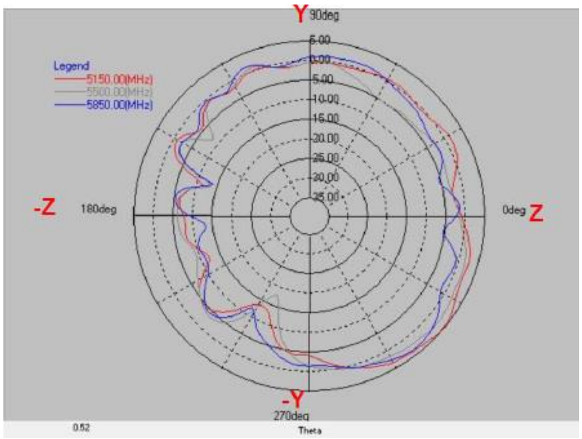


Frequency(MHz)：5150~5850. Pattern Field：Z-X plane



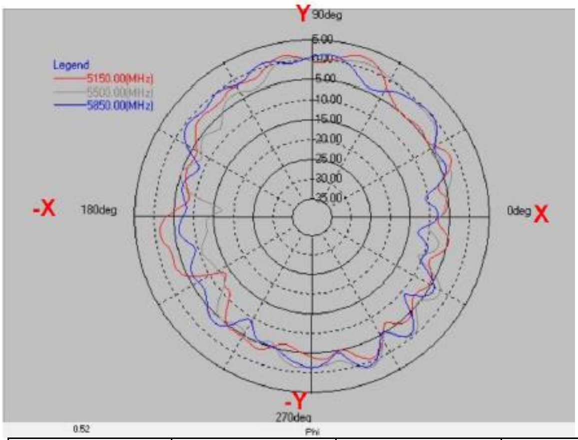
Layer	Max value	Min value	Average
5150(MHz)	2.25 dB	-15.19 dB	-4.15 dB
5500(MHz)	1.46 dB	-16.30 dB	-4.92 dB
5850(MHz)	-0.08 dB	-16.44 dB	-5.02 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-Y plane



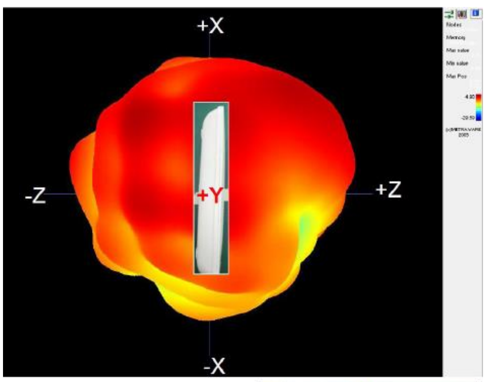
Layer	Max value	Min value	Average
5150(MHz)	4.87 dB	-14.03 dB	-0.64 dB
5500(MHz)	2.90 dB	-18.09 dB	-1.78 dB
5850(MHz)	3.56 dB	-13.87 dB	-1.49 dB

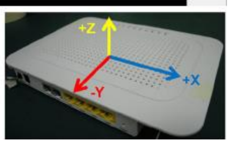
Frequency(MHz)：5150~5850. Pattern Field：X-Y plane



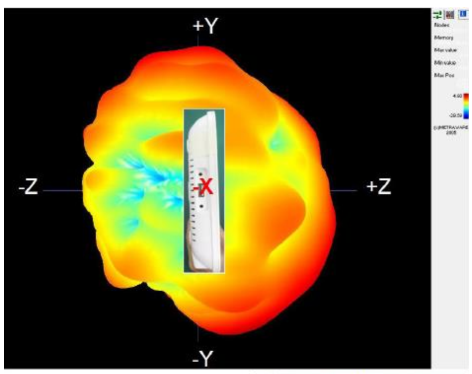
Layer	Max value	Min value	Average
5150(MHz)	2.51 dB	-13.78 dB	-3.22 dB
5500(MHz)	1.30 dB	-17.05 dB	-3.21 dB
5850(MHz)	1.30 dB	-12.85 dB	-3.06 dB

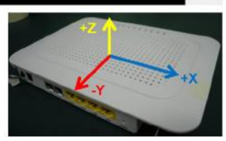
Frequency(MHz)：5150. Pattern Field：Z-X plane



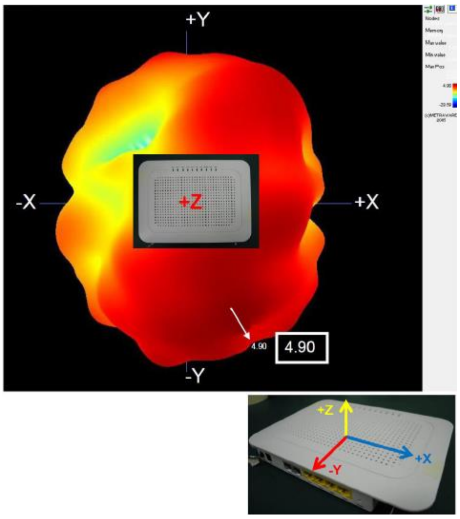


Frequency(MHz)：5150. Pattern Field：Z-Y plane

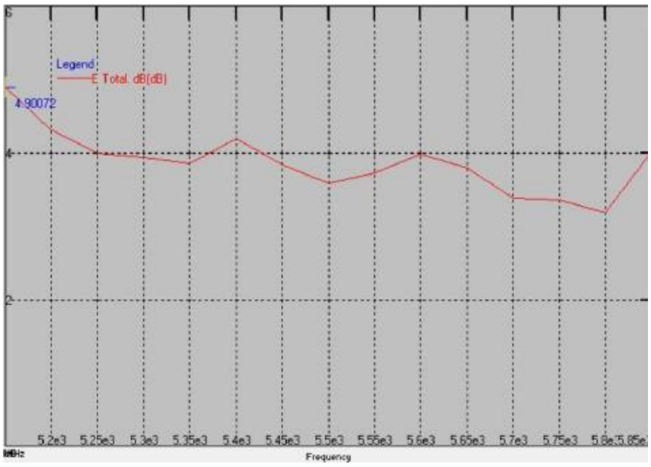




Frequency(MHz)：5150. Pattern Field：X-Y plane



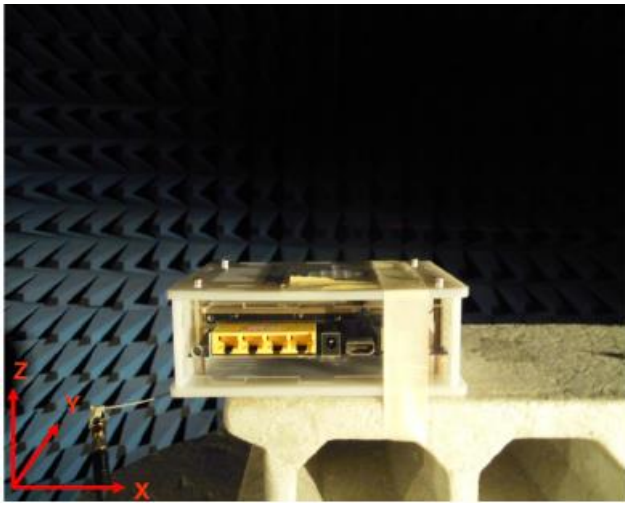
Peak Gain

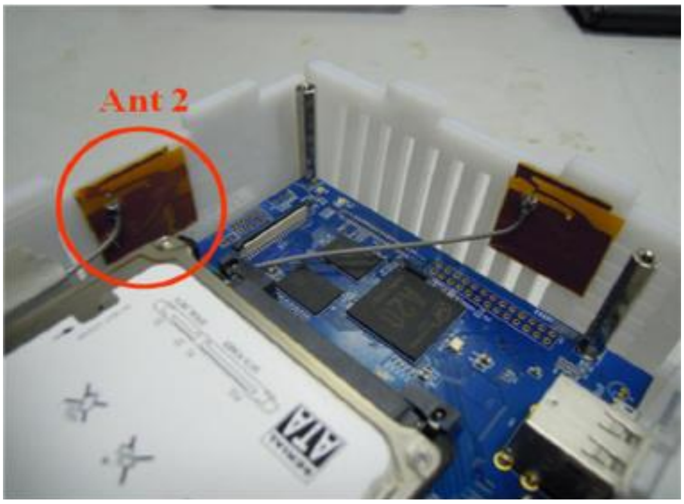


Peak Gain：Max 2.90 dBi

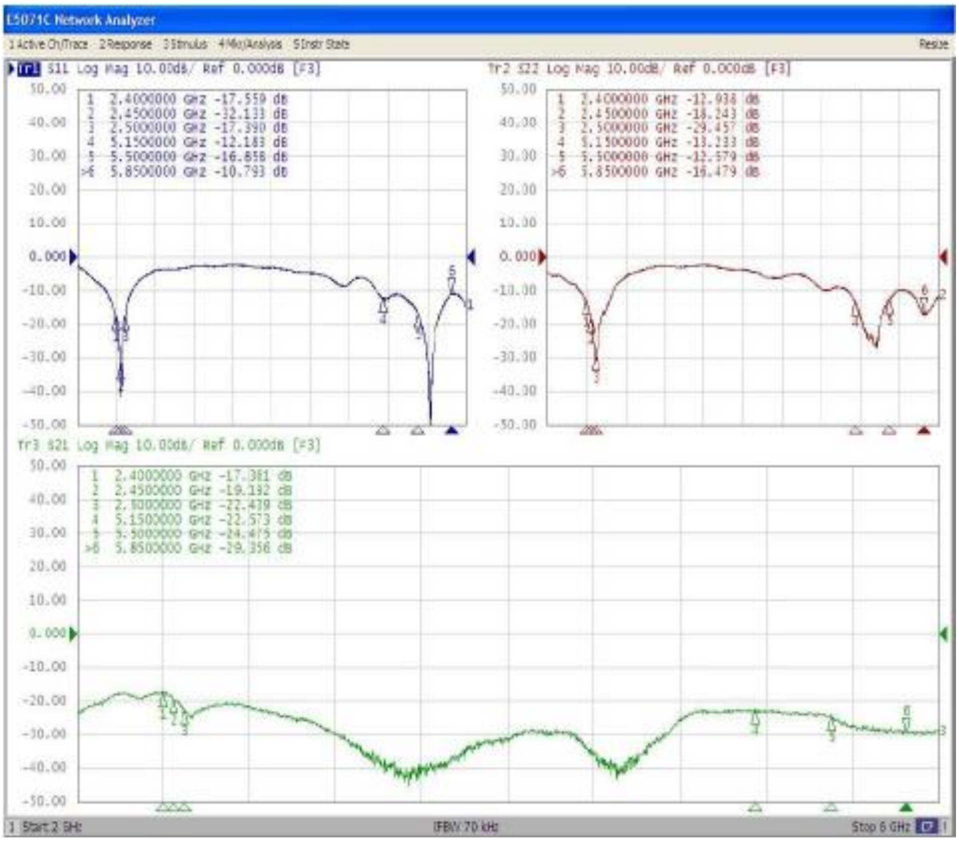
BTFA00252425GC1A01

Experimental Setup

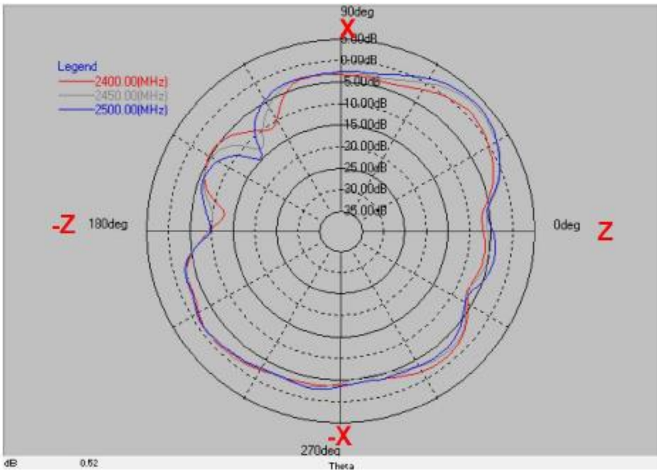




Return Loss S11：Ant 1 / S22：Ant 2 / S21：Isolation

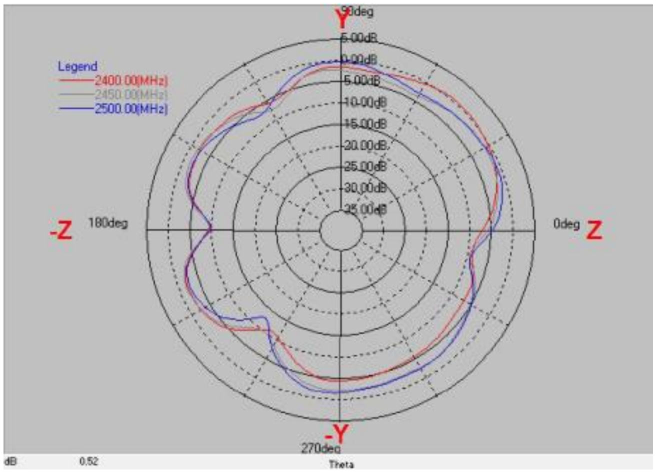


Frequency(MHz)：2400~2500. X-Z Plane



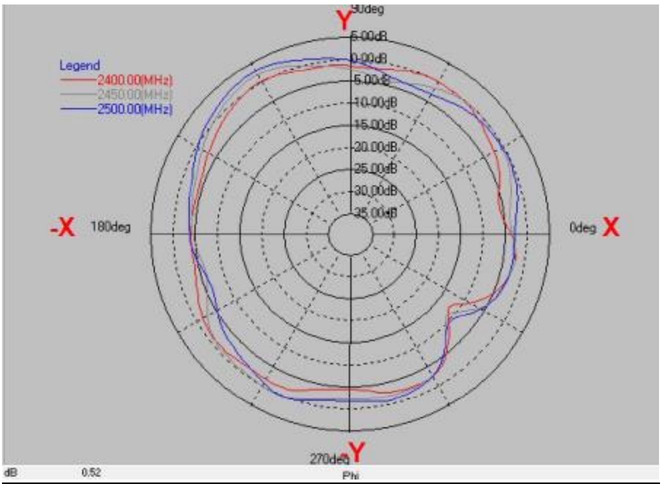
Layer	Max value	Min value	Average
2400(MHz)	0.91 dB	-12.85 dB	-3.42 dB
2450(MHz)	2.89 dB	-13.34 dB	-2.76 dB
2500(MHz)	3.37 dB	-14.94 dB	-2.46 dB

Frequency(MHz)：2400~2500. Y-Z Plane



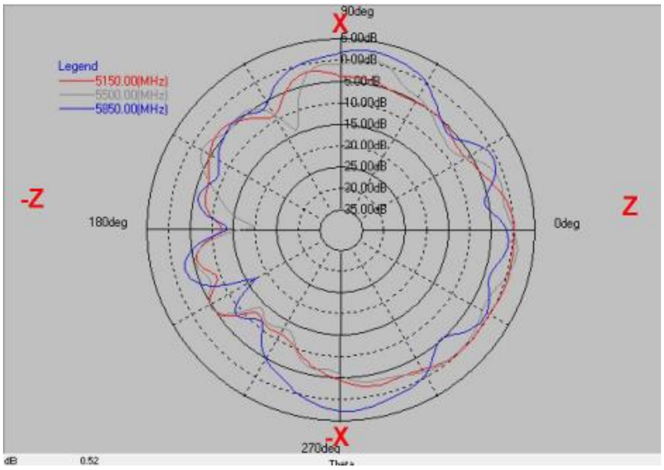
Layer	Max value	Min value	Average
2400(MHz)	0.42 dB	-11.32 dB	-3.63 dB
2450(MHz)	-1.19 dB	-10.21 dB	-3.66 dB
2500(MHz)	-0.46 dB	-12.89 dB	-3.34 dB

Frequency(MHz)：2400~2500. X-Y Plane



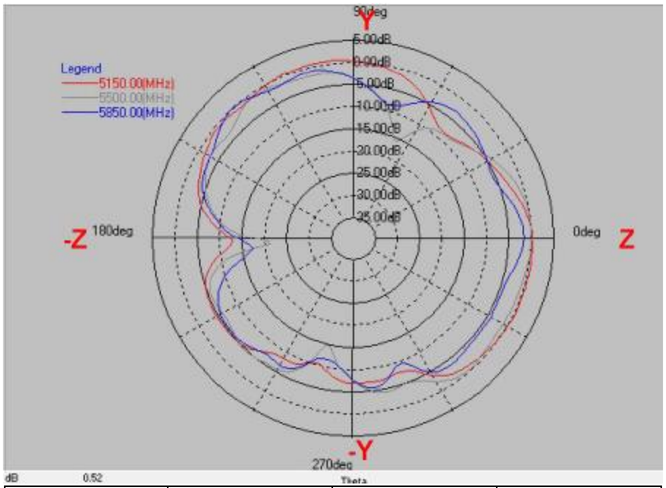
Layer	Max value	Min value	Average
2400(MHz)	0.10 dB	-12.12 dB	-2.49 dB
2450(MHz)	1.92 dB	-11.26 dB	-1.82 dB
2500(MHz)	2.81 dB	-9.85 dB	-1.50 dB

Frequency(MHz)：5150~5850. X-Z Plane



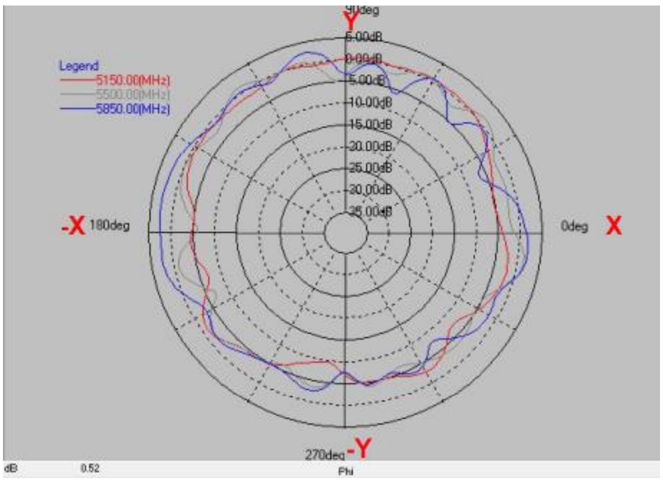
Layer	Max value	Min value	Average
5150(MHz)	0.54 dB	-12.50 dB	-3.69 dB
5500(MHz)	1.28 dB	-20.11 dB	-3.52 dB
5850(MHz)	2.60 dB	-17.20 dB	-1.90 dB

Frequency(MHz)：5150~5850. Y-Z Plane



Layer	Max value	Min value	Average
5150(MHz)	0.45 dB	-12.88 dB	-2.70 dB
5500(MHz)	0.18 dB	-21.21 dB	-3.68 dB
5850(MHz)	-0.12 dB	-17.40 dB	-4.46 dB

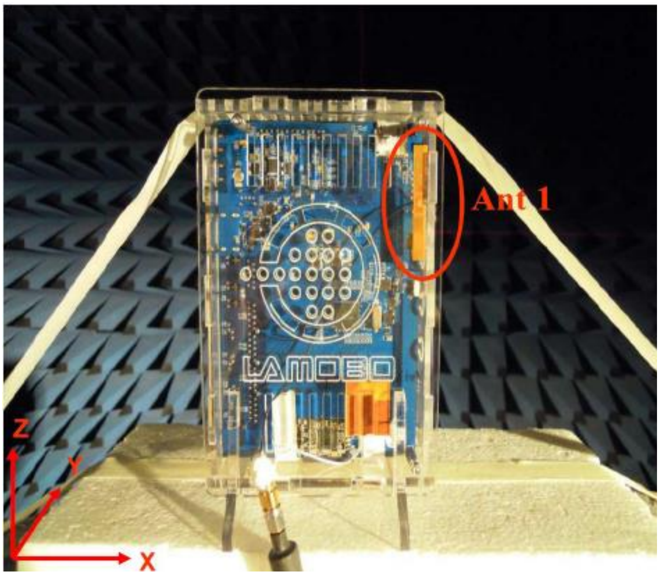
Frequency(MHz)：5150~5850. X-Y Plane



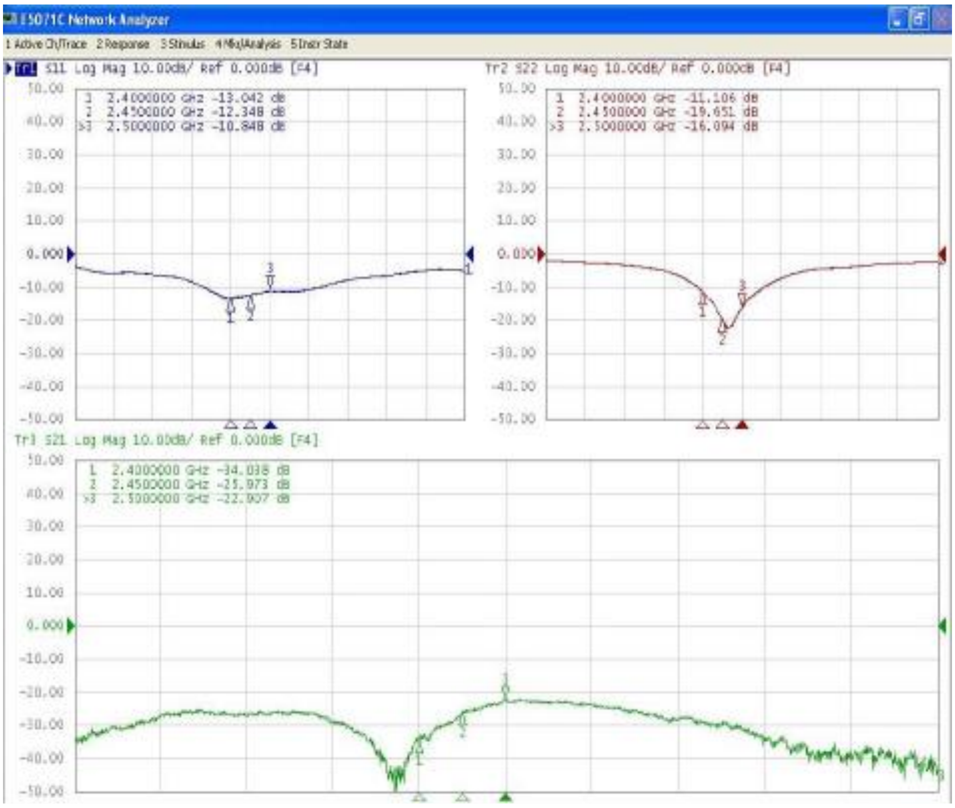
Layer	Max value	Min value	Average
5150(MHz)	0.59 dB	-9.84 dB	-2.47 dB
5500(MHz)	1.49 dB	-7.77 dB	-1.98 dB
5850(MHz)	2.85 dB	-8.05 dB	-0.94 dB

BTFA0046062G4C1A03

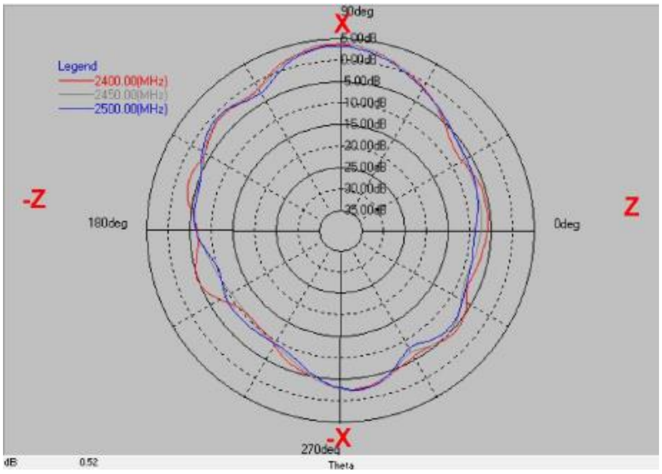
Experimental Setup



Return Loss S11：Ant 1 / S22：Ant 2 / S21：Isolation

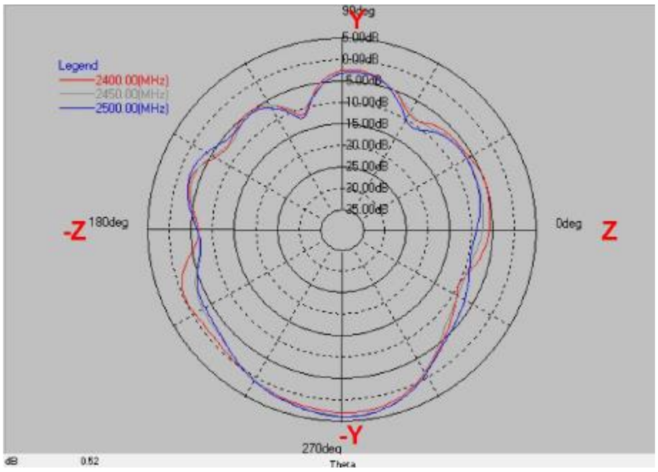


Frequency(MHz)：2400~2500. Z- X Plane



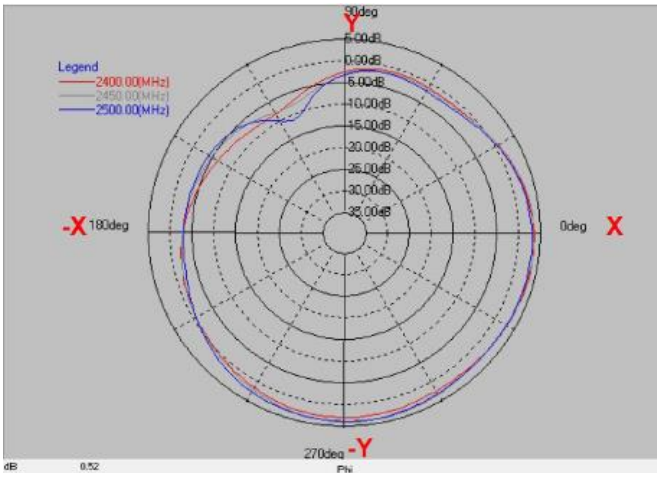
Layer	Max value	Min value	Average
2400(MHz)	3.48 dB	-10.84 dB	-2.85 dB
2450(MHz)	3.72 dB	-10.91 dB	-3.04 dB
2500(MHz)	3.12 dB	-10.28 dB	-3.40 dB

Frequency(MHz)：2400~2500. Z- Y Plane



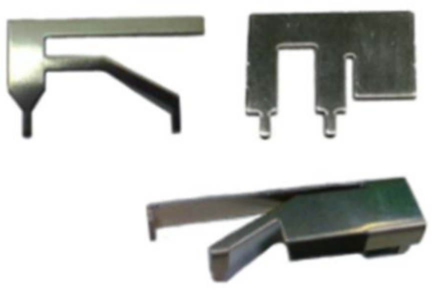
Layer	Max value	Min value	Average
2400(MHz)	2.89 dB	-11.62 dB	-2.50 dB
2450(MHz)	3.86 dB	-10.53 dB	-2.62 dB
2500(MHz)	3.76 dB	-12.27 dB	-2.56 dB

Frequency(MHz)：2400~2500. X- Y Plane



Layer	Max value	Min value	Average
2400(MHz)	3.65 dB	-8.49 dB	0.50 dB
2450(MHz)	3.87 dB	-8.27 dB	0.87 dB
2500(MHz)	3.74 dB	-11.43 dB	0.72 dB

BTMA Series



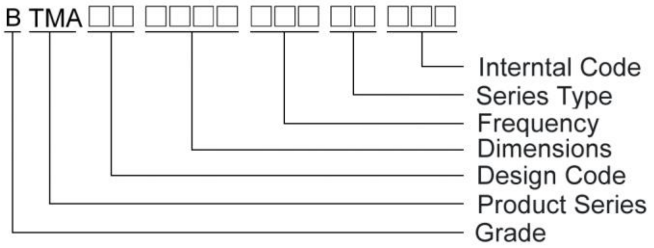
Features

- Small size low-profile, low cost and lightweight type
- Wide bandwidth and Omni-directional
- Supported with Dip-type, SMD, and Co-axial cable connecting
- Customized

Applications

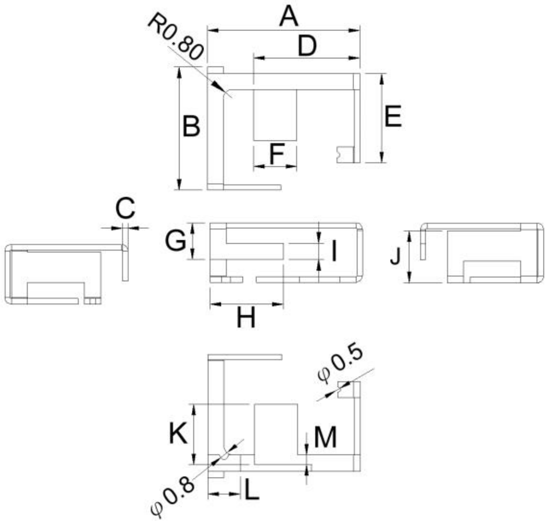
- Bluetooth, Wireless Router, Set Top Box and Home digital
- ISM band, Lora, Sigfox, LTE, NB-IOT, GPS, WiFi and Car use.

Product Identification

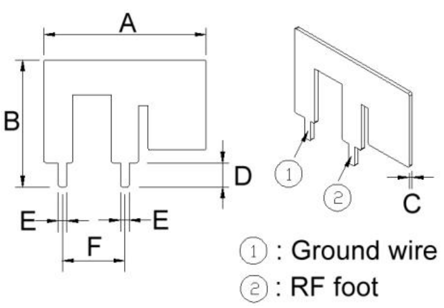


Shapes and Dimensions

BTMA0014082G4D1A01



BTMA0014115G0D1A01

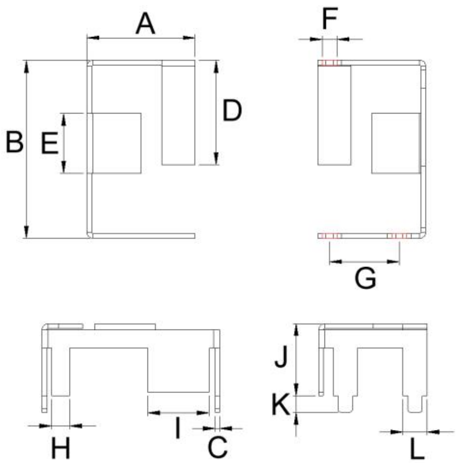


Dimensions in mm

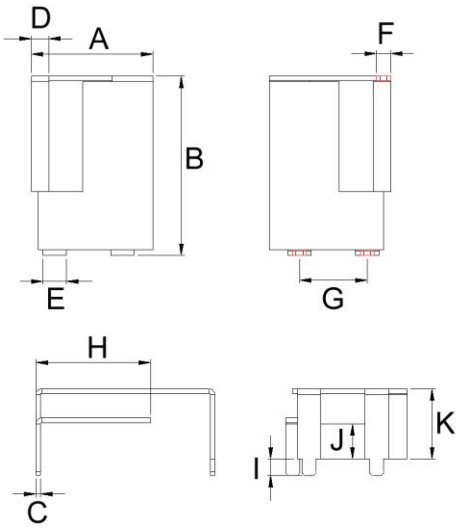
TYPE	A	B	C	D	E	F	G	H	I	J	K	L	M
BTMA0014082G4D1A01	14.10	11.4	0.5	9.8	8.3	4.0	3.4	6.8	1.5	4.8	5.6	3	0.9
BTMA0014115G0D1A01	14.85	11.6	0.4	2.2	0.8	5.7	-	-	-	-	-	-	-

Shapes and Dimensions

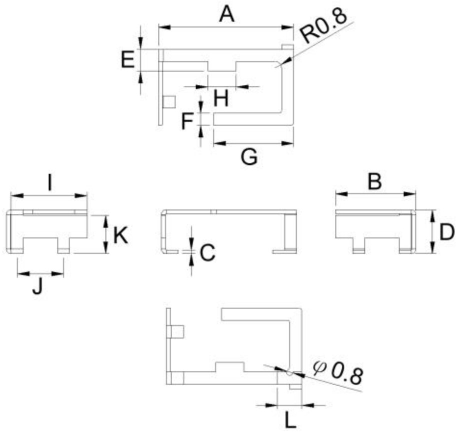
BTMA00150925GD1A01



BTMA00151025GD1A02



BTMA0017102G4D1A01



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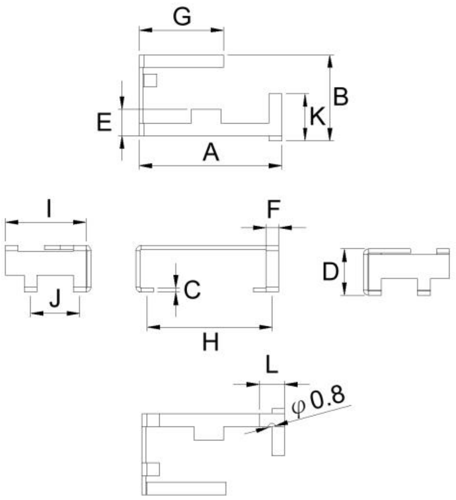
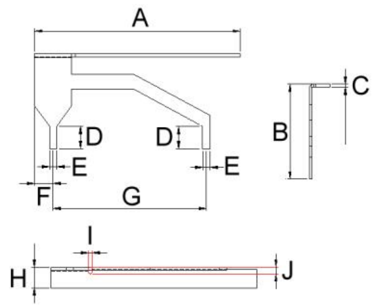
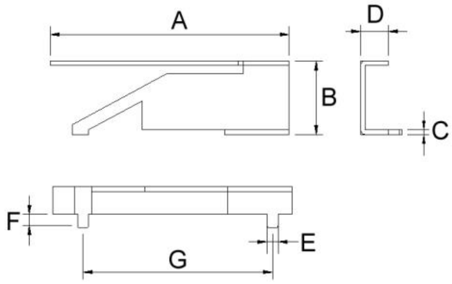


BTMA0027152G4C1A04



BTMA00290825GD1A02



Dimensions in mm

TYPE	A	B	C	D	E	F	G	H	I	J	K	L
BTMA00150925GD1A01	9.0	14.8	0.4	8.7	5	3-1.2	5.8	1.5	5.1	6.0	1.4	2.0
BTMA00151025GD1A02	10.4	15.35	0.4	1.5	2.0	3-1.2	5.8	9.85	1.4	3.0	6.0	-
BTMA0017102G4D1A01	16.9	10.05	0.5	5.5	2.7	1.5	10.0	3..5	9.45	5.8	4.8	3.0
BTMA0017102G4D1A02	16.9	10.15	0.5	5.5	3.1	1.5	10.0	14.8	9.55	5.8	5.55	3.0
BTMA0027152G4C1A04	27.7	12.76	0.4	3.0	1.0	2.5	20.61	2.76	0.5	0.85	-	-
BTMA00290825GD1A02	26.0	8.0	0.5	3.0	1.2	1.5	20.6	-	-	-	-	-

Electrical Characteristics

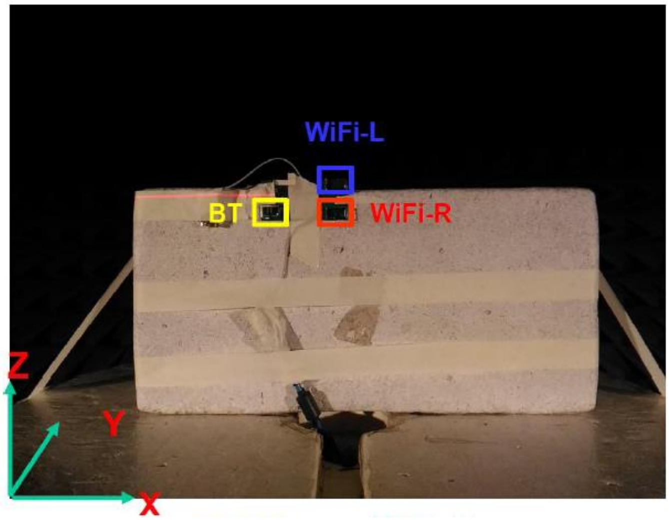
Part Number	Frequency Range (GHz)	Impedance (Ω)	Return Loss dB(Max)	Radiation	Peak Gain (dBi)	Polarization
BTMA0014082G4D1A01	2.4~2.5	50	-7	Omni-directional	0.29	Linear Vertical
BTMA0014115G0D1A01	5.15~5.85	50	-10	Omni-directional	2.90	Linear Vertical
BTMA00150925GD1A01	2.4~2.5 5.15~5.85	50	-7	Omni-directional	2.64 4.75	Linear Vertical
BTMA00151025GD1A02	2.4~2.5 5.15~5.85	50	-6	Omni-directional	2.64 4.23	Linear Vertical
BTMA0017102G4D1A01	2.4~2.5 5.15~5.85	50	-5	Omni-directional	2.88 3.17	Linear Vertical
BTMA0017102G4D1A02	2.4~2.5 5.15~5.85	50	-4	Omni-directional	4.14 3.43	Linear Vertical
BTMA0027152G4C1A04	2.4~2.5	50	-10	Directional	3.19	Linear Vertical
BTMA00290825GD1A02	2.4~2.5 5.15~5.85	50	-10	Omni-directional	2.71 3.02	Linear Vertical

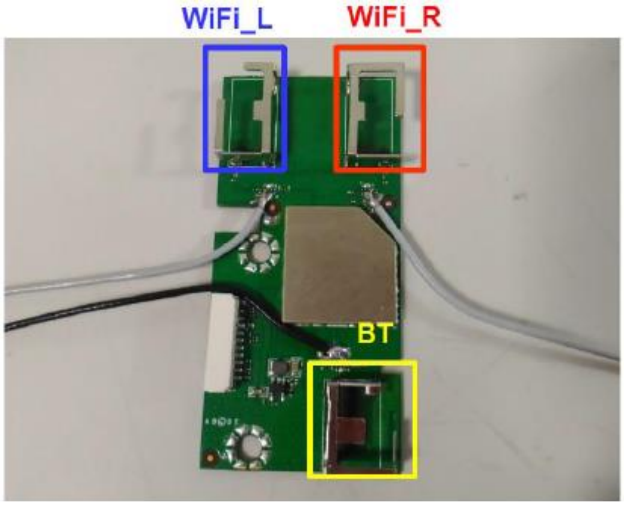
Physical Properties

Part Number	Antenna Material	Operating temperature range	Storage temperature range
BTMA0014082G4D1A01	SUS430 (First nickel plating)	- 20℃ ~ +65℃	- 30℃ ~ +75℃
BTMA0014115G0D1A01	SUS430 (First nickel plating)	- 20℃ ~ +65℃	- 30℃ ~ +75℃
BTMA00150925GD1A01	SUS430 (Nickel plating-Sn)	- 20℃ ~ +65℃	- 30℃ ~ +75℃
BTMA00151025GD1A02	SUS430 (Nickel plating-Sn)	- 20℃ ~ +65℃	- 30℃ ~ +75℃
BTMA0017102G4D1A01	SUS430 (First nickel plating)	- 20℃ ~ +65℃	- 30℃ ~ +75℃
BTMA0017102G4D1A02	SUS430 (First nickel plating)	- 20℃ ~ +65℃	- 30℃ ~ +75℃
BTMA0027152G4C1A04	SUS430 (First nickel plating)	- 20℃ ~ +65℃	- 30℃ ~ +75℃
BTMA00290825GD1A02	SUS430 (First nickel plating)	- 20℃ ~ +65℃	- 30℃ ~ +75℃

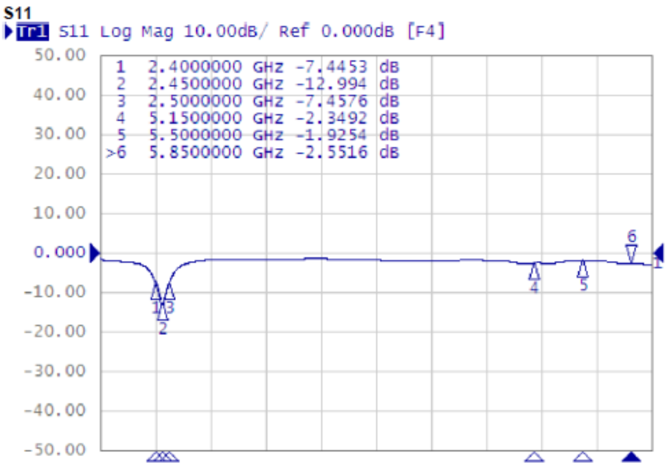
BTMA0014082G4D1A01

Experimental Setup

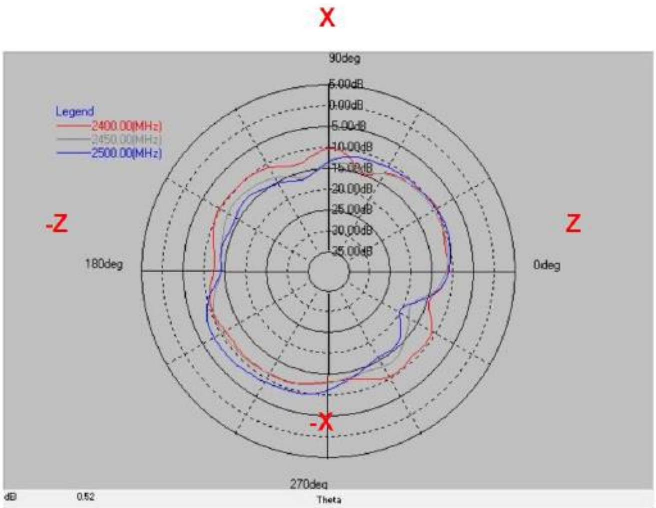




Return Loss S11

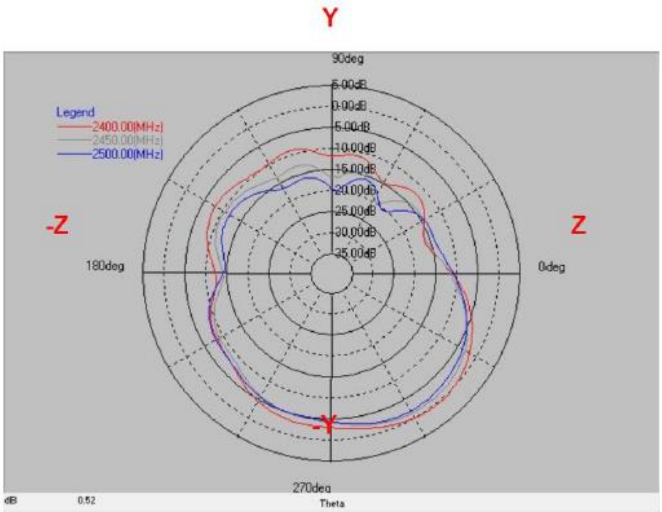


Frequency(MHz)：2400~2500. Pattern Field：Z-X plane



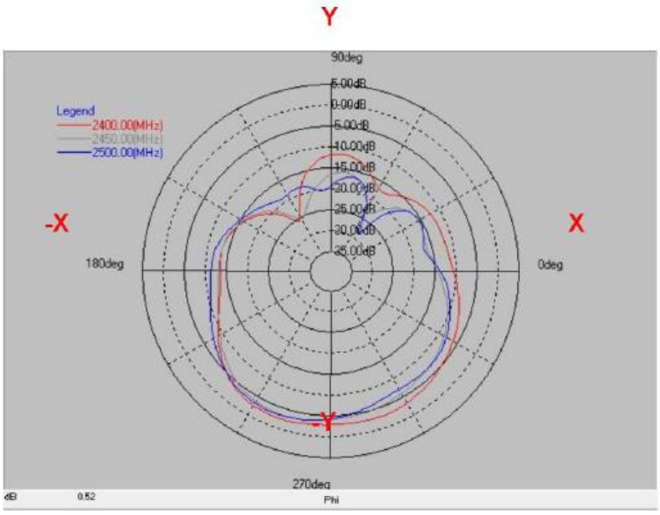
Layer	Max value	Min value	Average
2400(MHz)	-9.68 dB	-15.14 dB	-11.46 dB
2450(MHz)	-10.37 dB	-18.50 dB	-12.67 dB
2500(MHz)	-8.17 dB	-20.24 dB	-11.79 dB

Frequency(MHz)：2400~2500. Pattern Field：Z-Y plane



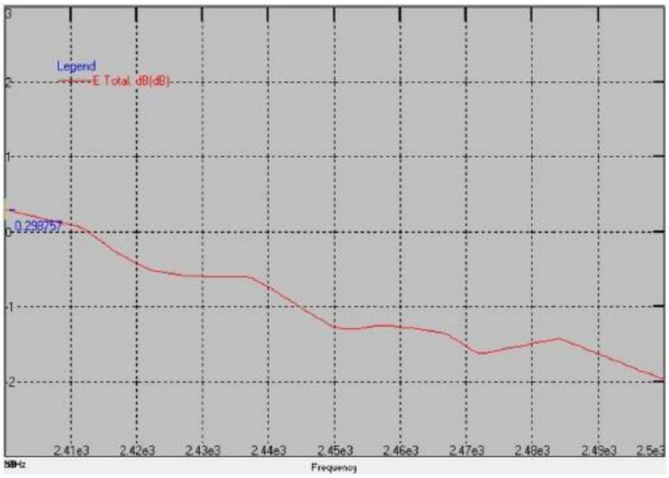
Layer	Max value	Min value	Average
2400(MHz)	0.30 dB	-16.47 dB	-5.83 dB
2450(MHz)	-1.28 dB	-20.09 dB	-7.28 dB
2500(MHz)	-1.98 dB	-20.67 dB	-7.65 dB

Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



Layer	Max value	Min value	Average
2400(MHz)	-2.52 dB	-25.81 dB	-7.49 dB
2450(MHz)	-3.56 dB	-25.65 dB	-9.21 dB
2500(MHz)	-3.27 dB	-28.86 dB	-8.96 dB

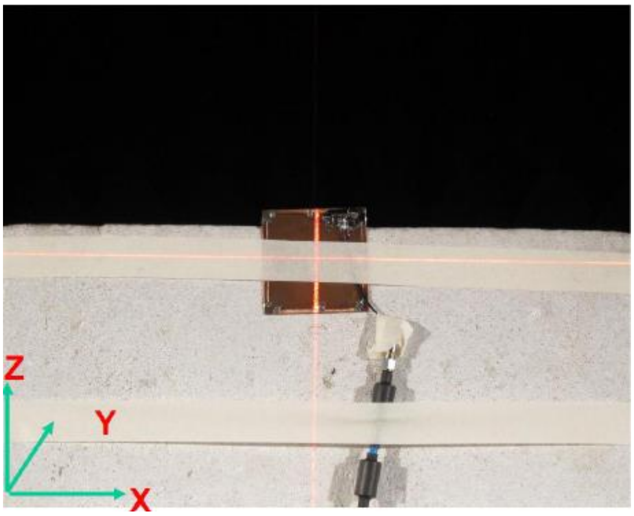
Peak Gain



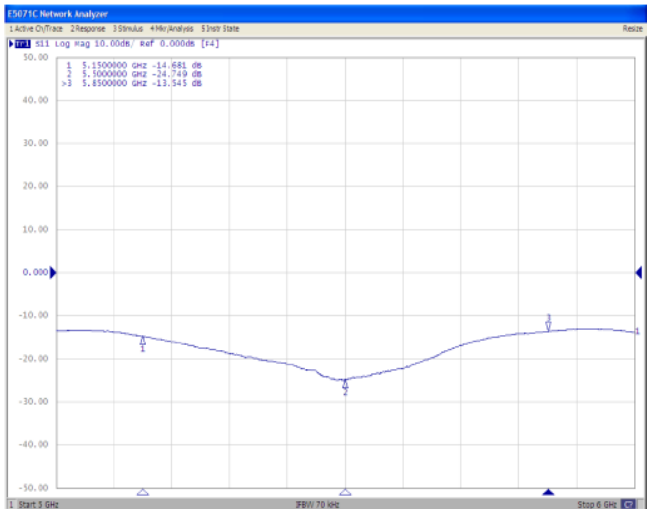
Peak Gain：Max 0.29 dBi

BTMA0014115G0D1A01

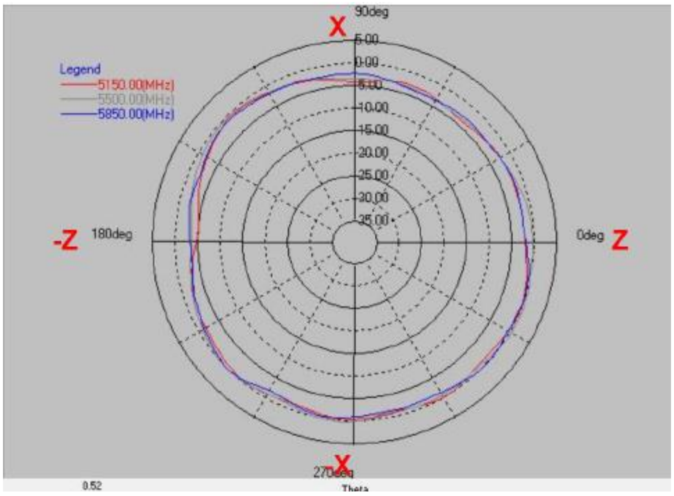
Experimental Setup



Return Loss S11

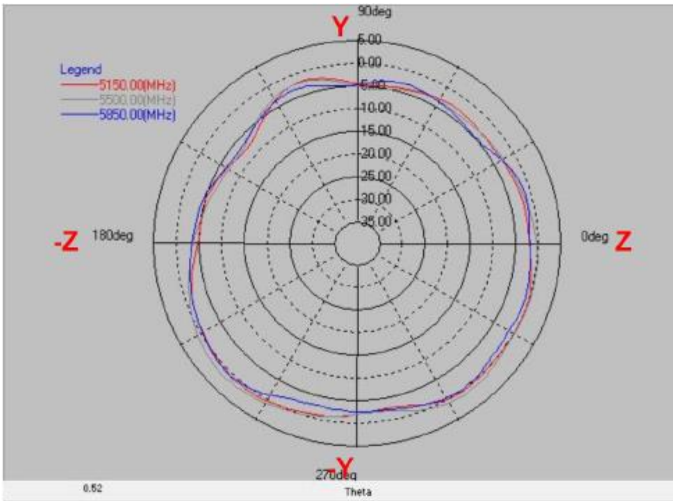


Frequency(MHz)：5150~5850. Pattern Field：Z-X plane



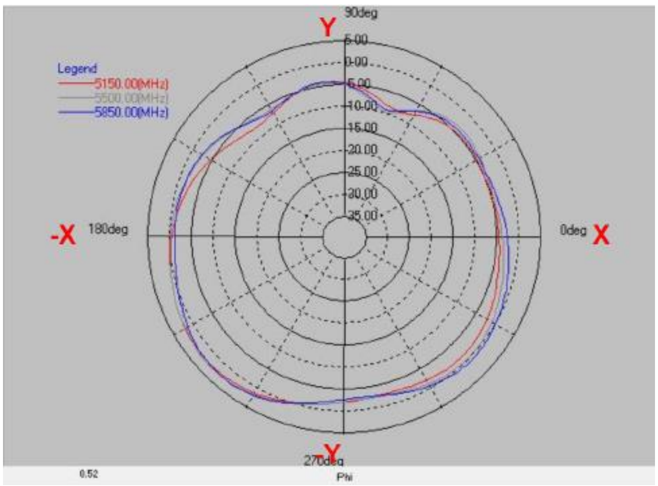
Layer	Max value	Min value	Average
5150(MHz)	-0.05 dB	-5.06 dB	-1.86 dB
5500(MHz)	0.51 dB	-3.81 dB	-1.34 dB
5850(MHz)	0.03 dB	-3.84 dB	-1.72 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-Y plane



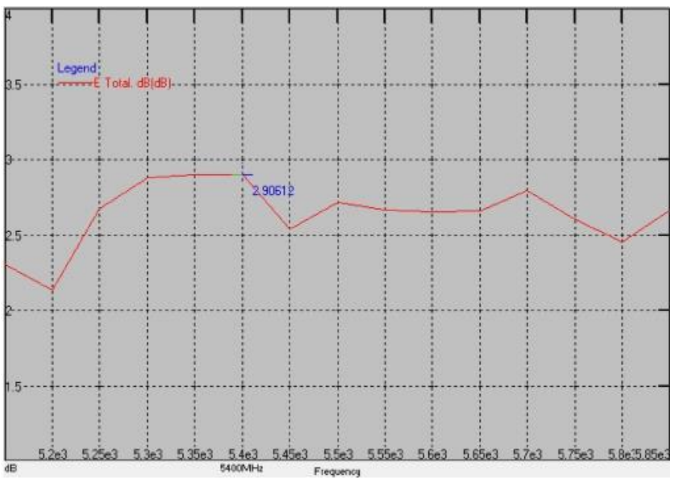
Layer	Max value	Min value	Average
5150(MHz)	0.61 dB	-7.89 dB	2.06 dB
5500(MHz)	1.60 dB	-7.46 dB	-1.51 dB
5850(MHz)	0.55 dB	-6.93 dB	-2.39 dB

Frequency(MHz)：5150~5850. Pattern Field：X-Y plane



Layer	Max value	Min value	Average
5150(MHz)	2.31 dB	-8.83 dB	-2.14 dB
5500(MHz)	2.66 dB	-10.15 dB	-1.58 dB
5850(MHz)	2.51 dB	-9.38 dB	-1.60 dB

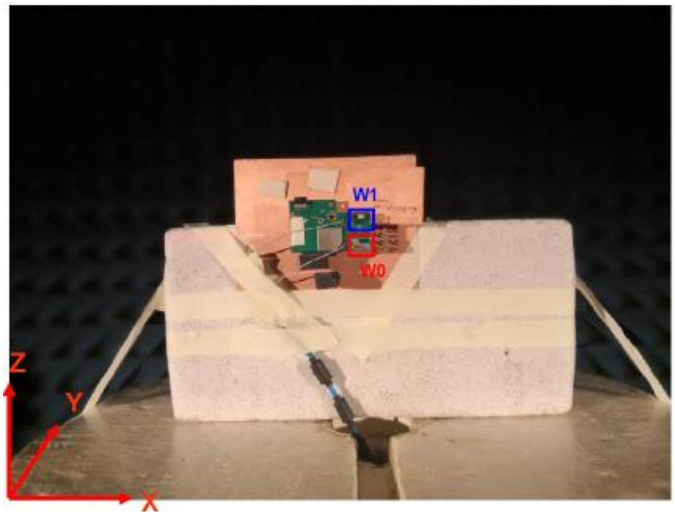
Peak Gain

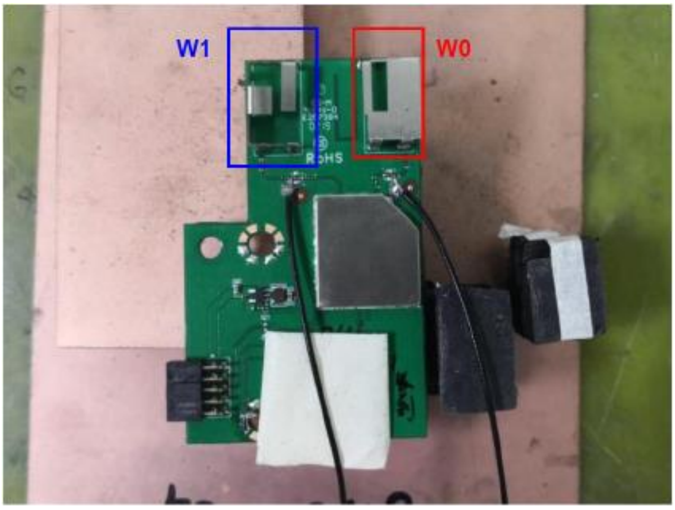


Peak Gain：Max 2.90 dBi

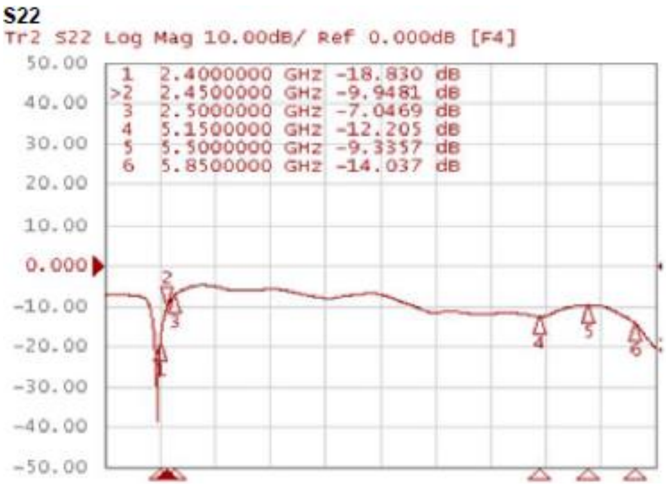
BTMA00150925GD1A01

Experimental Setup

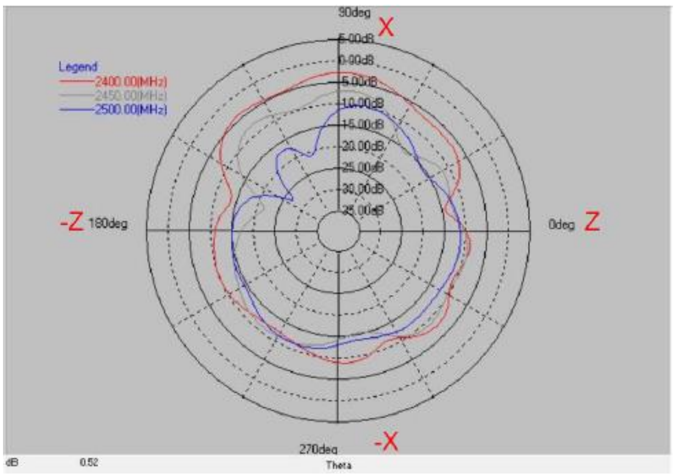


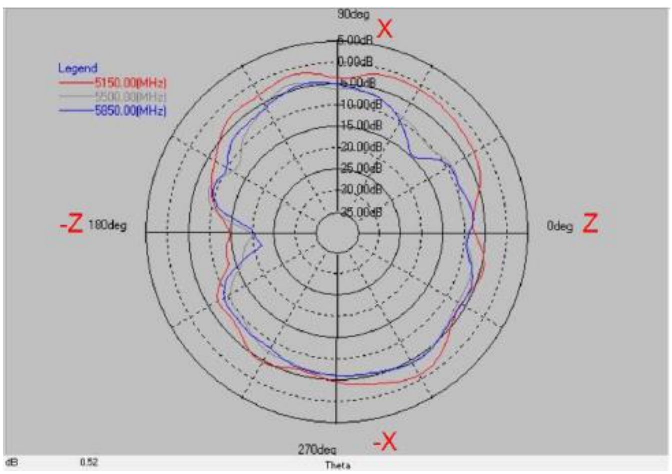


Return Loss S22



Frequency(MHz)：2400~2500. Pattern Field：Z-X plane	Frequency(MHz)：5150~5850. Pattern Field：Z-X plane

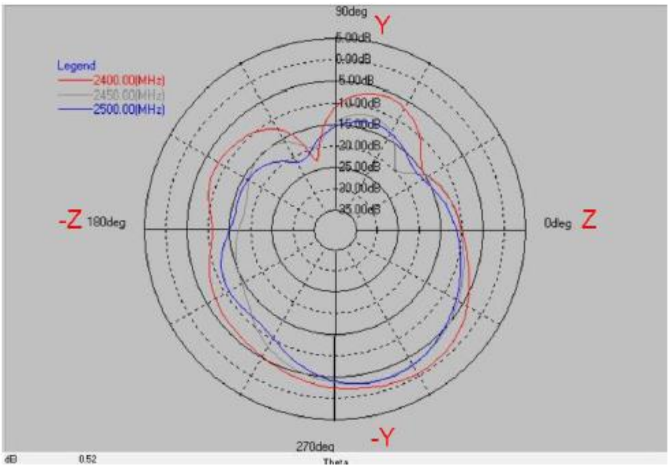




Layer	Max value	Min value	Average
2400(MHz)	-2.86 dB	-14.14 dB	-7.63 dB
2450(MHz)	-7.05 dB	-21.75 dB	-11.17 dB
2400(MHz)	-10.20 dB	-27.18 dB	-13.38 dB

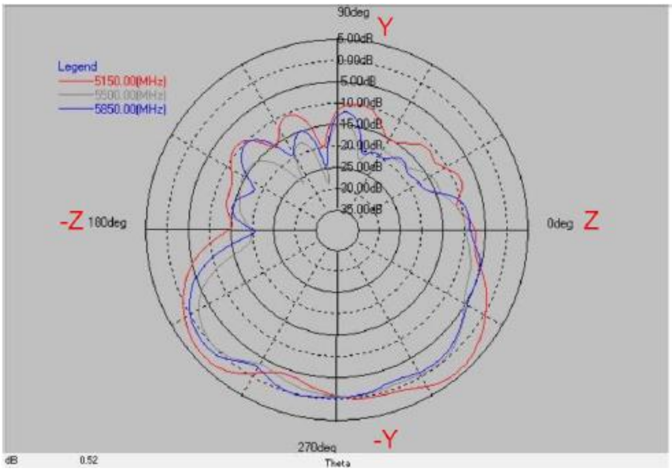
Layer	Max value	Min value	Average
5150(MHz)	-1.19 dB	-14.72 dB	-4.27 dB
5500(MHz)	-3.75 dB	-20.07 dB	-7.69 dB
5850(MHz)	-4.43 dB	-21.96 dB	-7.58 dB

Frequency(MHz) : 2400~2500. Pattern Field : Z-Y plane



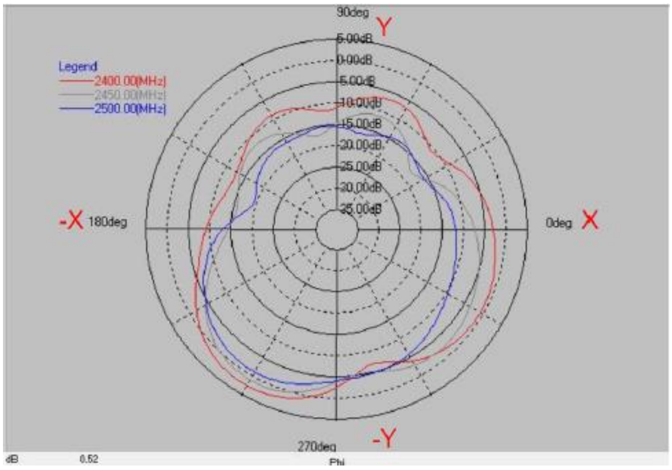
Layer	Max value	Min value	Average
2400(MHz)	-0.79 dB	-23.38 dB	-6.13 dB
2450(MHz)	-2.97 dB	-19.97 dB	-8.86 dB
2400(MHz)	-2.79 dB	-22.09 dB	-9.15 dB

Frequency(MHz) : 5150~5850. Pattern Field : Z-Y plane



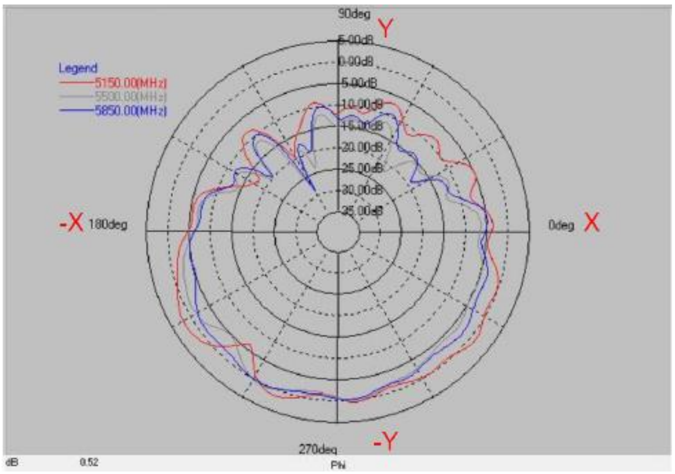
Layer	Max value	Min value	Average
5150(MHz)	3.91 dB	-20.30 dB	-2.51 dB
5500(MHz)	-0.15 dB	-28.99 dB	-5.54 dB
5850(MHz)	1.26 dB	-25.01 dB	-4.77 dB

Frequency(MHz) : 2400~2500. Pattern Field : X-Y plane



Layer	Max value	Min value	Average
2400(MHz)	2.60 dB	-13.00 dB	-3.43dB
2450(MHz)	0.96 dB	-17.80 dB	-5.47 dB
2500(MHz)	-1.16 dB	-19.46 dB	-7.55 dB

Frequency(MHz) : 5150~5850. Pattern Field : X-Y plane



Layer	Max value	Min value	Average
5150(MHz)	2.05 dB	-19.74 dB	-2.89 dB
5500(MHz)	0.31 dB	-26.05 dB	-5.10 dB
5850(MHz)	-0.01 dB	-29.00 dB	-4.68 dB

Peak Gain

2G

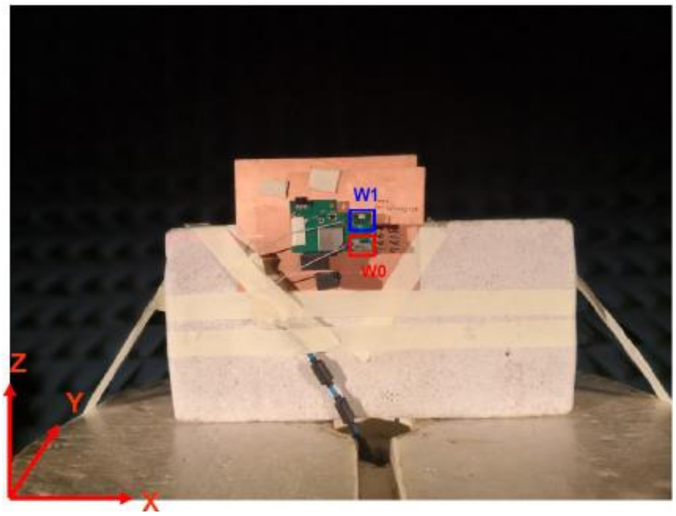
Frequency (MHz)	Peak Gain (dBi)
2400	2.64
2410	2.22
2420	1.84
2430	1.85
2440	1.39
2450	1.15
2460	0.60
2470	0.07
2480	-0.18
2490	-0.67
2500	-0.56

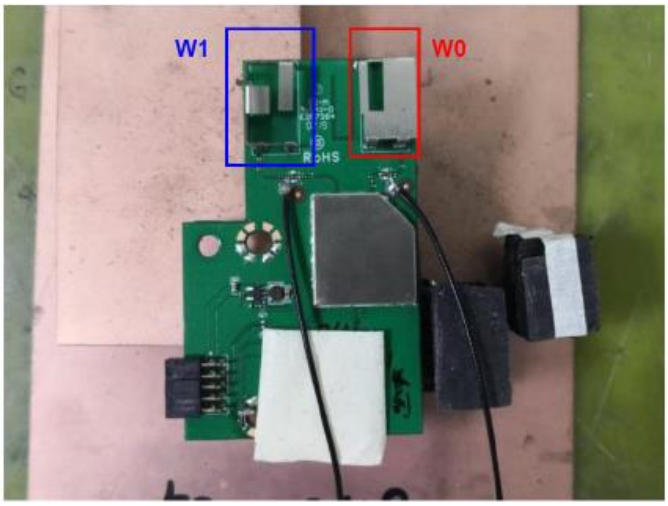
5G

Frequency (MHz)	Peak Gain (dBi)	Frequency (MHz)	Peak Gain (dBi)
5150	4.75	5700	1.02
5200	4.65	5750	1.21
5250	3.95	5800	1.76
5300	4.44	5850	1.47
5350	3.79		
5400	3.08		
5450	1.86		
5500	1.42		
5550	1.02		
5600	0.81		
5650	1.15		

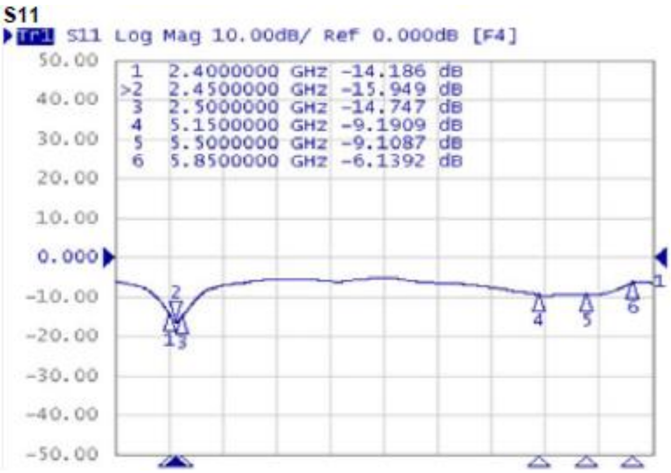
BTMA00151025GD1A02

Experimental Setup

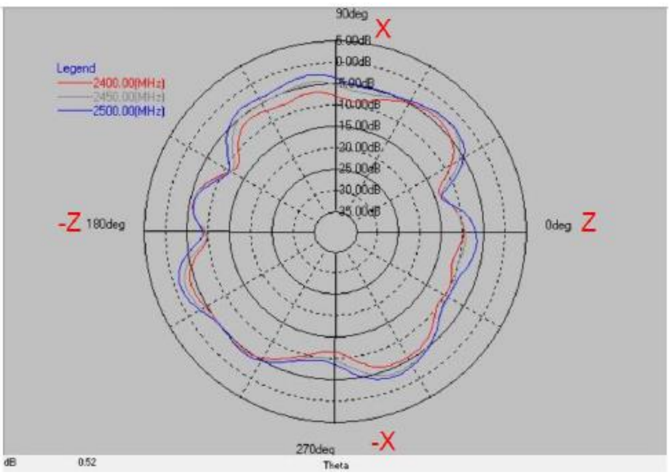




Return Loss S11

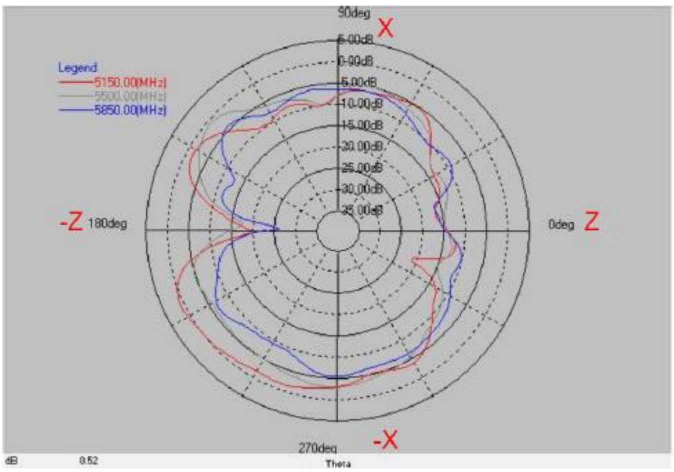


Frequency(MHz)：2400~2500. Pattern Field：Z-X plane



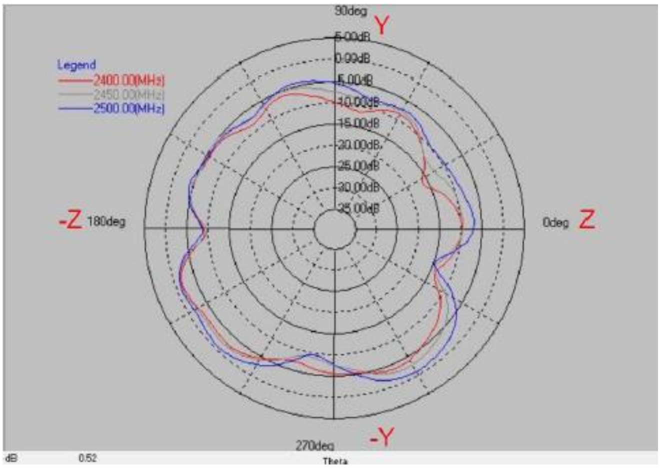
Layer	Max value	Min value	Average
2400(MHz)	-3.84 dB	-13.97 dB	-7.26 dB
2450(MHz)	-2.47 dB	-13.35 dB	-6.04 dB
2400(MHz)	-1.35 dB	-13.67 dB	-5.24 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-X plane



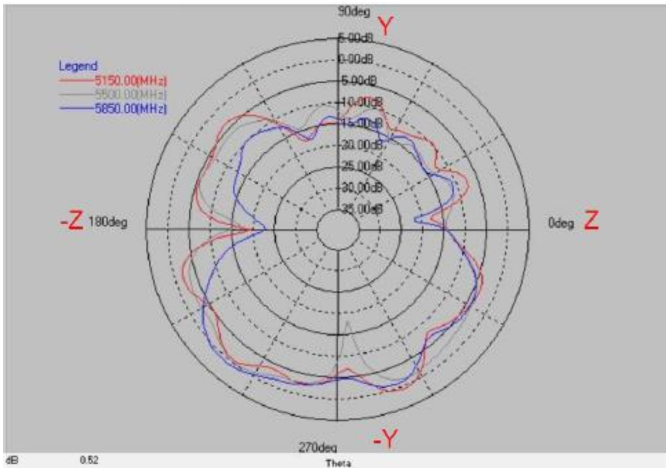
Layer	Max value	Min value	Average
5150(MHz)	0.83 dB	-21.25 dB	-5.01 dB
5500(MHz)	-0.91 dB	-17.69 dB	-6.29 dB
5850(MHz)	-4.37 dB	-26.43 dB	-8.33 dB

Frequency(MHz) : 2400~2500. Pattern Field : Z-Y plane



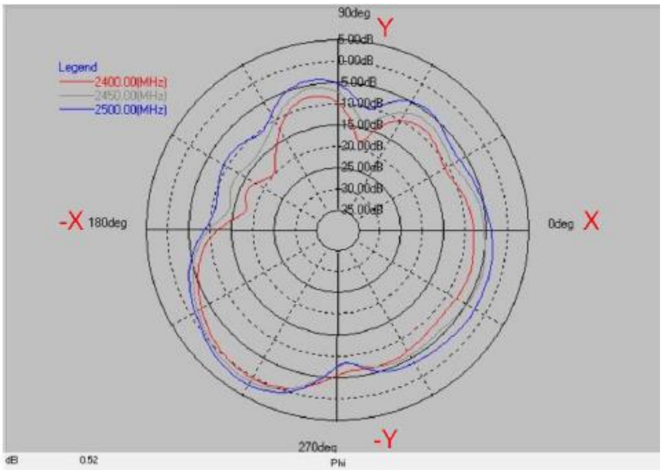
Layer	Max value	Min value	Average
2400(MHz)	-1.67 dB	-16.44 dB	-6.59 dB
2450(MHz)	-1.29 dB	-14.55 dB	-5.98 dB
2400(MHz)	-0.83 dB	-14.85 dB	-4.86 dB

Frequency(MHz) : 5150~5850. Pattern Field : Z-Y plane



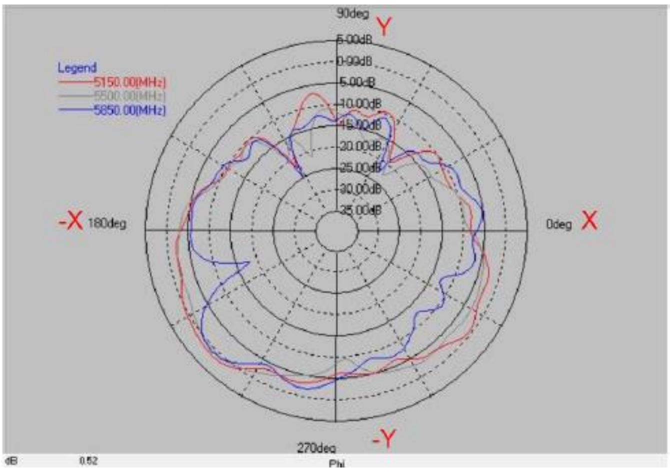
Layer	Max value	Min value	Average
5150(MHz)	0.52 dB	-19.78 dB	-5.44 dB
5500(MHz)	-0.30 dB	-18.34 dB	-5.76 dB
5850(MHz)	0.73 dB	-23.02 dB	-6.04 dB

Frequency(MHz) : 2400~2500. Pattern Field : X-Y plane



Layer	Max value	Min value	Average
2400(MHz)	0.29 dB	-20.04 dB	-6.33 dB
2450(MHz)	1.22 dB	-14.26 dB	-5.10 dB
2500(MHz)	2.17 dB	-10.99 dB	-3.75 dB

Frequency(MHz) : 5150~5850. Pattern Field : X-Y plane



Layer	Max value	Min value	Average
5150(MHz)	1.56 dB	-22.61 dB	-4.49 dB
5500(MHz)	0.53 dB	-22.96 dB	-5.27 dB
5850(MHz)	0.92 dB	-25.04 dB	-6.77 dB

Peak Gain

2G

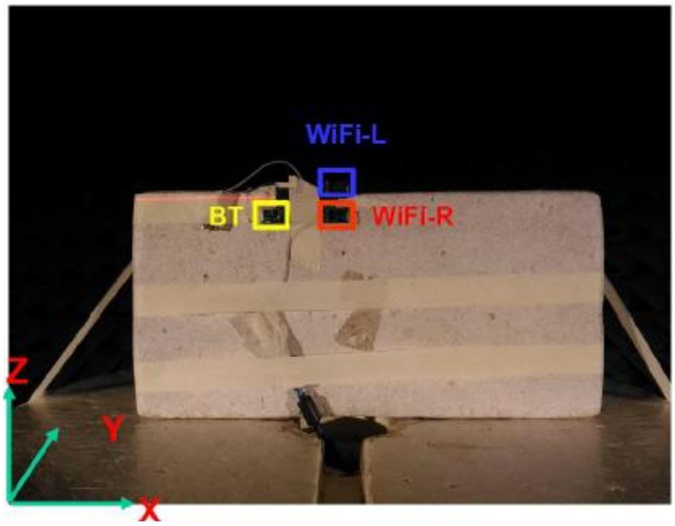
Frequency (MHz)	Peak Gain (dBi)
2400	1.55
2410	1.60
2420	1.58
2430	2.01
2440	2.04
2450	2.05
2460	2.42
2470	2.61
2480	2.61
2490	2.63
2500	2.64

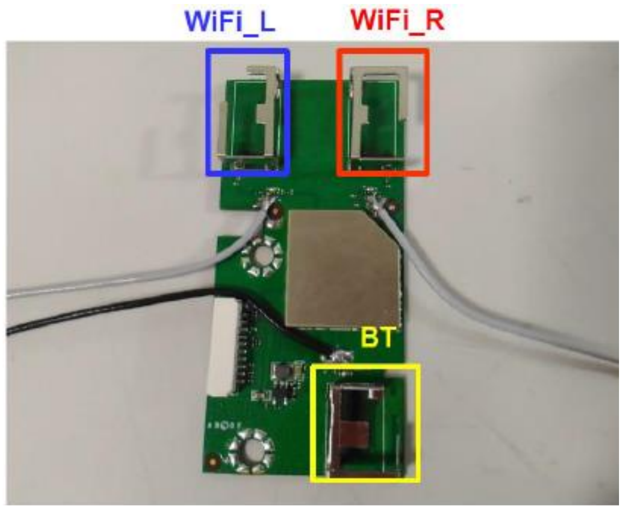
5G

Frequency (MHz)	Peak Gain (dBi)	Frequency (MHz)	Peak Gain (dBi)
5150	4.23	5700	2.13
5200	3.90	5750	1.89
5250	3.88	5800	1.52
5300	3.97	5850	1.44
5350	3.74		
5400	1.87		
5450	1.70		
5500	1.83		
5550	2.40		
5600	2.57		
5650	2.83		

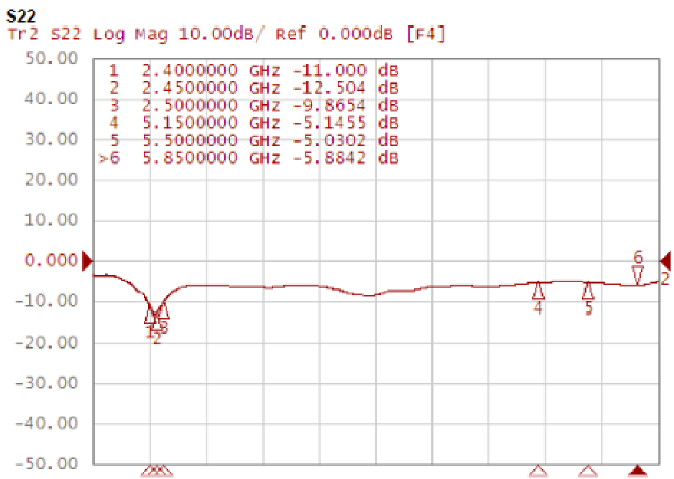
BTMA0017102G4D1A01

Experimental Setup

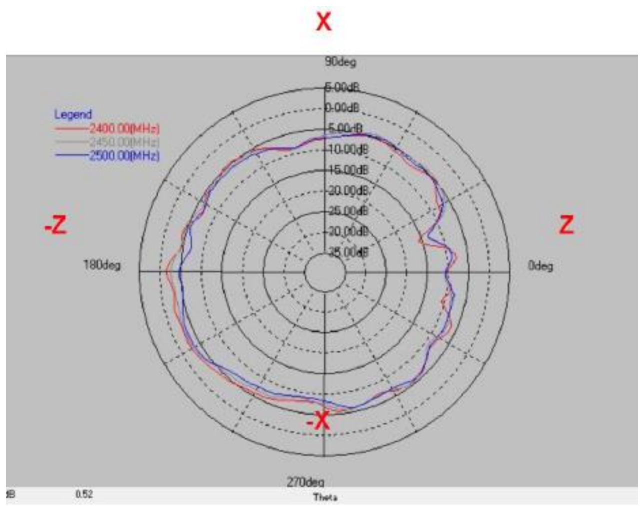




Return Loss S22

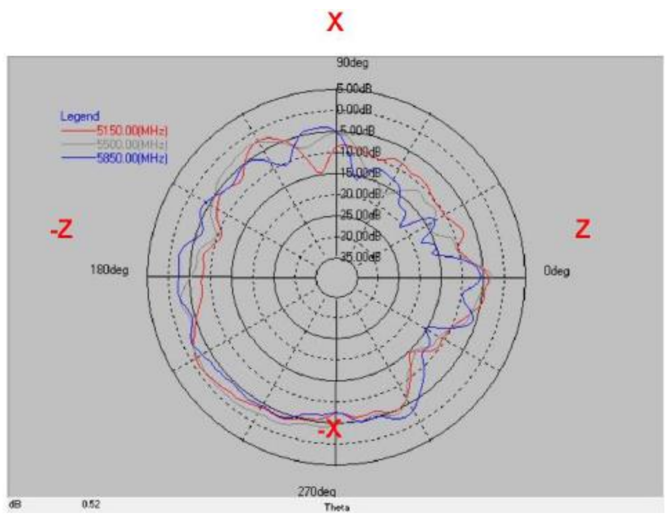


Frequency(MHz)：2400~2500. Pattern Field：Z-X plane



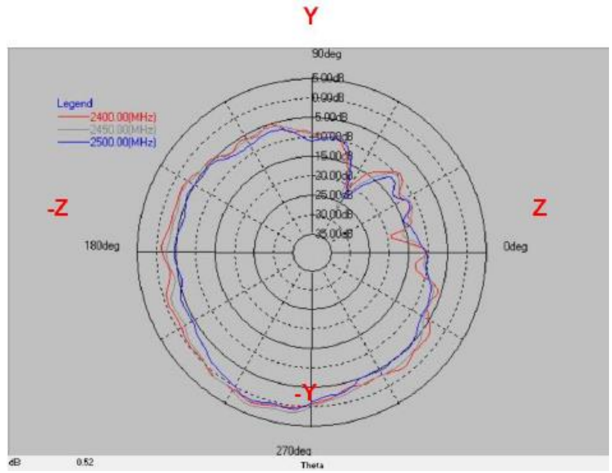
Layer	Max value	Min value	Average
2400(MHz)	-1.36 dB	-15.89 dB	-5.81 dB
2450(MHz)	-2.52 dB	-13.39 dB	-5.91 dB
2400(MHz)	-3.50 dB	-13.23 dB	-6.54 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-X plane



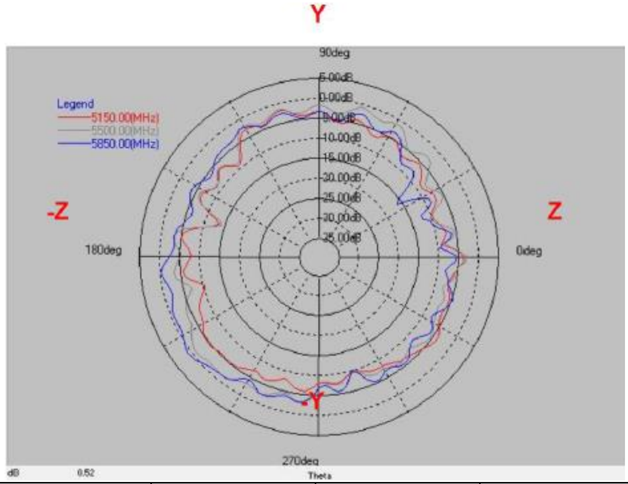
Layer	Max value	Min value	Average
5150(MHz)	-1.08 dB	-14.89 dB	-6.26 dB
5500(MHz)	-1.40 dB	-16.84 dB	-5.41 dB
5850(MHz)	-2.02 dB	-20.60 dB	-6.03 dB

Frequency(MHz)：2400~2500. Pattern Field：Z-Y plane



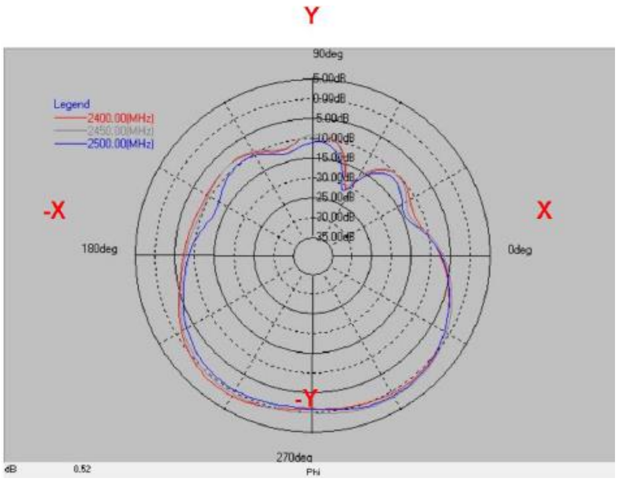
Layer	Max value	Min value	Average
2400(MHz)	1.74 dB	-20.97 dB	-3.49 dB
2450(MHz)	2.68 dB	-27.16 dB	-3.51 dB
2400(MHz)	1.21 dB	-23.67 dB	-4.97 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-Y plane



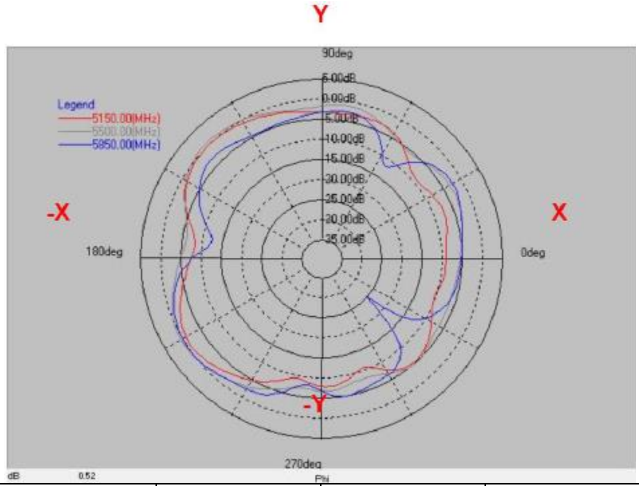
Layer	Max value	Min value	Average
5150(MHz)	-2.12 dB	-13.58 dB	-6.20 dB
5500(MHz)	-1.04 dB	-14.34 dB	-4.49 dB
5850(MHz)	0.77 dB	-16.24 dB	-4.18 dB

Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



Layer	Max value	Min value	Average
2400(MHz)	1.19 dB	-21.06 dB	-3.46 dB
2450(MHz)	1.42 dB	-20.22 dB	-3.21 dB
2500(MHz)	1.14 dB	-21.85 dB	-4.01 dB

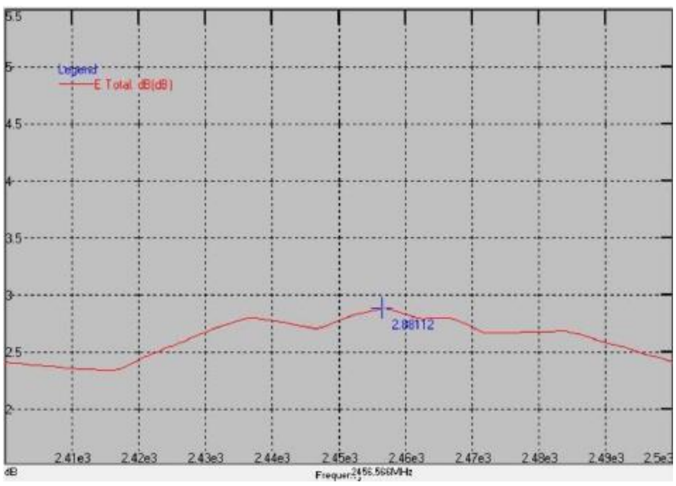
Frequency(MHz)：5150~5850. Pattern Field：X-Y plane



Layer	Max value	Min value	Average
5150(MHz)	-0.15 dB	-10.92 dB	-4.44 dB
5500(MHz)	0.60 dB	-8.28 dB	-2.98 dB
5850(MHz)	0.05 dB	-25.42 dB	-4.39 dB

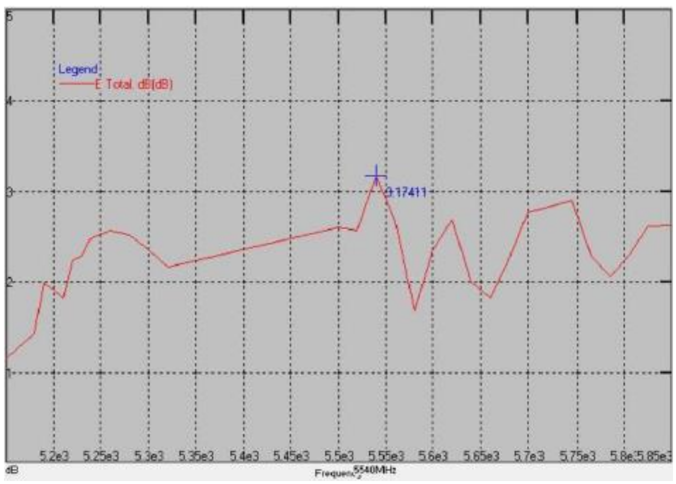
Peak Gain

2G



Peak Gain：Max 2.88 dBi

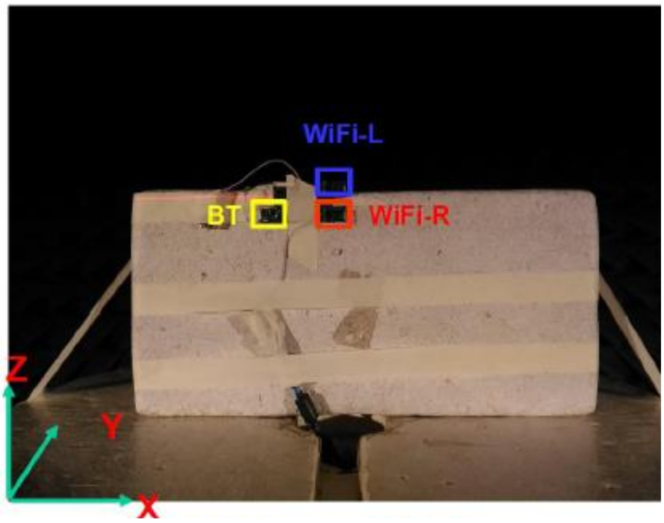
5G

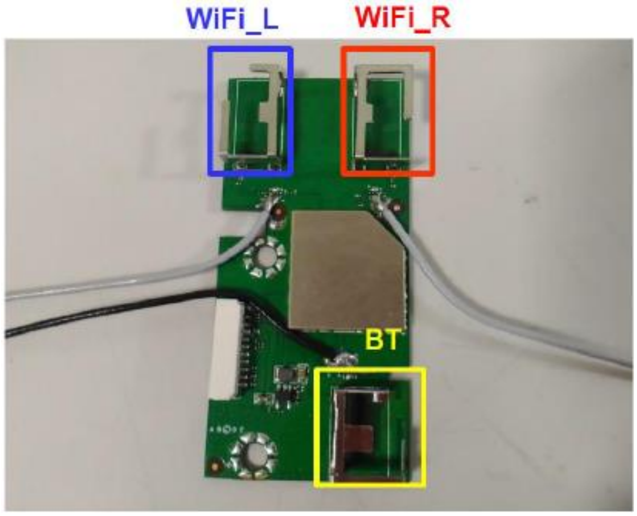


Peak Gain：Max 3.17 dBi

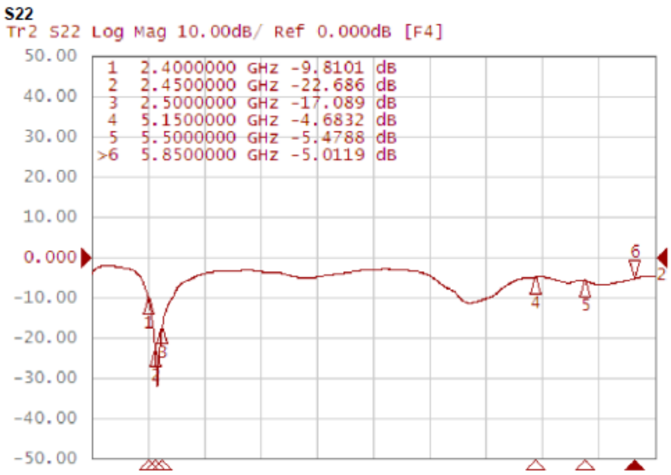
BTMA0017102G4D1A02

Experimental Setup

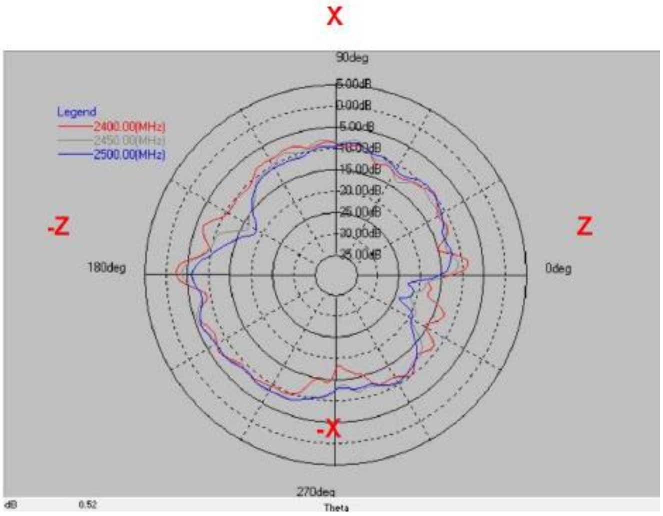




Return Loss S22

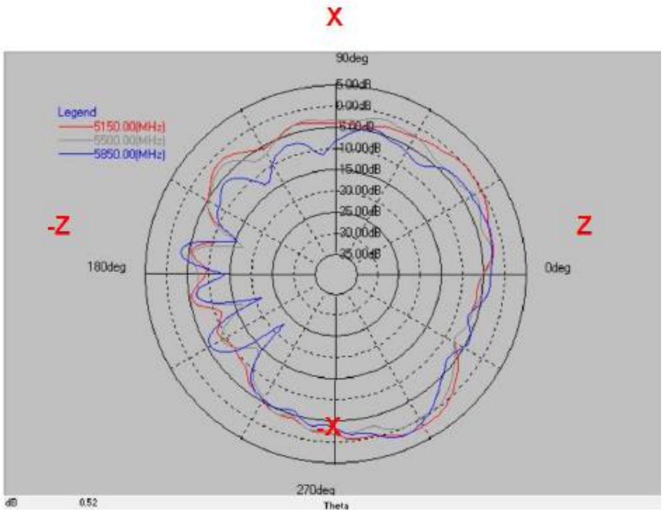


Frequency(MHz)：2400~2500. Pattern Field：Z-X plane



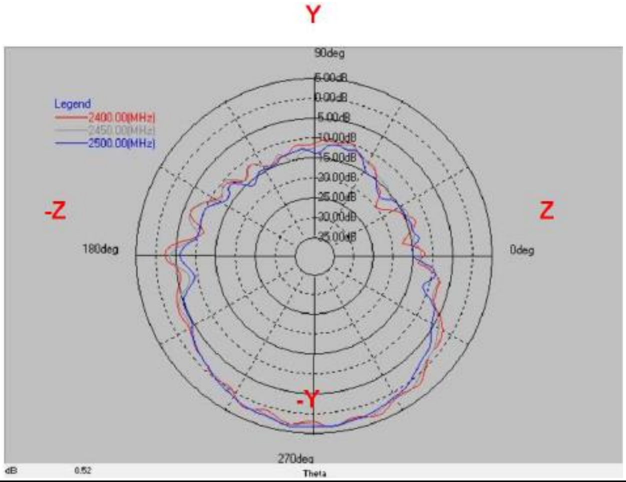
Layer	Max value	Min value	Average
2400(MHz)	-2.23 dB	-18.66 dB	-9.68 dB
2450(MHz)	-3.51 dB	-21.67 dB	-9.99 dB
2400(MHz)	-6.01 dB	-24.11 dB	-10.54 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-X plane



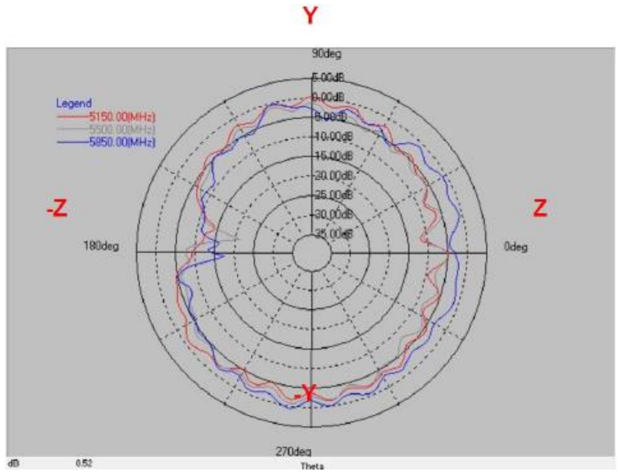
Layer	Max value	Min value	Average
5150(MHz)	1.61 dB	-15.19 dB	-3.16 dB
5500(MHz)	-0.19 dB	-17.15 dB	-4.14 dB
5850(MHz)	1.72 dB	-22.93 dB	-4.75 dB

Frequency(MHz)：2400~2500. Pattern Field：Z-Y plane



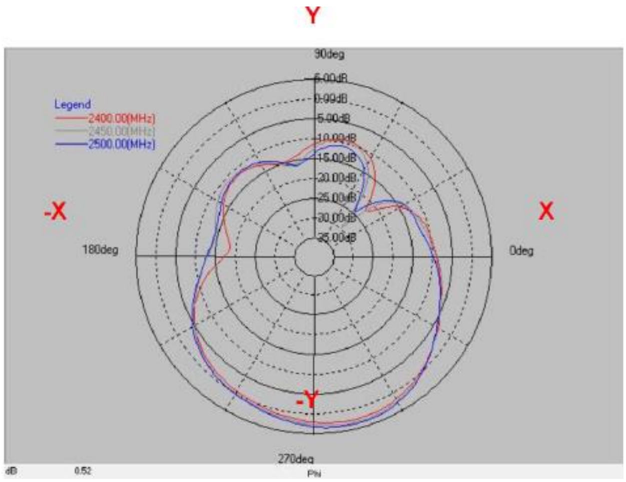
Layer	Max value	Min value	Average
2400(MHz)	3.36 dB	-20.21 dB	-2.86 dB
2450(MHz)	3.14 dB	-15.73 dB	-2.94 dB
2400(MHz)	3.39 dB	-17.57 dB	-3.19 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-Y plane



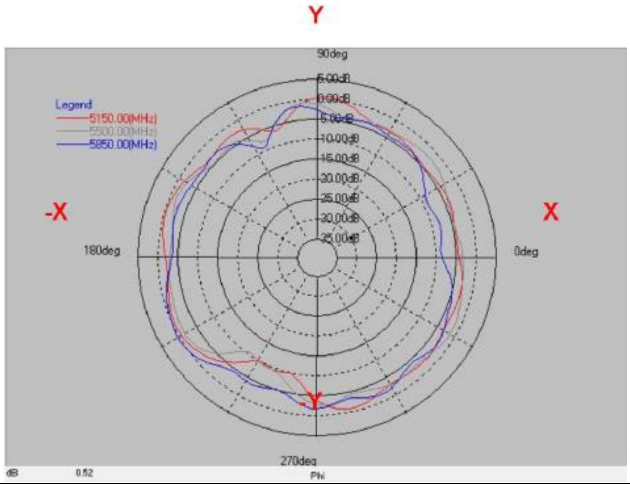
Layer	Max value	Min value	Average
5150(MHz)	0.09 dB	-14.59 dB	-4.02 dB
5500(MHz)	-0.76 dB	-21.21 dB	-4.87 dB
5850(MHz)	0.44 dB	-17.49 dB	-3.22 dB

Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



Layer	Max value	Min value	Average
2400(MHz)	2.46 dB	-22.31 dB	-3.81 dB
2450(MHz)	3.20 dB	-29.93 dB	-3.30 dB
2500(MHz)	3.64 dB	-24.60 dB	-3.05 dB

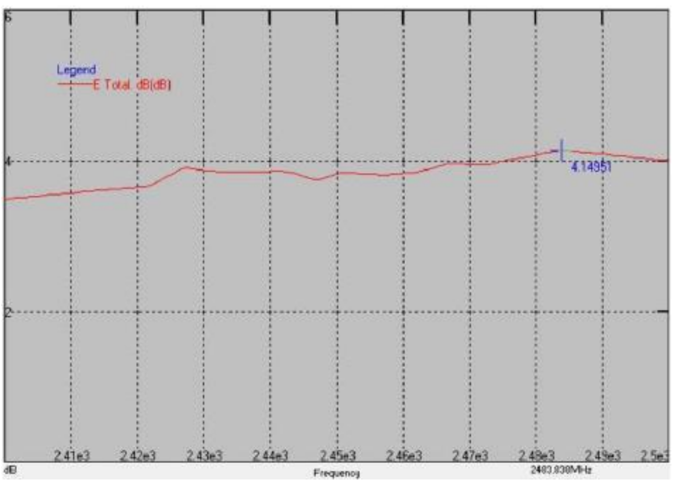
Frequency(MHz)：5150~5850. Pattern Field：X-Y plane



Layer	Max value	Min value	Average
5150(MHz)	0.31 dB	-10.17 dB	-2.80 dB
5500(MHz)	-0.96 dB	-10.79 dB	-3.36 dB
5850(MHz)	0.33 dB	-9.41 dB	-3.55 dB

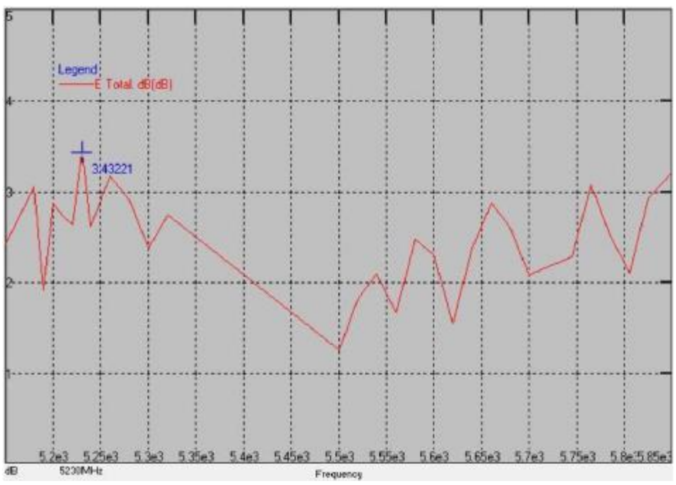
Peak Gain

2G



Peak Gain：Max 4.14 dBi

5G

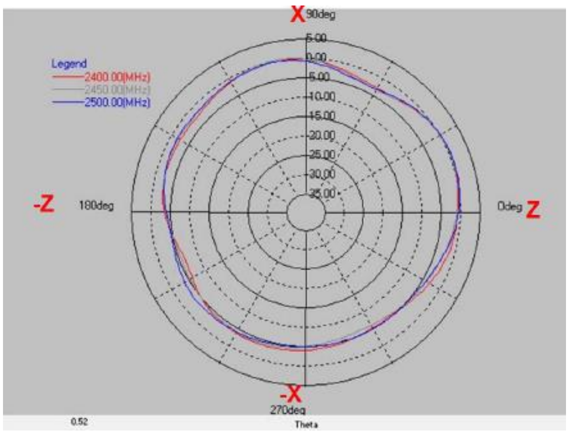


Peak Gain：Max 3.43 dBi

BTMA0027152G4C1A04

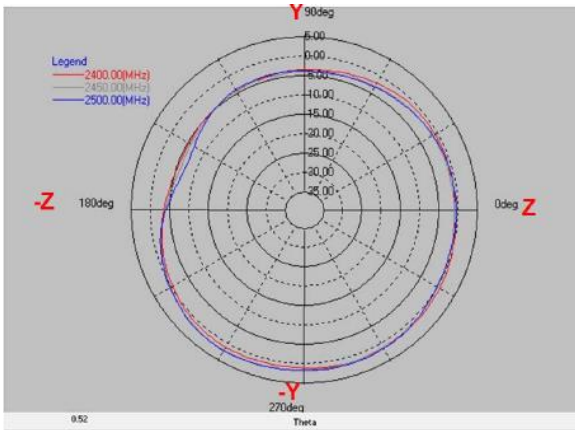
Return Loss S11：2G Ant 1 → 25G Ant 2

Frequency(MHz)：2400~2500. Z-X Plane



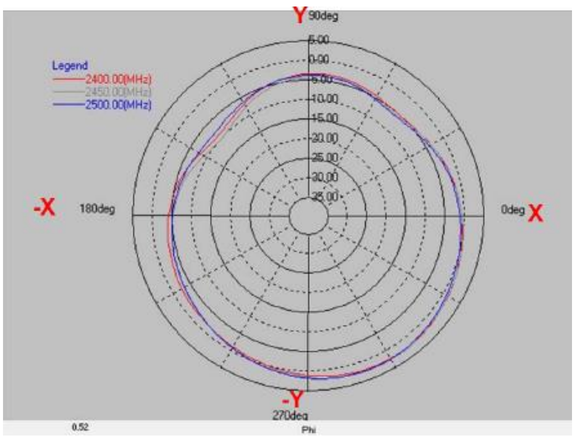
Layer	Max value	Min value	Average
2400(MHz)	0.31 dB	-6.50 dB	-2.43 dB
2450(MHz)	0.22 dB	-6.28 dB	-2.59 dB
2500(MHz)	0.48 dB	-5.27 dB	-2.44 dB

Frequency(MHz)：2400~2500. Z-Y Plane



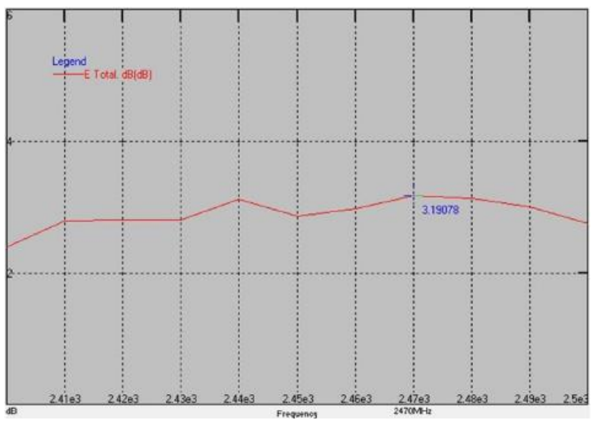
Layer	Max value	Min value	Average
2400(MHz)	1.34 dB	-5.51 dB	-0.89 dB
2450(MHz)	1.91 dB	-6.13 dB	-0.92 dB
2500(MHz)	2.07 dB	-7.38 dB	-0.80 dB

Frequency(MHz)：2400~2500. X-Y Plane



Layer	Max value	Min value	Average
2400(MHz)	2.27 dB	-9.20 dB	-1.54 dB
2450(MHz)	2.60 dB	-10.29 dB	-1.50 dB
2500(MHz)	2.40 dB	-8.04 dB	-1.62 dB

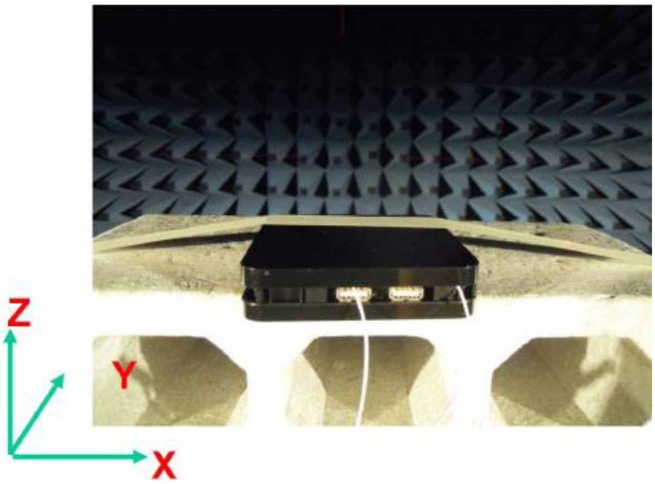
Peak Gain

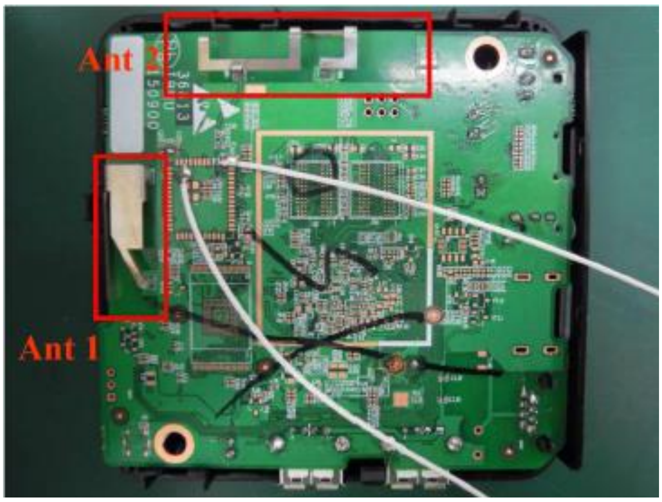


Peak Gain：Max 3.1993.19 dBi

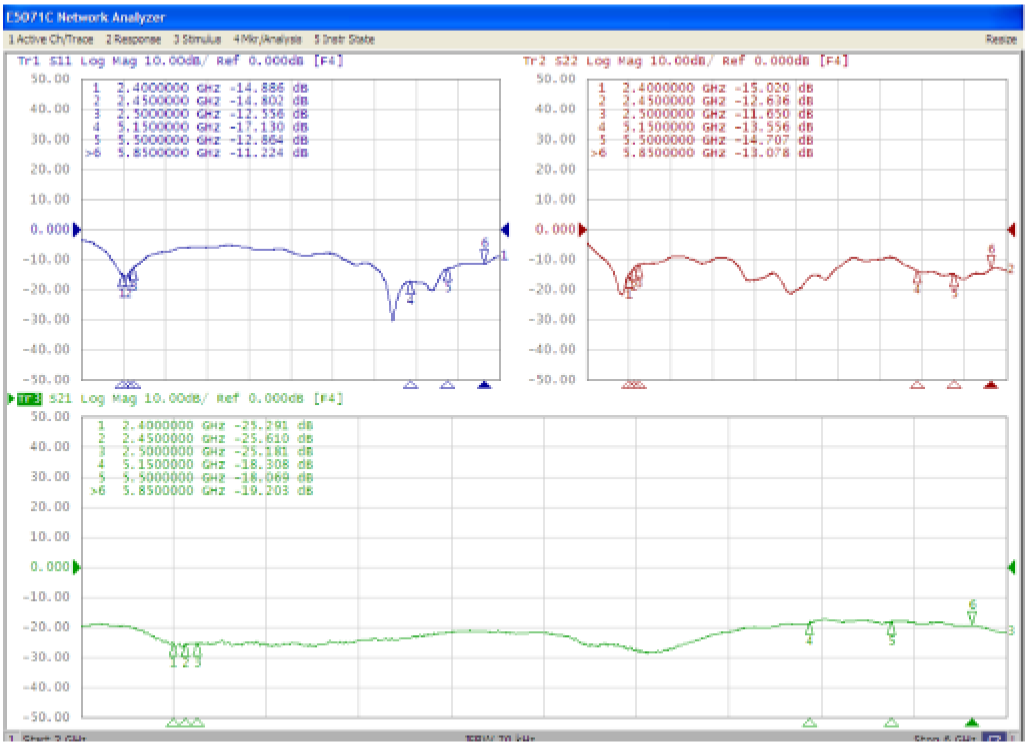
BTMA00290825GD1A02

Experimental Setup

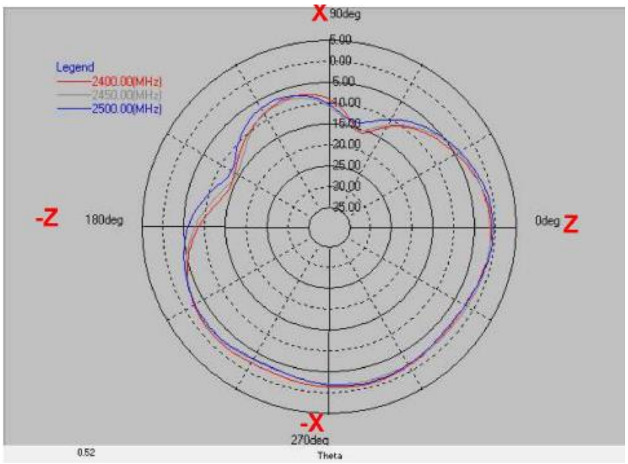




Return Loss Ant 1 → Ant 2

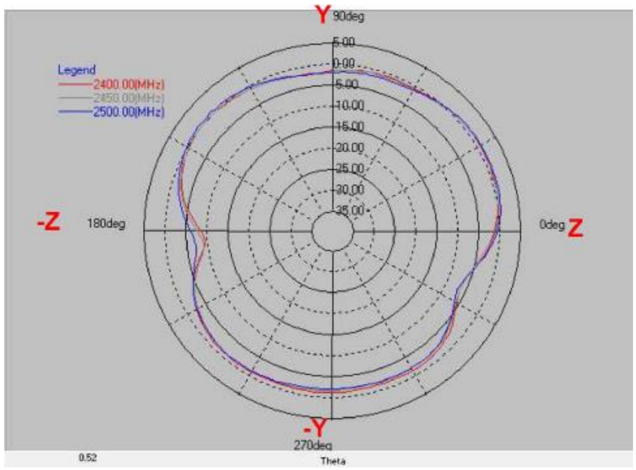


Frequency(MHz)：2400~2500. Pattern Field：X-Z plane



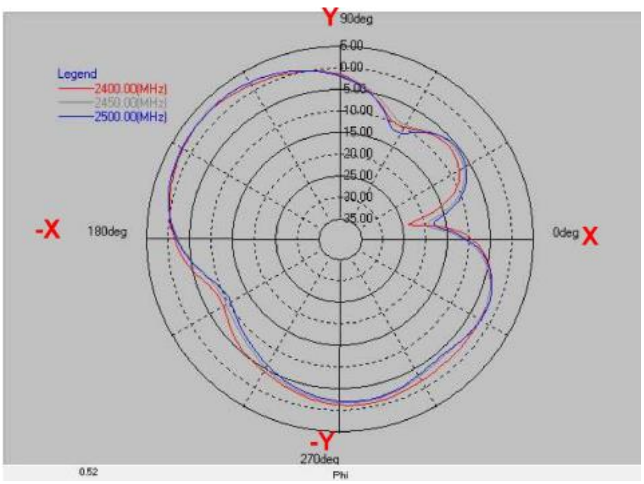
Layer	Max value	Min value	Average
2400(MHz)	-0.89 dB	-16.13 dB	-3.98 dB
2450(MHz)	-1.06 dB	-15.91 dB	-4.19 dB
2500(MHz)	-0.51 dB	-11.13 dB	-3.95 dB

Frequency(MHz)：2400~2500. Pattern Field：Y-Z plane



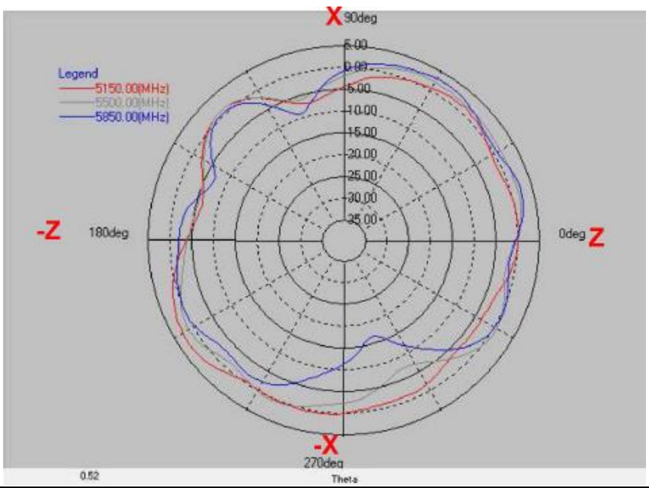
Layer	Max value	Min value	Average
2400(MHz)	0.76 dB	-9.47 dB	-1.56 dB
2450(MHz)	0.94 dB	-9.03 dB	-1.73 dB
2500(MHz)	1.04 dB	-7.20 dB	-1.56 dB

Frequency(MHz)：2400~2500. Pattern Field：X-Y plane



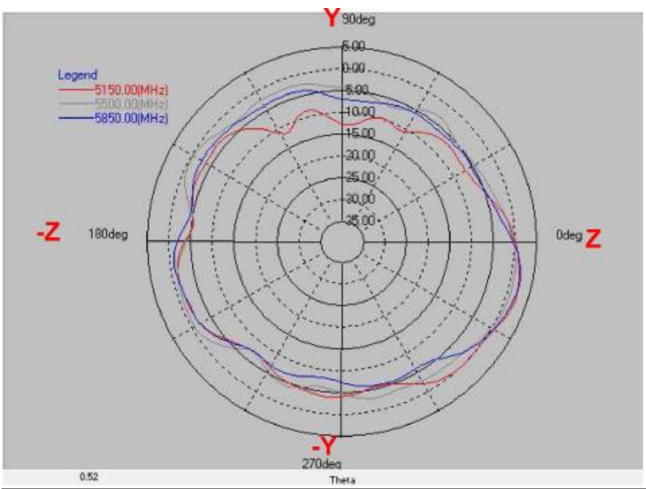
Layer	Max value	Min value	Average
2400(MHz)	2.47 dB	-23.81 dB	-2.21 dB
2450(MHz)	2.71 dB	-19.78 dB	-2.28 dB
2500(MHz)	2.55 dB	-17.95 dB	-2.40 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-X plane



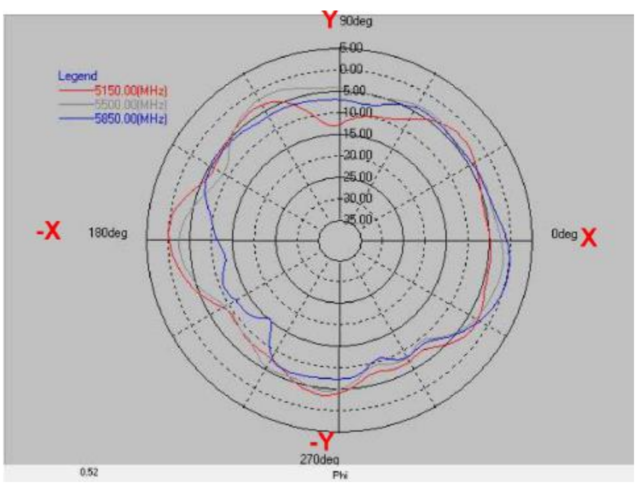
Layer	Max value	Min value	Average
5150(MHz)	2.83 dB	-7.47 dB	-0.79 dB
5500(MHz)	2.08 dB	-7.55 dB	-0.73 dB
5850(MHz)	3.02 dB	-16.98 dB	-1.22 dB

Frequency(MHz)：5150~5850. Pattern Field：Z-Y plane



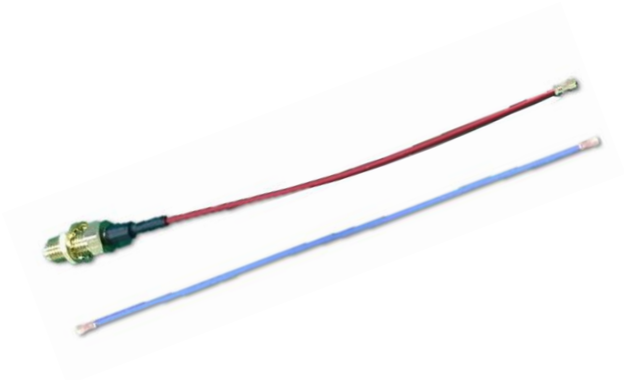
Layer	Max value	Min value	Average
5150(MHz)	2.33 dB	-13.06 dB	-3.37 dB
5500(MHz)	0.82 dB	-7.57 dB	-2.62 dB
5850(MHz)	2.27 dB	-8.44 dB	-3.28 dB

Frequency(MHz)：5150~5850. Pattern Field：X-Y plane



Layer	Max value	Min value	Average
5150(MHz)	-0.04 dB	-13.16 dB	-4.88 dB
5500(MHz)	-1.42 dB	-9.61 dB	-4.62 dB
5850(MHz)	0.25 dB	-15.48 dB	-5.55 dB

BTAA Series



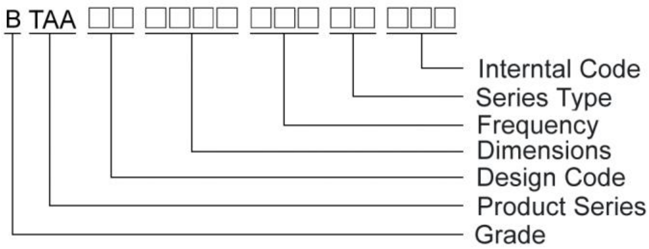
Features

- Frequency DC~6GHz
- Antenna connector, RF coaxial cable can be used with different connectors (SMA, IPEX ...)
- SMA Bulkhead can be adjusted according to your needs,The tooth length can be 11.4mm or 10mm,You can also add a waterproof O-ring.
- Customized

Applications

- Bluetooth, Wireless Router, Set Top Box and Home digital, LTE, NB-IOT, GPS, WiFi

Product Identification



Shapes and Dimensions

FIG 1

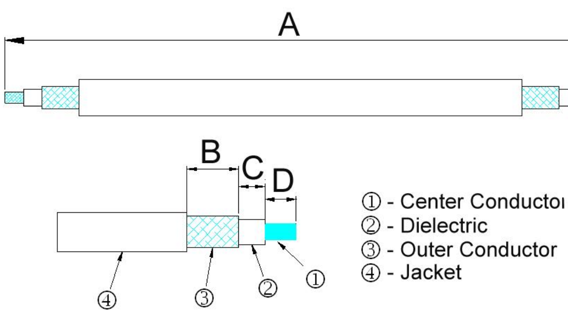
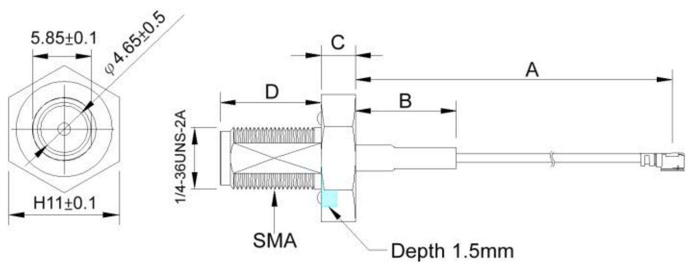


FIG 2



Dimensions in mm

TYPE	FIG	A	B	C	D	SMA
BTAA0000503G0C1A05	1	50^{+30}_{-0}	2	1	1	-
BTAA0000956G0C4A04	2	95±3	10±3	3.4±0.5	14.4±2	Jack

Pulse a YAGEO company
CHILISIN ELECTRONICS CORP.

Shapes and Dimensions

FIG 3

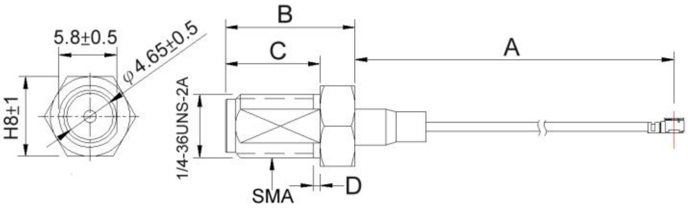


FIG 4

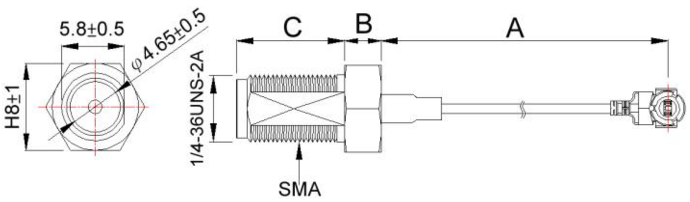


FIG 5

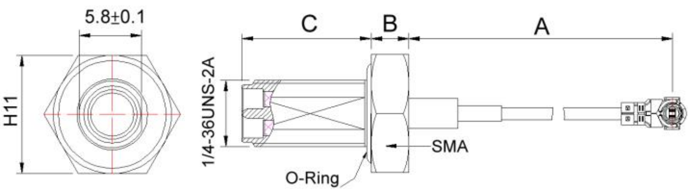
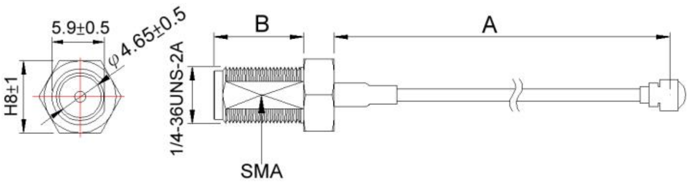


FIG 6



Dimensions in mm

TYPE	FIG	A	B	C	D	SMA
BTAA0001056G0C4A03	3	105±5_0	13	9.5±2	0.7	Straight Jack Reverse
BTAA0001106G0C1A10	4	110±5	3.4±0.5	10±2	-	Jack Reverse
BTAA0001506G0C4A24	5	150±5	3.5±0.1	12±0.2	-	RP- Straight Jack Reverse
BTAA0001606G0C4A10	3	160±5	13	9.5±2	0.7	Straight Jack Reverse
BTAA0002706G0C4A01	6	270+5-0	10±2	-	-	Jack Reverse

Connection wire BTAA Series

Electrical Characteristics

Part Number	Frequency Range (GHz)	Impedance (Ω)	Insertion Loss dB(Max)	VSWR (Max)	Cable Loss dB(Max)
BTAA0000503G0C1A05	DC~6GHz	50	1.5	2	0.17
BTAA0001056G0C4A03	DC~6GHz	50	-1.6	1.5	-
BTAA0001106G0C1A10	DC~6GHz	50	-2.0	2	-
BTAA0001606G0C4A10	DC~6GHz	50	-1.8	1.5	-
BTAA0002706G0C4A01	DC~6GHz	50	2	1.5	-

Physical Properties

Part Number	Connector Material	Cable	Color	Heat Shrink Tube	SMA	Connector
BTAA0000503G0C1A05	-	1.13	Gray	-	-	-
BTAA0001056G0C4A03	Brass;Gold Plated	1.37	Black	V	Straight Jack Reverse	IPEX-1
BTAA0001106G0C1A10	Brass;Gold Plated	1.13	Black	V	Jack Reverse	IPEX-1
BTAA0001606G0C4A10	Brass;Gold Plated	1.37	Black	V	Straight Jack Reverse	IPEX-1
BTAA0002706G0C4A01	Brass;Gold Plated	1.37	Black	V	Jack Reverse	IPEX-1

- Operating temperature range - 20℃ ~ + 65℃
- Storage temperature range - 30℃ ~ + 75℃

Electrical Characteristics

Part Number	Frequency Range (GHz)	Impedance (Ω)	Insertion Loss dB(Max)	VSWR (Max)
BTAA0001506G0C4A24	DC~6GHz	50	-2.0	2

Physical Properties

Part Number	Connector Material	Cable	Color	Heat Shrink Tube	SMA	Connector
BTAA0001506G0C4A24	Brass;Gold Plated	1.37	Black	V	PR Straight Jack	IPEX-1

- Operating temperature range - 40℃ ~ + 70℃
- Storage temperature range - 40℃ ~ + 80℃

Electrical Characteristics

Part Number	Frequency Range (GHz)	Impedance (Ω)	Insertion Loss dB(Max)	VSWR (Max)
BTAA0000956G0C4A04	DC~6GHz	50	-2.0	2

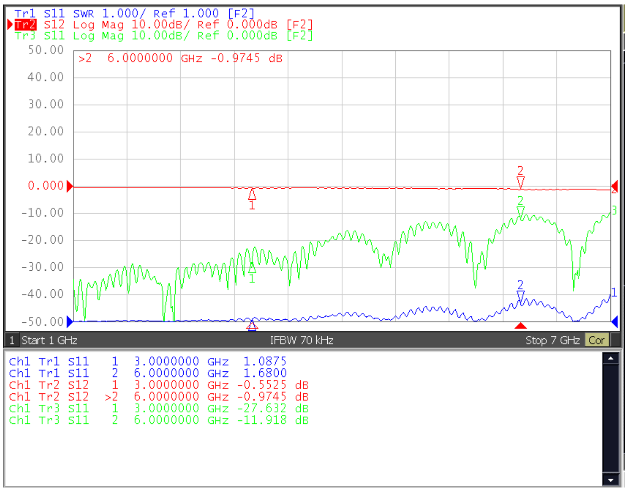
Physical Properties

Part Number	Connector Material	Cable	Color	Heat Shrink Tube	SMA	Connector
BTAA0000956G0C4A04	-	1.37	Black	V	Jack	IPEX-1

- Operating temperature range - 40℃ ~ + 85℃
- Storage temperature range - 40℃ ~ + 85℃

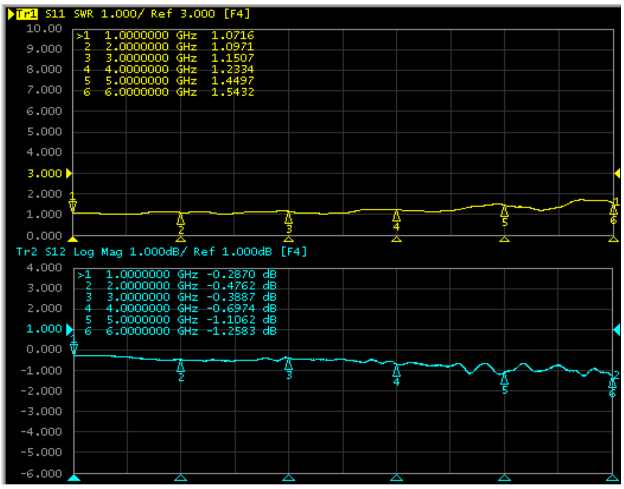
BTAA0000503G0C1A05

Insertion Loss



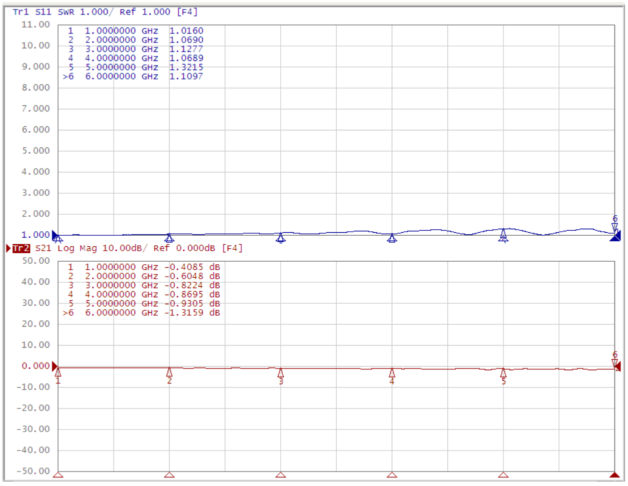
BTAA0000956G0C4A04

Insertion Loss / VSWR



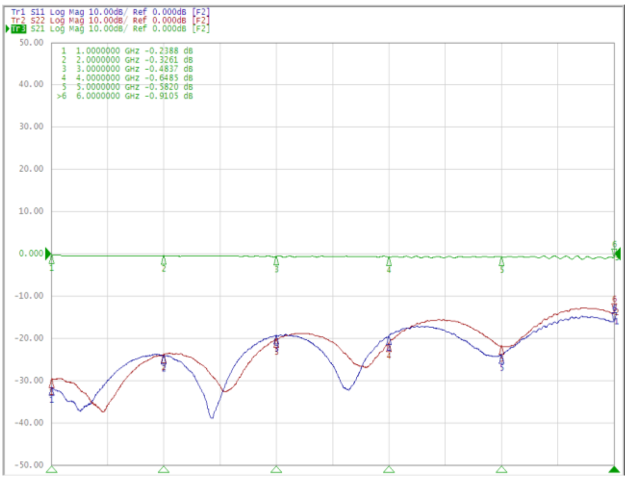
BTAA0001056G0C4A03

Insertion Loss / VSWR

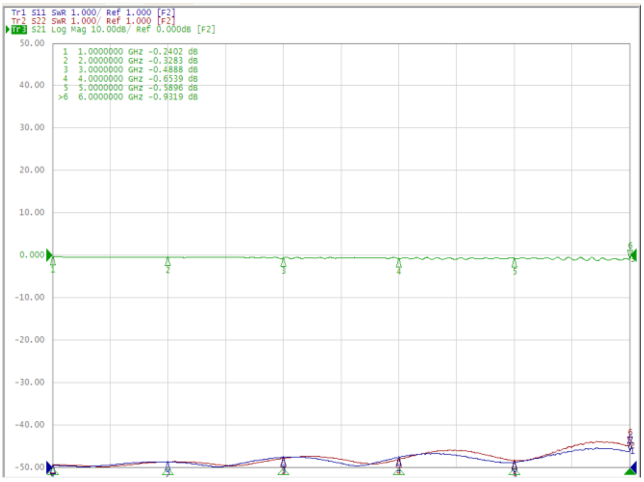


BTAA0001106G0C1A10

Insertion Loss



VSWR

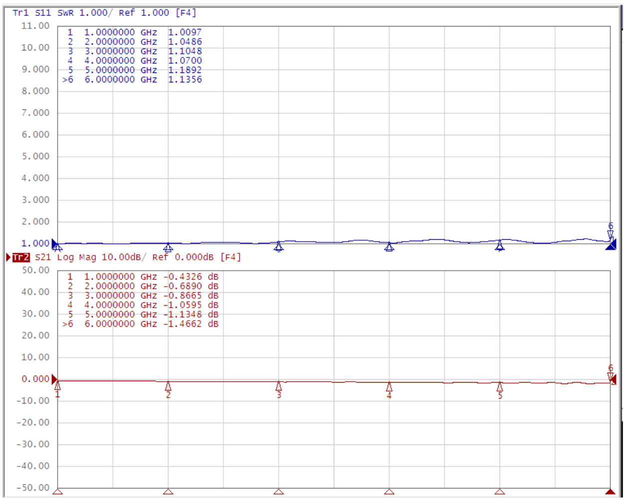


BTAA0001506G0C4A24

Insertion Loss

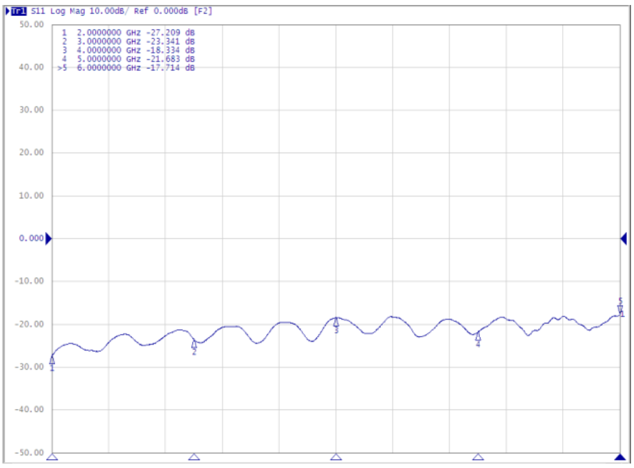
BTAA0001606G0C4A10

Insertion Loss / VSWR

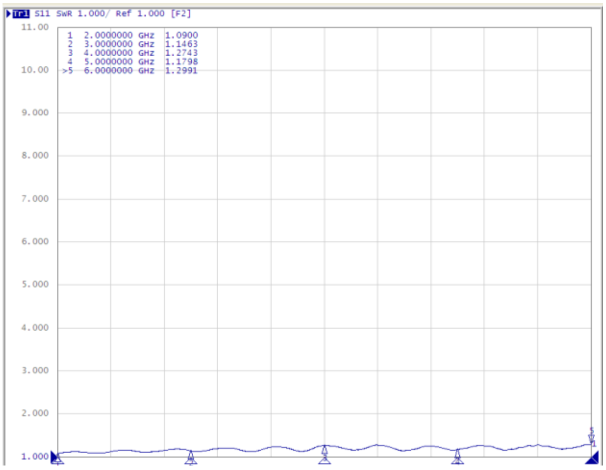


BTAA0002706G0C4A01

Insertion Loss



VSWR



BTLL Series

Chilisin offer multilayer devices of Low-Temperature Cofired Ceramics (LTCC) for applications in wireless communication as WLAN, Bluetooth etc. Our commitment is to meet your goals through extensive technological innovation, excellent quality, short lead time and high volume production capability.

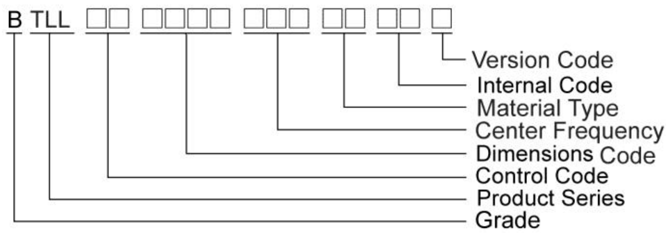
Features

- RoHS, Halogen Free and REACH Compliance
- Miniaturized.
- Low insertion loss, high attenuation.
- Eliminate noise over a wide frequency range. Idea for high frequency and space limited designs.

Applications

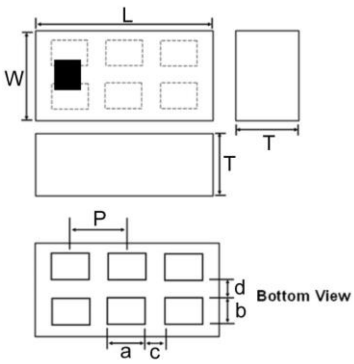
- WLAN ,Home RF, Bluetooth Module, WiMAX Modules, etc.

Product Identification



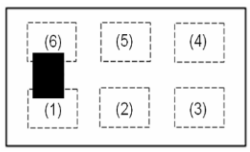
Shapes and Dimensions

FIG 1



Terminal Configuration

FIG 1.1



① NC ② GND ③ NC ④ OUT ⑤ GND ⑥ IN

FIG 2

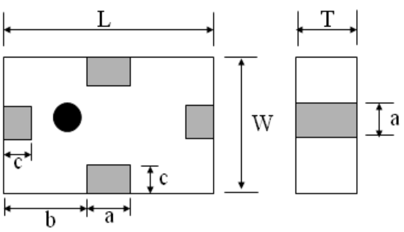
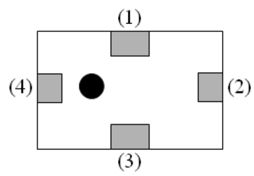


FIG 2.1



① GND ② OUT ③ GND ④ IN

Shapes and Dimensions

Terminal Configuration

FIG 3

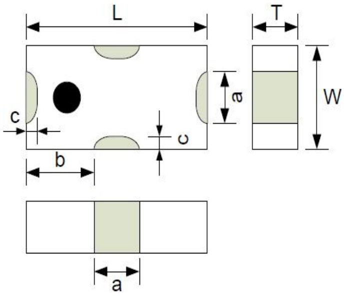
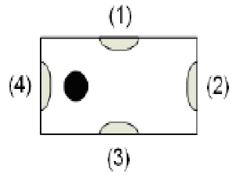


FIG 3.1



① GND ② OUT ③ GND ④ IN

FIG 4

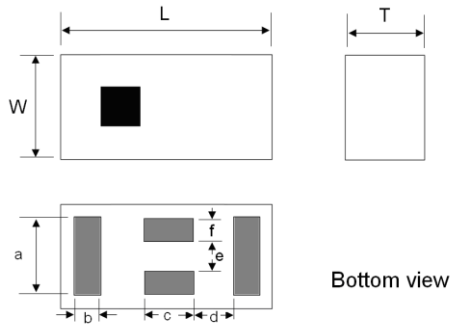
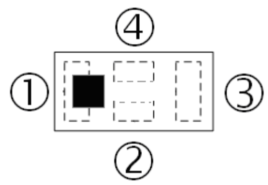


FIG 4.1~2



● 4.1	① I/O	② GND	③ I/O	④ GND
● 4.2	① Input	② GND	③ Output	④ GND

FIG 5

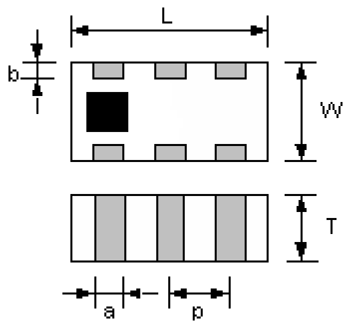
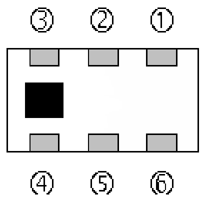


FIG 5.1~3



● 5.1	① IN	② GND	③ OUT	④ GND	⑤ OUT	⑥ GND
● 5.2	① GND	② IN	③ GND	④ GND	⑤ OUT	⑥ GND
● 5.3	① IN	② GND	③ OUT	④ NC	⑤ GND	⑥ NC

FIG 6

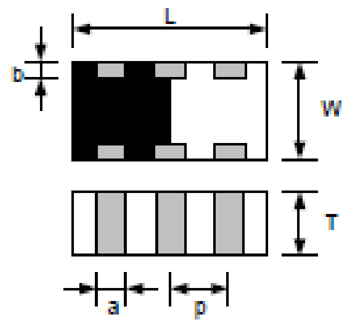
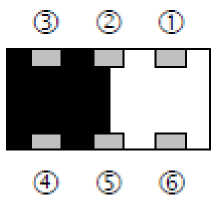


FIG 6.1



① GND ② IN ③ GND ④ GND ⑤ OUT ⑥ GND

FIG 7

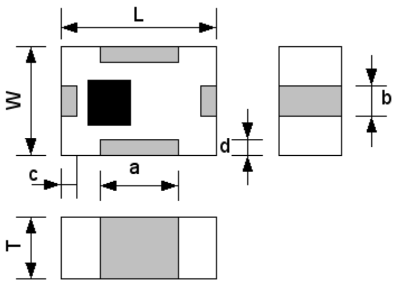
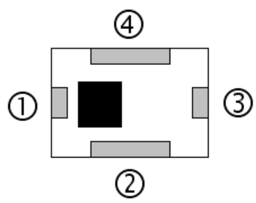


FIG 7.1



① IN ② GND ③ OUT ④ GND

Shapes and Dimensions

Terminal Configuration

FIG 8

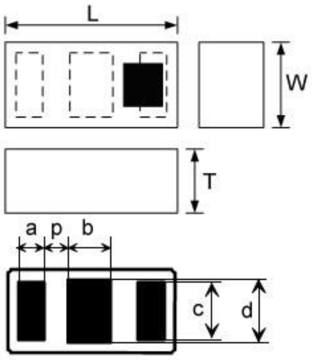
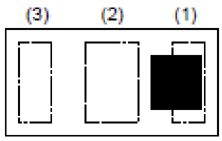


FIG 8.1



① IN ② GND ③ OUT

FIG 9

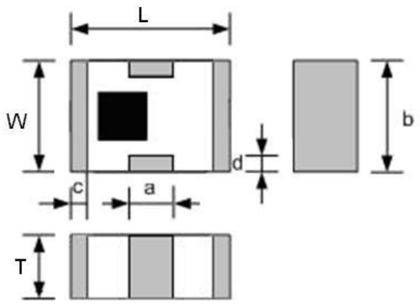
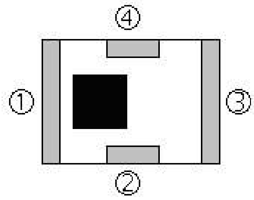


FIG 9.1



① IN ② GND ③ OUT ④ GND

FIG 10

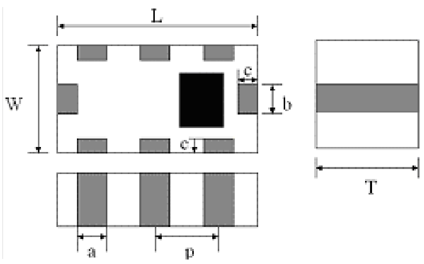
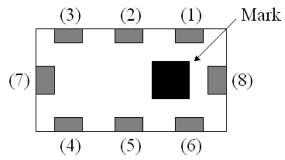


FIG 10.1



① GND ② NC ③ GND ④ GND
⑤ NC GND ⑦ OUT ⑧ IN

FIG 11

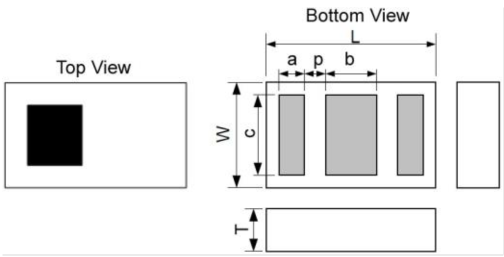
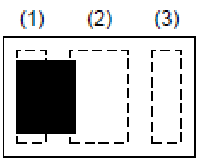


FIG 11.1



① IN ② GND ③ OUT

Dimension in mm

TYPE	FIG	L	W	T	a	b	c	d	P
BTLL0010050G9H6A30	1	1.0±0.05	0.5±0.05	0.4Max	0.18±0.05	0.125±0.05	0.18±0.05	0.15±0.05	0.36±0.05
BTLL0010051G7H6A10	1	1.0±0.05	0.5±0.05	0.4±0.1	0.18±0.05	0.125±0.05	0.18±0.05	0.15±0.05	0.36±0.05
BTLL001005EXVHBA10	1	1.0±0.05	0.5±0.05	0.38±0.05	0.18±0.05	0.125±0.05	0.18±0.05	0.15±0.05	0.36±0.05
BTLL001005EXVHBB10	1	1.0±0.05	0.5±0.05	0.38±0.05	0.18±0.05	0.125±0.05	0.18±0.05	0.15±0.05	0.36±0.05
BTLL0010052G4S1A30	2	1.0±0.05	0.5±0.05	0.4±0.05	0.3±0.1	0.35±0.1	0.15±0.05	-	-
BTLL0010052G4S1G20	3	1.0±0.05	0.5±0.05	0.4±0.05	0.3±0.1	0.35±0.1	0.15±0.05	-	-
BTLL0016080G8H6A30	5.1	1.6±0.1	0.8±0.1	0.6±0.1	0.2±0.1	0.15±0.1	$0.2^{+0.1}_{-0.15}$	-	0.5±0.05
BTLL0016082G4S1A10	6	1.6±0.15	0.8±0.1	0.65±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	-	-	0.55±0.1
BTLL0016082G4S1A30	7	1.6±0.1	0.8±0.1	0.6±0.1	0.7±0.15	$0.3^{+0.1}_{-0.15}$	0.15±0.1	0.15±0.1	-
BTLL0016082G4S1A50	5.2	1.6±0.15	0.8±0.1	0.6±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	-	-	0.55±0.1
BTLL0016082G4S1C10	5.2	1.6±0.15	0.8±0.1	0.65±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	-	-	0.55±0.1
BTLL0016082G4S1C20	5.3	1.6±0.1	0.8±0.1	0.6±0.1	0.2±0.1	$0.2^{+0.1}_{-0.15}$	0.15±0.1	-	0.5±0.05
BTLL0016082G5S1A20	5.2	1.6±0.15	0.8±0.1	0.65±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	-	-	0.55±0.1
BTLL0016082G7S1B10	8	1.6±0.1	0.8±0.1	0.65Max	0.25±0.1	0.4±0.1	0.55±0.1	0.6±0.1	0.23±0.05
BTLL0016083G5S1A20	5.1	1.6±0.1	0.8±0.1	0.6±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	-	0.55±0.1
BTLL0016083G6S1A10	5.2	1.6±0.15	0.8±0.1	0.65±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	-	-	0.55±0.1
BTLL0016085G5S1A20	9	1.6±0.1	0.8±0.1	0.6±0.1	0.5±0.1	0.8±0.1	0.2±0.1	0.2±0.1	-
BTLL0020120G9S1B20	10	2±0.1	1.25±0.1	0.85±0.1	0.3±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	-	0.65±0.1
BTLL0020122G0S1A20	11	1.6±0.1	0.8±0.1	0.65Max	0.25±0.1	0.4±0.1	0.55±0.1	-	0.6±0.1
BTLL0020125G5S1A20	10	2±0.2	1.25±0.2	0.9±0.1	$0.3^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.2±0.15	-	0.65±0.15

TYPE		L	W	T	a	b	c	d	e	f
BTLL0016080G8H6A10	4.1	1.6±0.1	0.8±0.1	0.6±0.1	0.65±0.1	0.225±0.05	0.4±0.05	0.3±0.05	0.21±0.05	0.225±0.05
BTLL001608JXVSBA30	4.1	1.6±0.1	0.8±0.1	0.6±0.1	0.65±0.1	0.225±0.05	0.4±0.05	0.3±0.05	0.21±0.05	0.22±0.05
BTLL001608DXVHBB10	4.2	1.6±0.1	0.8±0.1	0.6±0.1	0.65±0.1	0.225±0.05	0.4±0.05	0.3±0.05	0.21±0.05	0.22±0.05

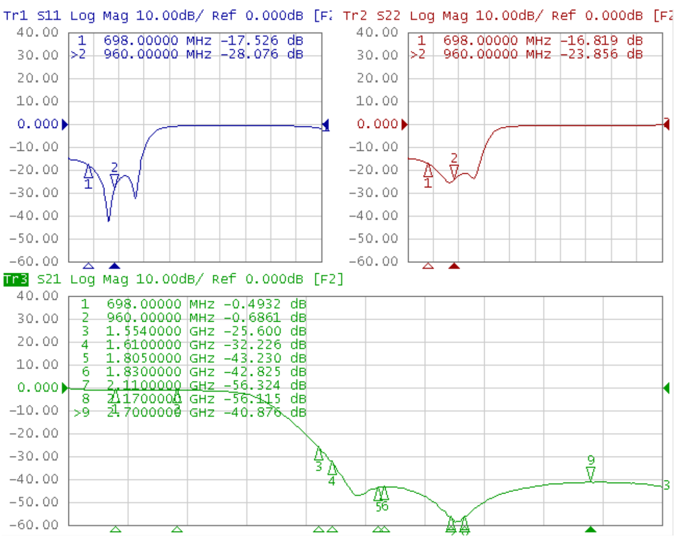
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Application
BTLL0010050G9H6A30	698~960	0.9	10	13dB Min.@ 1554~1610 MHz 35dB Min.@ 1805~1830 MHz 35dB Min.@ 2110~2170 MHz 30dB Min.@ 1710~2700 MHz	GSM/WCDMA/LTE
BTLL0010051G7H6A10	1695~2180	0.6	10	20dB Min.@ 3350~4360 MHz 45dB Min.@ 5085~6540 MHz	GSM/WCDMA/LTE
BTLL0010052G4S1A30	2400~2500	0.45(25℃)	11.7	21dB Min.@ 4800~5000 MHz	WLAN/BT
		0.55(-40~85℃)	-	21dB Min.@ 7200~7500 MHz	
BTLL0010052G4S1G20	2400~2500	0.75(25℃)	12.7	30dB Min.@ 4800~5000 MHz	WLAN/BT
		0.9(-40~85℃)	10	35dB Min.@ 7200~7500 MHz	
BTLL001005EXVHBA10	1880~2025	1.4(25℃) 1.6(-40~85℃)	10	10dB Min.@ 2400~2500 MHz 25dB Min.@ 3760~4050 MHz 25dB Min.@ 5150~5850 MHz 25dB Min.@ 5640~6075MHz 25dB Min.@ 7520~8100 MHz 22dB Min.@ 9400~10125 MHz	GSM/WCDMA/LTE
BTLL001005EXVHBB10	1710~2025	1.4(25℃) 1.6(-40~85℃)	10	10dB Min.@ 2400~2500 MHz 25dB Min.@ 3420~4050 MHz 25dB Min.@ 5150~5850 MHz 25dB Min.@ 5130~6075 MHz 25dB Min.@ 6840~8100 MHz 22dB Min.@ 8550~10125 MHz	GSM/WCDMA/LTE

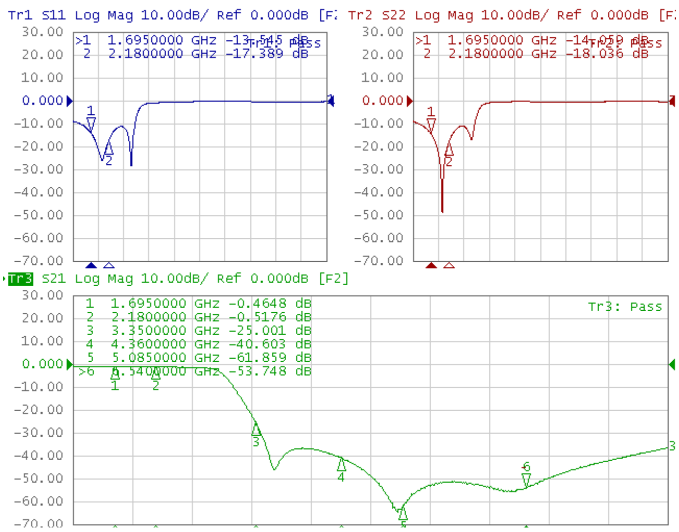
- Operating temperature range －40℃～85℃

Test Instruments：Agilent E5071C Network Analyzer

BTLL0010050G9H6A30

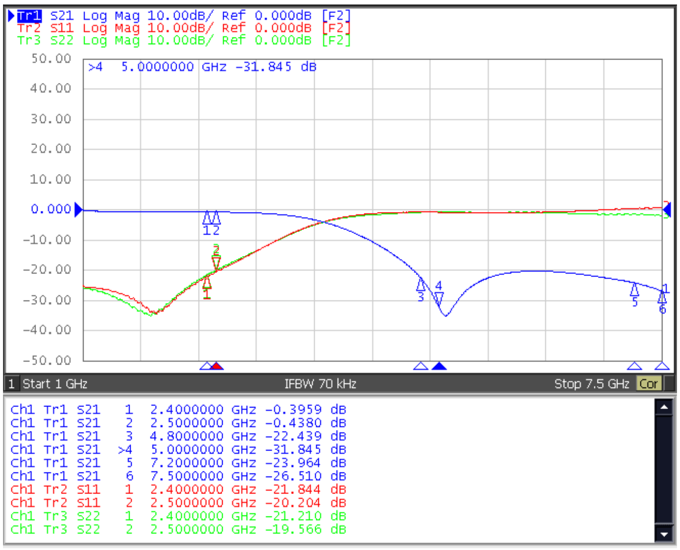


BTLL0010051G7H6A10

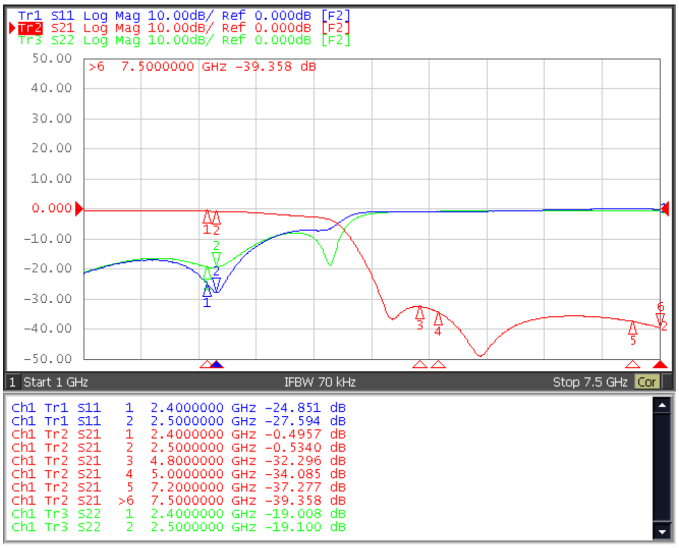


Test Instruments：Agilent E5071C Network Analyzer

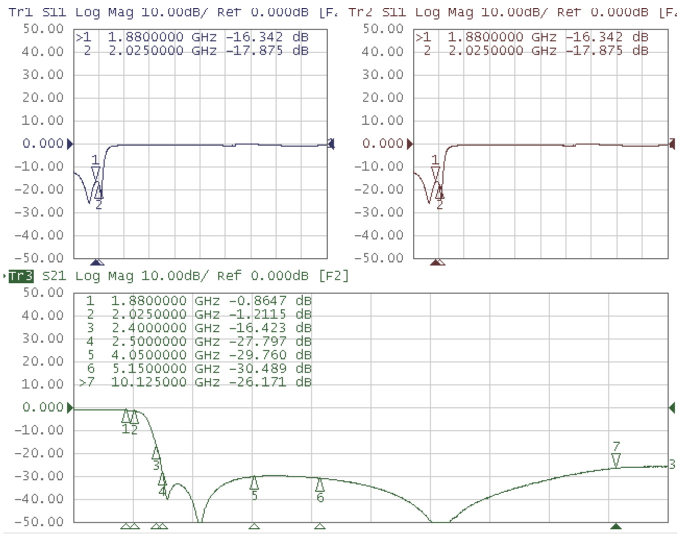
BTLL0010052G4S1A30



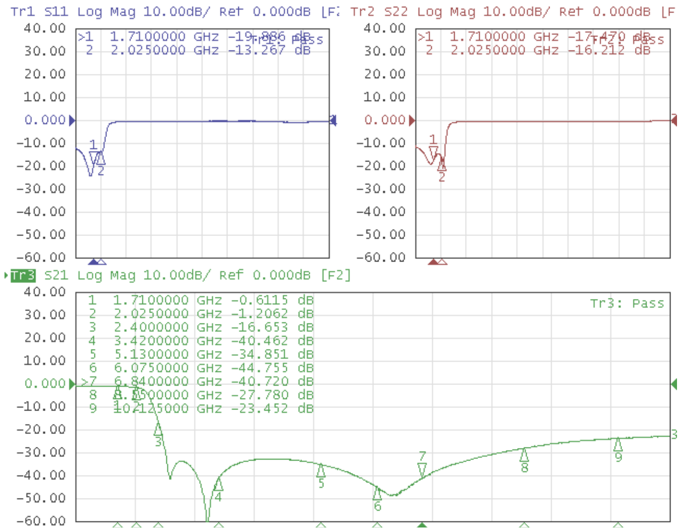
BTLL0010052G4S1G20



BTLL001005EXVHBA10



BTLL001005EXVHBB10



Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Application
BTLL0016080G8H6A10	690~960	0.9(25℃) 1.1(-40~85℃)	10	20dB Min.@ 1350~1920 MHz 48dB Min.@ 2070~2880 MHz	GSM/WCDMA/LTE
BTLL0016080G8H6A30	699~787 787~960	0.6 0.7	10	30dB Min.@ 1427~1920 MHz 30dB Min.@ 2097~2880 MHz	GSM/WCDMA/LTE
BTLL0016082G4S1A10	2400~2500	0.55	10	25dB Min.@ 4800~5000 MHz 20dB Min.@ 7200~7500 MHz	WLAN/BT
BTLL0016082G4S1A30	2300~2690	0.8	10	25dB Min.@ 4600~5400 MHz 25dB Min.@ 6900~8070 MHz	WLAN/BT
BTLL0016082G4S1A50	2400~2500	1	10	15dB Min.@ 3200 MHz 20dB Min.@ 3600 MHz 25dB Min.@ 4800~5000 MHz 20dB Min.@ 7200~7500 MHz	WLAN/BT
BTLL0016082G4S1C10	2400~2500	0.48	14	35dB Min.@ 4800~5000 MHz 27dB Min.@ 7200~7500 MHz	WLAN/BT
BTLL0016082G4S1C20	2400~2500	0.5	10	27dB Min.@ 4800~5000 MHz 30dB Min.@ 7200~7500 MHz	WLAN/BT
BTLL0016082G5S1A20	2400~2700	0.45	10	30dB Min.@ 4800~5400 MHz 23dB Min.@ 7200~8100 MHz	WLAN/BT
BTLL0016082G7S1B10	673~2690	0.5(25℃) 0.7(-40~85℃)	10	35dB Min.@ 4950~6000 MHz 37dB Min.@ 6000~7500 MHz 23dB Min.@ 7500~8100 MHz 20dB Min.@ 8100~12500 MHz	LTE
BTLL0016083G5S1A20	3300~3800	0.5	10	17dB Min.@ 6600~7600 MHz 20dB Min.@ 9900~11400 MHz	WiMAX
BTLL0016083G6S1A10	3300~3800	0.55	10	35dB Min.@ 6600~7600 MHz 25dB Min.@ 9900~11400 MHz	WiMAX
BTLL0016085G5S1A20	4900~5950	0.7	10	20dB Min.@ 9800 MHz 30dB Min.@ 11900 MHz	WLAN
BTLL001608JXVSBA30	699~2690	0.18(0.15Typ)	15	23dB Min./ 25.7dB Typ.@ 5150~5960 MHz	LTE/WLAN/BT

- Operating temperature range －40℃～85℃

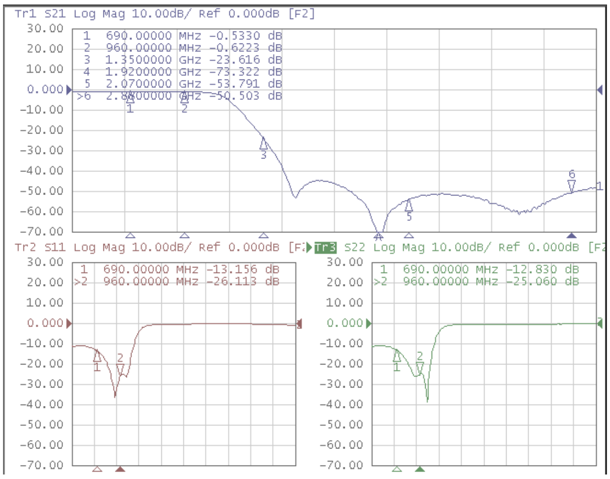
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Application
BTLL001608DXVHBB10	450~698	0.5(0.23Typ)	10(16Typ)	30dB Min./ 35dB Typ.@ 1574~1605 MHz 30dB Min./ 51dB Typ.@ 1648~1698 MHz 30dB Min./ 47dB Typ.@ 1760~1830 MHz 25dB Min./ 29dB Typ.@ 2472~2494 MHz 13dB Min./ 28dB Typ.@ 2495~2547 MHz 30dB Min./ 34dB Typ.@ 5280~5490 MHz 25dB Min./ 29dB Typ.@ 5768~5943 MHz 20dB Min./ 26dB Typ.@ 6160~6405 MHz 18dB Min./ 24dB Typ.@ 6592~6792 MHz 17dB Min./ 21dB Typ.@ 7040~7320 MHz	GSM/WCDMA/LTE
	698~960	0.6(0.48Typ)	16(21Typ)	18dB Min./ 28dB Typ.@ 2640~2745 MHz 16dB Min./ 30dB Typ.@ 3296~3396 MHz 21dB Min./ 31dB Typ.@ 3520~3660 MHz 28dB Min./ 37dB Typ.@ 4120~4245 MHz 32dB Min./ 42dB Typ.@ 4400~4575 MHz 33dB Min./ 39dB Typ.@ 4944~5094 MHz 14dB Min./ 20dB Typ.@ 7416~7614 MHz 4dB Min./ 16dB Typ.@ 7902~8235 MHz	

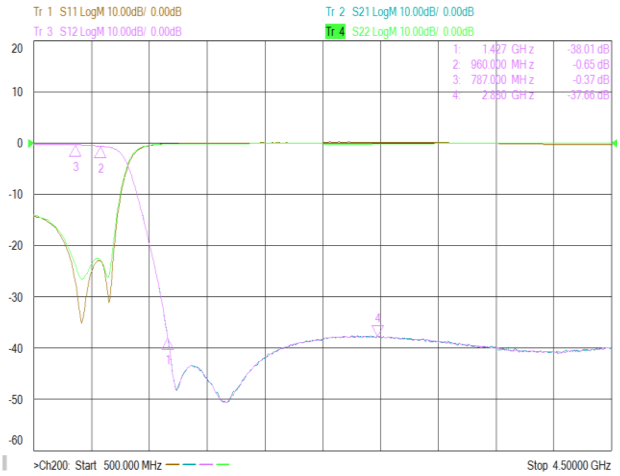
- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071A Network Analyzer

BTLL0016080G8H6A10

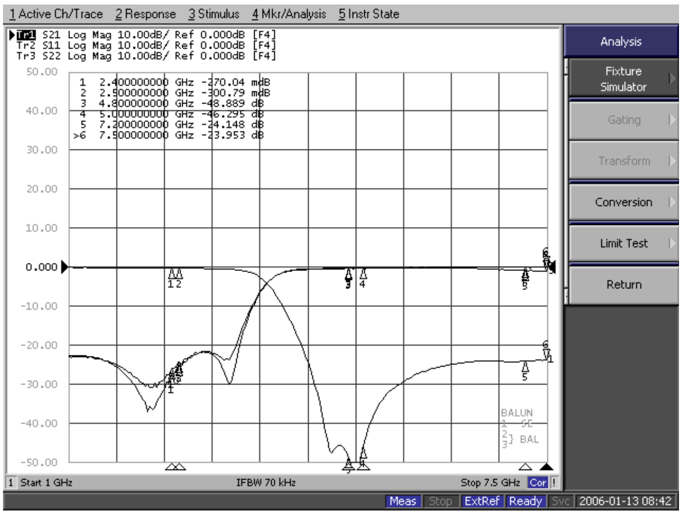


BTLL0016080G8H6A30

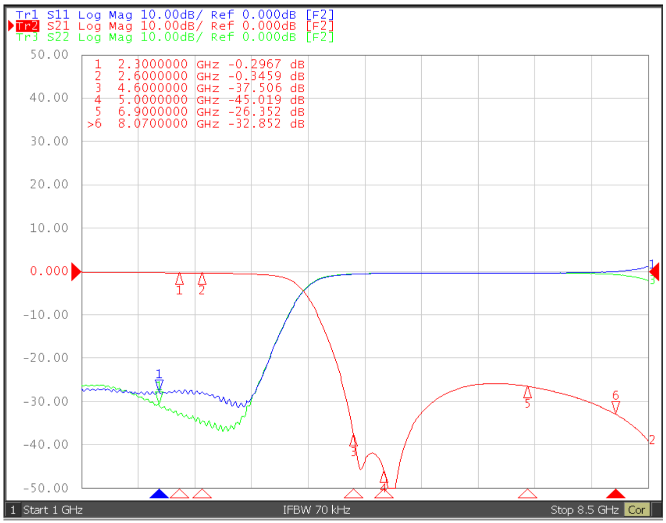


Test Instruments： Agilent E5071A Network Analyzer

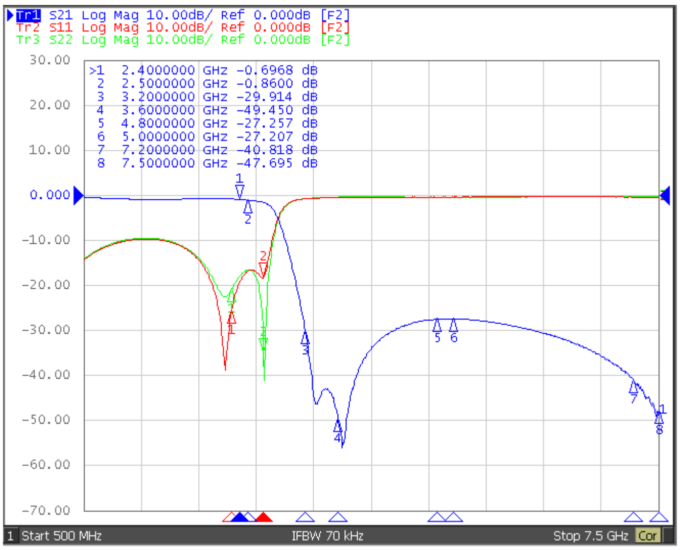
BTLL0016082G4S1A10



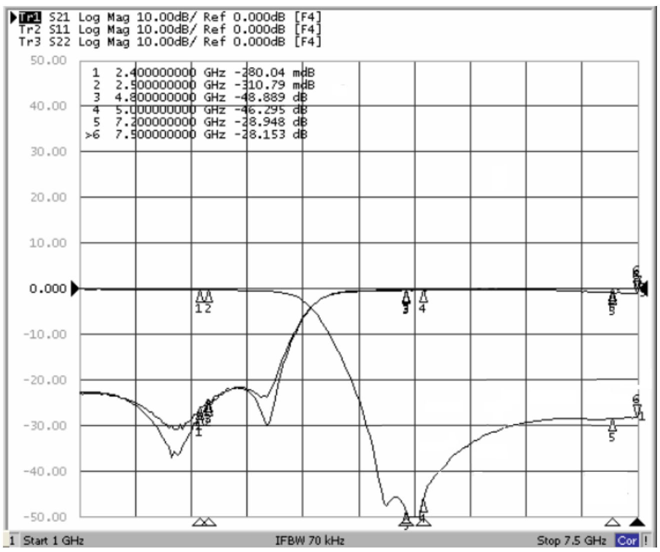
BTLL0016082G4S1A30



BTLL0016082G4S1A50



BTLL0016082G4S1C10



Test Instruments： Agilent E5071A Network Analyzer

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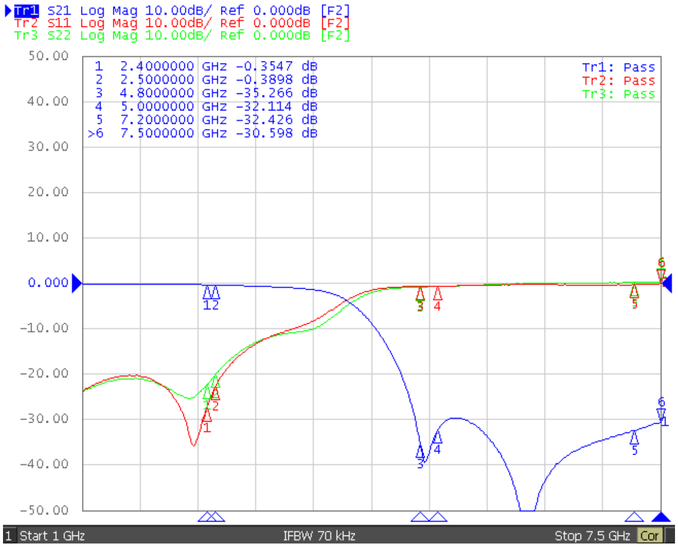
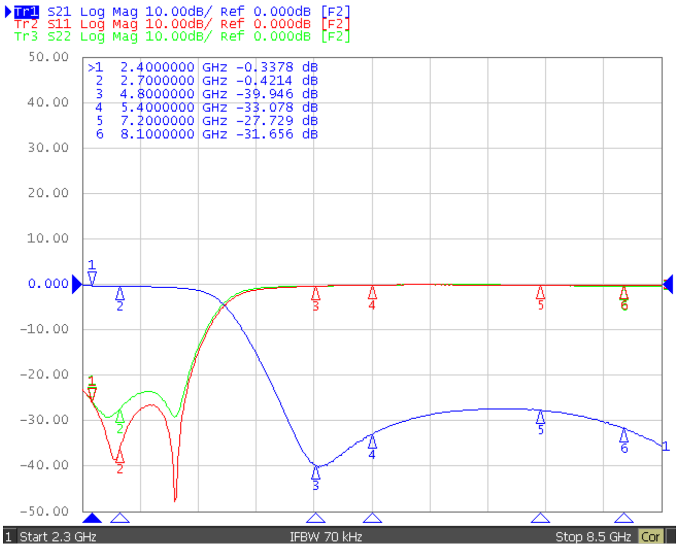
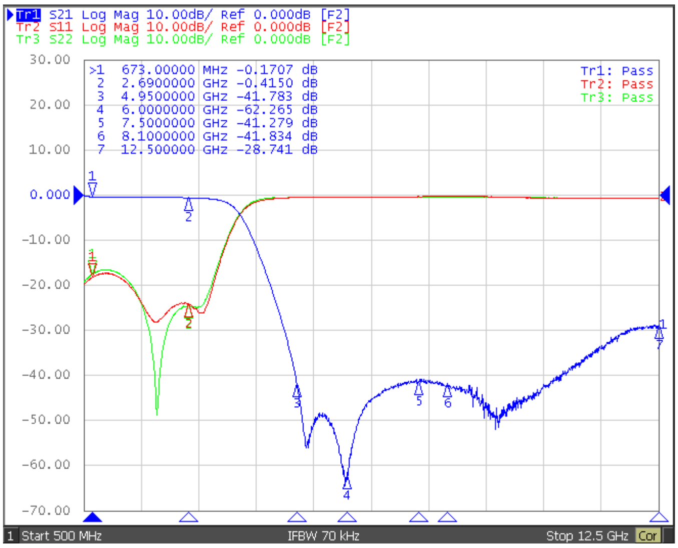


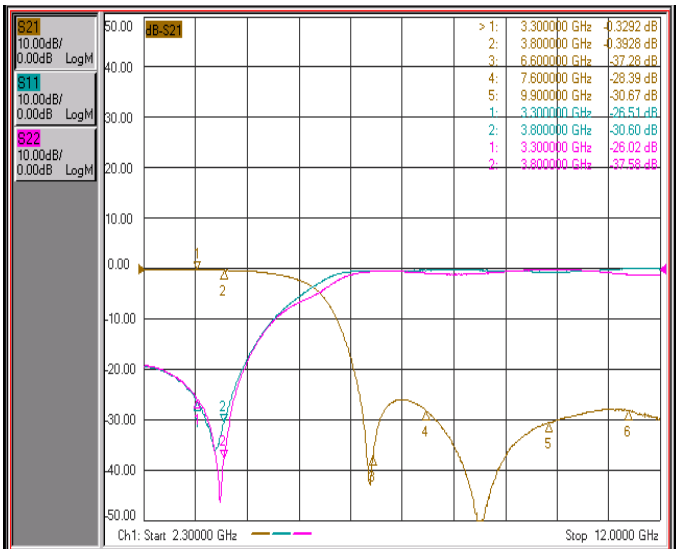
BTLL0016082G5S1A20



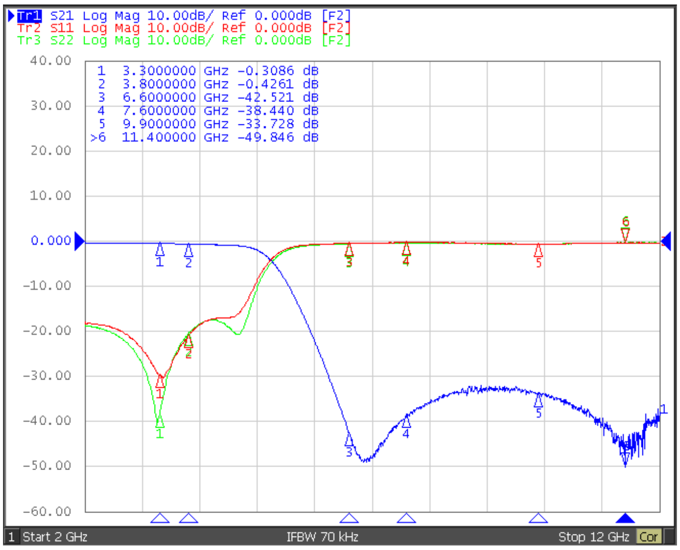
BTLL0016082G7S1B10



BTLL0016083G5S1A20



BTLL0016083G6S1A10



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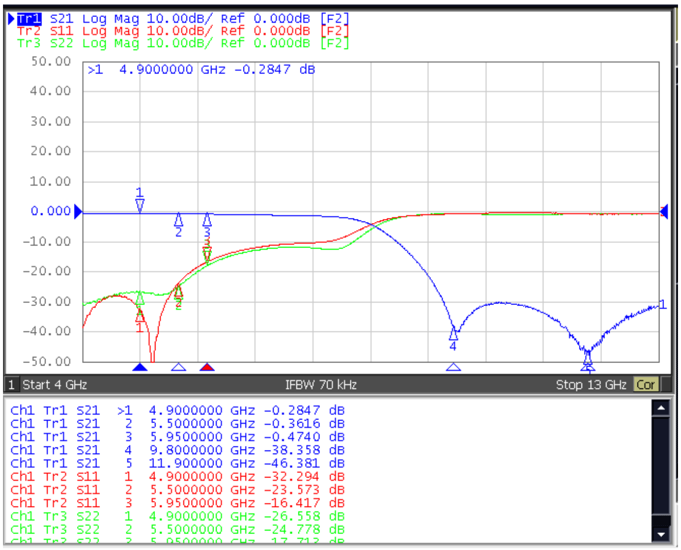
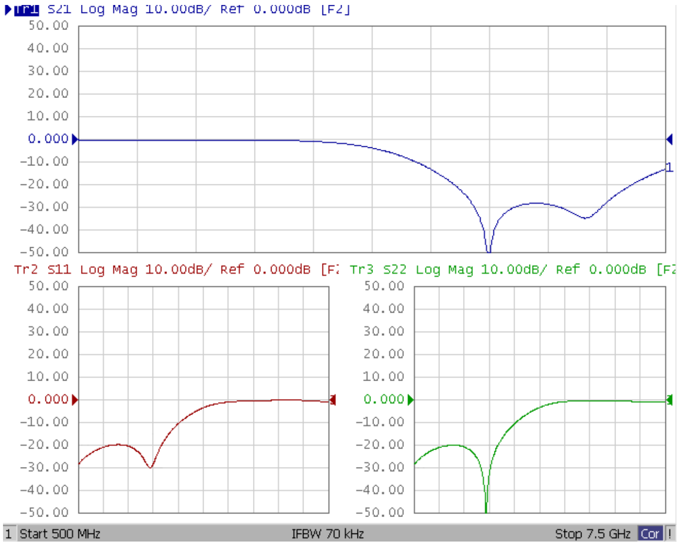
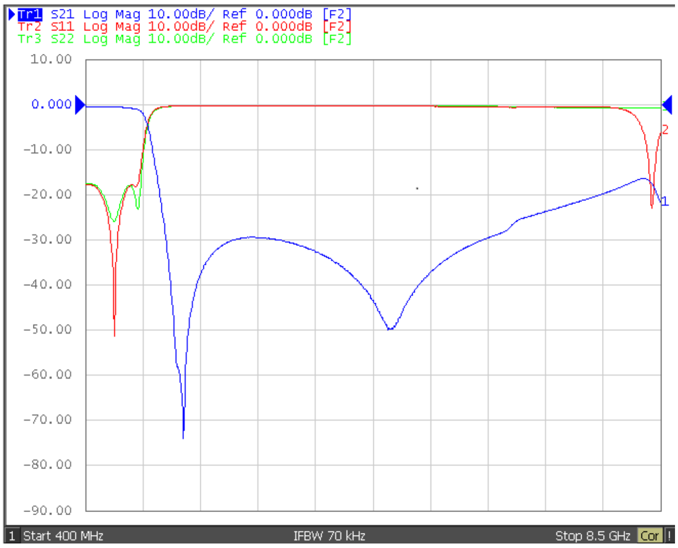


Test Instruments：Agilent E5071A Network Analyzer

BTLL001608JXVSBA30



BTLL001608DXVHBB10



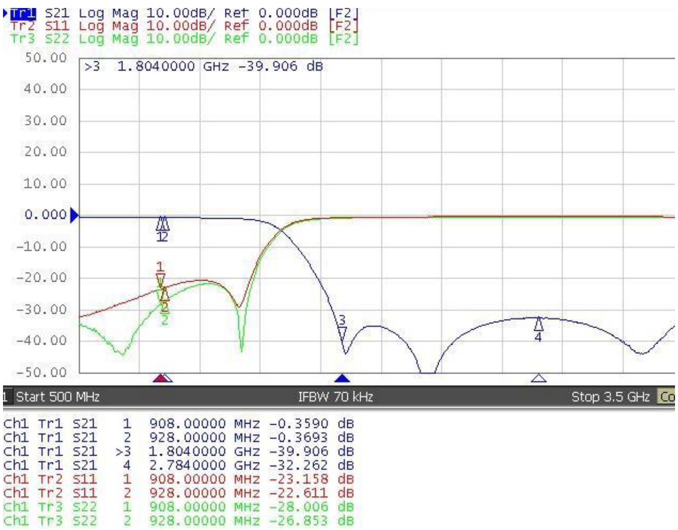
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Application
BTLL0020120G9S1B20	902~928	0.65	10	25dB Min.@ 2 x f0 25dB Min.@ 3 x f0	zigbee
BTLL0020122G0S1A20	1880~2025	1.4	10	30dB Min.@ 2400~2500 MHz 25dB Min.@ 4020~4045 MHz 30dB Min.@ 6030~6075 MHz	LTE
BTLL0020125G5S1A20	5149~5875	0.7	10	30dB Min.@ 2 x(f0±363)MHz 20dB Min.@ 3 x(f0±363)MHz	WLAN

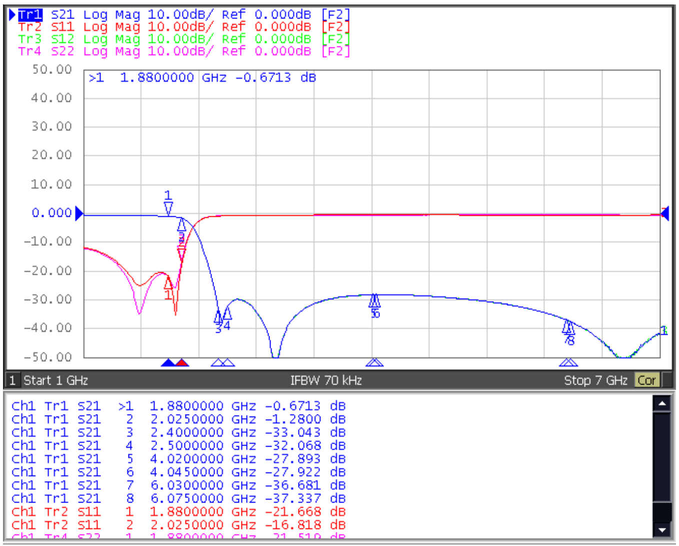
- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071A Network Analyzer

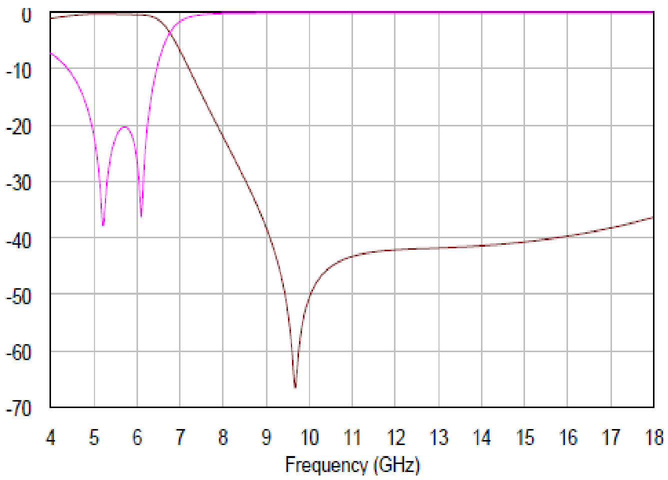
BTLL0020120G9S1B20



BTLL0020122G0S1A20

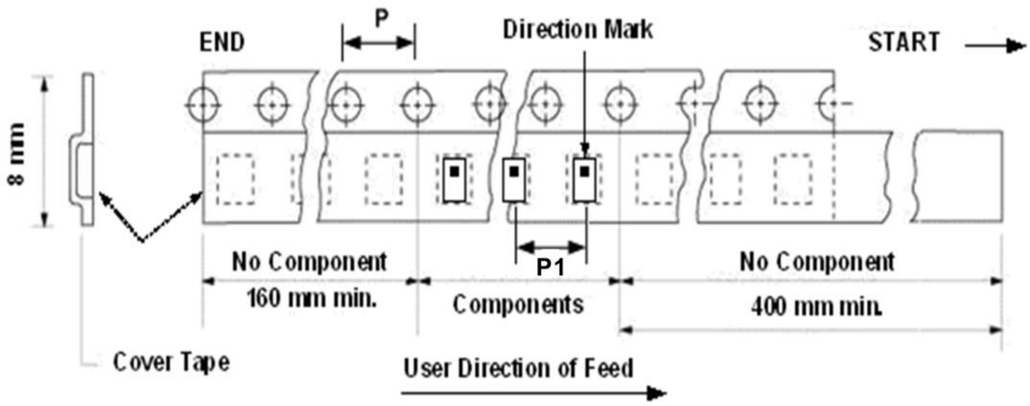


BTLL0020125G5S1A20

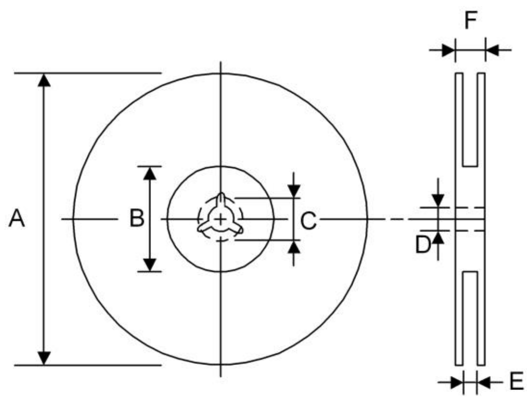


Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions		Reel Dimensions						Quantity
	P	P1	A	B	C	D	E	F	PCS / REEL
BTLL001005	4	2	178	60	-	13	9	12	10000
BTLL001608	4	4	178	60	-	13	9	12	4000
BTLL002012	4	4	178	60	-	13	9	12	4000

BTLB Series

Chilisin offer multilayer devices of Low-Temperature Cofired Ceramics (LTCC) for applications in wireless communication as WLAN, Bluetooth etc. Our commitment is to meet your goals through extensive technological innovation, excellent quality, short lead time and high volume production capability.

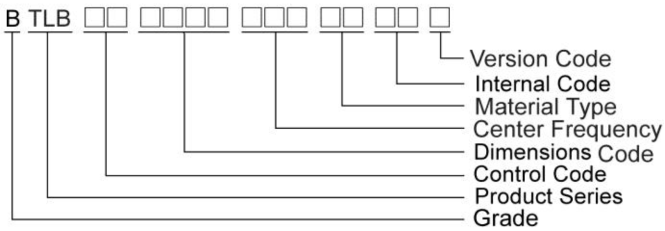
Features

- RoHS, Halogen Free and REACH Compliance
- Miniaturized.
- Low insertion loss, high attenuation.
- Eliminate noise over a wide frequency range. Idea for high frequency and space limited designs.

Applications

- WLAN ,Home RF, Bluetooth Module, WiMAX Modules, etc.

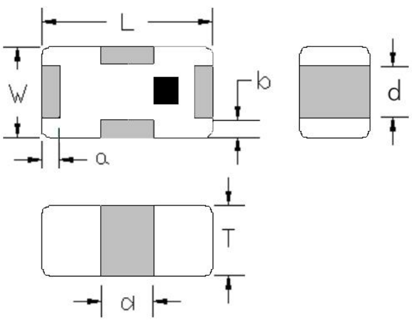
Product Identification

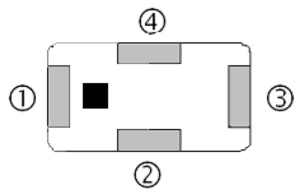


Shapes and Dimensions

Terminal Configuration

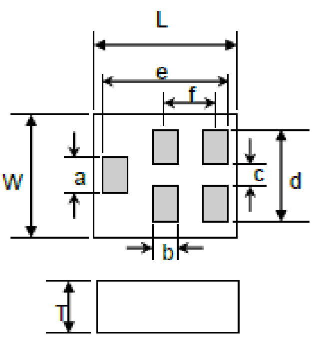
FIG 1

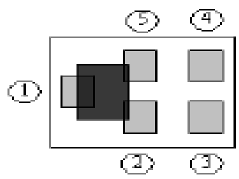




① IN ② GND ③ OUT ④ GND

FIG 2





① IN ② GND ③ GND ④ OUT ⑤ GND

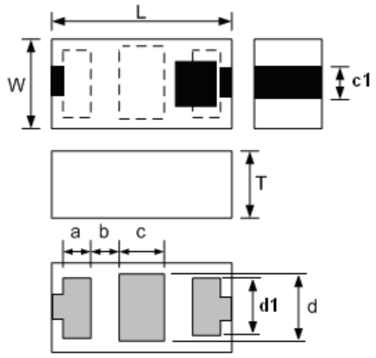
Dimension in mm

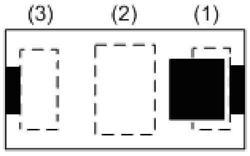
TYPE	FIG	L	W	T	a	b	c	d
BTLB0010052G4H6A40	1	1.0±0.1	0.5±0.1	0.4±0.1	0.1±0.05	0.1±0.05	0.3±0.1	0.3±0.1
BTLB0010052G4H6B60	1	1.0±0.1	0.5±0.1	0.4±0.1	0.1±0.05	0.1±0.05	0.3±0.1	0.3±0.1

TYPE	FIG	L	W	T	a	b	c	d	e	f
BTLB0014112G4H6A30	2	1.4±0.1	1.2±0.1	0.5±0.05	0.325±0.05	0.25±0.05	0.25±0.05	0.9±0.1	1.25±0.1	0.5±0.05

Shapes and Dimensions | **Terminal Configuration**

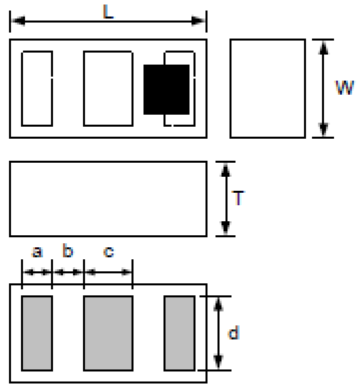
FIG 3

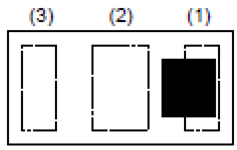




① IN ② GND ③ OUT

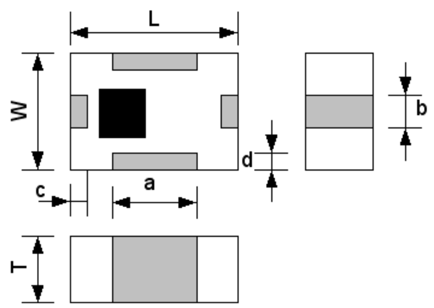
FIG 4

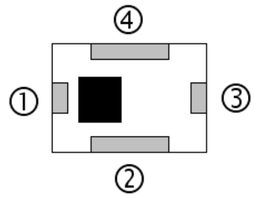




① IN ② GND ③ OUT

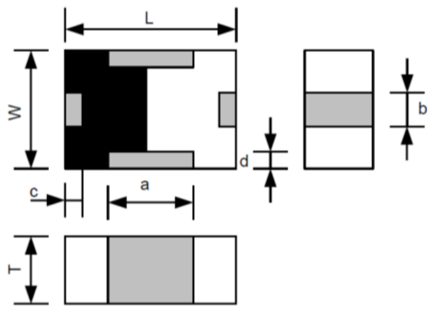
FIG 5

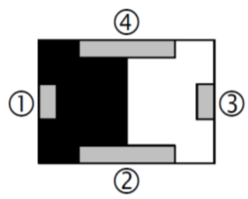




① IN ② GND ③ OUT ④ GND

FIG 6

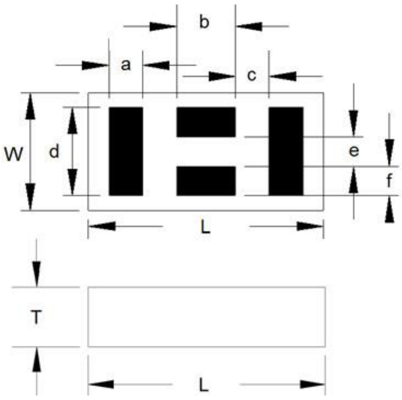


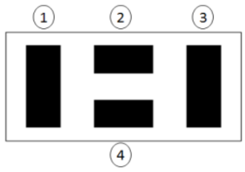


① IN ② GND ③ OUT ④ GND

Shapes and Dimensions **Terminal Configuration**

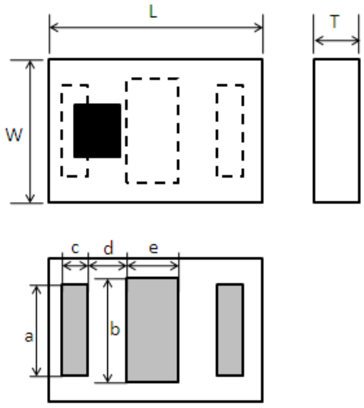
FIG 7

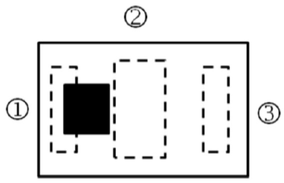




- 7.1 ① I/O ② GND ③ I/O ④ GND
- 7.2 ① IN ② GND ③ OUT ④ GND

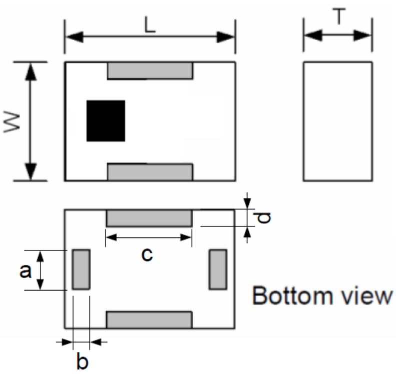
FIG 8

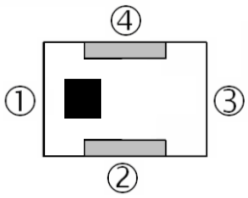




- 8.1 ① IN ② GND ③ OUT
- 8.2 ① I/O ② GND ③ I/O

FIG 9





① IN ② GND ③ OUT ④ GND

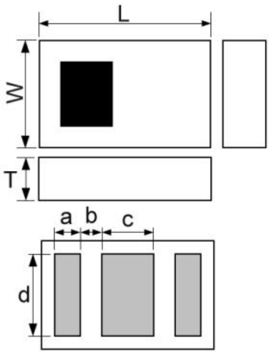
Dimension in mm

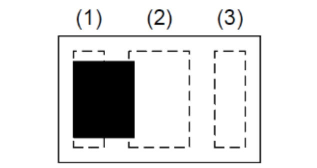
TYPE	FIG	L	W	T	a	b	c	c1	d	d1
BTLB0016082G4H6BU0	3	1.6±0.1	0.8±0.1	0.6±0.05	0.25±0.1	0.23±0.1	0.4±0.1	0.3±0.15	0.6±0.1	0.55±0.
TYPE	**FIG**	**L**	**W**	**T**	**a**	**b**	**c**	**d**	**e**	**f**
BTLB0016082G4H6DN0	4	1.6±0.1	0.8±0.1	0.6±0.1	0.25±0.1	0.25±0.1	0.5±0.1	0.6±0.1	-	-
BTLB0016082G4H6DQ0	5	1.6±0.1	0.8±0.1	0.6±0.1	0.7±0.15	$0.3^{+0.1}_{-0.15}$	0.15±0.1	0.15±0.1	-	-
BTLB0016082G4H6H10	5	1.6±0.1	0.8±0.1	0.6±0.1	0.7±0.15	$0.3^{+0.1}_{-0.15}$	0.15±0.1	0.15±0.1	-	-
BTLB0016082G4S1A10	6	1.6±0.1	0.8±0.1	0.6±0.1	0.7±0.15	$0.3^{+0.1}_{-0.15}$	0.15±0.1	0.15±0.1	-	-
BTLB001608HXVHBA10	7.1	1.6±0.1	0.8±0.1	0.7±0.05	0.23±0.5	0.4±0.1	0.23±0.1	0.6±0.1	0.2±0.05	0.2±0.0
BTLB001608HXVHBA20	7.2	1.6±0.15	0.8±0.15	0.7±0.05	0.25±0.5	0.4±0.1	0.23±0.1	0.55±0.1	0.21±0.05	0.2±0.0
BTLB0016083G6H6C10	6	1.6±0.1	0.8±0.1	0.6±0.1	0.7±0.15	$0.3^{+0.1}_{-0.15}$	0.15±0.1	0.15±0.1	-	-
BTLB0016085G5H6A00	5	1.6±0.1	0.8±0.1	0.6±0.1	0.7±0.15	$0.3^{+0.1}_{-0.15}$	0.15±0.1	0.15±0.1	-	-
BTLB0016085G5H6A80	8	1.6±0.1	0.8±0.1	0.6±0.1	0.55±0.1	0.6±0.1	0.25±0.1	0.23±0.1	0.4±0.1	
BTLB0016085G5H6A90	8	1.6±0.1	0.8±0.1	0.6Max	0.55±0.1	0.6±0.1	0.25±0.1	0.23±0.1	0.4±0.1	
BTLB0016085G5H6F90	8	1.6±0.1	0.8±0.1	0.6±0.1	0.55±0.1	0.6±0.1	0.25±0.1	0.23±0.1	0.4±0.1	
BTLB001608LXVKBA10	8	1.6±0.15	0.8±0.15	0.6±0.1	0.55±0.1	0.6±0.1	0.25±0.1	0.23±0.05	0.4±0.1	-
BTLB001608LXVKBA20	8	1.6±0.1	0.8±0.1	0.65Max	0.55±0.1	0.6±0.1	0.25±0.1	0.23±0.1	0.4±0.1	-
BTLB001608LXVKBB20	8	1.6±0.1	0.8±0.1	0.65Max	0.55±0.1	0.6±0.1	0.25±0.1	0.23±0.1	0.4±0.1	-
BTLB001608LXVKBA30	4	1.6±0.15	0.8±0.1	0.65Max	0.25±0.1	0.23±0.1	0.4±0.1	0.55±0.1	-	-
BTLB0016085G5S1B10	9	1.6±0.1	0.8±0.1	0.6±0.1	0.3±0.1	0.15±0.05	0.7±0.15	0.15±0.1	-	-
BTLB001608OXVHBA10	8.2	1.6±0.1	0.8±0.1	0.35Max	0.55±0.05	0.6±0.05	0.25±0.05	0.23±0.05	0.4±0.05	-
BTLB001608NXVHBA10	8.2	1.6±0.1	0.8±0.1	0.35Max	0.55±0.05	0.6±0.05	0.25±0.05	0.23±0.05	0.4±0.05	-

Shapes and Dimensions

Terminal Configuration

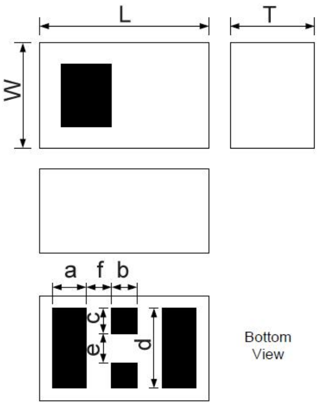
FIG 10

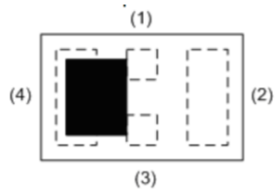




① IN ② GND ③ OUT

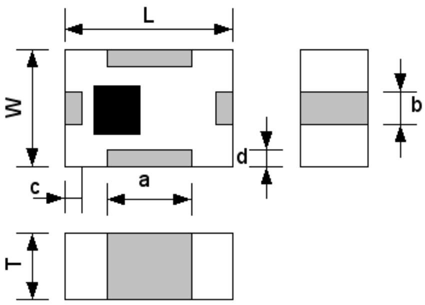
FIG 11

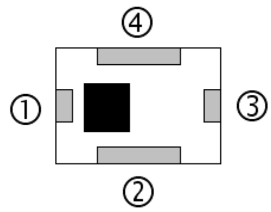




① IN ② GND ③ OUT ④ GND

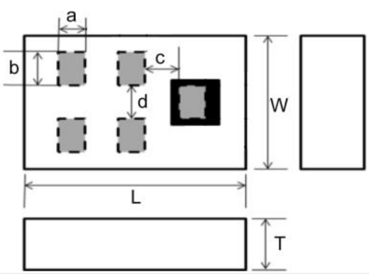
FIG 5

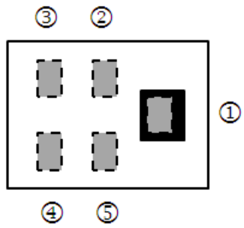




① IN ② GND ③ OUT ④ GND

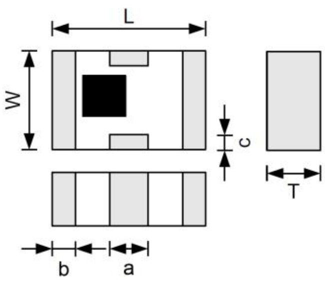
FIG 12

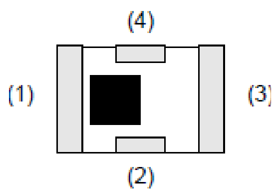




① IN ② GND ③ GND ④ OUT ⑤ GND

FIG 13





① GND ② IN ③ GND ④ OUT

Dimension in mm

TYPE	FIG	L	W	T	a1	a2	a3	e1
BTLB0020122G4H6A00	10	2±0.15	1.25±0.1	0.45±0.05	0.275±0.1	0.6±0.1	0.95±0.1	0.25±0.05
BTLB0020122G4H6BD0	10	2±0.15	1.25±0.1	0.8±0.05	0.275±0.1	0.6±0.1	0.95±0.1	0.25±0.05
BTLB0020122G4H6C00	10	2±0.15	1.25±0.1	0.45±0.05	0.275±0.1	0.6±0.1	0.95±0.1	0.25±0.05

TYPE	FIG	L	W	T	a	b	c	d	e	f
BTLB0020122G4H6A80	11	2±0.15	1.25±0.1	0.9±0.1	0.4	0.3	0.3	0.95	0.35	0.3
BTLB0020122G4H6A90	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	0.3±0.2	-	-
BTLB0020122G4H6AH0	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	0.3±0.2	-	-
BTLB0020122G4H6AS0	12	2±0.15	1.25±0.1	1.0Max	0.175±0.1	0.275±0.1	0.25±0.05	0.25±0.05	-	-
BTLB0020122G4H6AR0	12	2±0.2	1.25±0.2	0.6Max	0.25±0.05	0.325±0.05	0.25±0.05	0.25±0.05		-
BTLB0020122G4H6B50	13	2±0.15	1.25±0.1	0.55±0.1	0.4±0.2	0.3±0.2	0.3±0.2	-	-	-
BTLB0020122G4H6B90	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	0.3±0.2	-	-
BTLB0020122G4H6D30	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	0.3±0.2	-	-
BTLB0020122G4S1A10	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	0.3±0.2	-	-
BTLB0020125G5H6A80	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	0.3±0.2	-	-
BTLB0020125G5H6B30	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	0.3±0.2	-	-
BTLB0020125G5H6C50	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	0.3±0.2	-	-
BTLB0020125G5H6C80	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	0.3±0.2	-	-
BTLB0020125G5H6D10	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	-	-
BTLB0020125G5H6D80	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	0.3±0.2	-	-
BTLB0020125G5H6E80	5	2±0.15	1.25±0.15	0.95±0.1	$1.6^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.3±0.2	0.3±0.2	-	-

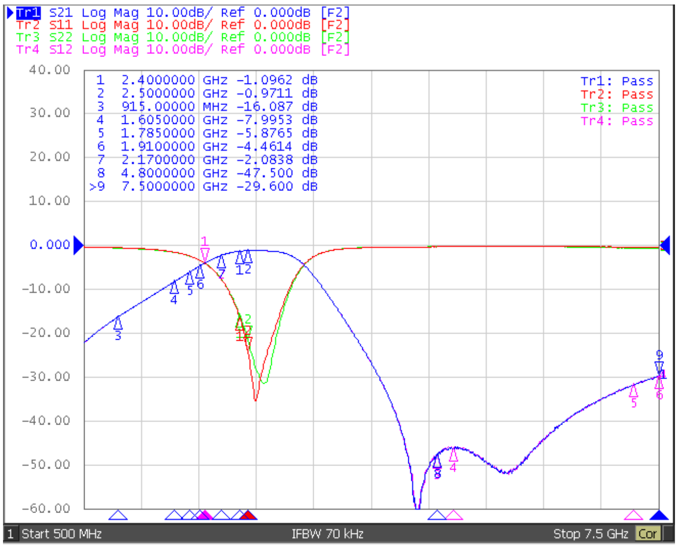
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Application
BTLB0010052G4H6A40	2400~2500	1.5	9	13dB Min.@ 824~915 MHz 5dB Min.@ 15451605 MHz 3.5dB Min.@ 1710~1785 MHz 2dB Min.@ 1850~1910 MHz 1.5dB Min.@ 1920~1980 MHz 0.5dB Min.@ 2110~2170 MHz 34dB Min.@ 4800~5000 MHz 27dB Min.@ 7200~7500 MHz	WLAN/BT
BTLB0010052G4H6B60	2400~2500	2.5	10	25dB Min.@ 824~960 MHz 20dB Min.@ 1710~1910 MHz 30dB Min.@ 4800~5000 MHz 18dB Min.@ 7200~7500 MHz	WLAN/BT

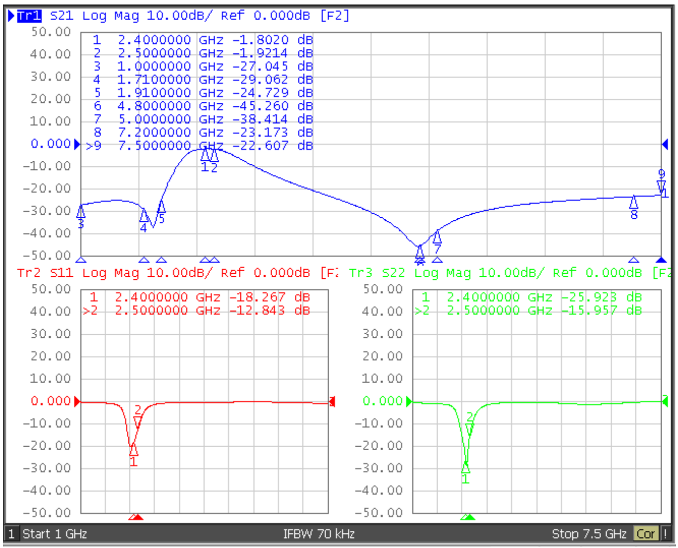
- Operating temperature range －40℃～85℃

Test Instruments：Agilent E5071C Network Analyzer

BTLB0010052G4H6A40



BTLB0010052G4 H6B60



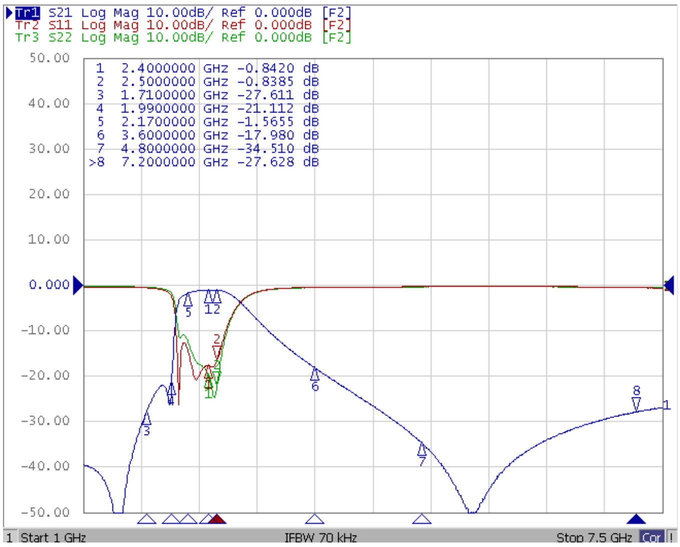
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Application
BTLB0014112G4H6A30	2400~2500	1.1	14	20dB Min.@ 50~960 MHz 10dB Min.@ 1710~1990 MHz 15dB Min.@ 3600 MHz 25dB Min.@ 4800~7200 MHz	WLAN/BT

- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071C Network Analyzer

BTLB0014112G4H6A30



Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Ripple (dB)Max	Attenuation	Application
BTLB0016082G4H6BU0	2400~2500	25℃ 0.95 -40~85℃ 1.35	10	0.5	20dB Min.@ 500~960 MHz 23dB Min.@ 3200 MHz 30dB Min.@ 4800~5000 MHz 32dB Min.@ 7200~7500 MHz	WLAN/BT
BTLB0016082G4H6DN0	2400~2500	1.3	10	-	25dB Min.@ 500~960 MHz 18dB Min.@ 3200 MHz 30dB Min.@ 4800~5000 MHz 23dB Min.@ 7200~7500 MHz	WLAN/BT
BTLB0016082G4H6DQ0	2400~2500	1.5	10.03	-	30dB Min.@ 800~960 MHz 34dB Min.@ 4800~5000 MHz 34dB Min.@ 7200~7500 MHz	WLAN/BT
BTLB0016082G4H6H10	2400~2500	1.8	10	-	35dB Min.@ 860~910 MHz 20dB Min.@ 1710~1910 MHz 25dB Min.@ 4800~5000 MHz 34dB Min.@ 7200~7500 MHz	WLAN/BT
BTLB0016082G4S1A10	2400~2500	3	10	-	25dB Min.@ 695~800 MHz 20dB Min.@ 1710~1910 MHz 35dB Min.@ 3200 MHz 20dB Min.@ 4800~5000 MHz	WLAN/BT
BTLB001608HXVHBA10	1880~2025	1.9(1.8Typ)	10(21.2Typ)	-	20dB Min./28.5dB Typ.@ 1545~1610 MHz 25dB Min./27.6dB Typ.@ 2400~2500 MHz 25B Min./32.6dB Typ.@ 5150~5850 MHz	GSM WCDMA LTE
BTLB001608HXVHBA20	1805~2025	2.1	10	-	30dB Min.@ 700~950 MHz 15dB Min.@ 950~1050 MHz 35dB Min.@ 2400~2500 MHz 35dB Min.@ 2700~5150 MHz 35dB Min.@ 5150~5850 MHz 32dB Min.@ 5850~12750 MHz	GSM WCDMA LTE
BTLB0016083G6H6C10	3300~3900	2	10	-	30dB Min.@ 806~915 MHz 30dB Min.@ 1710~1980 MHz 25dB Min.@ 2400~2500 MHz 7dB Min.@ 4900~5900 MHz	WiMAX
BTLB0016085G5H6A00	4900~5840	25℃ 1.5 -40~8℃ 1.7	10	-	33dB Min.@ 100~2170 MHz 29dB Min.@ 2170~2500 MHz 32dB Min.@ 9800~12000 MHz	WLAN
BTLB0016085G5H6A80	4900~5950	1.3	11	-	38dB Min.@ 30~2700 MHz 16dB Min.@ 3453~3547 MHz 33dB Min.@ 3667~3883 MHz 9dB Min.@ 6900~7093 MHz 32dB Min.@ 7333~7750 MHz 40dB Min.@ 10600~11650 MHz 18dB Min.@ 15540~17760 MHz	WLAN

- Operating temperature range −40℃～85℃

Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Application
BTLB0016085G5H6A90	5150~5950	0.8	10	40dB Min.@ 30~2700 MHz 45dB Min.@ 3400~3800 MHz 12dB Min.@ 7250~7800 MHz 30dB Min.@ 10300~11700 MHz	WLAN
BTLB0016085G5H6F90	4900~5950	1	10	38dB Min.@ 30~2700 MHz 16dB Min.@ 3453~3547 MHz 33dB Min.@ 3667~3883 MHz 9dB Min.@ 6900~7093 MHz 20dB Min.@ 7333~7750 MHz 38dB Min.@ 10600~11650 MHz 18dB Min.@ 15540~17760 MHz	WLAN
BTLB0016085G5S1B10	4900~5850	1.7	10	42.5dB Min.@ 824~960 MHz 19.5dB Min.@ 1570~1580 MHz 43.5dB Min.@ 1710~1910 MHz 30.5dB Min.@ 1920~1990 MHz 21.5dB Min.@ 2110~2170 MHz 40dB Min.@ 2400~2500 MHz 25dB Min.@ 9800~11700 MHz 10dB Min.@ 14700~17550 MHz	WLAN
BTLB001608LXVKBA10	5150~5950	0.6(0.36Typ)	13(17.8Typ)	35dB Min./39dB Typ.@ 2400~2500 MHz 30dB Min./ 45dB Typ.@ 1.03~1.19 GHz 25dB Min./ 27dB Typ.@ 1.545~1.785 GHz	WLAN
BTLB001608LXVKBB20	5150~5950	0.7	12(17.7Typ)	35dB Min./ 44.1dB Typ.@ 700~2690 MHz 30dB Min./ 36.7dB Typ.@ 3300~3800 MHz 12dB Min./ 30.2dB Typ.@ 7250~7800 MHz 20dB Min./ 36.7dB Typ.@ 1.03~1.17 GHz	WLAN
BTLB001608LXVKBA20	5150~5925	25℃ 0.85(0.66Typ) -40~85℃ 1.0(0.66Typ)	12(17.7Typ)	33dB Min./ 43dB Typ.@ 100~960 MHz 33dB Min./ 41.5dB Typ.@ 1166~1249 MHz 33dB Min./ 40.6dB Typ.@ 1427~1610 MHz 33dB Min./ 39.7dB Typ.@ 1695~2200 MHz 33dB Min./ 39.7dB Typ.@ 2300~2370 MHz 33dB Min./ 40dB Typ.@ 2400~2484 MHz 33dB Min./ 40.2dB Typ.@ 2496~2690 MHz 30dB Min./ 36.7dB Typ.@ 3400~3800 MHz 30dB Min./ 30.7dB Typ.@ 7250~7800 MHz 25dB Min./ 35.9dB Typ.@ 1.03~1.185 GHz 25dB Min./ 28.3dB Typ.@ 1.545~1.7775 GHz	WLAN

- Operating temperature range －40℃～85℃

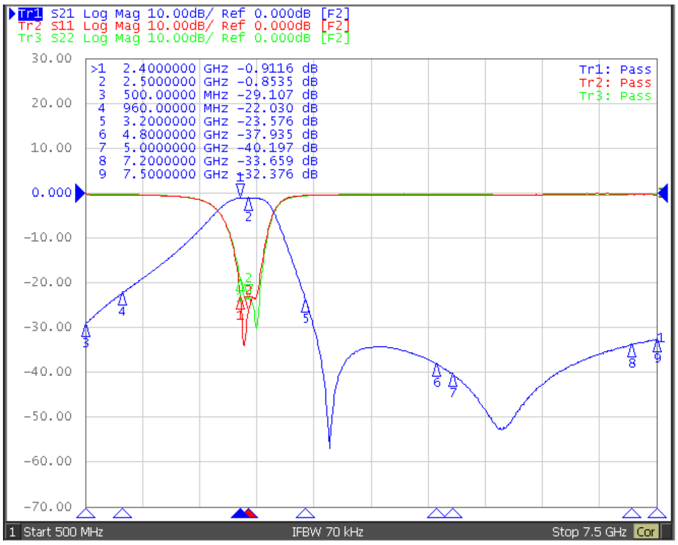
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max		Return Loss (dB)Min	Attenuation	Application
BTLB001608LXVKBA30	5150~5710	25℃	0.9(0.7Typ)	10(17.1Typ)	40dB Min./ 46.5dB Typ.@ 100~960 MHz 40dB Min./ 45.2dB Typ.@ 1166~1249 MHz 40dB Min./ 44.5dB Typ.@ 1427~1610 MHz 40dB Min./ 44.4dB Typ.@ 1695~2200 MHz 40dB Min./ 48.4dB Typ.@ 2300~2370 MHz 40dB Min./ 49.9dB Typ.@ 2400~2483 MHz 40dB Min./ 52.8dB Typ.@ 2496~2690 MHz 30dB Min./ 35.1dB Typ.@ 3300~3800 MHz 7dB Min./ 22.8dB Typ.@ 3800~4200 MHz 3dB Min./ 4dB Typ.@ 7600~8400 MHz 25dB Min./ 32.9dB Typ.@ 9000~9200 MHz 25dB Min./ 28.6dB Typ.@ 9600~9800 MHz 25dB Min./ 27.8dB Typ.@ 1.03~1.185 GHz 25dB Min./ 31.6dB Typ.@ 1.185~1.425 GHz	Wi-Fi 6E
		-40~85℃	1.2			
	5710~5925	25℃	0.8(0.55Typ)			
		-40~85℃	1.1			
	5925~6425	25℃	0.9(0.50Typ)			
		-40~85℃	1.2			
	6425~7125	25℃	1.5(0.75Typ)			
		-40~85℃	1.8			
BTLB001608NXVHBA10	3300~4200	-40~85℃	2.5	10(18.22Typ)	10dB Min./ 37.2dB Typ.@ 100~2570 MHz 25dB Min./ 27.7dB Typ.@ 2620~2690 MHz 15dB Min./ 24.8dB Typ.@ 5150~5925 MHz 25dB Min./ 43.5dB Typ.@ 6600~8400 MHz 25dB Min./ 28.3dB Typ.@ ref 0.99~1.26 GHz	LTE/5G
BTLB001608OXVHBA10	4400~5000	-40~85℃	1.9	10(19.73Typ)	35dB Min./ 46.5dB Typ.@ 400~915 MHz 30dB Min./ 45.6dB Typ.@ 925~2485 MHz 20dB Min./ 32.3dB Typ.@ 2485~3600 MHz 7dB Min./ 19.6dB Typ.@ 5850~6100 MHz 15dB Min./ 24.7dB Typ.@ 6100~6890 MHz 25dB Min./ 33.8dB Typ.@ 0.88~1 GHz 20dB Min./ 29.8dB Typ.@ ref 1.32~1.5 GHz	LTE/5G

- Operating temperature range －40℃～85℃

Test Instruments：Agilent E5071 Network Analyzer

BTLB0016082G4H6BU0



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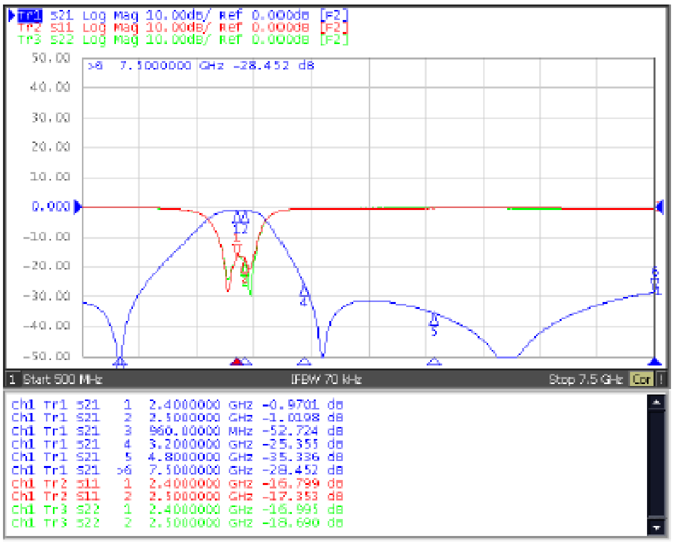

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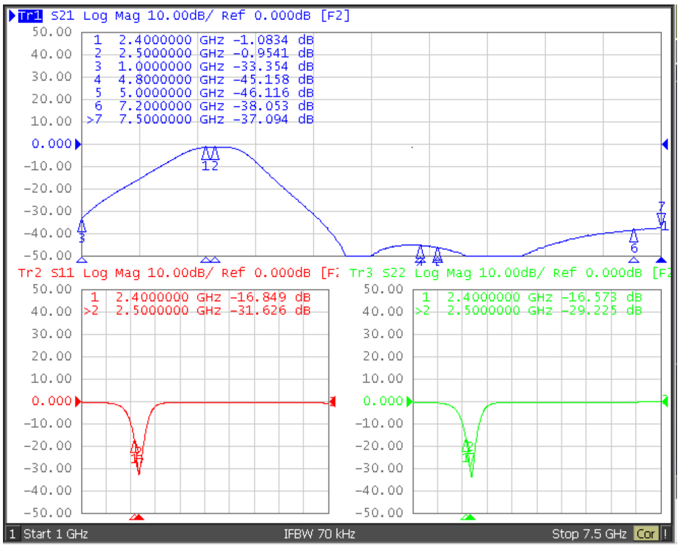

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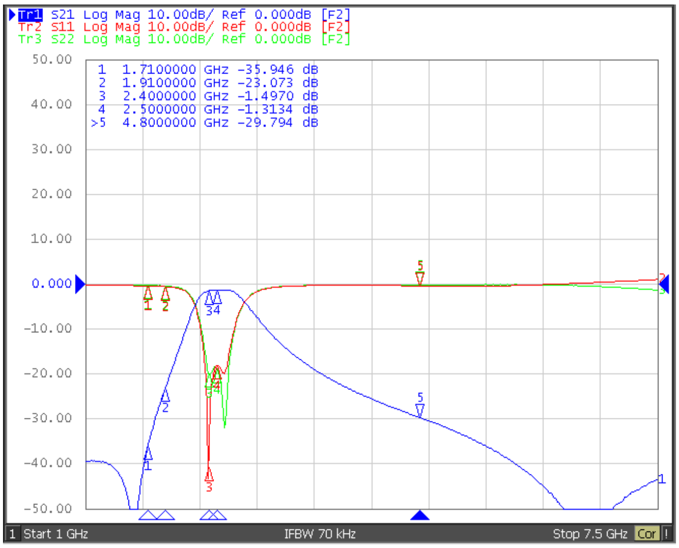

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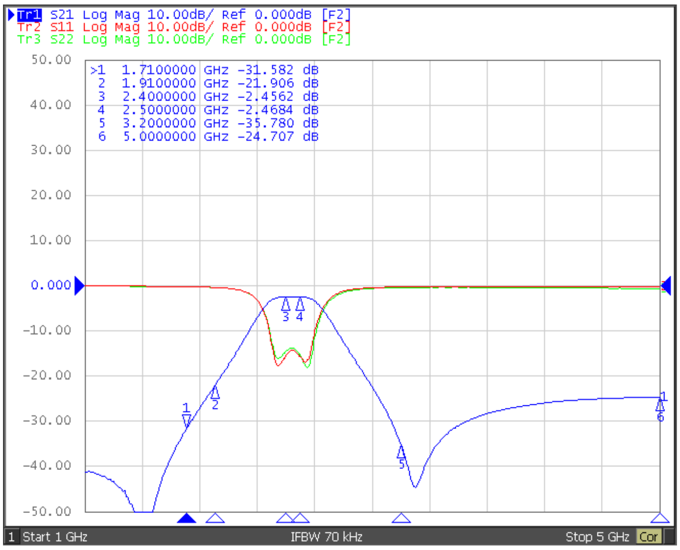

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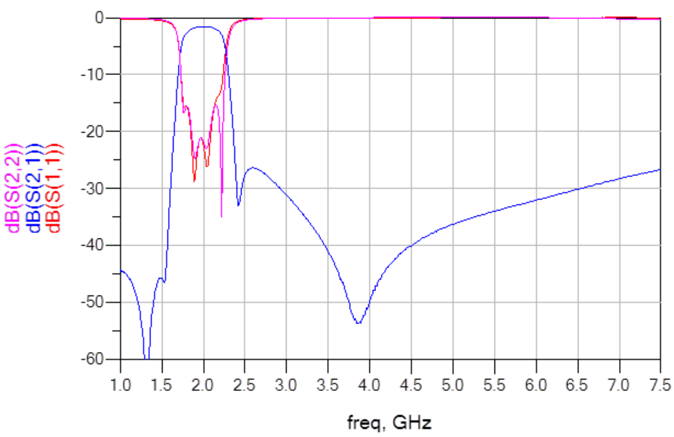

Test Instruments： Agilent E5071 Network Analyzer

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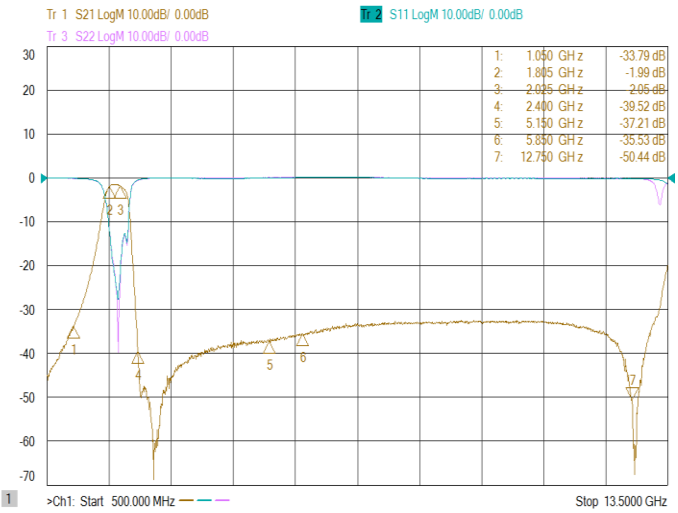

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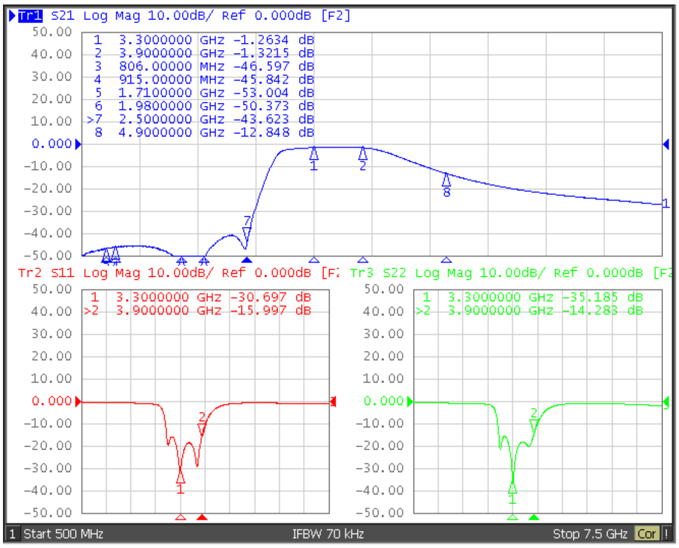

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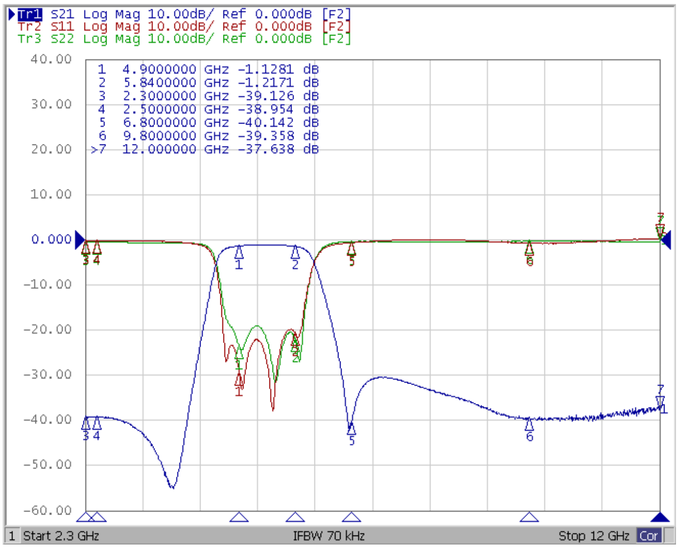

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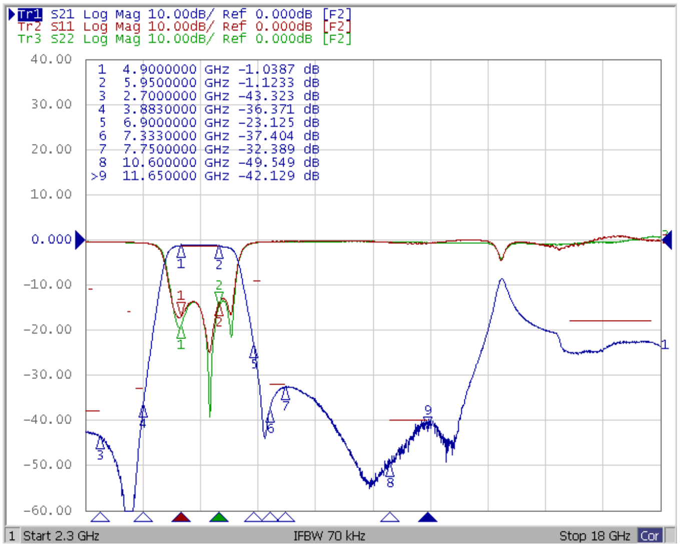

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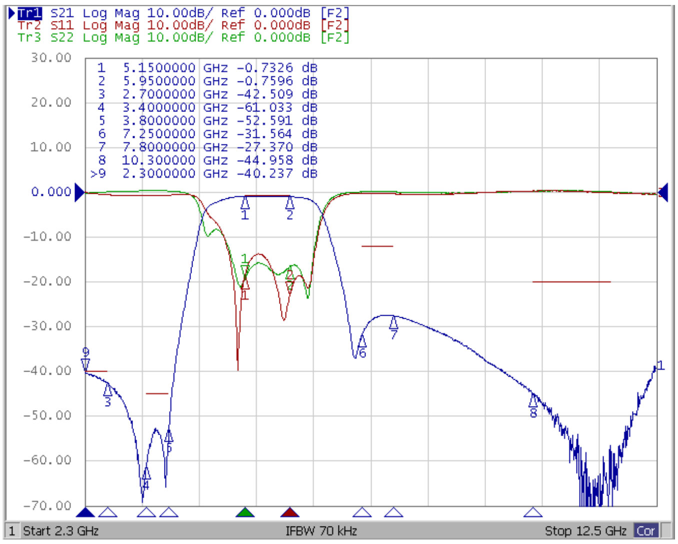

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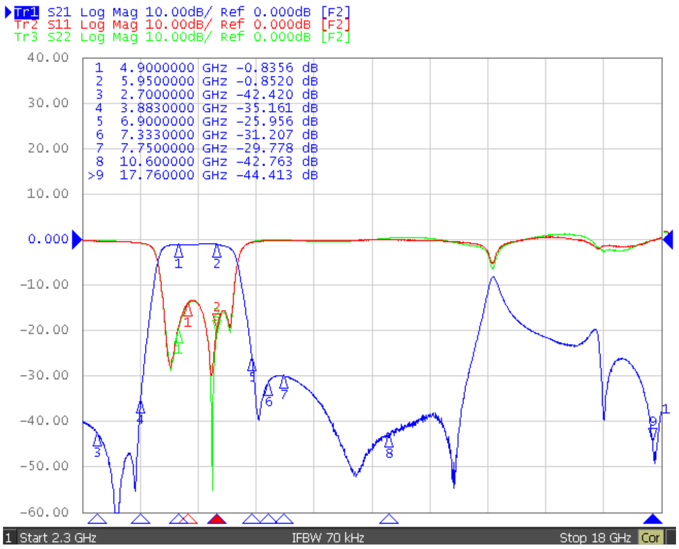

Test Instruments：Agilent E5071 Network Analyzer

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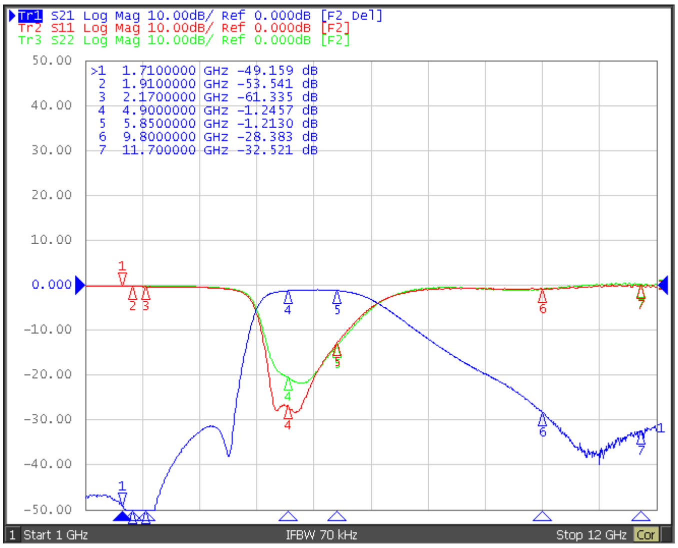

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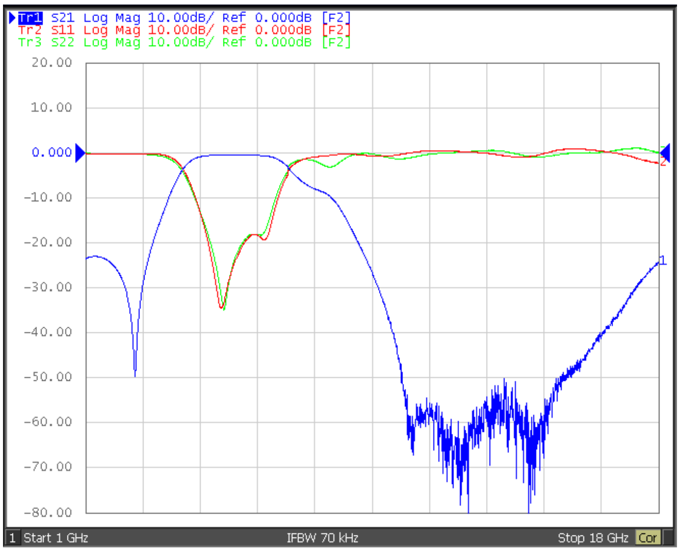

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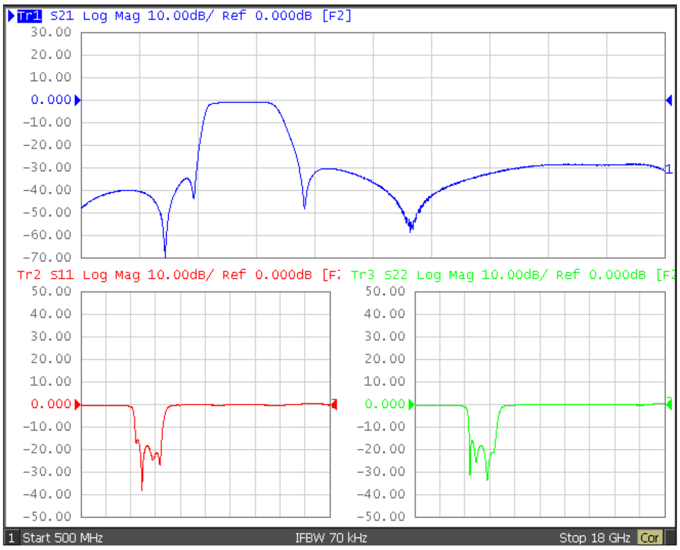

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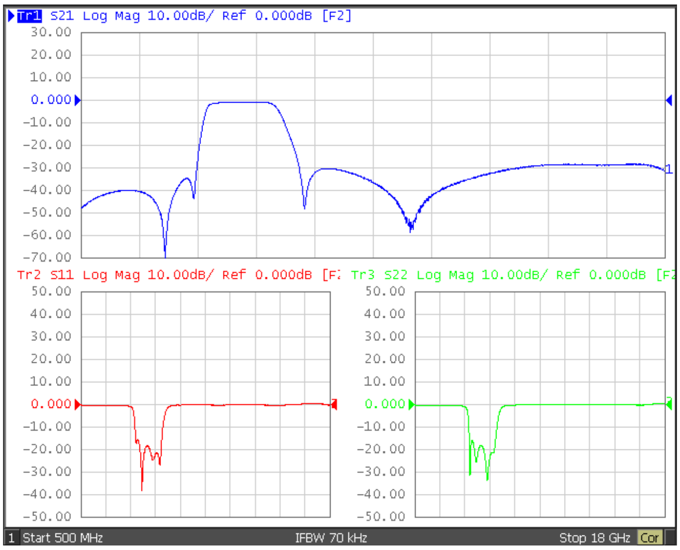

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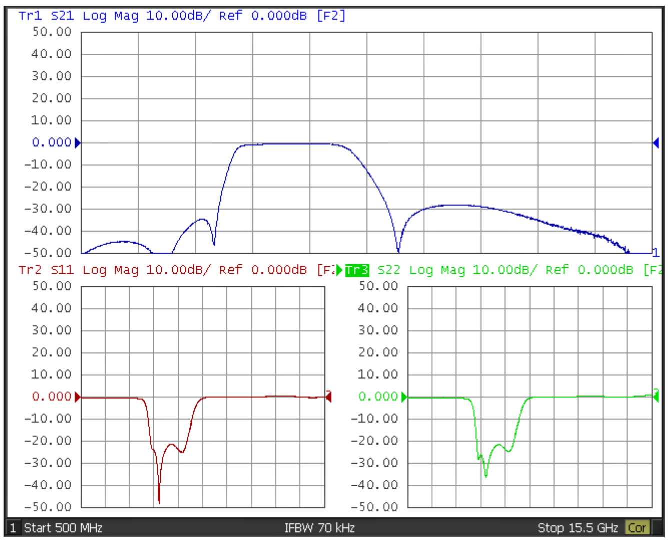

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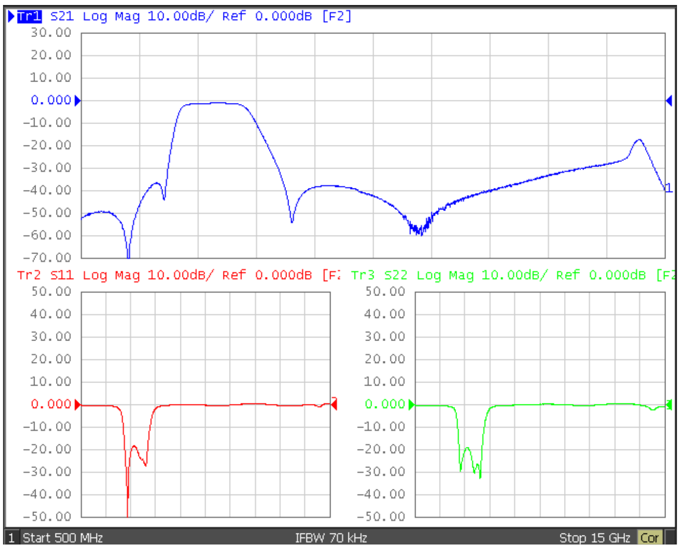

Test Instruments：Agilent E5071 Network Analyzer

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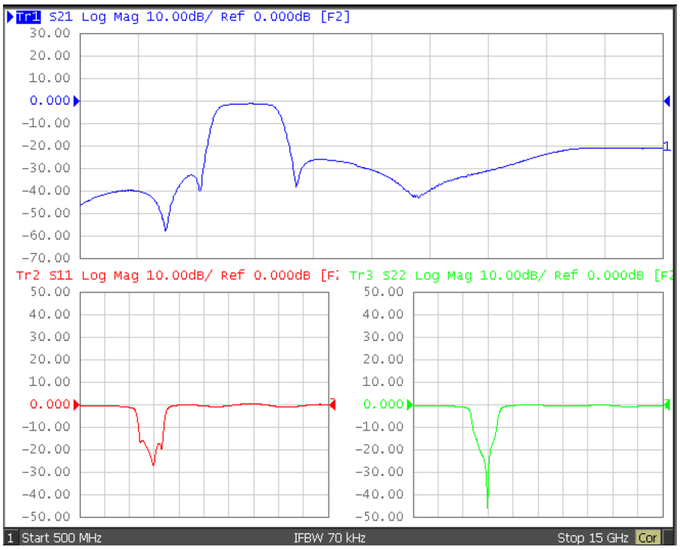


Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Ripple (dB)Max	Attenuation	Application
BTLB0020122G4H6A00	2400~2500	25℃ 2.5 -40~85℃ 2.8	10	-	30dB Min.@ 824~849 MHz 30dB Min.@ 880~915 MHz 30dB Min.@ 1545~1605 MHz 30dB Min.@ 1565~1585 MHz 35dB Min.@ 1710~1785 MHz 40dB Min.@ 1850~1910 MHz 32dB Min.@ 1920~1980 MHz 7dB Min.@ 3168~4752 MHz 11dB Min.@ 3300~3800 MHz 35dB Min.@ 4800~4967 MHz 26dB Min.@ 5150~6000 MHz 23dB Min.@ 7200~7450.5 MHz	WLAN/BT
BTLB0020122G4H6A80	2400~2500	1.2	10	-	28dB Min.@ 824~960 MHz 28dB Min.@ 1570~1580 MHz 23dB Min.@ 1710~1910 MHz 17dB Min.@ 1920~1990 MHz 25dB Min.@ 4800~5000 MHz 25dB Min.@ 7200~7500 MHz	WLAN/BT
BTLB0020122G4H6A90	2400~2500	2.6	10	-	40dB Min.@ 824~894 MHz 40dB Min.@ 880~960 MHz 38dB Min.@ 1710~1990 MHz 25dB Min.@ 2100~2170 MHz 30dB Min.@ 4800~5000 MHz 25dB Min.@ 7200~7500 MHz	WLAN/BT
BTLB0020122G4H6AH0	2400~2500	1.2	10	0.5	15dB Min.@ 1600 MHz 20dB Min.@ 3200 MHz 40dB Min.@ 4800~5000 MHz	WLAN/BT
BTLB0020122G4H6AR0	2400~2500	1.3	10	-	38dB Min.@ 50~960 MHz 17dB Min.@ 1710~1990 MHz 5dB Min.@ 3200~3300 MHz 30dB Min.@ 4800~5000 MHz 25dB Min.@ 7200~7500 MHz	WLAN/BT
BTLB0020122G4H6AS0	2400~2500	1.1(0.8Typ)	10	-	30dB Min./ 43dB Typ. @ 500~960MHz 26dB Min./ 33dB Typ.@ 1500~1650 MHz 22dB Min./ 32dB Typ.@ 3200~3300 MHz 35dB Min./ 44dB Typ.@ 4800~5000 MHz 20dB Min. / 28dB Typ.@ 7200~7500 MHz	WLAN/BT

- Operating temperature range －40℃～85℃

Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Ripple (dB)Max	Attenuation	Application
BTLB0020122G4H6B50	2400~2500	2.5	10	-	35dB Min.@ 824~960 MHz 38dB Min.@ 1710~1910 MHz 25dB Min.@ 4800~5000 MHz 20dB Min.@ 7200~7500 MHz	WLAN/BT
BTLB0020122G4H6B90	2400~2500	25℃ 2.5 -40~85℃ 2.8	10	-	40dB Min.@ 880~960 MHz 38dB Min.@ 1710~1990 MHz 16dB Min.@ 2100~2170 MHz 30dB Min.@ 4800~5000 MHz 25dB Min.@ 7200~7500 MHz	WLAN/BT
BTLB0020122G4H6BD0	2400~2500	25℃ 1.8 -40~85℃ 2	10	-	30dB Min.@ 824~915 MHz 30dB Min.@ 1545~1605 MHz 35dB Min.@ 1710~1990 MHz 30dB Min.@ 2170 MHz 30dB Min.@ 4800~4967 MHz 25dB Min.@ 5150~6000 MHz 20dB Min.@ 7200~7450.5 MHz	WLAN/BT
BTLB0020122G4H6C00	2400~2500	25℃2.5 -40~85℃ 2.8	10	-	30dB Min.@ 824~849 MHz 30dB Min.@ 880~915 MHz 30dB Min.@ 1545~1605 MHz 30dB Min.@ 1565~1585 MHz 35dB Min.@ 1710~1785 MHz 40dB Min.@ 1850~1910 MHz 32dB Min.@ 1920~1980 MHz 16dB Min.@ 2110~2170 MHz 7dB Min.@ 3168~4752 MHz 11dB Min.@ 3300~3800 MHz 30dB Min.@ 4800~4967 MHz 26dB Min.@ 5150~6000 MHz 23dB Min.@ 7200~7450.5 MHz	WLAN/BT
BTLB0020122G4H6D30	2400~2500	1.4	10	-	30dB Min.@ 880~915 MHz 25dB Min.@ 1710~1910 MHz 6dB Min.@ 2110~2170 MHz 23dB Min.@ 4800~5000 MHz	WLAN/BT
BTLB0020122G4S1A10	2400~2500	2.5	10	-	35dB Min.@ 880~915 MHz 15dB Min.@ 1710~1910 MHz 35dB Min.@ 3200 MHz 22dB Min.@ 4800~5000 MHz 22dB Min.@ 7200~7500 MHz	WLAN/BT
BTLB0020125G5H6A80	4900~5920	1.5	10	-	30dB Min.@ 3500 MHz	WLAN
BTLB0020125G5H6B30	5150~5850	2	10	-	30dB Min.@ 2400~3800 MHz 18dB Min.@ 10300~11700 MHz	WLAN

- Operating temperature range －40℃～85℃

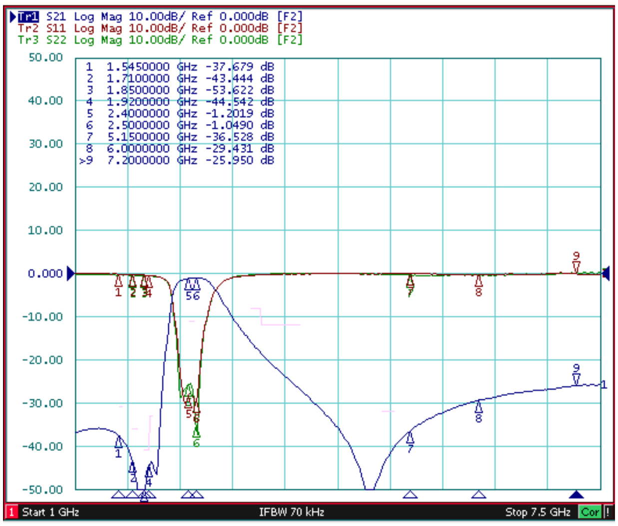
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Ripple (dB)Max	Attenuation	Application
BTLB0020125G5H6C50	5150~5850	3.5	7.36	-	30dB Min.@ 4000 MHz 35dB Min.@ 4200 MHz 42dB Min.@ 4600 MHz	WLAN
BTLB0020125G5H6C80	4900~5950	1.5	10	-	35dB Min.@ 500~1900 MHz 30dB Min.@ 2140~3300 MHz 30dB Min.@ 3450 MHz 17dB Min.@ 9800~11900 MHz	WLAN
BTLB0020125G5H6D10	4900~5850	2.2	8	-	30dB Min.@ 340~1195 MHz 15dB Min.@ 2140~3580 MHz 25dB Min.@ 68555~7150 MHz 20dB Min.@ 8570~8930 MHz	WLAN
BTLB0020125G5H6D80	4900~5950	25℃1.8 -40~85℃ 2	10	1.5	33dB Min.@ 1280~3300 MHz 30dB Min.@ 3300~4000 MHz 15dB Min.@ 4375~4465 MHz 7dB Min.@ 7300~8930 MHz 20dB Min.@ 9800~11900 MHz	WLAN
BTLB0020125G5H6E80	4900~5875	2	8.52	-	30dB Min.@ 500~4000 MHz 30dB Min.@ 4200 MHz 15dB Min.@ 9800~11750 MHz	WLAN

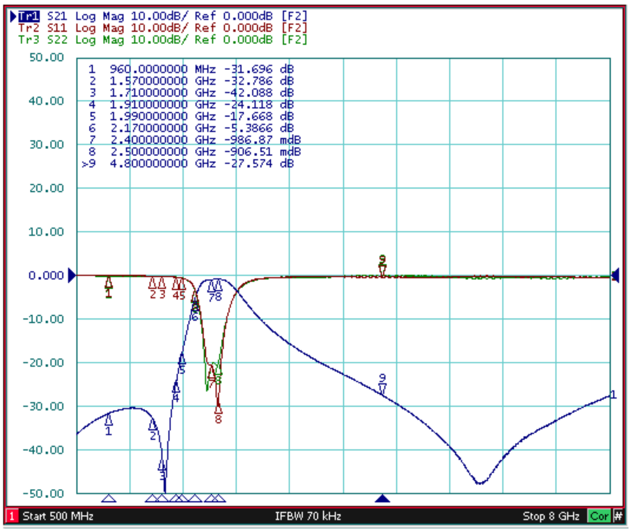
- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071 Network Analyzer

BTLB0020122G4H6A00

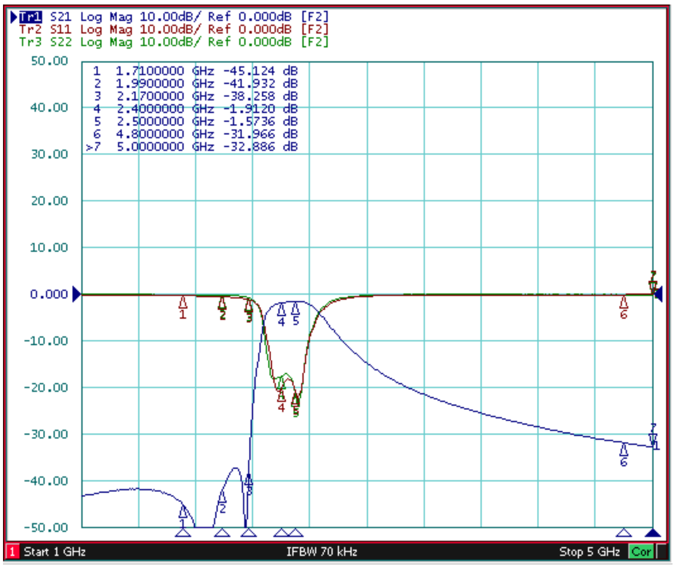


BTLB0020122G4H6A80

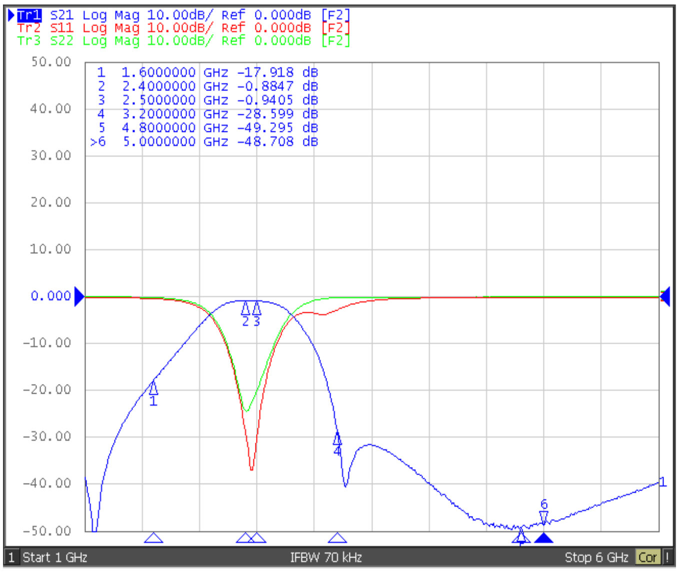


Test Instruments： Agilent E5071 Network Analyzer

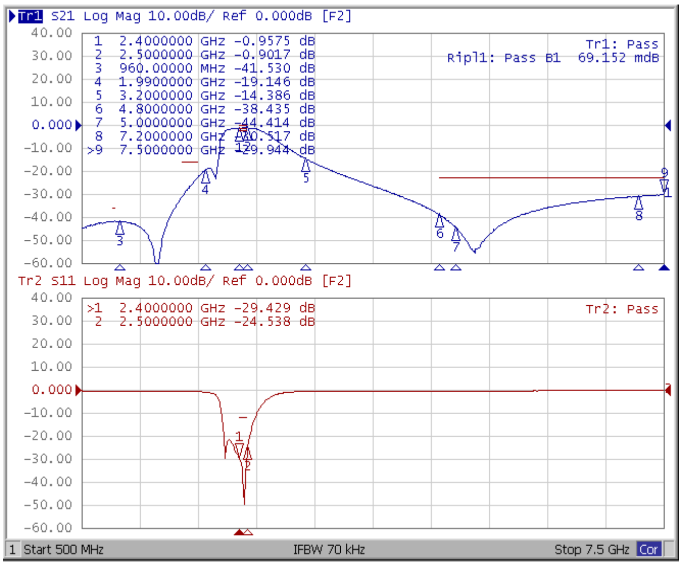
BTLB0020122G4H6A90



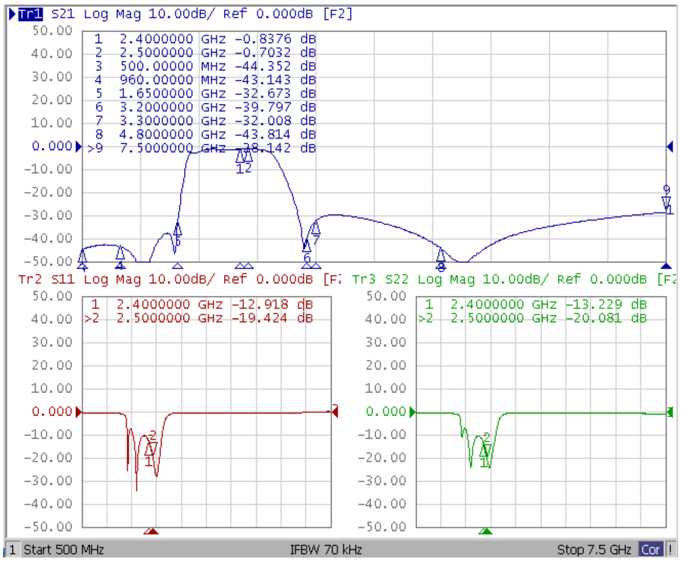
BTLB0020122G4H6AH0



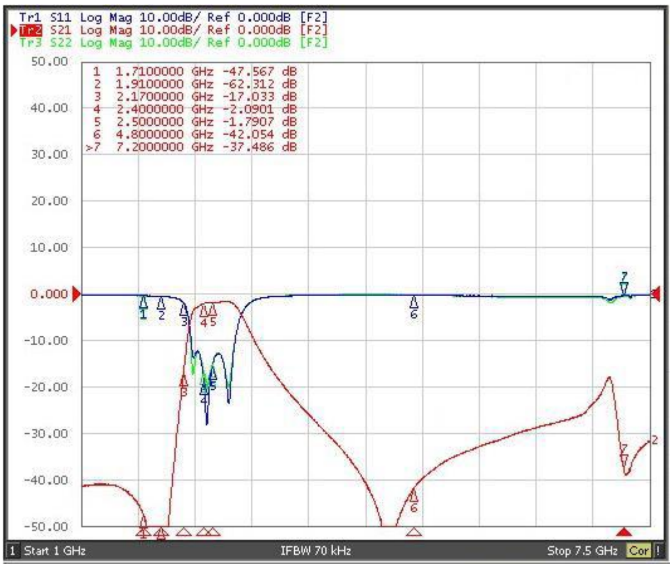
BTLB0020122G4H6AR0



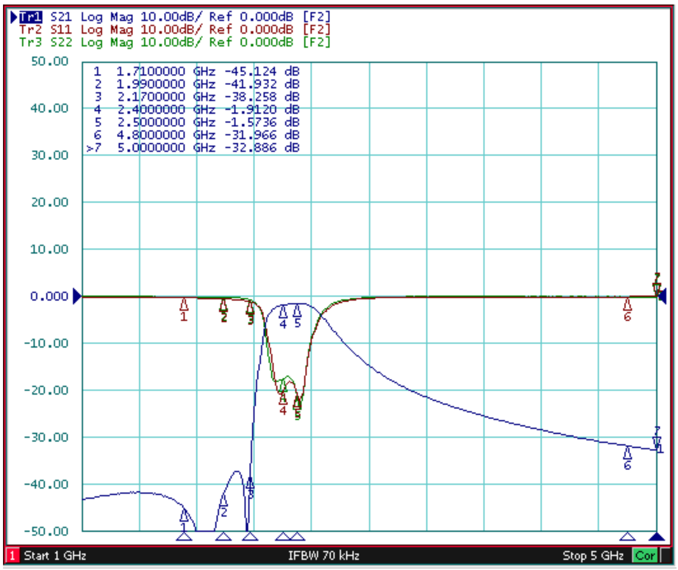
BTLB0020122G4H6AS0



BTLB0020122G4H6B50

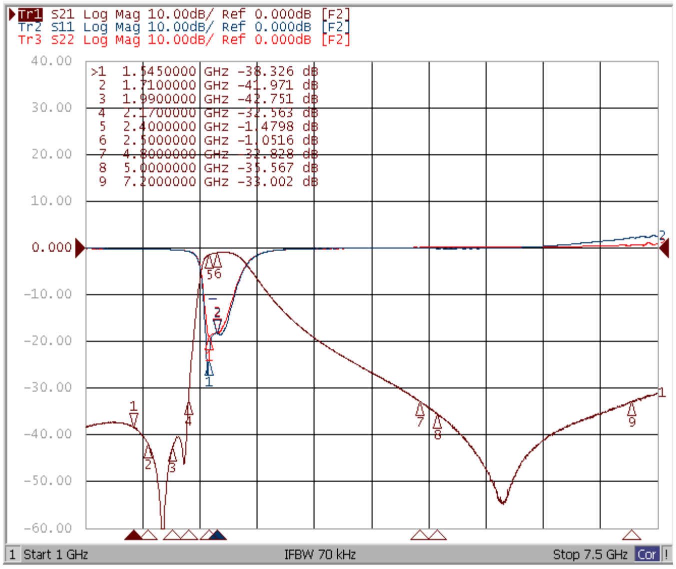


BTLB0020122G4H6B90



Test Instruments： Agilent E5071 Network Analyzer

BTLB0020122G4H6BD0



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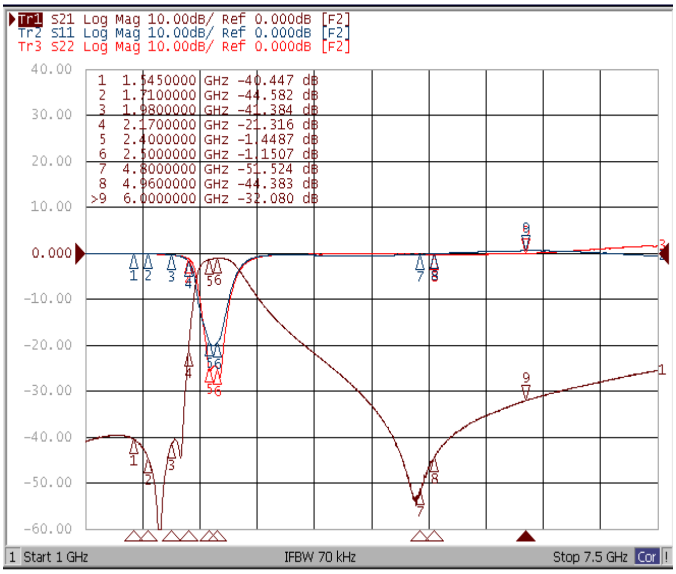
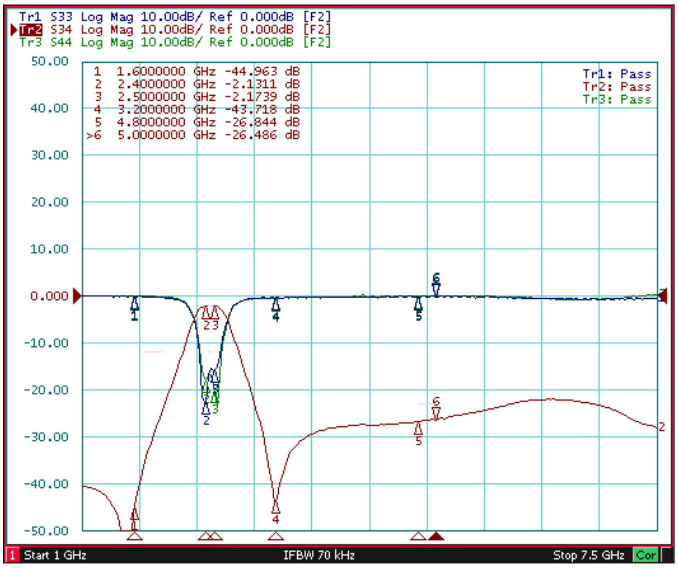
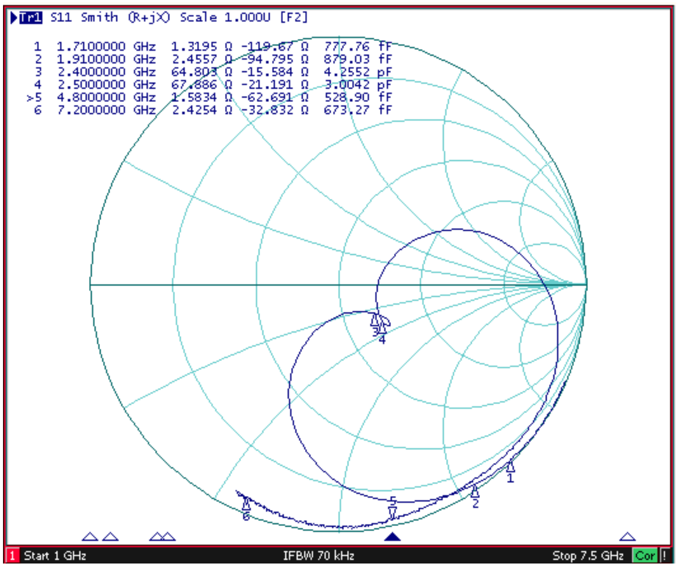
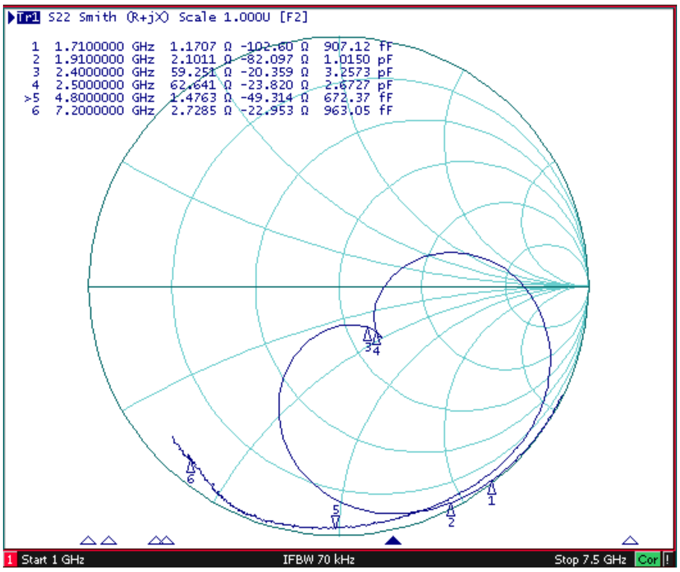


BTLB0020122G4S1A10

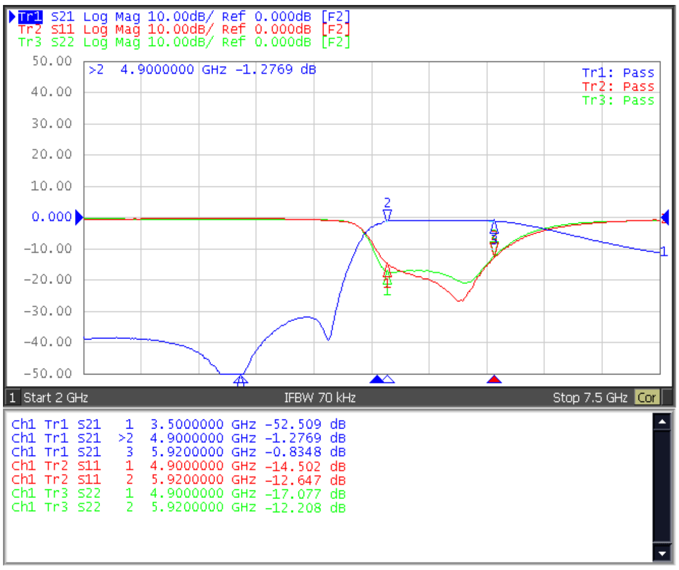




BTLB0020122G4S1A10

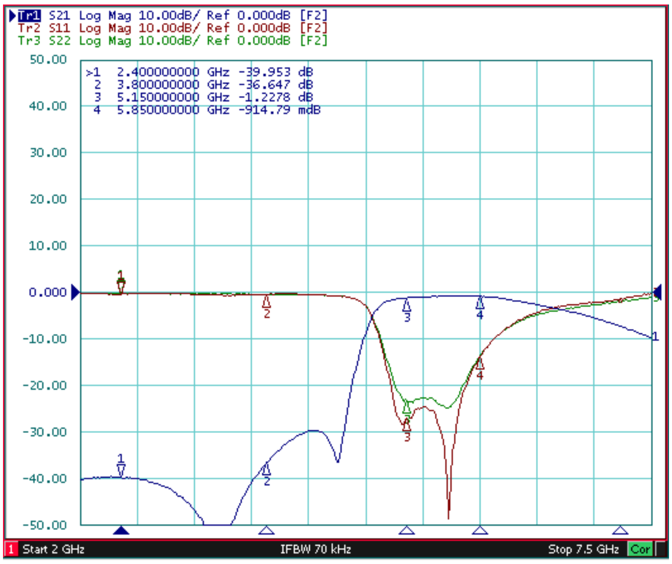


BTLB0020125G5H6A80

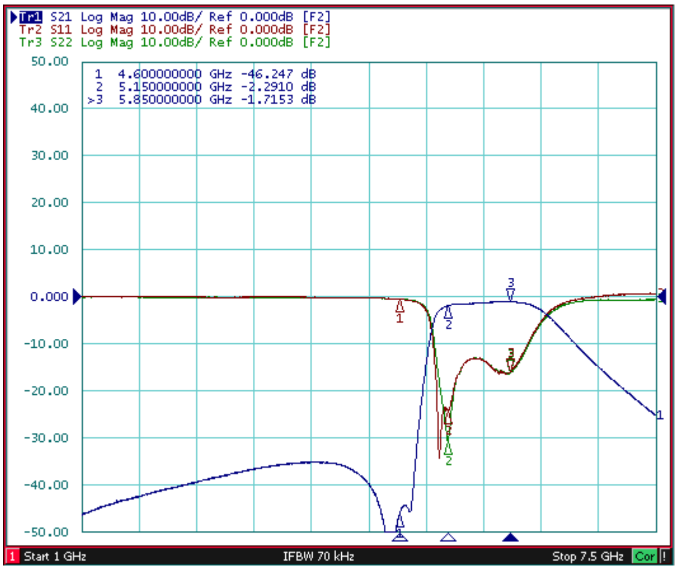


Test Instruments： Agilent E5071 Network Analyzer

BTLB0020125G5H6B30



BTLB0020125G5H6C50



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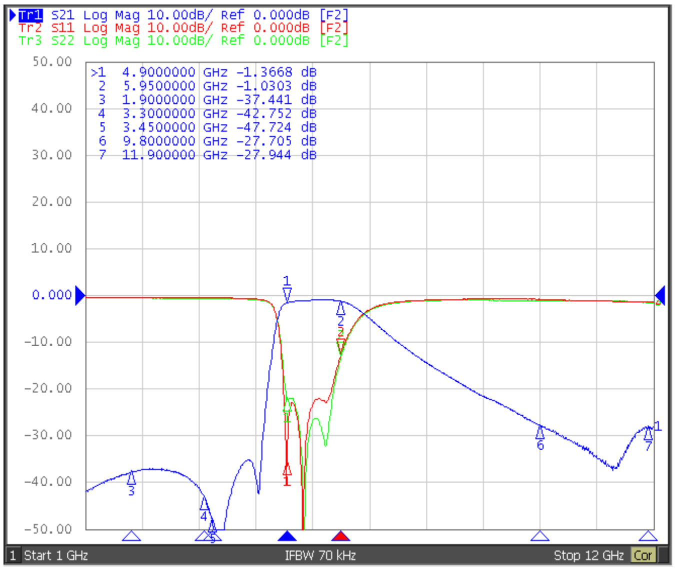

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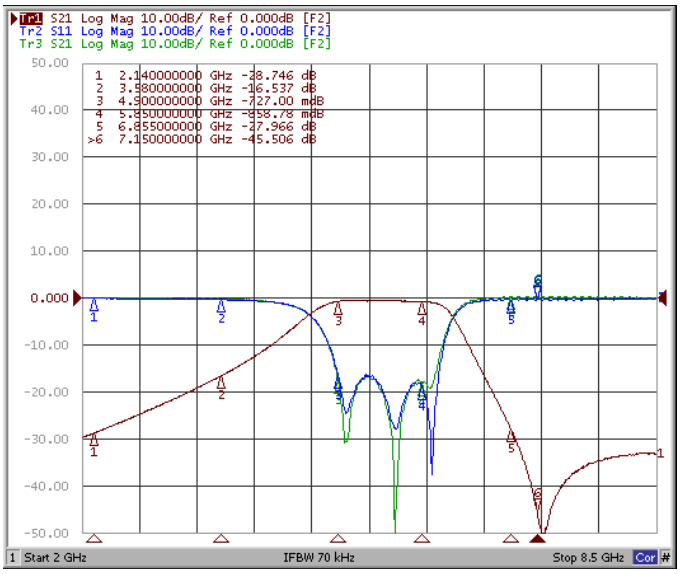

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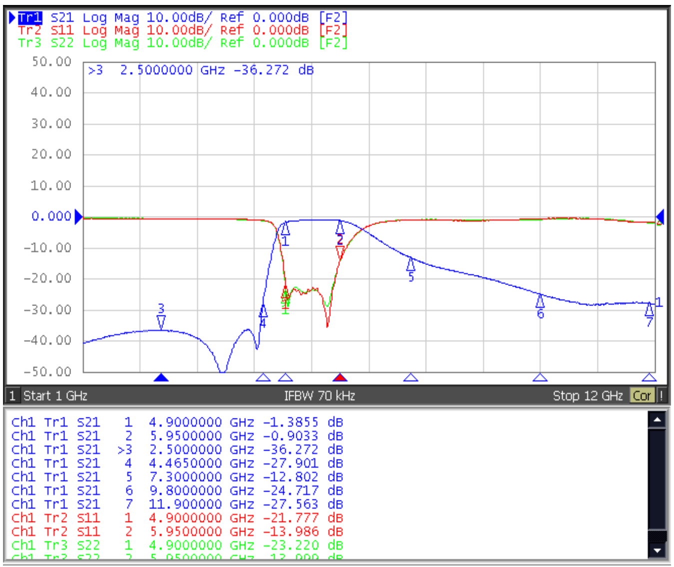

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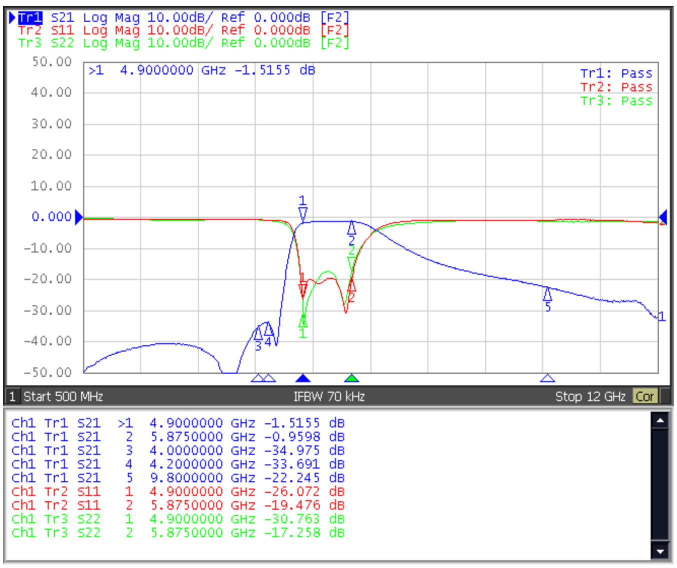
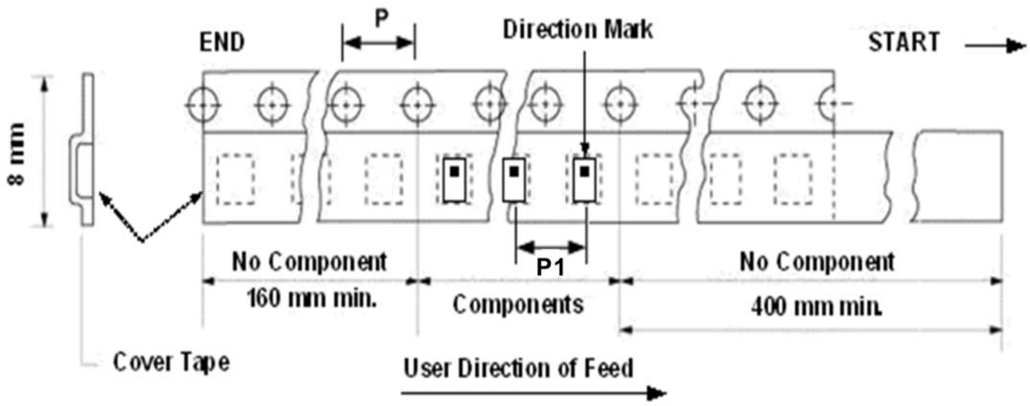
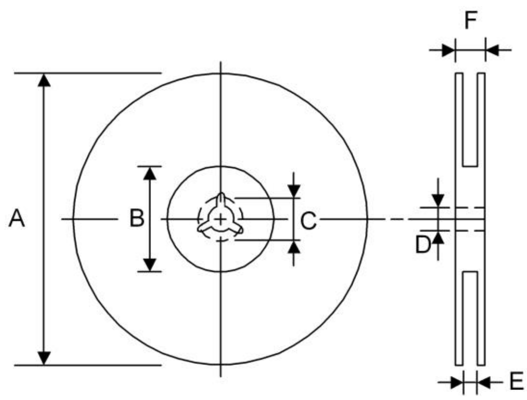


Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions		Reel Dimensions						Quantity
	P	P1	A	B	C	D	E	F	PCS / REEL
BTLB001005	4	2	178	60	-	13	9	12	10000
BTLB001411	4	2	178	60	-	13	9	12	10000
BTLB001608	4	4	178	60	-	13	9	12	4000
BTLB002012	4	4	178	60	-	13	9	12	4000

BTLD Series

Chilisin offer multilayer devices of Low-Temperature Cofired Ceramics (LTCC) for applications in wireless communication as WLAN, Bluetooth etc. Our commitment is to meet your goals through extensive technological innovation, excellent quality, short lead time and high volume production capability.

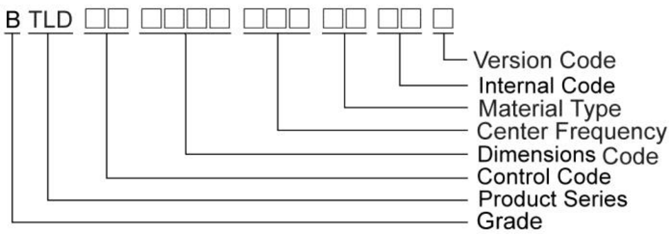
Features

- RoHS, Halogen Free and REACH Compliance
- Miniaturized.
- Low insertion loss, high attenuation.
- Eliminate noise over a wide frequency range. Idea for high frequency and space limited designs.

Applications

- WLAN ,Home RF, Bluetooth Module, WiFi 6E, etc.

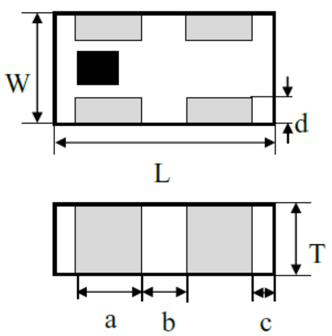
Product Identification

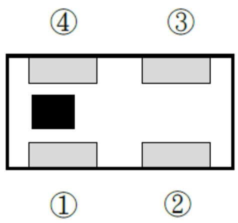


Shapes and Dimensions

Terminal Configuration

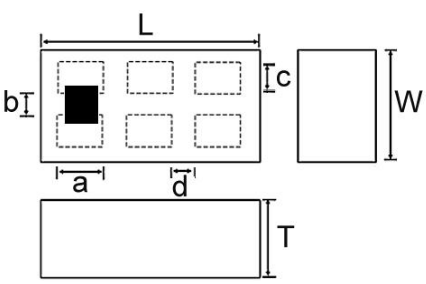
FIG 1

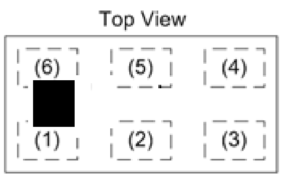




① Common ② GND ③ High Band ④ Low Band

FIG 2

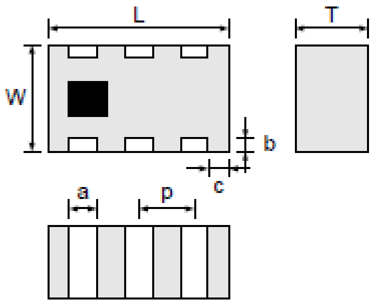




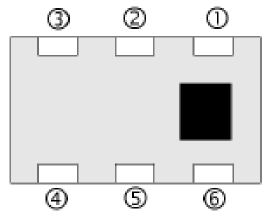
① ③ ⑤ GND ② Common ④ Low Freq. ⑥ High Freq.

Shapes and Dimensions

FIG 3

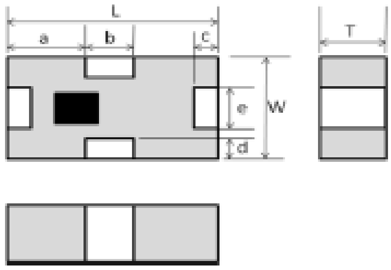


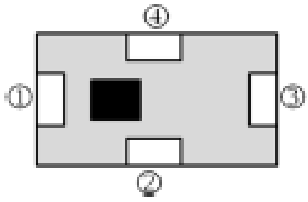
Terminal Configuration



Type	Port			GND
	High Freq.	Low Freq.	Common	
BTLD0016080G9S3A10	④	⑥	②	①③⑤
BTLD0016082G4S1A70	①	③	⑤	②④⑥
BTLD0016082G4S3YE0	①	③	⑤	②④⑥
BTLD0016082G4S3YF0	③	①	⑤	②④⑥
BTLD0016082G4S3WF0	③	①	⑤	②④⑥
BTLD001608MKXSMA10	④	⑥	②	①③⑤
BTLD001608KLXJMA10	④	⑥	②	①③⑤
BTLD001608MKXSPA10	⑥	④	②	①③⑤
BTLD001608KLXJPA10	⑥	④	②	①③⑤
BTLD001608KLXKPA90	⑥	④	②	①③⑤
BTLD001608KLXKMA90	④	⑥	②	①③⑤
BTLD001608KLXKND60	①	③	⑤	②④⑥
BTLD001608KLXKQD60	③	①	⑤	②④⑥
BTLD0020122G4S1B50	⑥	④	②	①③⑤
BTLD0020122G4S1B60	④	⑥	②	①③⑤
BTLD0020122G4S1D20	①	③	⑤	②④⑥
BTLD0020122G4S3A70	④	⑥	②	①③⑤
BTLD0020122G4S3A80	⑥	④	②	①③⑤
BTLD0020122G4S3E80	⑥	④	②	①③⑤

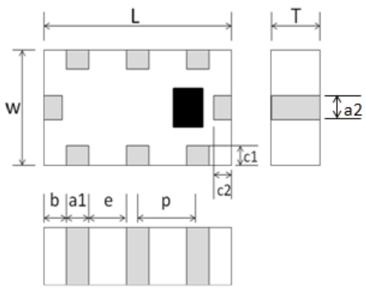
FIG 4

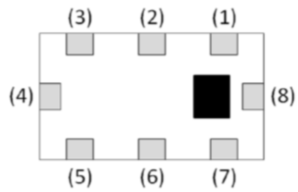




① Low Freq. ② Common ③ High Freq. ④ GND

FIG 5



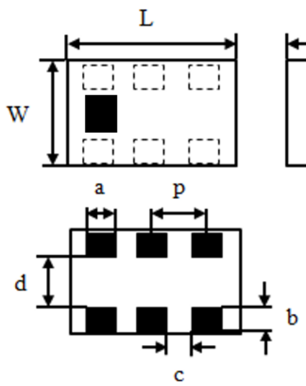


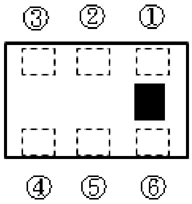
Type	Port			GND	NC
	High Freq.	Low Freq.	Common		
BTLD001608KLXKNA20	①	③	⑥	②⑤⑦	④⑧
BTLD001608KLXKQA20	③	①	⑥	②⑤⑦	④⑧
BTLD0020122G4S1A40	④	⑧	②	①③⑤⑥⑦	-

Shapes and Dimensions

Terminal Configuration

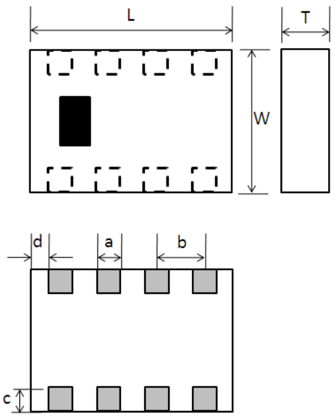
FIG 6

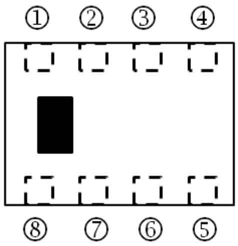




Type	Port			GND
	High Freq.	Low Freq.	Common	
BTLD002012DLXJVA10	①	③	⑤	②④⑥
BTLD002012JOXKSA10	④	⑥	②	①③⑤

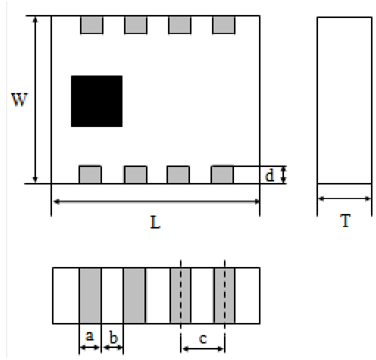
FIG 7

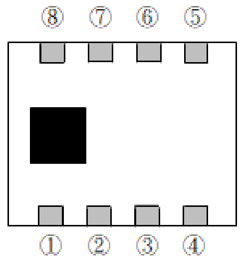




① TRXA ② ⑤ ⑥ ⑧ GND ③ RXG ④ TXG

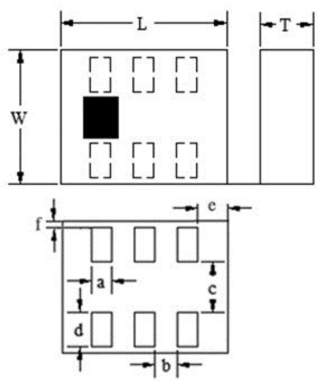
FIG 8

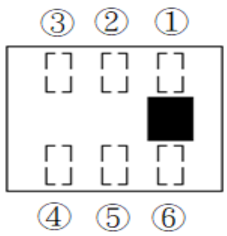




① ② ④ ⑥ ⑦ GND ③ Common
⑤ High Bend ⑧ Low Bend

FIG 9

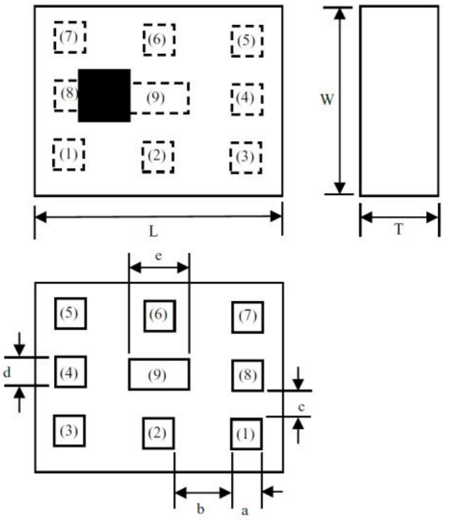




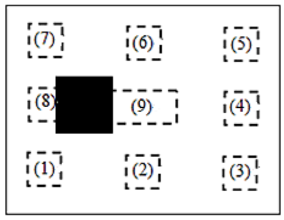
① High Frequency ② ④ ⑥ GND ③ Low Frequency ⑤ Common

Shapes and Dimensions

FIG 10



Terminal Configuration



① ③ ④ ⑥ ⑧ ⑨ GND ② Common ⑤ High Bend ⑦ Low Bend

Dimension in mm

TYPE	FIG	L	W	T	a	b	c	d
BTLD001005KLXKMA10	1	1.0±0.1	0.5±0.1	0.33Max	0.3±0.1	0.2±0.1	0.1±0.1	0.55±0.1
BTLD001608DFXJUA10	2	1.6±0.1	0.8±0.1	0.6±0.1	0.35±0.1	0.2±0.1	0.22±0.05	0.22±0.05
BTLD0020152G4S3A10	7	2.0±0.1	1.5±0.1	0.65±0.1	$0.25^{+0.1}_{-0.05}$	0.5±0.05	$0.25^{+0.1}_{-0.15}$	0.125±0.1
BTLD002520DHXKMA10	8	2.5±0.15	2.0±0.15	0.65Max	0.25±0.15	0.25±0.15	0.5±0.15	0.2±0.15
BTLD002520DHXKMB10	8	2.5±0.15	2.0±15	0.65Max	0.25±0.15	0.25±0.15	0.5±0.15	0.2±0.15
TYPE	**FIG**	**L**	**W**	**T**	**a**	**b**	**c**	**p**
BTLD0016080G9S3A10	3	1.6±0.15	0.8±0.1	0.6±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	0.55±0.1
BTLD0016082G4S1A70	3	1.6±0.15	0.8±0.1	0.6±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	0.55±0.1
BTLD0016082G4S3C00	3	1.6±0.15	0.8±0.1	0.5±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	0.55±0.1
BTLD0016082G4S3YE0	3	1.6±0.15	0.8±0.1	0.5±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	0.55±0.1
BTLD0016082G4S3YF0	3	1.6±0.15	0.8±0.1	0.5±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	0.55±0.1
BTLD0016082G4S3WF0	3	1.6±0.15	0.8±0.1	0.5±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	0.55±0.1
BTLD001608MKXSMA10	3	1.6±0.15	0.8±0.1	0.6±0.1	0.2±0.1	0.15±0.1	0.2±0.15	0.5±0.05
BTLD001608MKXSPA10	3	1.6±0.15	0.8±0.1	0.6±0.1	0.2±0.1	0.15±0.1	0.2±0.15	0.5±0.05
BTLD001608KLXJMA10	3	1.6±0.15	0.8±0.1	0.6±0.1	0.2±0.1	0.15±0.1	0.2±0.15	0.5±0.05
BTLD001608KLXJPA10	3	1.6±0.15	0.8±0.1	0.6±0.1	0.2±0.1	0.15±0.1	0.2±0.15	0.5±0.05
BTLD001608KLXKPA90	3	1.6±0.15	0.8±0.1	0.6±0.1	0.2±0.1	0.15±0.1	0.2±0.1	0.5±0.05
BTLD001608KLXKMA90	3	1.6±0.15	0.8±0.1	0.6±0.1	0.2±0.1	0.15±0.1	0.2±0.1	0.5±0.05
BTLD001608KLXKND60	3	1.6±0.15	0.8±0.1	0.7±0.1	0.2±0.1	0.15±0.1	0.2±0.15	0.5±0.05
BTLD001608KLXKQD60	3	1.6±0.15	0.8±0.1	0.7±0.1	0.2±0.1	0.15±0.1	0.2±0.15	0.5±0.05
BTLD0020120G9S3A10	3	2.0±0.15	1.25±0.1	0.9±0.1	0.3±0.15	0.2±0.1	0.2±0.15	0.65±0.15
BTLD0020122G4S1B50	3	2.0±0.15	1.25±0.15	0.5±0.1	0.3±0.2	0.3±0.2	0.2±0.2	0.65±0.2
BTLD0020122G4S1B60	3	2.0±0.15	1.25±0.15	0.5±0.1	0.3±0.2	0.3±0.2	0.2±0.2	0.65±0.2
BTLD0020122G4S1D20	3	2.0±0.15	1.25±0.15	0.95±0.1	$0.3^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.2}$	0.2±0.2	0.65±0.2
BTLD0020122G4S3A70	3	2.0±0.15	1.25±0.15	0.5±0.1	0.3±0.2	0.3±0.2	0.2±0.2	0.65±0.2
BTLD0020122G4S3A80	3	2.0±0.15	1.25±0.15	0.5±0.1	0.3±0.2	0.3±0.2	0.2±0.2	0.65±0.2
BTLD0020122G4S3E80	3	2.0±0.15	1.25±0.15	0.5±0.1	0.3±0.2	0.3±0.2	0.2±0.2	0.65±0.2

Dimension in mm

TYPE	FIG	L	W	T	a	b	c	d	e
BTLD0016082G4S3AL0	4	1.6±0.15	$0.8^{+0.2}_{-0.1}$	$0.6^{+0.05}_{-0.1}$	0.65±0.15	$0.3^{+0.1}_{-0.15}$	0.15±0.1	0.15±0.1	$0.3^{+0.1}_{-0.15}$
BTLD002520JOXKSA10	10	2.5±0.15	2±0.15	0.65Max	0.4±0.1	0.55±0.1	0.3±0.1	0.4±0.1	0.9±0.15

TYPE	FIG	L	W	T	a	b	c	d	p
BTLD002012DLXJVA10	6	2.0±0.1	1.25±0.1	0.9±0.1	0.35±0.1	0.275±0.1	0.3±0.1	0.6±0.1	0.65±0.05
BTLD002012JOXKSA10	6	2.0±0.1	1.25±0.1	0.6Max	0.35±0.1	0.275±0.1	0.3±0.1	0.6±0.1	0.65±0.1

TYPE	FIG	L	W	T	a	b	c	d	e	f
BTLD002520EIXSTA10	9	2.5±0.1	2±0.1	0.8±0.1	0.3±0.1	0.35±0.1	0.75±0.1	0.525±0.1	0.45±0.1	0.1±0.1

TYPE	FIG	L	W	T	a1	a2	b	c1	c2	e	p
BTLD001608KLXKNA20	5	1.6±0.1	0.8±0.1	0.7Max	0.2±0.1	0.2±0.1	0.2±0.15	0.15±0.1	0.15±0.1	0.3±0.1	0.5±0.05
BTLD001608KLXKQA20	5	1.6±0.1	0.8±0.1	0.7Max	0.2±0.1	0.2±0.1	0.2±0.15	0.15±0.1	0.15±0.1	0.3±0.1	0.5±0.05
BTLD0020122G4S1A30	5	2.0±0.15	1.25±0.1	0.95±0.1	$0.3^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.2±0.15	$0.3^{+0.1}_{-0.2}$	$0.3^{+0.1}_{-0.2}$	0.35±0.1	0.65±0.2
BTLD0020122G4S1A40	5	2.0±0.15	1.25±0.1	0.95±0.1	$0.3^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.2±0.15	$0.3^{+0.1}_{-0.2}$	$0.3^{+0.1}_{-0.2}$	0.35±0.1	0.65±0.2

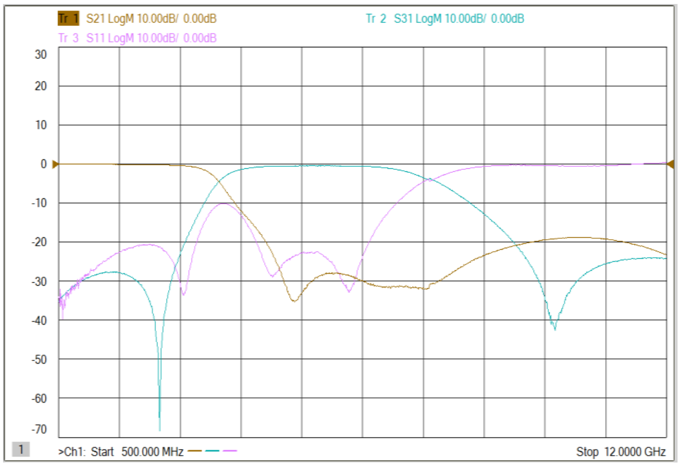
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max		Return Loss (dB)Min	Attenuation	Application
BTLD001005KLXKMA10	2400~2500	25℃	0.5	12(20Typ)	23dB Min./ 27.8dB Typ.@ 4800~6000 MHz	WiFi
		-40~85℃	0.6		23dB Min./ 27.2dB Typ.@ 7200~7500 MHz	
	4900~5950	25℃	0.8	10(18.5Typ)	25dB Min./ 27.5dB Typ.@ 30~2400 MHz	
					32dB Min./ 38.8dB Typ.@ 2400~2500 MHz	
		-40~85℃	1		23dB Min./ 27.1dB Typ.@ 2500~2690 MHz	
					20dB Min./ 25dB Typ.@ 9800~11900 MHz	

- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071C Network Analyzer

BTLD001005KLXKMA10



Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Application
BTLD001608DFXJUA10	698~960	0.9(0.75Typ)	10(18.5Typ)	25dB Min./ 30dB Typ.@ 1710~2700 MHz	GPS WCDMA LTE
	1710~2700	0.8(0.65Typ)	10(17Typ)	20dB Min./ 26.5dB Typ.@ 698~960 MHz 20dB Min./ 22dB Typ.@ 5150~5850 MHz	
BTLD0016080G9S3A10	704~960	0.5	14	15dB Min.@ 1710~2170 MHz 10dB Min.@ 2170~2690 MHz	LTE
	1710~1800	0.7	11.8	20dB Min.@ 704~960 MHz	
	1800~1990	0.6			
	1990~2170	0.55			
	2170~2690	1.4	6.5		
BTLD0016082G4S1A70	2400~2500	0.6	10	20dB Min.@ 4800~6000 MHz 20dB Min.@ 7200~7500 MHz	WLAN
	5100~5900	1.4	10	35dB Min.@ 2400~2500 MHz 18dB Min.@ 3300~3900 MHz 12dB Min.@ 9800~11900 MHz	
BTLD0016082G4S3AL0	2400~2500	0.4	12.74	20dB Min.@ 4900~5850 MHz	WLAN
	4900~5850	0.6	10.16	20dB Min.@ 2400~2500 MHz	
BTLD0016082G4S3YE0	2400~2500	0.45	12.74	21dB Min.@ 4800~5000 MHz 23dB Min.@ 5000~6000 MHz 25dB Min.@ 7200~7500 MHz	WLAN
	4900~5950	0.75	11.73	27dB Min.@ 824~2170 MHz 32dB Min.@ 2400~2500 MHz 23dB Min.@ 9800~11900 MHz	
BTLD0016082G4S3YF0	2400~2500	0.45	12.74	21dB Min.@ 4800~5000 MHz 23dB Min.@ 5000~6000 MHz 25dB Min.@ 7200~7500 MHz	WLAN
	4900~5950	0.75	11.73	27dB Min.@ 824~2170 MHz 32dB Min.@ 2400~2500 MHz 23dB Min.@ 9800~11900 MHz	

- Operating temperature range −40℃～85℃

Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Application
BTLD001608KLXKPA90 BTLD001608KLXKMA90	2400~2500	0.6(0.51Typ)	12(19Typ)	2dB Min./ 4.7dB Typ.@ 3300~4800 MHz 33dB Min./ 33.6dB Typ.@ 4800~5000 MHz 28dB Min./ 37dB Typ.@ 5170~7125 MHz 30dB Min./ 43.8dB Typ.@ 7200~7500 MHz 24dB Min./ 28.8dB Typ.@ 9600~10000 MHz 17dB Min./ 22.4dB Typ.@ 12000~12500 MHz	WiFi 6E
	5170~7125	0.9(0.74Typ)	10(15.8Typ)	35dB Min./ TBDdB Typ.@ 70~108 MHz 35dB Min./ 41dB Typ.@ 700~915 MHz 35dB Min./ 41.4dB Typ. @ 915~960 MHz 35dB Min./ 44.8dB Typ.@ 1425~1470 MHz 35dB Min./ 44.9dB Typ.@ 1470~1557 MHz 35dB Min./ 46.9dB Typ.@ 1557~1607 MHz 35dB Min./ 53.7dB Typ.@ 1710~1785 MHz 35dB Min./ 69.6dB Typ.@ 1805~1850 MHz 35dB Min./ 54.5dB Typ.@ 1850~1910 MHz 35dB Min./ 47.6dB Typ.@ 1910~2020 MHz 30dB Min./ 40.8dB Typ.@ 2110~2200 MHz 26dB Min./ 35dB Typ.@ 2300~2400 MHz 25dB Min./ 32.5dB Typ.@ 2400~2500 MHz 20dB Min./ 28.9dB Typ.@ 2500~2690 MHz 10dB Min./ 20.1dB Typ.@ 3400~3800 MHz 25dB Min./ 27.3dB Typ.@ 10340~14250 MHz 20dB Min./ 25.2dB Typ.@ 15510~19500 MHz TBDdB Min./ Typ. @ 19500~21375 MHz	

- Operating temperature range －40℃～85℃

Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB) Max(Typ)	Return Loss (dB) Min(Typ)	Isolation (dB) Min(Typ)	Attenuation	Application
BTLD0016082G4S3WF0	2400~2500	0.5	10	30	21dB Min.@ 4800~5000 MHz 23dB Min.@ 5000~6000 MHz 25dB Min.@ 7200~7500 MHz	WLAN
	4900~5950	0.75	10	20	26dB Min.@ 824~1990 MHz 30dB Min.@ 2170~2500 MHz 10dB Min.@ 8100~8800 MHz 15dB Min.@ 8820~9800 MHz 23dB Min.@ 9800~11900 MHz	
BTLD001608KLXKNA20 BTLD001608KLXKQA20	2400~2500	25℃ 0.35(0.3) -40~85℃ 0.45(0.3)	10.88	-	20dB Min./ 26dB Typ.@ 4800~5000 MHz 22dB Min./ 25.5dB Typ.@ 5000~5950 MHz 20dB Min./ 26dB Typ.@ 7200~7500 MHz	WLAN
	4900~5950	25℃ 0.50(0.4) -40~85℃ 0.60(0.4)			26dB Min./ 27dB Typ.@ 824~2170 MHz 30dB Min./ 40dB Typ.@ 2400~2500 MHz 25dB Min./ 27.5dB Typ.@ 9800~11900 MHz 15dB Min./ 25dB Typ.@ 15000~18000 MHz	
BTLD001608MKXSMA10 BTLD001608MKXSPA10	1550~1580	0.6	10	20	12dB Min.@ 2400~2500 MHz 12dB Min.@ 4900~6000 MHz	GPS/WLAN
	1594~1610	0.7				
	2400~2500	0.7		12	20dB Min.@ 1550~1610 MHz	
	4900~6000	0.6				
BTLD001608KLXJPA10 BTLD001608KLXJMA10	2400~2500	25℃ 0.6 -40~105℃ 0.8	10(24.1)	38(43.3)	30dB Min./ 37.2dB Typ.@ 4800~5000 MHz 30dB Min./ 38.1dB Typ.@ 5000~5950 MHz 30dB Min./ 38.3dB Typ.@ 7200~7500 MHz	WLAN
	4900~5950	25℃ 0.78 -40~105℃ 0.98	10(15.2)	38(39.3)	26dB Min./ 31.9dB Typ.@ 824~2170 MHz 30dB Min./ 43.2dB Typ.@ 2400~2500 MHz 25dB Min./ 28.8dB Typ.@ 9800~11900 MHz 15dB Min./ 18.5dB Typ.@ 14700~17850 MHz	
BTLD001608KLXKND60	2400~2500	25℃ 0.85(0.74) -40~105℃ 0.95	13(18.8)	40(43)	9dB Min./ 11.5dB Typ.@ 100~1000 MHz 30dB Min./ 34dB Typ.@ 4800~7125 MHz 30dB Min./ 33.5dB Typ.@ 7200~7500 MHz 20dB Min./ 34dB Typ.@ 7500~12000 MHz	WiFi 6E
	5170~5875	25℃ 1.05(0.78) -40~105℃ 1.25	11(15.4)	25(32.5)	35dB Min./ 42.5dB Typ.@ 100~1000 MHz 30dB Min./ 35.5dB Typ.@ 1000~2400 MHz 40dB Min./ 42.5dB Typ.@ 2400~2500 MHz 10dB Min./ 13.5dB Typ.@ 2500~3500 MHz 25dB Min./ 28.5dB Typ.@ 10340~14250 MHz 25dB Min./ 38.5dB Typ.@ 15510~17625 MHz TBDdB Min./ Typ.@ 17625~21375 MHz	
	5875~7125	25℃ 1.05(0.76) -40~105℃ 1.25				
BTLD001608KLXKQD60	2400~2500	TBD(0.75)	10(18.8)	TBD(42)	TBDdB Min./ 11.5dB Typ.@ 100~1000 MHz TBDdB Min./ 34dB Typ.@ 4800~7125 MHz TBDdB Min./ 33.5dB Typ.@ 7200~7500 MHz TBDdB Min./ 34dB Typ.@ 7500~12000 MHz	WiFi 6E
	5170~5875	TBD(0.78)	10(15.4)	TBD (32.5)	TBDdB Min./ 42.5dB Typ.@ 100~1000 MHz TBDdB Min./ 35.5dB Typ.@ 1000~2400 MHz TBDdB Min./ 41.5dB Typ.@ 2400~2500 MHz TBDdB Min./ 13dB Typ.@ 2500~3500 MHz TBDdB Min./ 28.5dB Typ.@ 10340~14250 MHz TBDdB Min./ 38.5dB Typ.@ 15510~17625 MHz TBDdB Min./ Typ.@ 17625~21375 MHz	
	5875~7125	TBD(0.76)				

- Operating temperature range −40℃～85℃

Test Instruments： Agilent E5071C Network Analyzer

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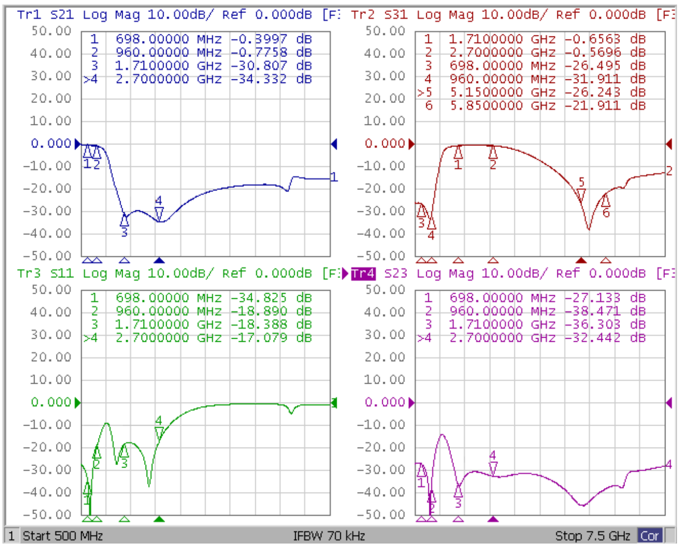

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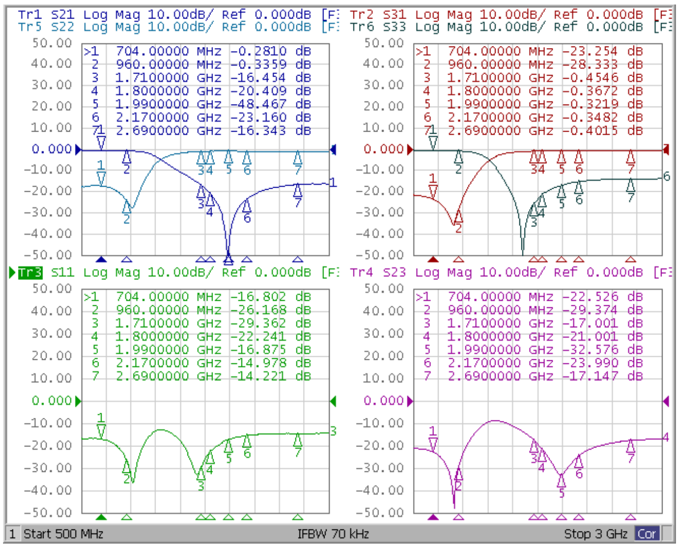

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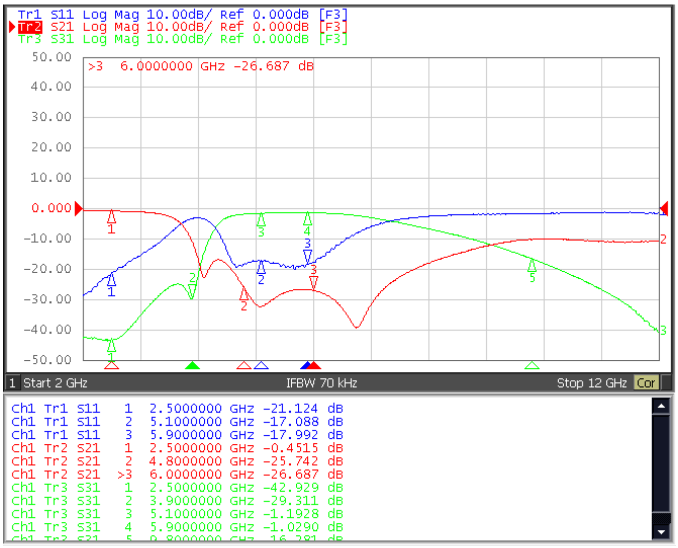

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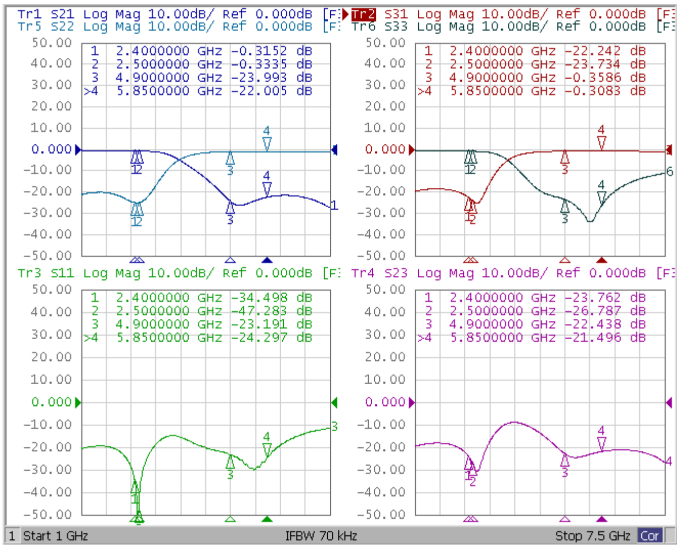

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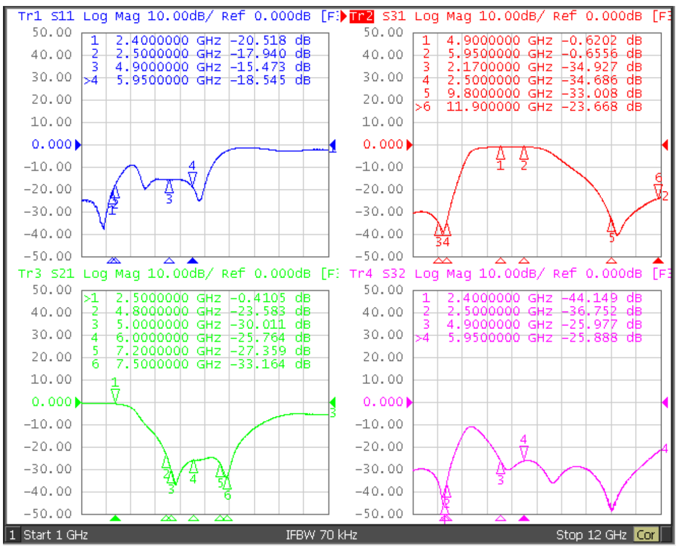

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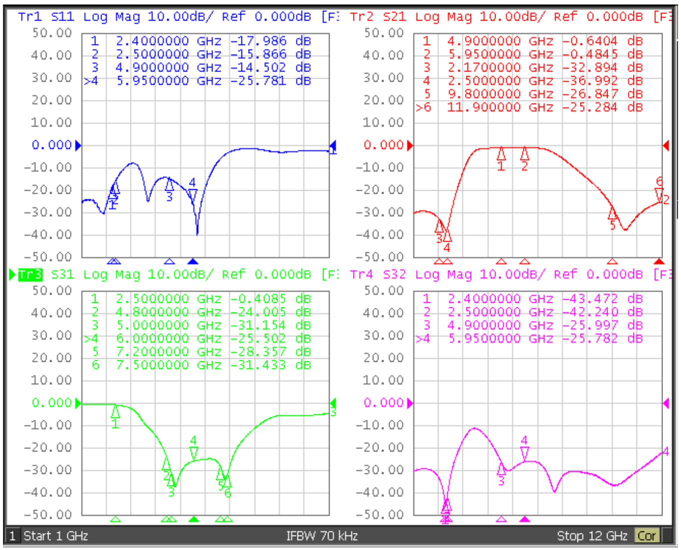

Test Instruments： Agilent E5071C Network Analyzer

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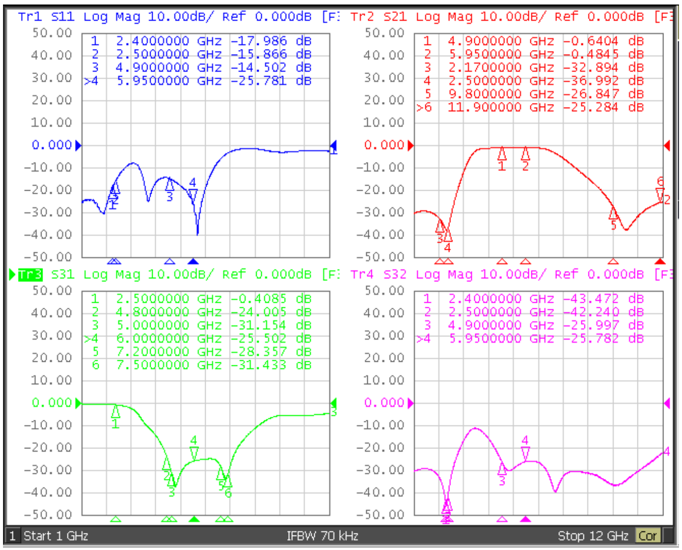

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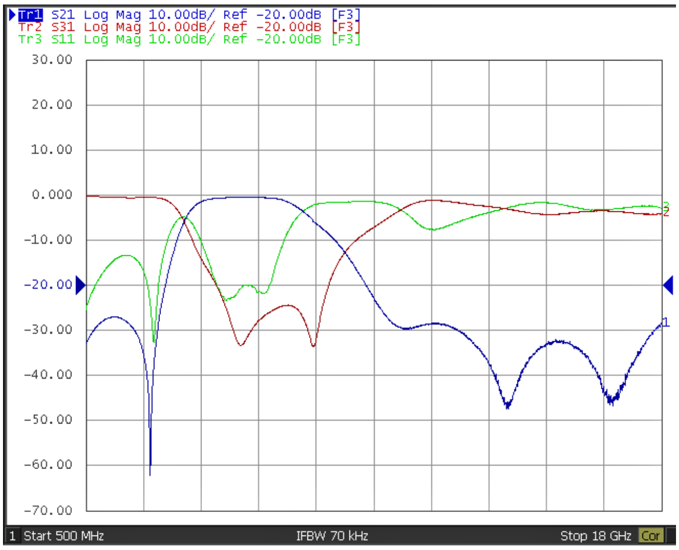

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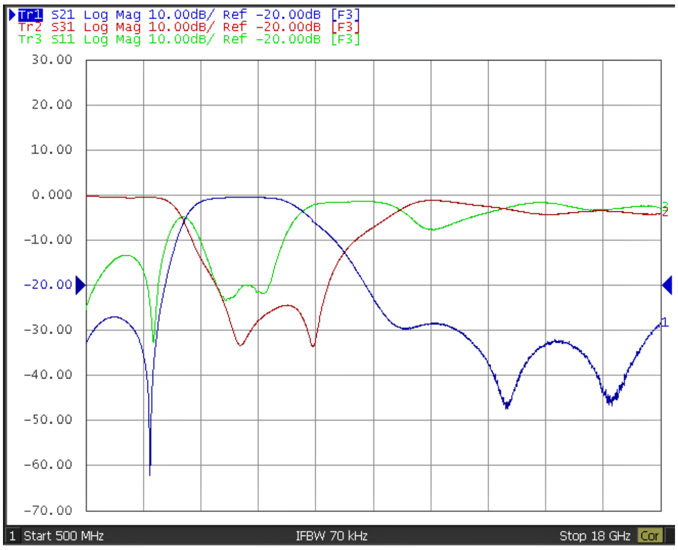

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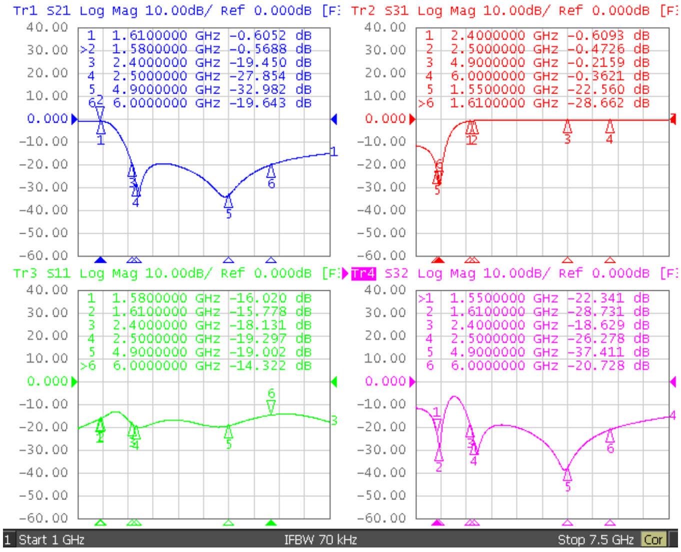

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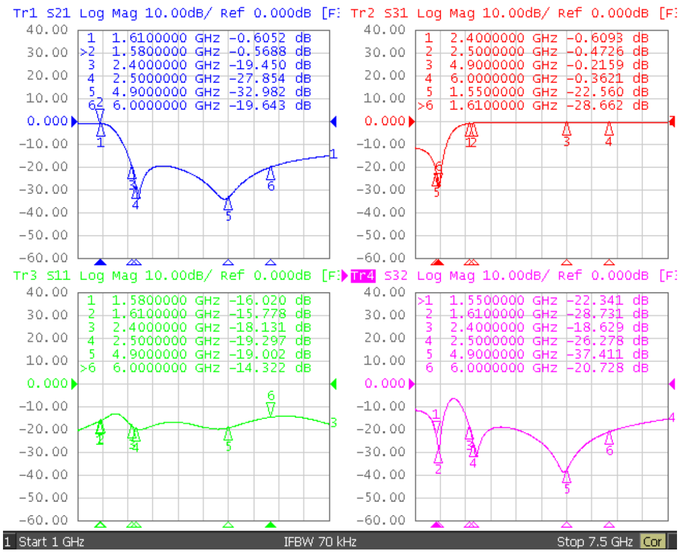

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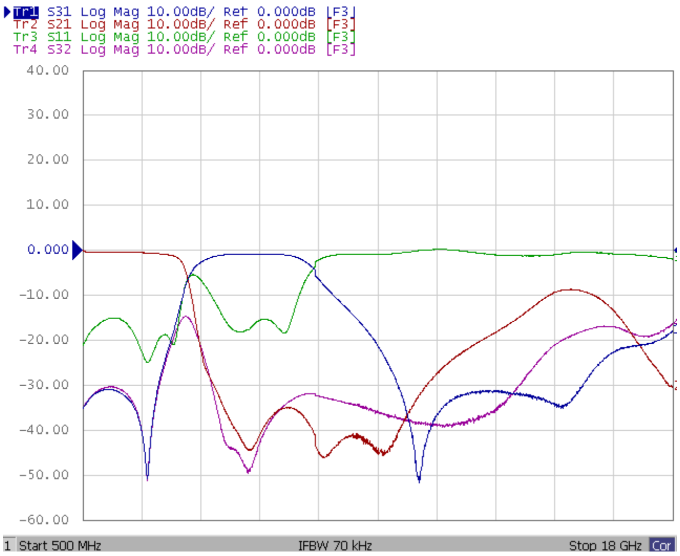

Test Instruments： Agilent E5071C Network Analyzer

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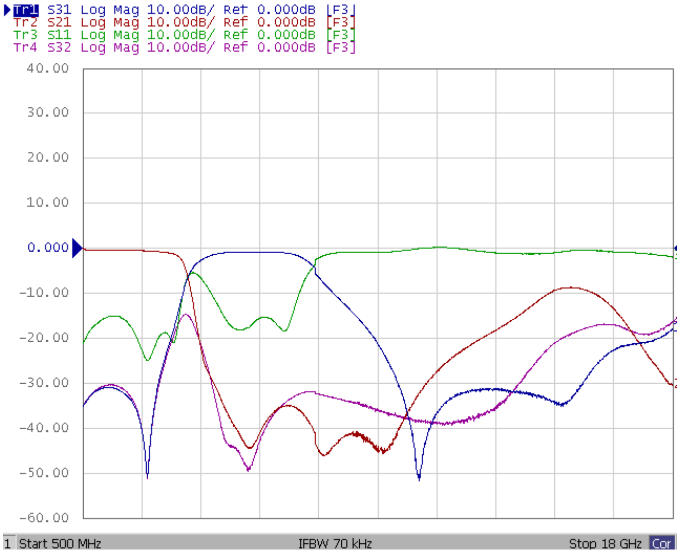

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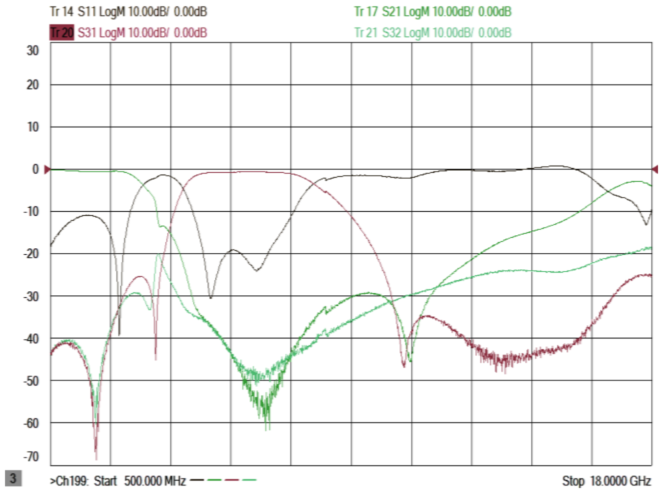

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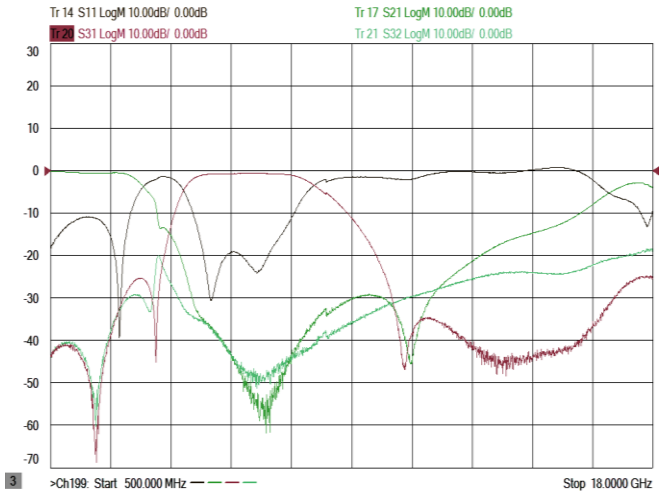

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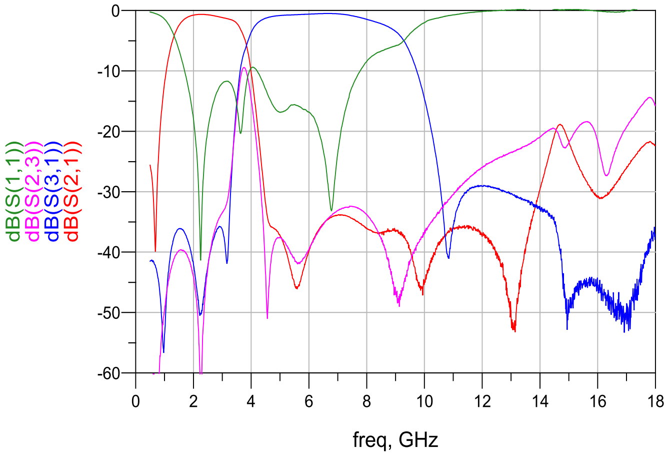

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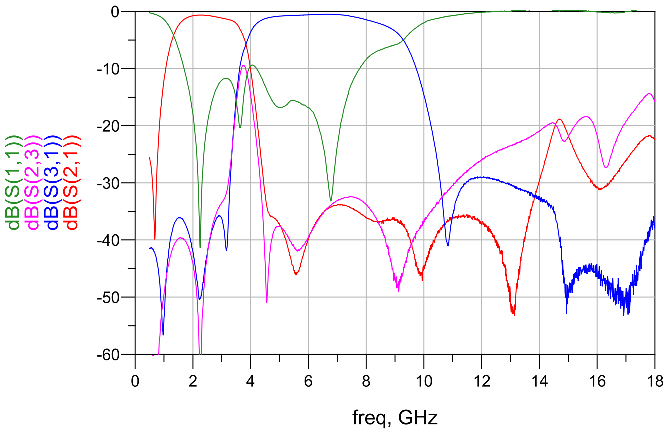


Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Isolation (dB)Min	Application
BTLD002012DLXJVA10	699~960	0.9	10	25dB Min.@ 1427~1511 MHz 30dB Min.@ 1559~1610 MHz 35dB Min.@ 1805~2170 MHz 30dB Min.@ 2400~2700 MHz 20dB Min.@ 3400~3800 MHz 20dB Min.@ 5150~5850 MHz	25	GSM WCDMA LTE
	1427~2200	0.9	10	25dB Min.@ 699~960 MHz	25	
	3400~3800	0.7	10		-	
	5150~5925	0.9	10		-	
BTLD002012JOXKSA10	617~960	0.35(0.2Typ)	12(17.5Typ)	17dB Min./ 20dB Typ.@ 3300~3400 MHz 23dB Min./ 26dB Typ.@ 3400~4200 MHz 23dB Min./ 26.9dB Typ.@ 4400~5000 MHz 28dB Min./ 33.2dB Typ.@ 5150~5925 MHz	30	GSM WCDMA LTE NR WiFi
	1427~1511	0.45(0.3Typ)			30	
	1710~2170	0.55(0.45Typ)			23	
	2300~2496	0.75(0.6Typ)				
	2496~2690	0.95(0.75Typ)				
	3300~3400	1.4(1.15Typ)	12(19Typ)	30dB Min./ 36.8dB Typ.@ 617~960 MHz 30dB Min./ 35.5dB Typ.@ 1427~1511 MHz 25dB Min./ 27.3dB Typ.@ 1710~2170 MHz 22dB Min./ 27dB Typ.@ 2170~2690 MHz 22dB Min./ 27dB Typ.@ 2170~2690 MHz 10dB Min./ 23.5dB Typ.@ 1.545~1.7775 GHz	18	
	3400~4200	1.1(0.95Typ)			23	
	4400~5000	0.7(0.5Typ)			23	
	5150~5925	0.55(0.4Typ)			28	
BTLD0020122G4S1A40	2400~2500	0.7	11.73	20dB Min.@ 4800~6000 MHz	-	WLAN
	4900~5850	0.9	10.88	20dB Min.@ 2400~2500 MHz		
BTLD0020122G4S1B50	2400~2500	25℃ 0.5 -40~85℃ 0.65	10	20dB Min.@ 4800~5000 MHz 20dB Min.@ 7200~7500 MHz	-	WLAN
	4900~5950	25℃ 1 -40~85℃ 1.15	10	20dB Min.@ 2400~2500 MHz 15dB Min.@ 9800~11900 MHz		
BTLD0020122G4S1B60	2400~2500	25℃ 0.5 -40~85℃ 0.7	10	20dB Min.@ 4800~5000 MHz 20dB Min.@ 7200~7500 MHz	-	WLAN
	4900~5950	25℃ 1 -40~85℃ 1.2	10	20dB Min.@ 1800~2500 MHz 15dB Min.@ 9800~11900 MHz		
BTLD0020122G4S1D20	2400~2500	0.7	10	20dB Min.@ 4800~6000 MHz 15dB Min.@ 7200~7500 MHz	-	WLAN
	4900~5950	1	10	20dB Min.@ 1800~2500 MHz 25dB Min.@ 9800~11900 MHz 15dB ref.@ 14700~17850 MHz		

- Operating temperature range －40℃～85℃

Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Isolation (dB)Min	Application
BTLD0020122G4S3A70	2400~2500	0.5	10	20dB Min.@ 4800~6000 MHz 22dB Min.@ 7200~7500 MHz	-	WLAN
	4900~5950	0.65	10	22dB Min.@ 824~915 MHz 22dB Min.@ 1800~2500 MHz 15dB Min.@ 9800~11900 MHz		
BTLD0020122G4S3A80	2400~2500	0.5	10	20dB Min.@ 4800~6000 MHz 22dB Min.@ 7200~7500 MHz	-	WLAN
	4900~5950	0.65	10	22dB Min.@ 824~915 MHz 22dB Min.@ 1800~2500 MHz 15dB Min.@ 9800~11900 MHz		
BTLD0020122G4S3E80	2400~2500	0.5	10	20dB Min.@ 4800~6000 MHz 22dB Min.@ 7200~7500 MHz	-	WLAN
	4900~5950	0.65	10	22dB Min.@ 824~915 MHz 25dB Min.@ 1800~2500 MHz 20dB Min.@ 9800~11900 MHz		

- Operating temperature range －40℃～85℃

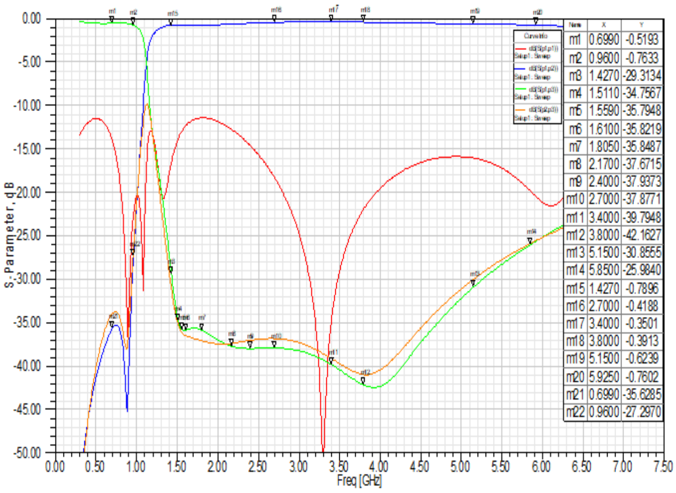
Electrical Characteristics

Part Number	Pass Band (MHz)	Impedance(Ω)		Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Isolation (dB)Min	Application
		ANT Port	RX/TX Port					
BTLD0020152G4S3A10	2400~2500	50	RX: Conj. match to MT7668	25℃ 2.2 105℃ 2.5	10	21dB Min.@ 4800~5000 MHz 23dB Min.@ 5000~5950 MHz 20dB Min.@ 7200~7500 MHz	30dB Min @ 4900~5950 MHz	WLAN/BT
	2400~2500	50	TX: Conj. match to MT7668	25℃ 1.5 105℃ 1.8	10	27dB Min.@ 4800~5000 MHz 23dB Min.@ 5000~5950 MHz 20dB Min.@ 7200~7500 MHz		
	4900~5950	50	50	25℃ 1.3 105℃ 1.6	10	30dB Min.@ 2400~2500 MHz 10dB Min.@ 8100~8800 MHz 15dB Min.@ 8820~9800 MHz 23dB Min.@ 9800~11900 MHz	25dB Min @ 2400~2500 MHz	

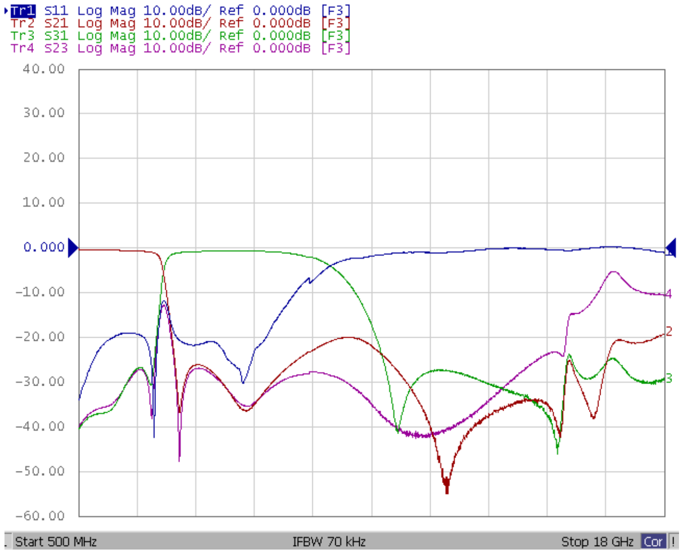
- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071C Network Analyzer

BTLD002012DLXJVA10



BTLD002012JOXKSA10



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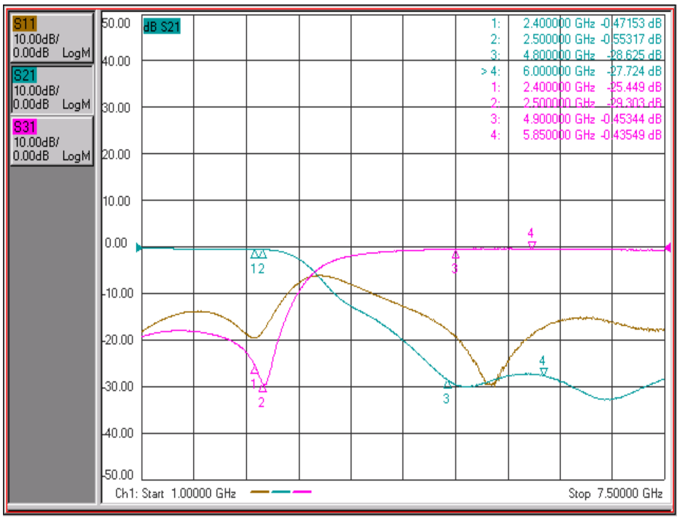

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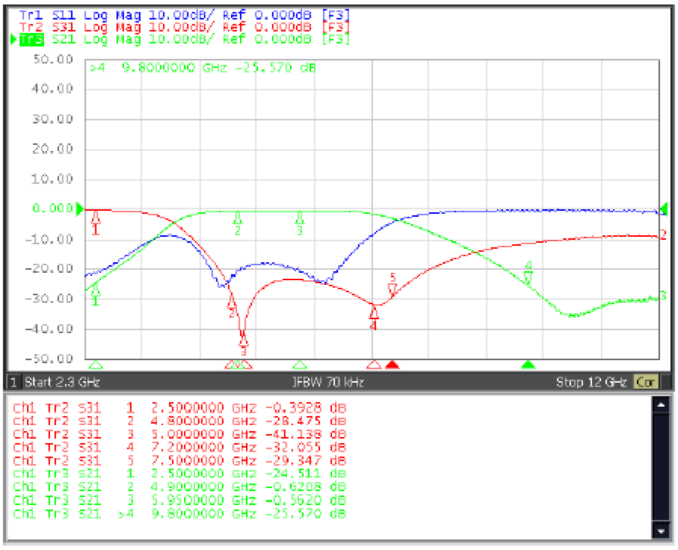

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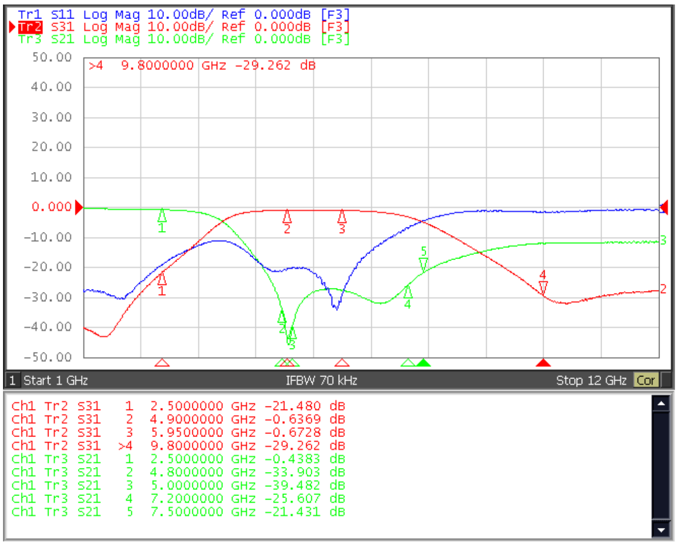

Test Instruments： Agilent E5071C Network Analyzer

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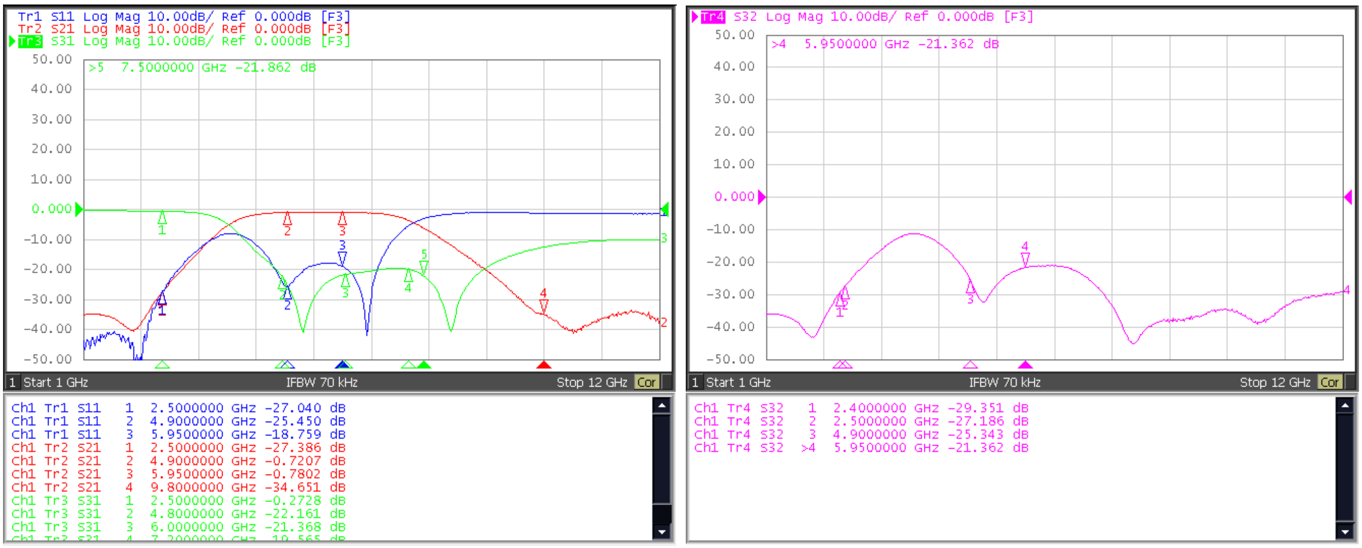

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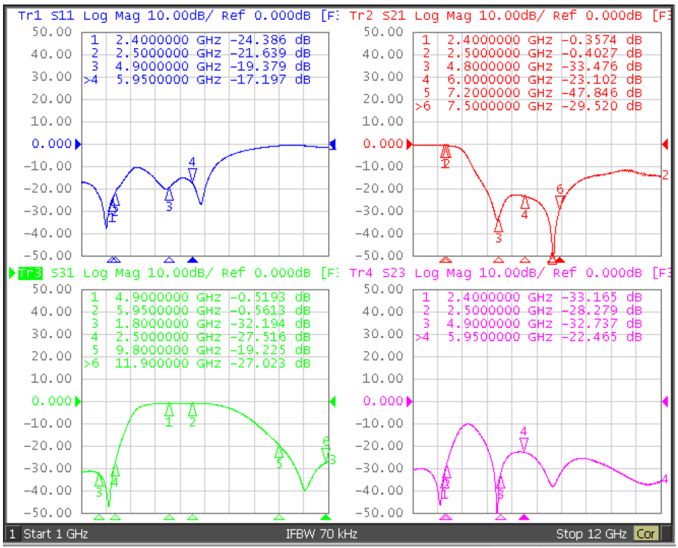

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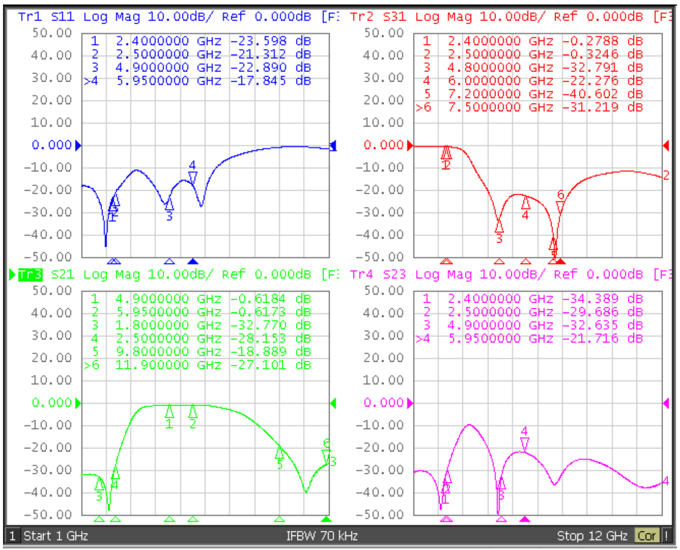

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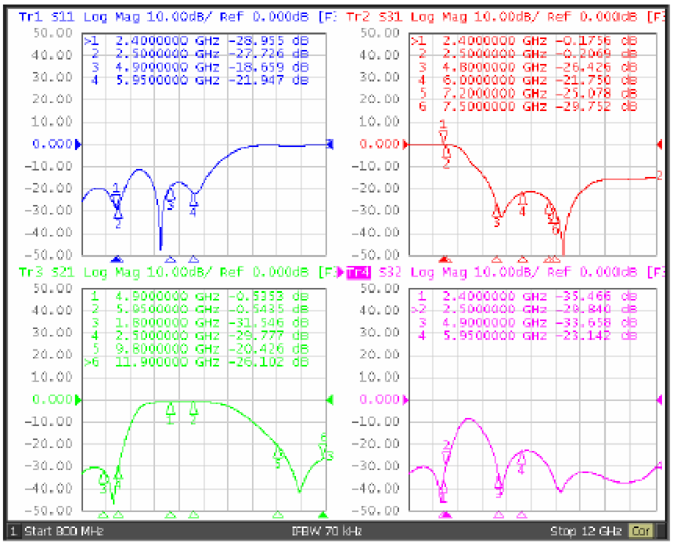
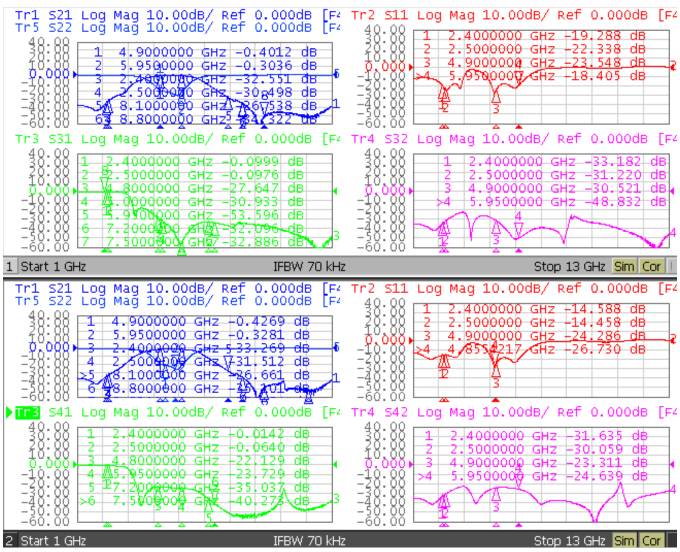


BTLD0020152G4S3A10



Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

Pulse a YAGEO company CHILISIN CHILISIN ELECTRONICS CORP.

Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max 25℃	Insertion Loss (dB)Max -40~85℃	Return Loss (dB)Min	Attenuation	Isolation (dB)Min	Application
BTLD002520DHXKMA10 BTLD002520DHXKMB10	617~960	0.6	0.7	12(20Typ)	18dB Min./ 27dB Typ.@ 1427~1463 MHz 23dB Min./ 30dB Typ.@ 1452~1496 MHz 23dB Min./ 30dB Typ.@ 1463~1496 MHz 23dB Min./ 30dB Typ.@ 1496~1511 MHz 20dB Min./ 25dB Typ.@ 1554~1605 MHz 20dB Min./ 24dB Typ.@ 1695~1710 MHz 20dB Min./ 24dB Typ.@ 1710~1850 MHz 20dB Min./ 24dB Typ.@ 1760~1850 MHz 20dB Min./ 24dB Typ.@ 1850~2108 MHz 23dB Min./ 27dB Typ.@ 2109~2200 MHz 25dB Min./ 30dB Typ.@ 2300~2400 MHz 25dB Min./ 31dB Typ.@ 2401~2496 MHz 25dB Min./ 33dB Typ.@ 2496~2586 MHz 28dB Min./ 35dB Typ.@ 2620~2745 MHz 30dB Min./ 39dB Typ.@ 3300~4200 MHz 30dB Min./ 38dB Typ.@ 4400~5000 MHz 20dB Min./ 25dB Typ.@ 5150~5925 MHz 5dB Typ.@ 5925~12750 MHz	23	GSM/LTE WCDMA
	1452~1496	0.7	0.8	12(20Typ)	23dB Min./ 26dB Typ.@ 617~915 MHz 24dB Min./ 27dB Typ.@ 915~960 MHz 10dB Typ.@ 3300~3400 MHz 15dB Min./ 18dB Typ.@ 3400~3600 MHz 15dB Min./ 18dB Typ.@ 3600~3800 MHz 15dB Min./ 18dB Typ.@ 3800~5130 MHz 28dB Min./ 35dB Typ.@ 5130~5925 MHz 7.5dB Typ.@ 5925~12750 MHz	23	
	1710~1995	0.6	0.7			20	
	2010~2690	0.7	0.8			20	
BTLD002520EIXSTA10	699~960	0.6	0.7	10(15.7Typ)	5dB Min./ 10.1dB Typ.@ 2300~2350 MHz 10dB Min./ 15.5dB Typ.@ 2350~2500 MHz 15dB Min./ 22.4dB Typ.@ 2500~2690 MHz	12	LTE/NR
	960~1427	0.75	0.85			11	
	1427~1710	0.85	0.95			11	
	1710~1990	1	1.15			10	
	1990~2110	1.5	1.65			12	
	2110~2170	2.5	2.7			5	
	2300~2350	2.65	2.85	10(12.8Typ)	12dB Min./ 14.8dB Typ.@ 699~960 MHz 12dB Min./ 13.7dB Typ.@ 960~1427 MHz 12dB Min./ 13.7dB Typ.@ 1427~1710 MHz 10dB Min./ 14.2dB Typ.@ 1710~1990 MHz 12dB Min./ 17.6dB Typ.@ 1990~2110 MHz 5dB Min./ 10.7dB Typ.@ 2110~2170 MHz	5	
	2350~2500	1.5	1.65			10	
	2500~2690	0.7	0.85			15	
	3300~3600	0.7	0.85	9(11.5Typ)		-	

- Operating temperature range －40℃～85℃

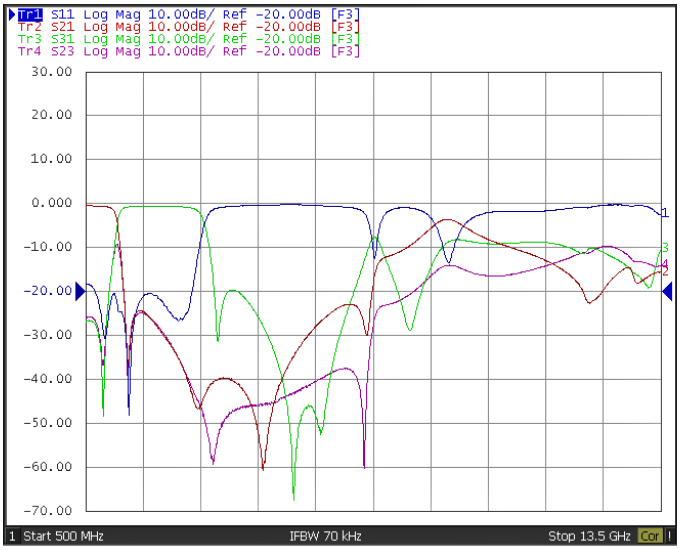
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Isolation (dB)Min	Application
BTLD002520JOXKSA10	617~960	0.3(0.1Typ)	10(18.5Typ)	15dB Min./ 21.1dB Typ.@ 3300~3400 MHz 23dB Min./ 27dB Typ.@ 3400~3800 MHz 28dB Min./ 30.9dB Typ.@ 5150~5925 MHz	30	LTE/NR
	1427~1661	0.45(0.18Typ)			27	
	1710~2170	0.45(0.26Typ)			23	
	2300~2496	0.60(0.41Typ)			23	
	2496~2690	0.75(0.63Typ)			23	
	3300~3400	1.4(0.93Typ)	10(14.4Typ)	30dB Min./ 38.7dB Typ.@ 617~960 MHz 30dB Min./ 39dB Typ.@ 1427~1511 MHz 23dB Min./ 29.8dB Typ.@ 1710~2690 MHz 20dB Min./ 39.6dB Typ.@ 1.03~1.17 GHz 5dB Min./ 20.1dB Typ.@ 1.545~1.755 GHz	15	LTE/NR
	3400~3600	0.85(0.73Typ)			23	
	3600~3800	0.7(0.59Typ)			23	
	5150~5925	0.7(0.58Typ)			28	

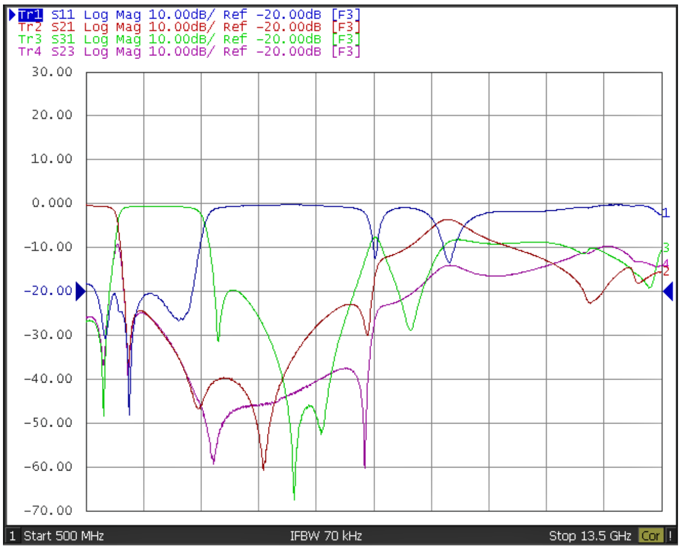
- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071C Network Analyzer

BTLD002520DHXKMA10



BTLD002520DHXKMB10



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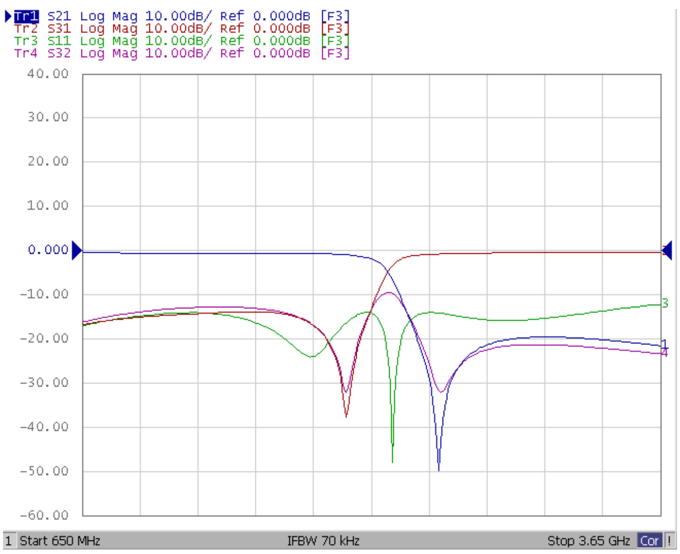

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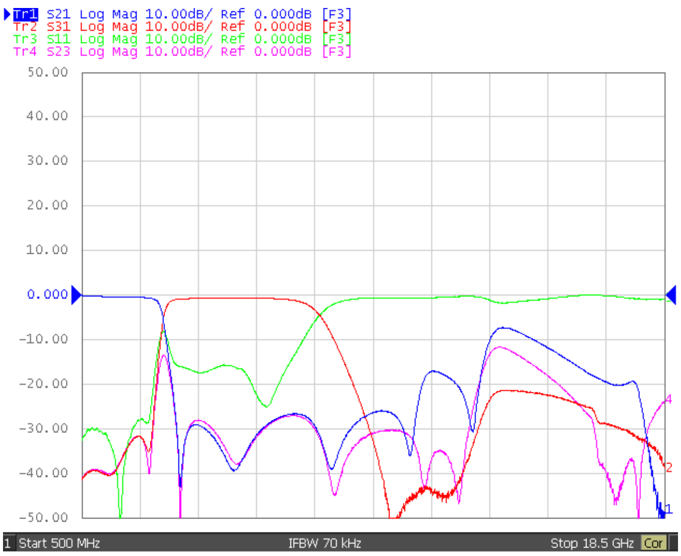
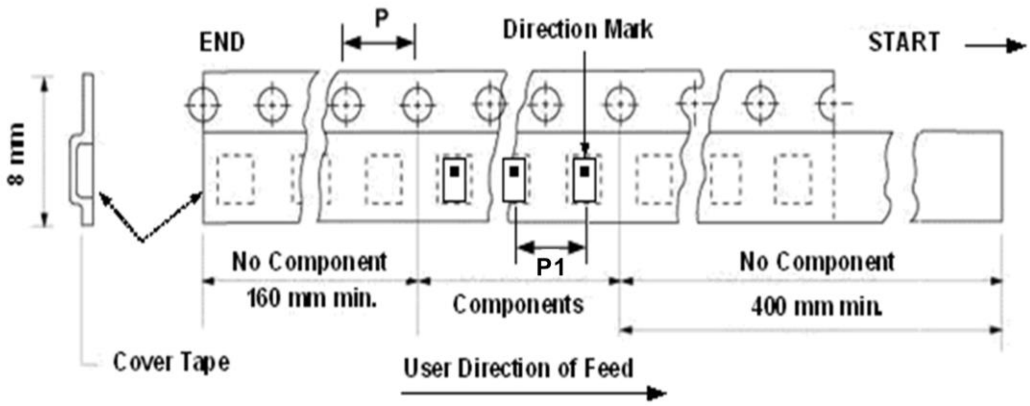
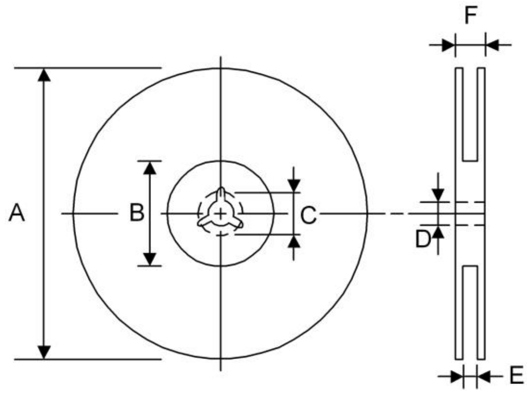


Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions		Reel Dimensions						Quantity
	P	P1	A	B	C	D	E	F	PCS / REEL
BTLD001005	4	2	178	60	-	13	9	12	10000
BTLD001608	4	4	178	60	-	13	9	12	4000
BTLD002012	4	4	178	60	-	13	9	12	4000
BTLD002520	4	4	178	60	-	13	9	12	3000

BTLU Series

Chilisin offer multilayer devices of Low-Temperature Cofired Ceramics (LTCC) for applications in wireless communication as WLAN, Bluetooth etc. Our commitment is to meet your goals through extensive technological innovation, excellent quality, short lead time and high volume production capability.

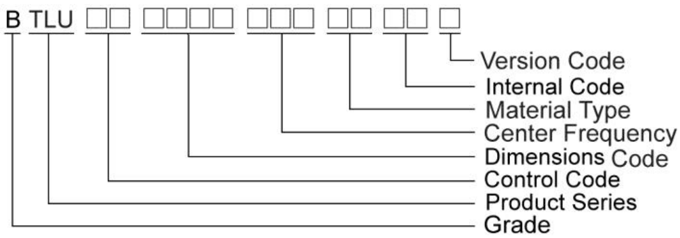
Features

- RoHS, Halogen Free and REACH Compliance
- Miniaturized.
- Low insertion loss
- Eliminate noise over a wide frequency range. Idea for high frequency and space limited designs.

Applications

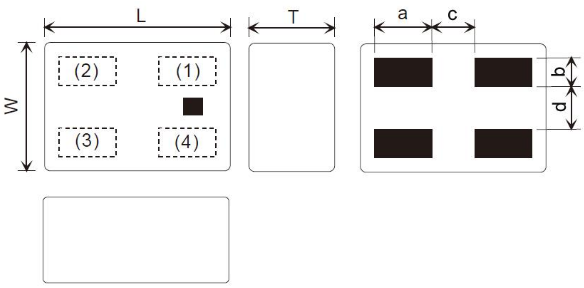
- WLAN ,Home RF, Bluetooth Module, etc.
- GSM/WCDMA/LTE mobile communication systems

Product Identification

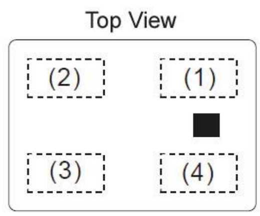


Shapes and Dimensions

BTLU000605xGxxxA10

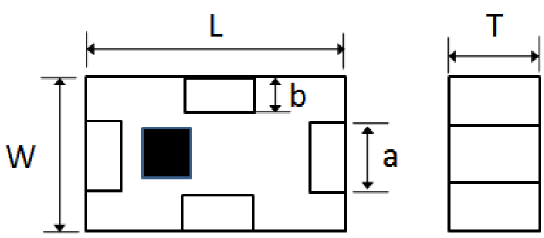


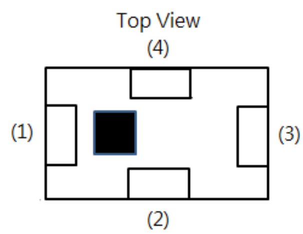
Terminal Configuration



① GND ② Unbalance Port ③ ④ Balance Port

BTLU0010050G7H6D10/BTLU0010052G0S1A10





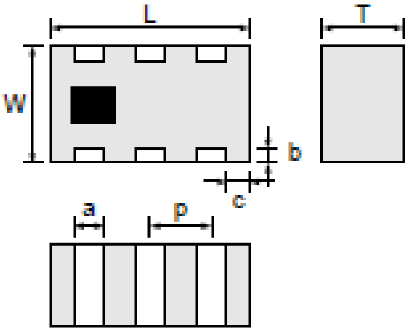
① ③ Balance Port ② Unbalance Port ④ GND or DC Feed +RF GND

Dimension in mm

TYPE	L	W	T	a	b	c	d
BTLU000605xGxxxA10	0.65±0.1	0.5±0.1	0.4±0.1	0.2±0.05	0.1±0.05	0.2±0.05	0.25±0.05
BTLU0010050G7H6D10	1.0±0.05	0.5±0.05	0.5 Max.	0.3±0.1	0.15±0.1	-	-
BTLU0010052G0S1A10	1.0±0.05	0.5±0.05	0.45±0.05	0.3±0.1	0.15±0.1	-	-

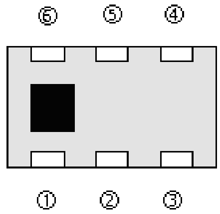
Shapes and Dimensions

BTLU001608xGxS1xx0



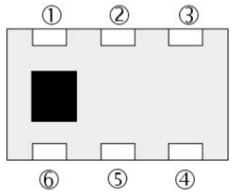
Terminal Configuration

BTLU0016082G4S1A10/BTLU0016083G8S1A20/BTLU0016084G0S1A10



① Unbalance Port ② GND or DC Feed + RF GND ③ Balance Port 1
④ Balance Port 2 ⑤ GND ⑥ N.C

BTLU001608xGxS1xx0



① N.C ② GND ③ Balance Port 1
④ Balance Port 2 ⑤ GND or DC ⑥ Unbalance Port

Dimension in mm

TYPE	L	W	T	a	b	c	p
BTLU0016082G4S1A10	1.6±0.10	0.8±0.1	0.6±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	0.55±0.1
BTLU0016082G4S1A20	1.6±0.15	0.8±0.1	0.6±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	0.55±0.1
BTLU0016082G4S1C20	1.6±0.15	0.8±0.1	0.5±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	0.55±0.1
BTLU0016083G5S1A20	1.6±0.15	0.8±0.1	0.6±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	0.55±0.1
BTLU0016083G8S1A20	1.6±0.15	0.8±0.1	0.6±0.1	0.2±0.1	0.15±0.1	0.2±0.15	0.5±0.05
BTLU0016084G0S1A10	1.6±0.15	0.8±0.1	0.6±0.1	0.2±0.1	0.15±0.1	0.2±0.15	0.5±0.05
BTLU0016085G5S1E10	1.6±0.15	0.8±0.1	0.6±0.1	0.3±0.1	$0.3^{+0.1}_{-0.2}$	0.1±0.1	0.55±0.1

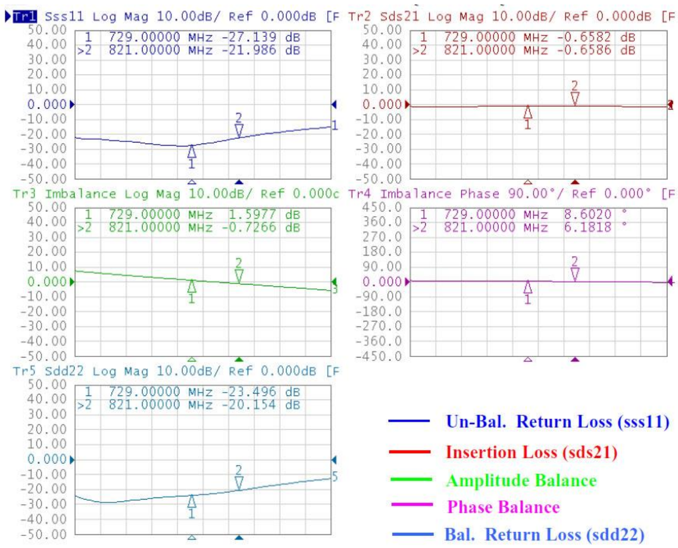
Electrical Characteristics

Part Number	Pass Band (MHz)	Impedance(Ω)		Return Loss (dB)Min	Insertion Loss (dB)Max	Balance Port		Application
		Unbalance	Balance			Amplitude Imbalance	Phase Difference	
BTLU0006050G7H6A10	729~821	50	100	10	0.7	2.0 dB Max	180±10°	LTE
BTLU0006051G8S5A10	1805~1990	50	100	10	0.7	2.0 dB Max	180±10°	LTE
BTLU0006052G5S5A10	2300~2700	50	100	10	0.7	2.5 dB Max	180±10°	WIMAX

- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071C Network Analyzer

BTLU0006050G7H6A10



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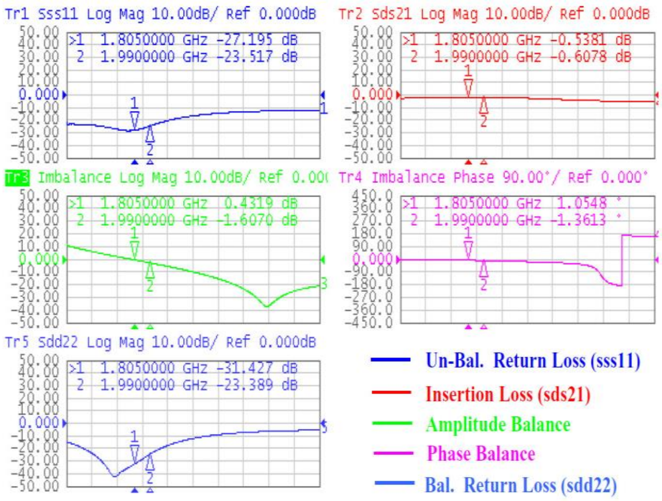

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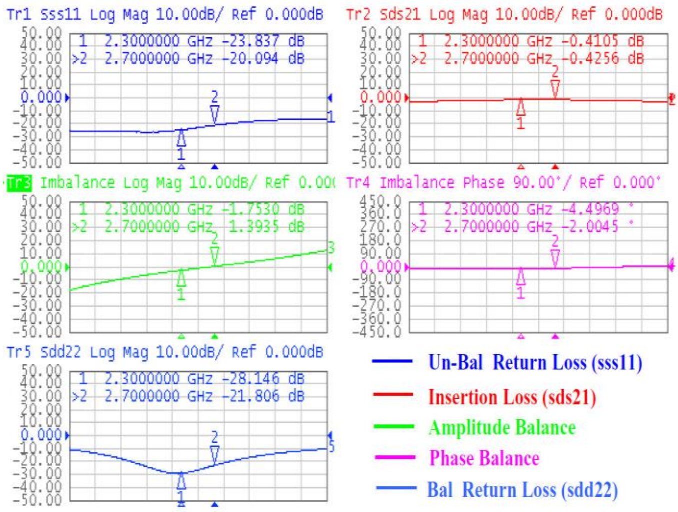


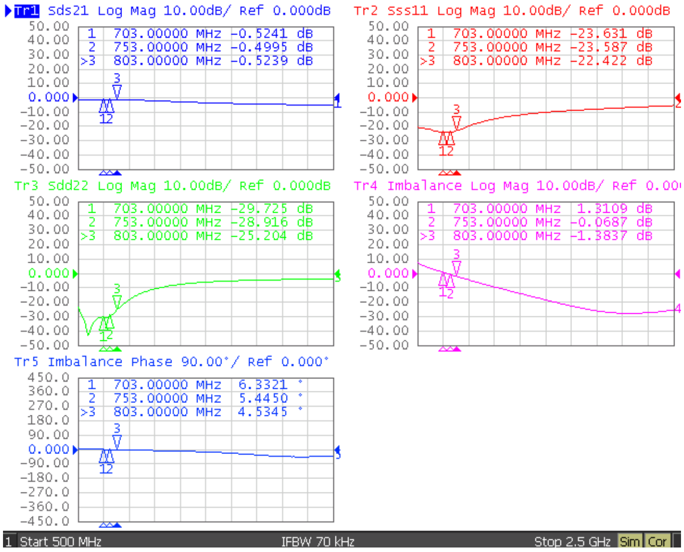
Electrical Characteristics

Part Number	Pass Band (MHz)	Impedance(Ω)		Return Loss (dB)Min	Insertion Loss (dB)Max	Balance Port		Application
		Unbalance	Balance			Amplitude Imbalance	Phase Difference	
BTLU0010050G7H6D10	703~803	50	100	10	0.8 at 25℃ 1.0	2.0 dB Max	180±12°	GSM/WCDMA/LTE
BTLU0010052G0S1A10	1805~2170	50	100	10	1.2	1.2 dB Max	180±15°	LTE

- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071C Network Analyzer

BTLU0010050G7H6D10



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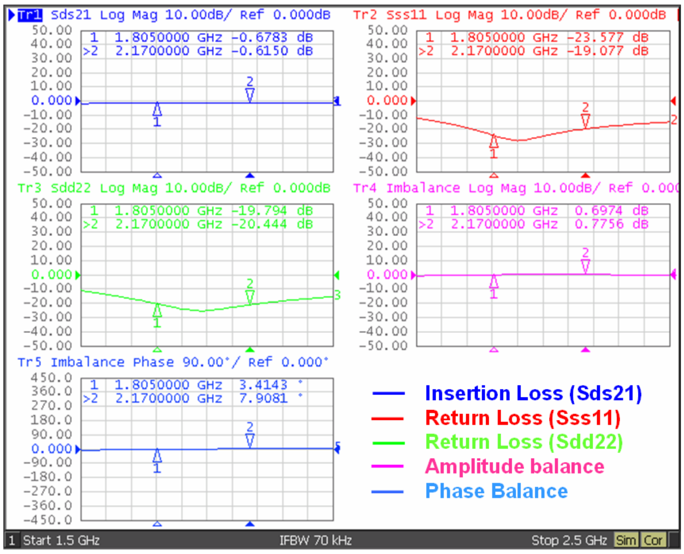

Electrical Characteristics

<table>
<tr><th rowspan="2">Part Number</th><th rowspan="2">Pass Band (MHz)</th><th colspan="2">Impedance(Ω)</th><th rowspan="2">Return Loss (dB)Min</th><th rowspan="2" colspan="2">Insertion Loss (dB)Max</th><th colspan="2">Balance Port</th><th rowspan="2">Application</th></tr>
<tr><th>Unbalance</th><th>Balance</th><th>Amplitude Imbalance</th><th>Phase Difference</th></tr>
<tr><td>BTLU0016082G4S1A10</td><td>2400~2500</td><td>50</td><td>100</td><td>10</td><td colspan="2">1.2</td><td>2 dB Max</td><td>180±10°</td><td>WLAN/BT</td></tr>
<tr><td>BTLU0016082G4S1A20</td><td>2400~2500</td><td>50</td><td>50</td><td>10</td><td colspan="2">1.2</td><td>2 dB Max</td><td>180±10°</td><td>WLAN/BT</td></tr>
<tr><td>BTLU0016082G4S1C20</td><td>2400~2500</td><td>50</td><td>50</td><td>10</td><td colspan="2">1.0</td><td>2 dB Max</td><td>180±10°</td><td>WLAN/BT</td></tr>
<tr><td>BTLU0016083G5S1A20</td><td>3300~3800</td><td>50</td><td>50</td><td>10</td><td colspan="2">1.2</td><td>2 dB Max</td><td>180±15°</td><td>WIMAX</td></tr>
<tr><td>BTLU0016083G8S1A20</td><td>3300~4200</td><td>50</td><td>50</td><td>10</td><td colspan="2">1.2</td><td>1.5 dB Max</td><td>180±15°</td><td>LTE/5G</td></tr>
<tr><td rowspan="2">BTLU0016084G0S1A10</td><td rowspan="2">3100~5000</td><td rowspan="2">50</td><td rowspan="2">100</td><td rowspan="2">10</td><td>25℃</td><td>1.1</td><td>1.2 dB Max</td><td>180±10°</td><td rowspan="2">LTE/5G</td></tr>
<tr><td>-40~85℃</td><td>1.3</td><td>1.4 dB Max</td><td>180±12°</td></tr>
<tr><td>BTLU0016085G5S1E10</td><td>4900~5900</td><td>50</td><td>100</td><td>10</td><td colspan="2">1.2</td><td>2 dB Max</td><td>180±10°</td><td>WLAN</td></tr>
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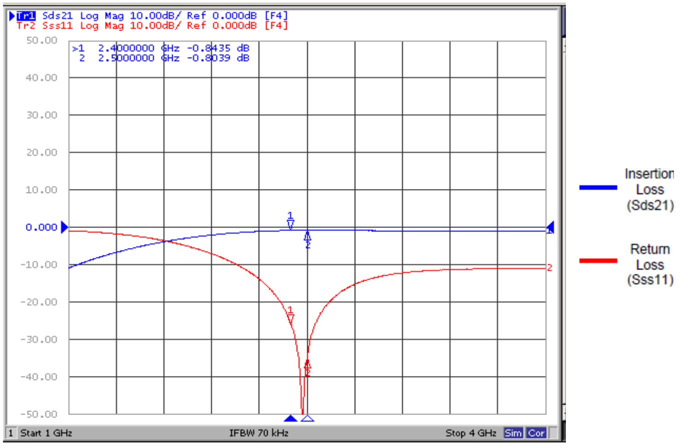
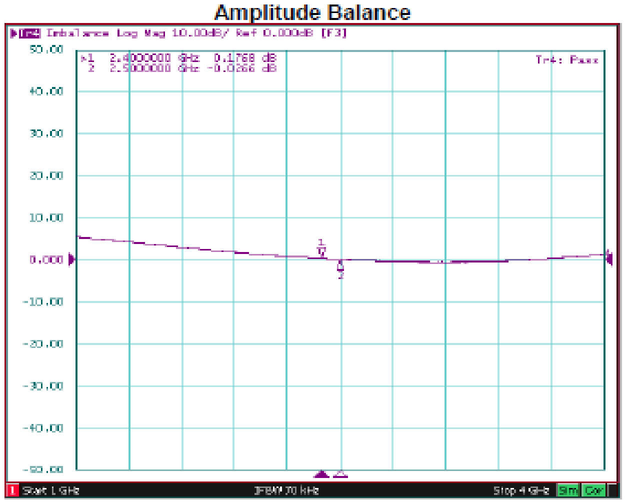
- Operating temperature range －40℃～85℃

Test Instruments：Agilent E5071C Network Analyzer

BTLU0016082G4S1A10

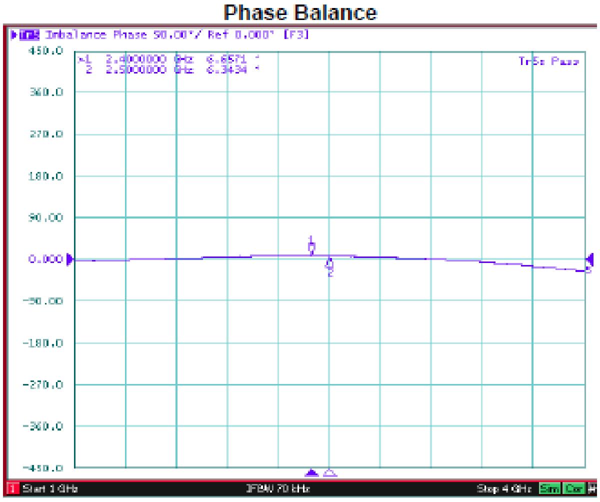


Amplitude Balance

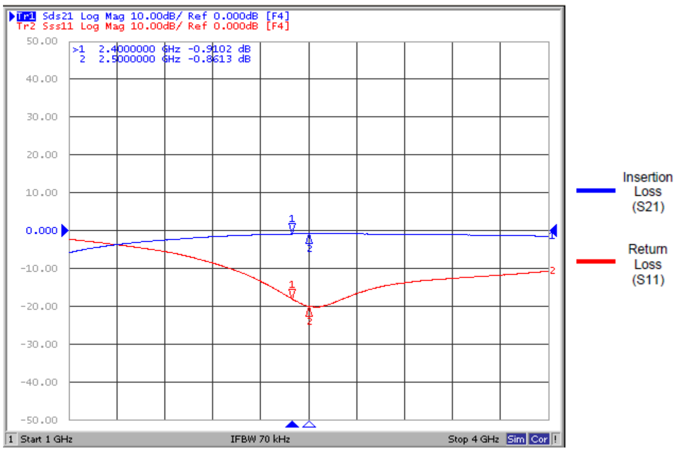


BTLU0016082G4S1A10

Phase Balance

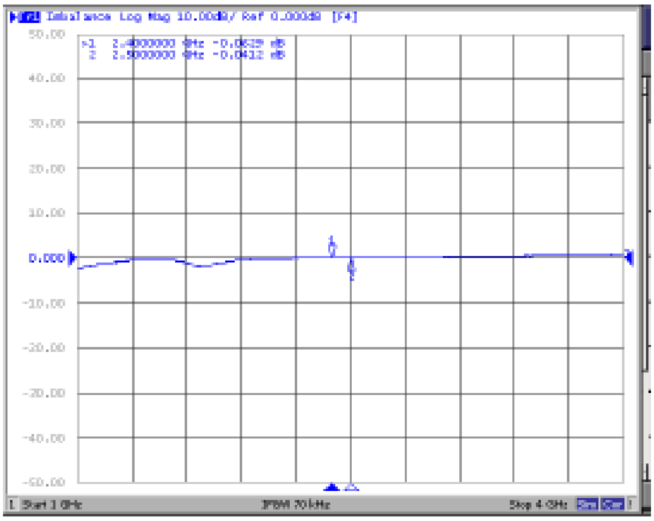


BTLU0016082G4S1A20

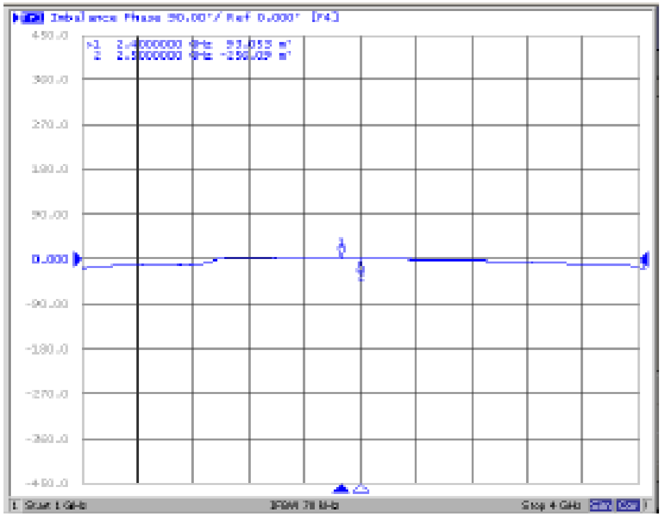


BTLU0016082G4S1A20

Amplitude Balance

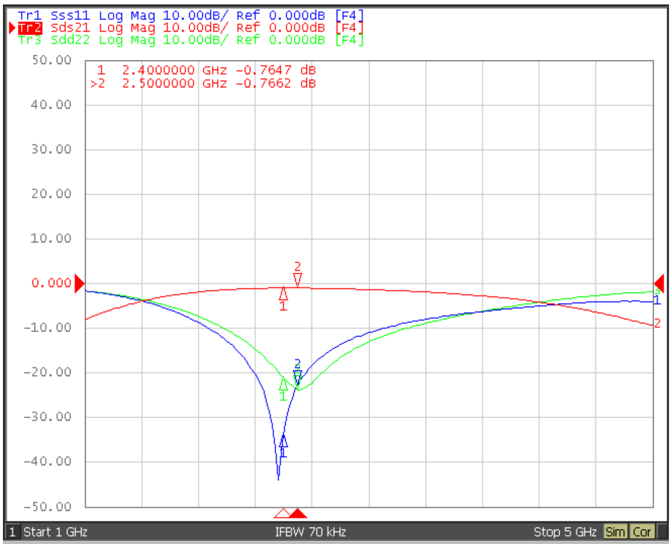


Phase Balance

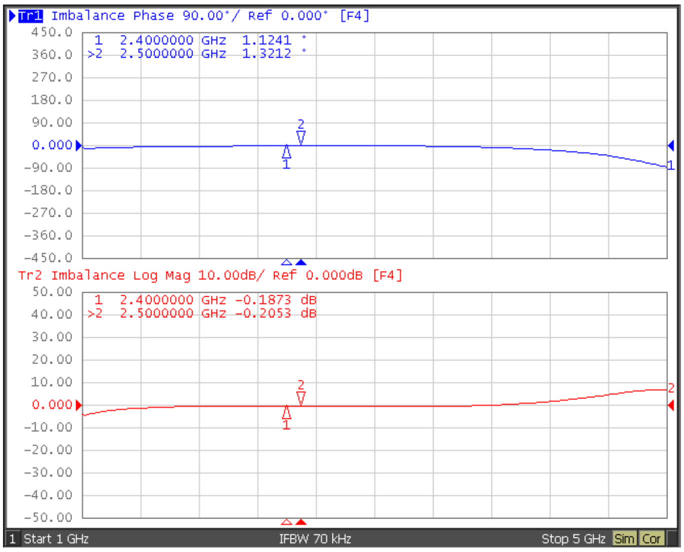


BTLU0016082G4S1C20

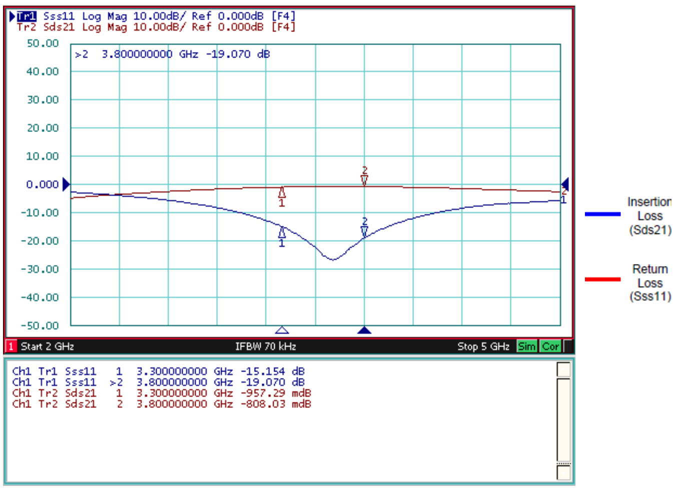
Insertion Loss / Return Loss



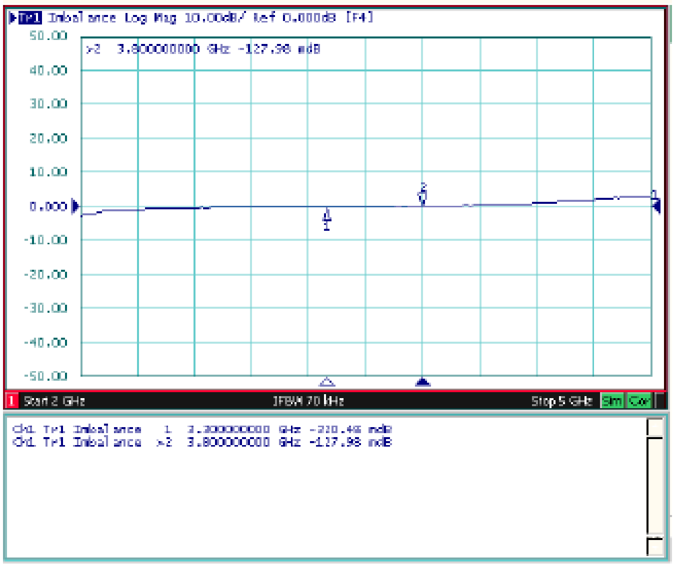
Phase / Amplitude



BTLU0016083G5S1A20

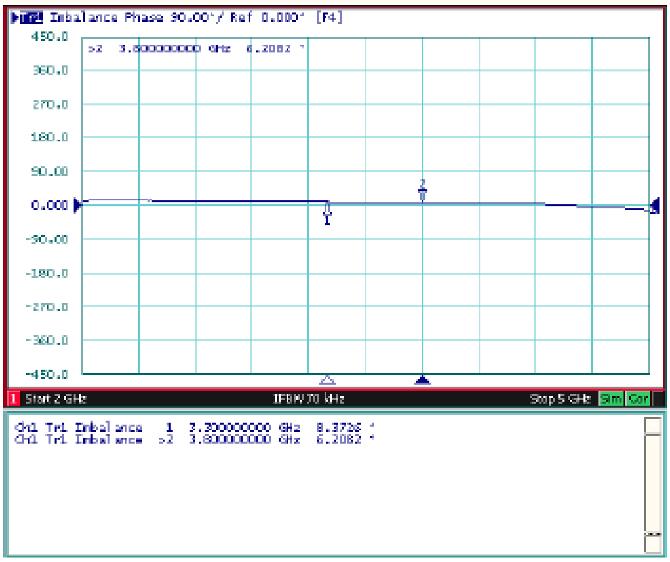


Amplitude Balance

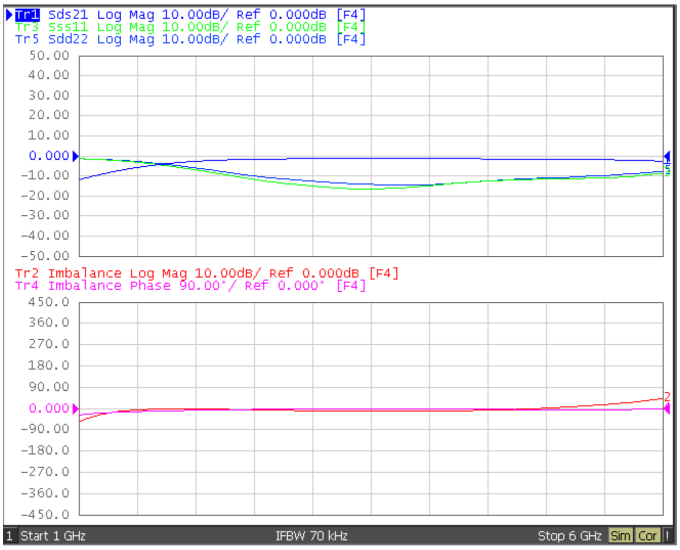


BTLU0016083G5S1A20

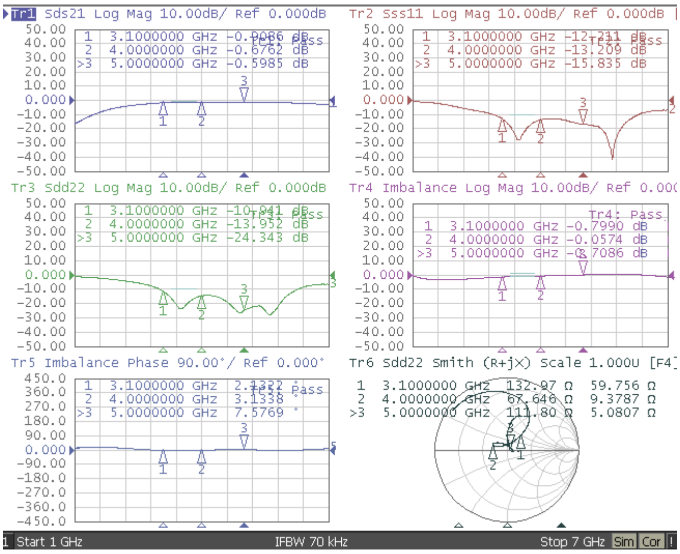
Phase Balance



BTLU0016083G8S1A20



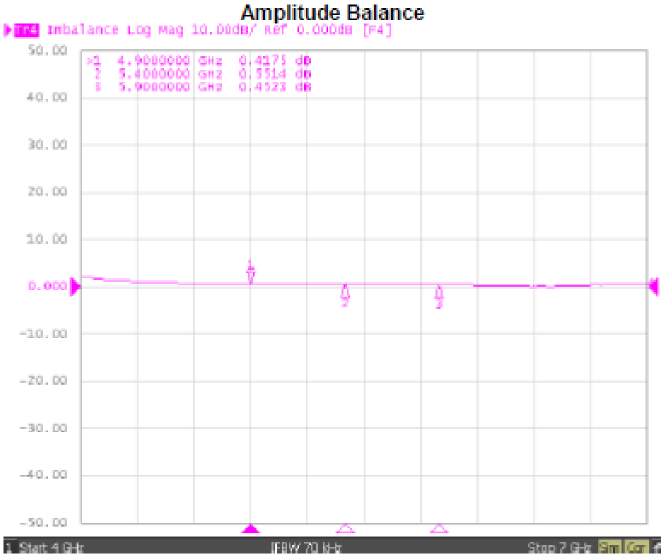
BTLU0016084G0S1A10



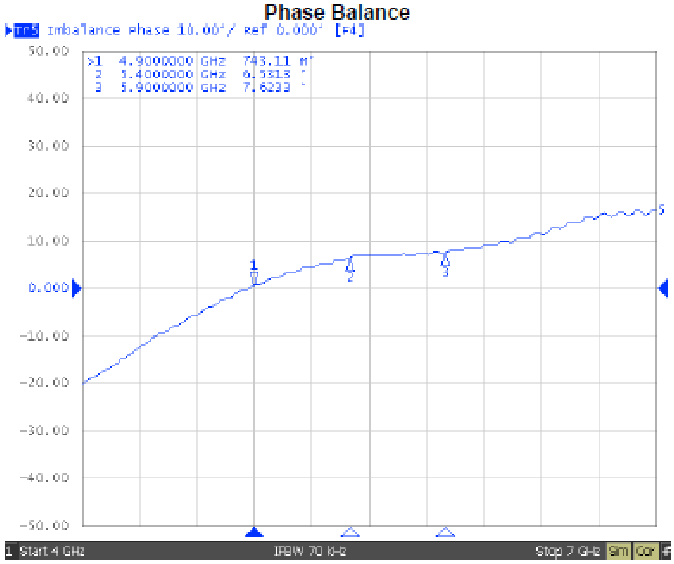
BTLU0016085G5S1E10

BTLU0016085G5S1E10

Amplitude Balance



Phase Balance



Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

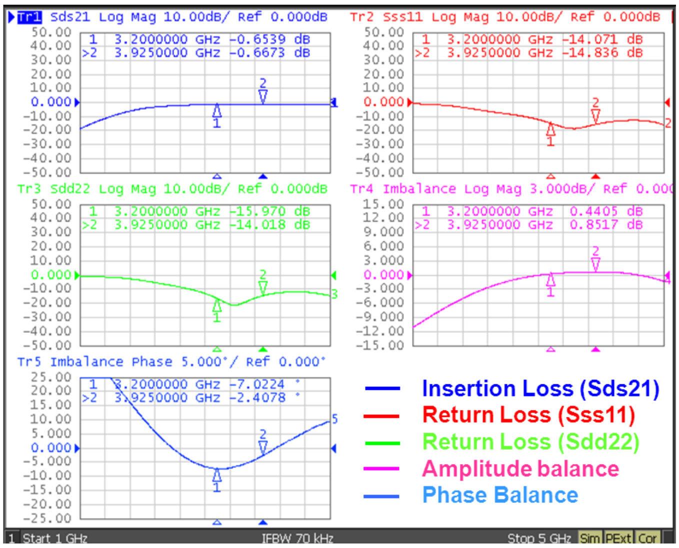
Electrical Characteristics

Part Number	Pass Band (MHz)	Impedance(Ω)		Return Loss (dB)Min	Insertion Loss (dB)Max	Balance Port		Application
		Unbalance	Balance			Amplitude Imbalance	Phase Difference	
BTLU0020123G6S1A30	3200~3925	50	200	10	1.2	1 dB Max	180±10°	WiMAX

- Operating temperature range －40℃～85℃

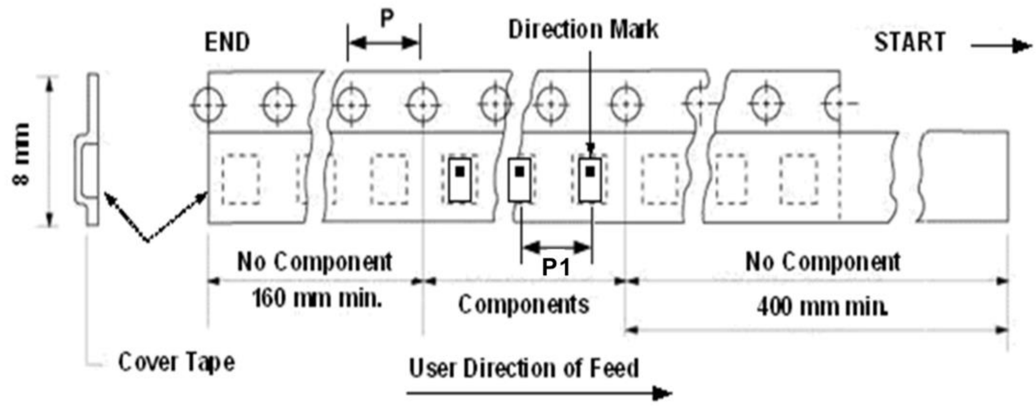
Test Instruments：Agilent E5071C Network Analyzer

BTLU0020123G6S1A30

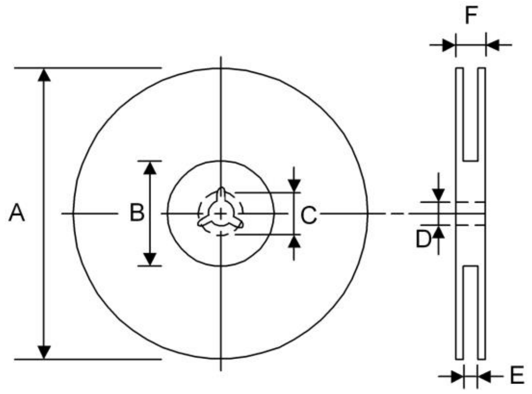


Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions		Reel Dimensions						Quantity
	P	P1	A	B	C	D	E	F	PCS / REEL
BTLU000605	4	2	178	60	-	13	9	12	10000
BTLU001005	4	2	178	60	-	13	9	12	10000
BTLU001608	4	4	178	60	-	13	9	12	4000
BTLU002012	4	4	178	60	-	13	9	12	4000

BTLH Series

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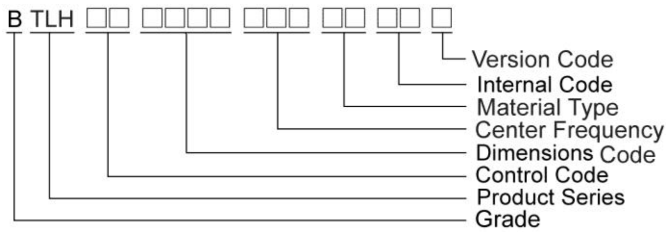
Features

- RoHS, Halogen Free and REACH Compliance
- Miniaturized.
- Low insertion loss, high attenuation.
- Eliminate noise over a wide frequency range. Idea for high frequency and space limited designs.

Applications

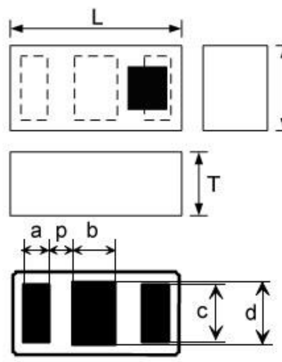
- WLAN ,Home RF, Bluetooth Module, etc.

Product Identification

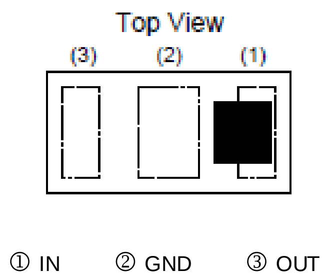


Shapes and Dimensions

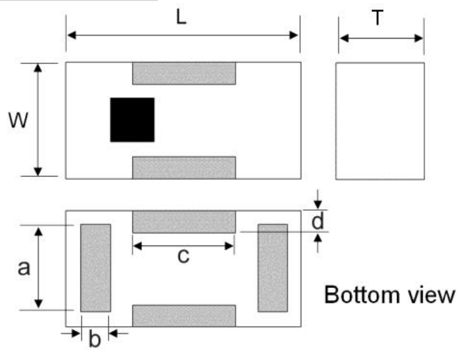
BTLH0016082G5S3A10

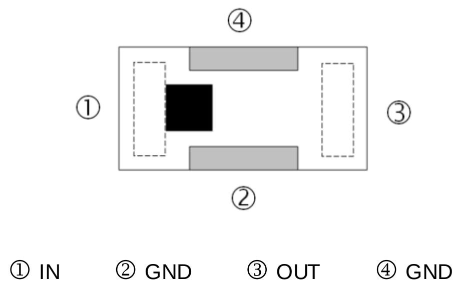


Terminal Configuration



BTLH0016085G5S1A10





Dimension in mm

TYPE	L	W	T	a	b	c	d	p
BTLH0016082G5S3A10	1.6±0.1	0.8±0.1	0.65Max	0.25±0.1	0.4±0.1	0.55±0.1	0.6±0.1	0.23±0.05
BTLH0016085G5S1A10	1.6±0.1	0.8±0.1	0.6±0.1	0.6±0.1	0.2±0.05	0.7±0.15	0.15±0.1	-

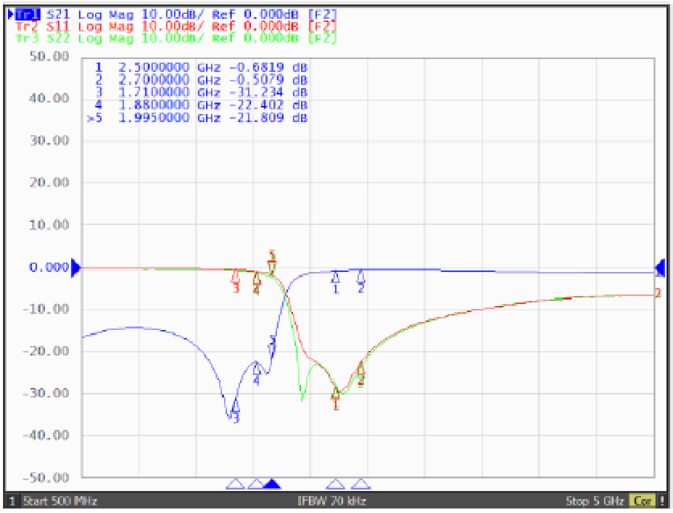
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Attenuation	Application
BTLH0016082G5S3A10	2496~2690	0.7	20	22dB Min.@ 1710~1880 MHz 21dB Min.@ 1880~1995 MHz	LTE/WLAN
BTLH0016085G5S1A10	4900~5850	0.6	10	25dB Min.@ 2400~2500 MHz	WLAN

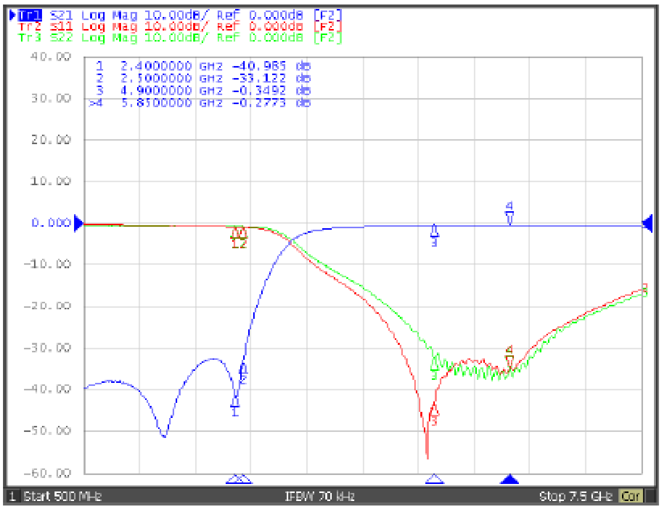
- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071C Network Analyzer

BTLH0016082G5S3A10

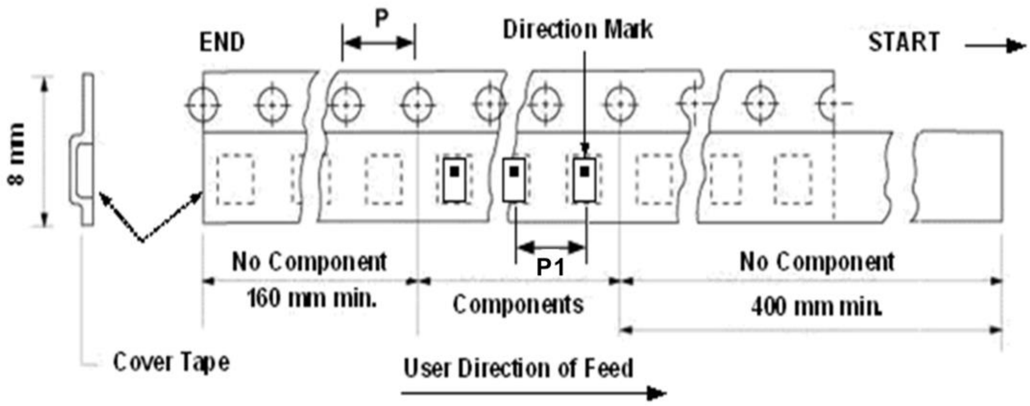


BTLH0016085G5S1A10

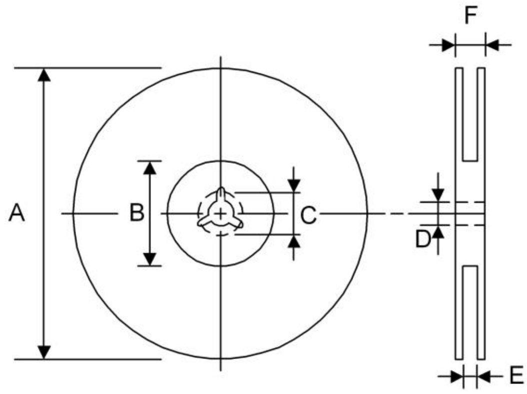


Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions		Reel Dimensions						Quantity
	P	P1	A	B	C	D	E	F	PCS / REEL
BTLH001608	4	4	178	60	-	13	9	12	4000

BTDC Series

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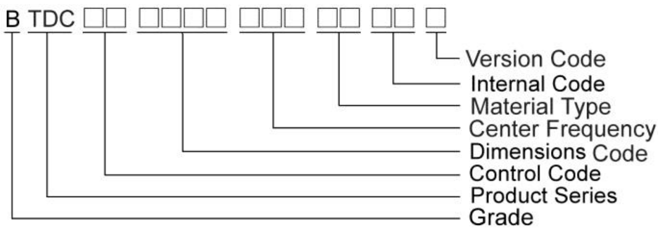
Features

- RoHS, Halogen Free and REACH Compliance
- Miniaturized.
- Low insertion loss
- Eliminate noise over a wide frequency range. Idea for high frequency and space limited designs.

Applications

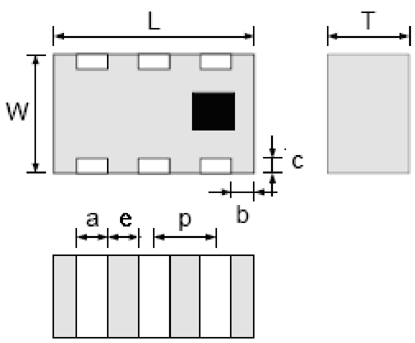
- WLAN ,Home RF, Bluetooth Module, etc.

Product Identification

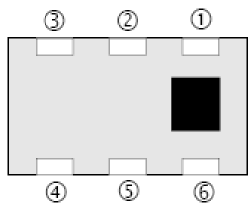


Shapes and Dimensions

BTDC00160812GS1A10



Terminal Configuration



① IN	② GND	③ Coupled Out
④ Terminate	⑤ GND	⑥ Main Out

Dimension in mm

TYPE	L	W	T	a	b	c	e	p
BTDC00160812GS1A10	1.6±0.1	0.8±0.1	0.6±0.1	0.3±0.1	0.1±0.1	0.3±0.2	0.25±0.1	0.55±0.05

Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Coupling (dB)	Isolation (dB)Min	Application
BTDC00160812GS1A10	1710~2100	0.35	10	27±1	40	LTE
	824~915	0.30	10	32±1	45	

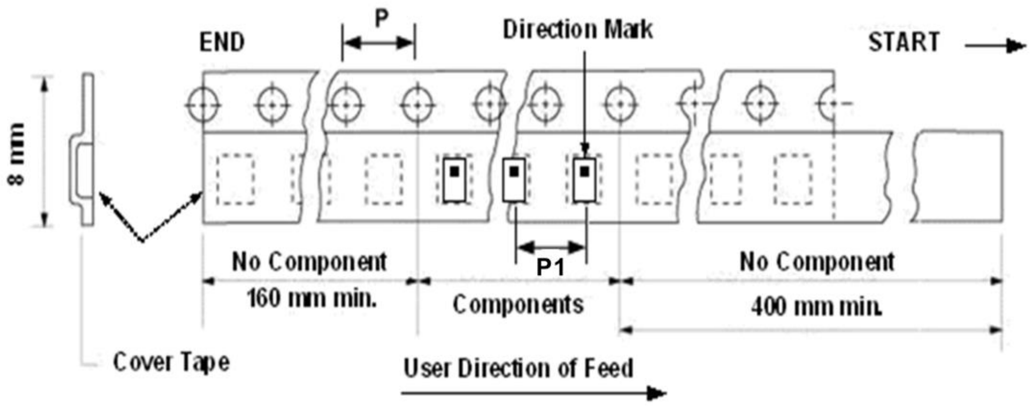
- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071C Network Analyzer

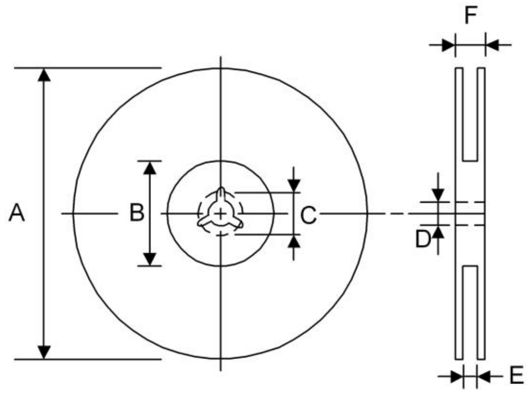
BTDC00160812GS1A10

Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions		Reel Dimensions						Quantity
	P	P1	A	B	C	D	E	F	PCS / REEL
BTDC001608	4	4	178	60	-	13	9	12	4000

BTBF Series

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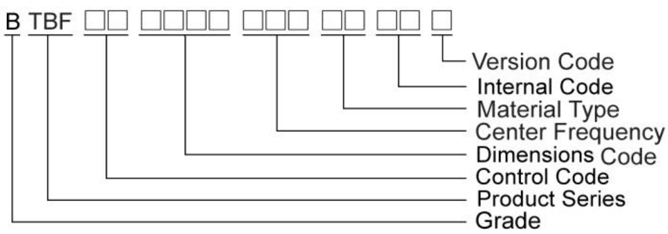
Features

- RoHS, Halogen Free and REACH Compliance
- Miniaturized.
- Low insertion loss, high attenuation.
- Eliminate noise over a wide frequency range. Idea for high frequency and space limited designs.

Applications

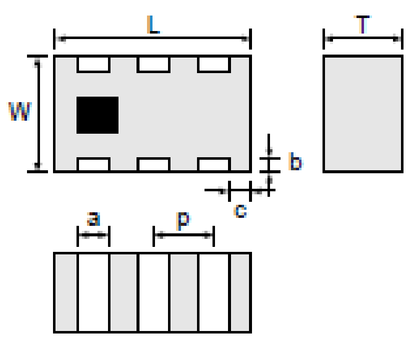
- WLAN ,Home RF, Bluetooth Module, WiMAX Modules, etc.

Product Identification

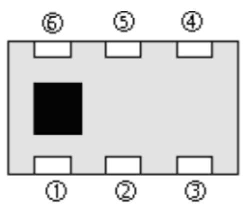


Shapes and Dimensions

BTBF0016082G4S1A20

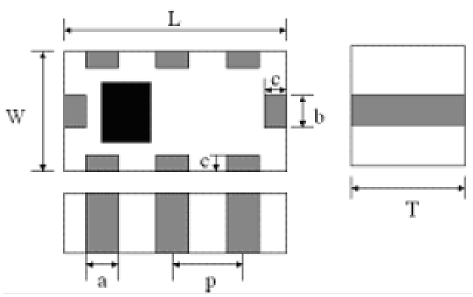


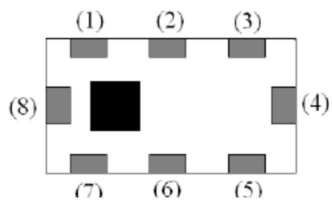
Terminal Configuration



① Unbalance Port ② GND ③ Balance Port1
③ Balance Port1 ⑤ GND ⑥ GND

BTBF0020123G6H6A10





① NC ② DC or NC Port ③ Un-Balance Port ④ GND
⑤ Balance Port1 ⑥ GND ⑦ Balance Port ⑧ GND

Dimension in mm

TYPE	L	W	T	a	b	c	p
BTBF0016082G4S1A20	1.6±0.1	0.8±0.1	0.65Max	0.3±0.1	0.2±0.1	0.15±0.1	0.55±0.05
BTBF0020123G6H6A10	2.0±0.2	1.25±0.2	1.0±0.1	$0.3^{+0.1}_{-0.15}$	$0.3^{+0.1}_{-0.15}$	0.2±0.15	0.65±0.15

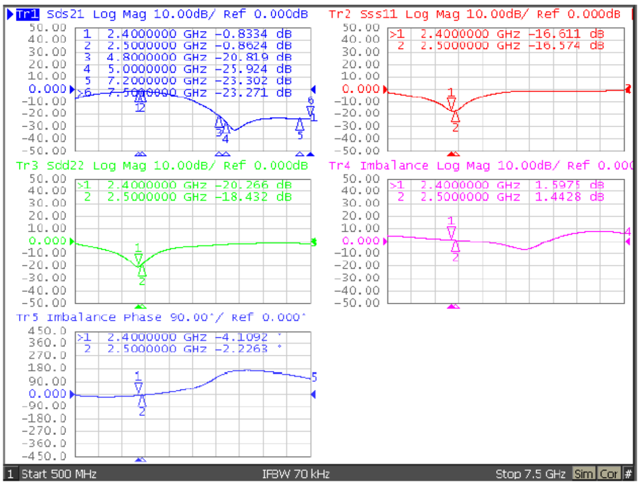
Electrical Characteristics

Part Number	Pass Band (MHz)	Impedance (Ω)	Insertion Loss (dB)Max	Return Loss (dB)Min	Ripple (dB)Max	Balance Port		Attenuation	Application
						Amplitude	Phase Difference		
BTBF0016082G4S1A20	2400~2500	50	1.75	10	1	2 dB Max	180±10°	19dB Min.@ 4800~5000 MHz 19dB Min.@ 7200~7500 MHz	WLAN/BT

- Operating temperature range －40℃～85℃

Test Instruments：Agilent E5071C Network Analyzer

BTBF0016082G4S1A20



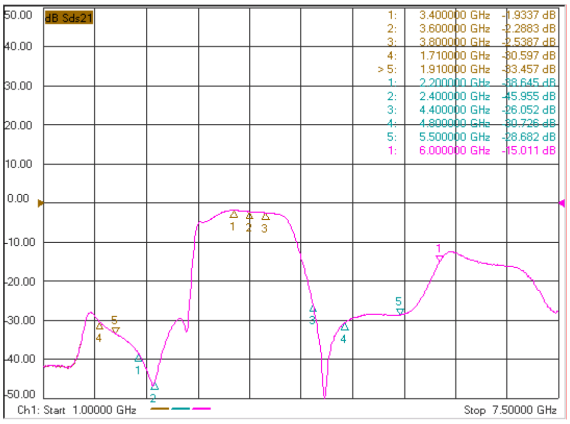
Electrical Characteristics

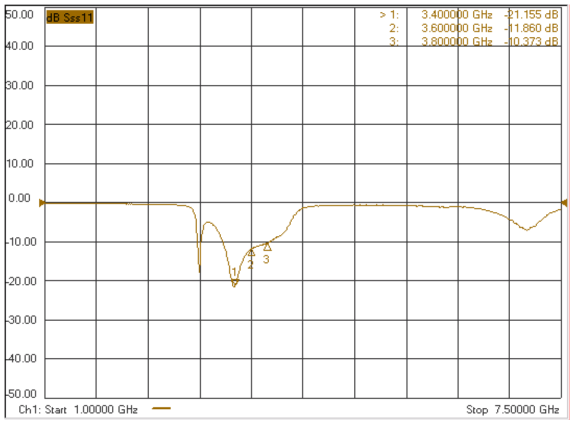
Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Max	Ripple (dB)Max	Balance Port Amplitude	Balance Port Phase Difference	Attenuation	Application
BTBF0020123G6H6A10	3400~3800	3.2	7.36	1	2.5 dB Max	180±10°	30dB Min.@ 1710~1910 MHz 30dB Min.@ 2200~2400 MHz 20dB Min.@ 4400~4800 MHz 15dB Min.@ 5500~10 MHz	Wimax

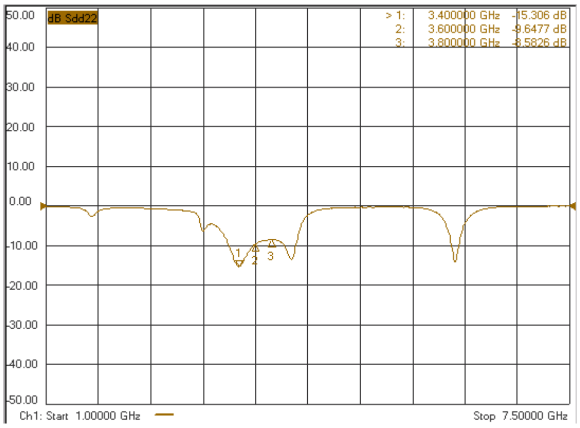
- Unbalance impedance：50 Ω
- Balance impedance：100 Ω
- Operating temperature range －40℃～85℃

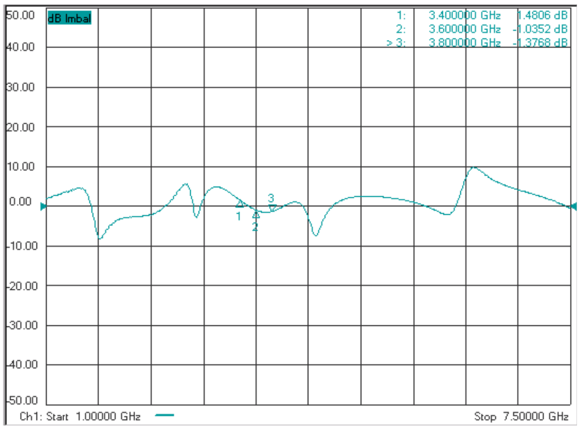
Test Instruments：Agilent E5071C Network Analyzer

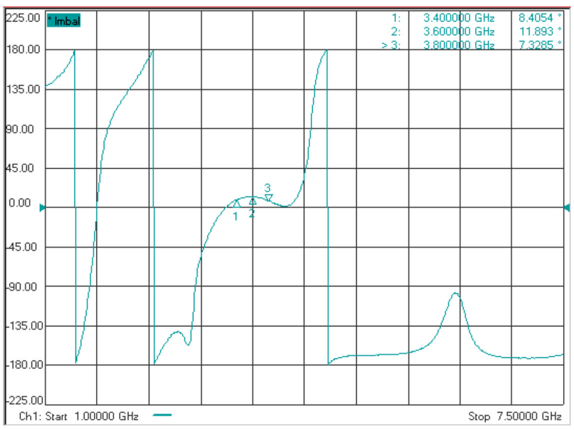
BTBF0020123G6H6A10





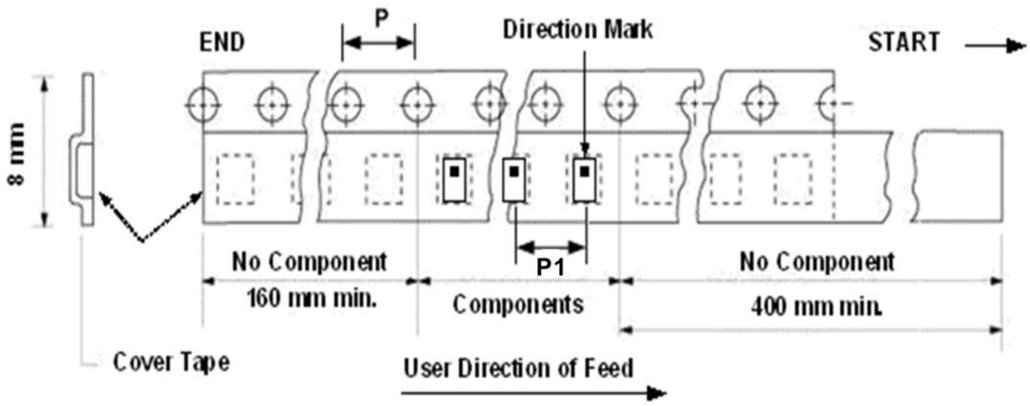




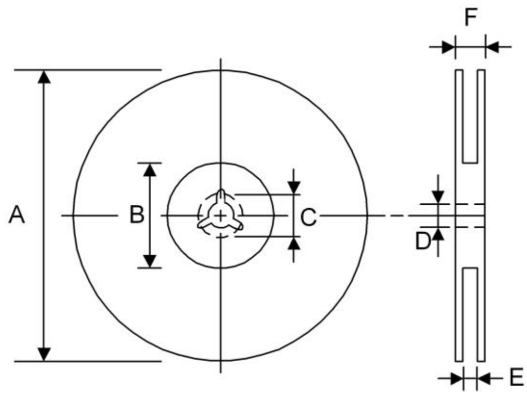


Packaging Specifications

Tape Dimensions



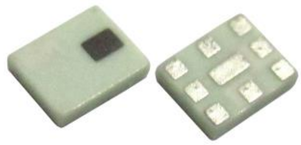
Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions		Reel Dimensions						Quantity
	P	P1	A	B	C	D	E	F	PCS / REEL
BTBF001608	4	4	178	60	-	13	9	12	4000
BTBF002012	4	4	178	60	-	13	9	12	4000

BTLT Series



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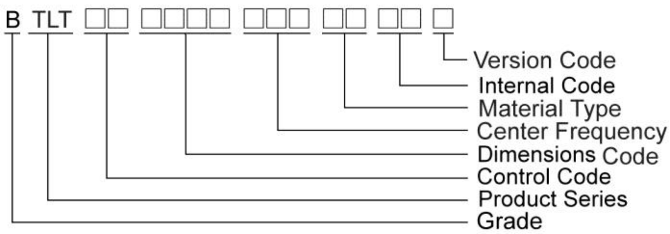
- Miniaturized.
- Low insertion loss, high attenuation.
- Eliminate noise over a wide frequency range. Idea for high frequency and space limited designs.

Applications

- WLAN ,Home RF, Bluetooth Module, WiMAX Modules, etc.

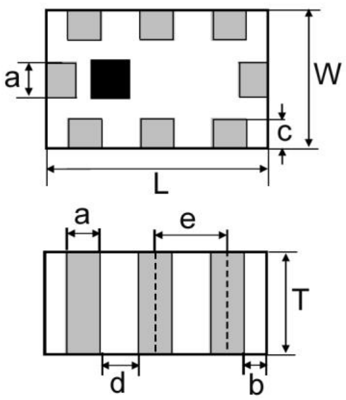
Product Identification

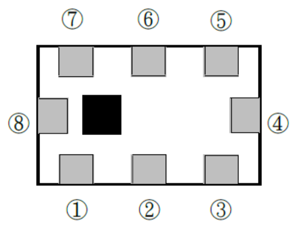


Shapes and Dimensions

Terminal Configuration

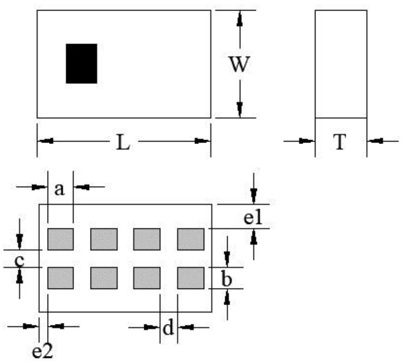
FIG 1

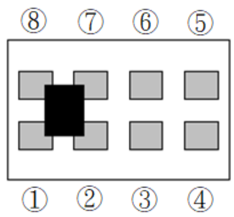




Type	Port				GND
	High Freq.	Low Freq.	Common	Middle	
BTLT002012MKLJNA20	④	⑧	②	⑥	①③⑤⑦
BTLT002012MKLJMA20	⑥	④	②	⑧	①③⑤⑦

FIG 2

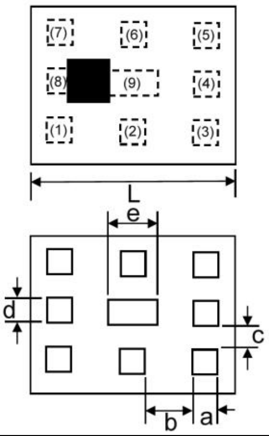




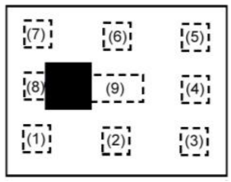
①③⑤⑦ GND ② Common ④ Low Band
⑧ High Band ⑤ Middle Band

Shapes and Dimensions

FIG 3



Terminal Configuration



Type	Port				GND
	High Freq.	Low Freq.	Common	Middle	
BTLT002520DHNKTA10	①	⑤	⑦	③	②④⑥⑧⑨
BTLT002520JNOKBA10	③	⑦	①	⑤	②④⑥⑧⑨
BTLT002520NOLKBA10	③	⑦	①	⑤	②④⑥⑧⑨

Dimension in mm

TYPE	FIG	L	W	T	a	b	c	d	e
BTLT002012MKLJNA20	1	2±0.1	1.25±0.1	0.95±0.1	0.3±0.1	0.2±0.1	$0.3^{+0.1}_{-0.2}$	0.35±0.1	0.65±0.05
BTLT002012MKLJMA10	1	2±0.1	1.25±0.1	0.95±0.1	0.3±0.1	0.2±0.1	$0.3^{+0.1}_{-0.2}$	0.35±0.1	0.65±0.05
BTLT002520DHNKTA10	3	2.5±0.15	2±0.15	0.65Max	0.4±0.1	0.55±0.1	0.3±0.1	0.4±0.1	0.9±0.15
BTLT002520JNOKBA10	3	2.5±0.15	2±0.15	0.65Max	0.4±0.1	0.55±0.1	0.3±0.1	0.4±0.1	0.9±0.15
BTLT002520NOLKBA10	3	2.5±0.15	2±0.15	0.65Max	0.4±0.1	0.55±0.1	0.3±0.1	0.4±0.1	0.9±0.15

TYPE	FIG	L	W	T	a	b	c	d	e1	e2
BTLT002012MKLJSA10	2	2±0.15	1.25±0.15	0.8Max	0.3±0.1	0.25±0.1	0.2±0.1	0.2±0.1	0.275±0.1	0.1±0.1

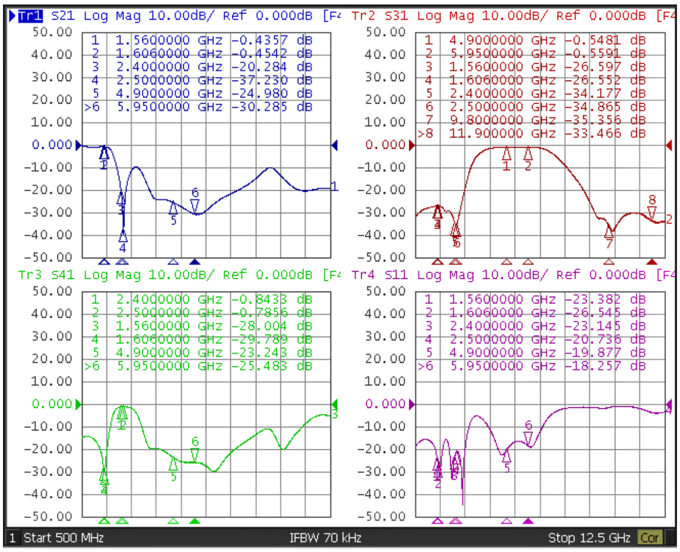
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)			Return Loss (dB)Min	Attenuation	Application
		Typ.	Max 25℃	Max -40~85℃			
BTLT002012MKLJNA20	1560~1606	-	0.9	-	10	15dB Min.@ 2400~2500 MHz 20dB Min.@ 4900~5950 MHz	GSM/ LTE WCDMA
	2400~2500	-	1.1	-	10	25dB Min.@ 1560~1606 MHz 20dB Min.@ 4900~5950 MHz	
	4900~5950	-	1	-	10	20dB Min.@ 1560~1606 MHz 25dB Min.@ 2400~2500 MHz 15dB Min.@ 9800~11900 MHz	
BTLT002012MKLJMA10	1560~1610	0.53	0.6	0.7	10	14dB Min./ 23dB Typ.@ 2400~2500 MHz 15dB Min./ 18.2dB Typ.@ 4800~6000 MHz	GSM/ LTE WCDMA
	2400~2500	0.56	0.73	0.81	10	8dB Min./ 9.8dB Typ.@ 3600~3750 MHz 20dB Min./ 32.4dB Typ.@ 4800~5000 MHz 8dB Min./ 11.4dB Typ.@ 7200~7500 MHz 10dB Min./ 16.4dB Typ.@ 9600~10000 MHz	
	4900~5950	0.66	0.8	0.92	10	24dB Min./ 26.5dB Typ.@ 860~960 MHz 24dB Min./ 30.9dB Typ.@ 1545~1605 MHz 25dB Min./ 33.9dB Typ.@ 1710~1990 MHz 30dB Min./ 37dB Typ.@ 2170 MHz 7dB Min./ 11.9dB Typ.@ 8100~8800 MHz 15dB Min./ 20.2dB Typ.@ 8820~9800 MHz 17dB Min./ 20dB Typ.@ 9800~11800 MHz	
BTLT002012MKLJSA10	1560~1606	1.22	TBD	-	10	TBDdB Min./ 29.1dB Typ.@ 2400~2500 MHz TBDdB Min./ 36.3dB Typ.@ 4900~5950 MHz	GPS/ BT/ WiFi
	2400~2500	0.89	TBD	-		TBDdB Min./ 16.3dB Typ.@ 1560~1606 MHz TBDdB Min./ 27.4dB Typ.@ 4800~5000 MHz TBDdB Min./ 30.7dB Typ.@ 7200~7500 MHz	
	4900~5950	0.52	TBD	-		TBDdB Min./ 43.8dB Typ.@ 1560~1606 MHz TBDdB Min./ 32.8dB Typ.@ 2400~2500 MHz TBDdB Min./ 21.7dB Typ.@ 10300~11700 MHz TBDdB Min./ 12.8dB Typ.@ 15300~16200 MHz	

- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071 Network Analyzer

BTLT002012MKLJNA20



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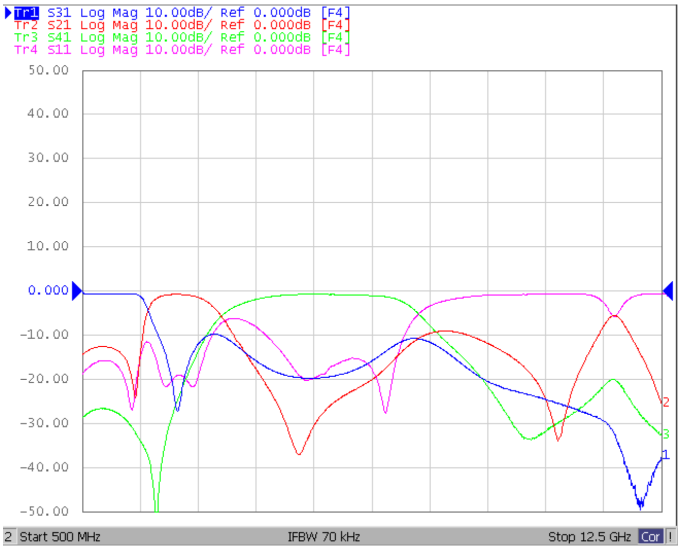

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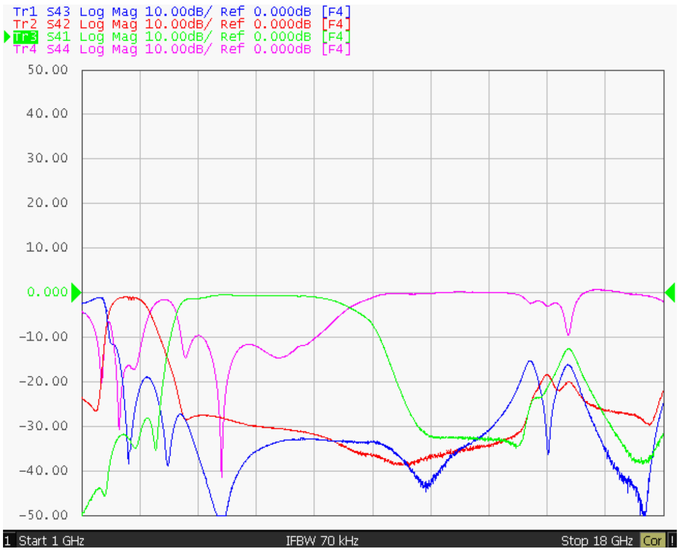


Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)		Return Loss (dB)Min	Attenuation	Application
		Typ	Max			
BTLT002520DHNKTA10	500~798	0.45	0.65	10(18Typ)	12dB Min./ 14dB Typ.@ 1427~2690 MHz 22dB Min./ 24dB Typ.@ 1575~1610 MHz 40dB Min./ 46dB Typ.@ 3300~3400 MHz 40dB Min./ 48dB Typ.@ 3400~3800 MHz 40dB Min./ 50dB Typ.@ 3800~4200 MHz 40dB Min./ 46dB Typ.@ 4400~5000 MHz 35dB Min./ 41dB Typ.@ 5150~5925 MHz	LTE/ NR
	815~894	0.55	0.7			
	880~915	0.59	0.75			
	915~960	0.71	0.95			
	1427~1511	1.15	1.45	10(13Typ)	18dB Min./ 20dB Typ.@ 500~960 MHz 20dB Min./ 23dB Typ.@ 3300~3400 MHz 23dB Min./ 25dB Typ.@ 3400~3800 MHz 30dB Min./ 33dB Typ.@ 3800~4200 MHz 30dB Min./ 33dB Typ.@ 4500~5000 MHz 27dB Min./ 30dB Typ.@ 5150~5925 MHz	
	1710~1880	0.67	1			
	1880~1920	0.6	0.95			
	1930~2200	0.59	0.95			
	2300~2400	0.71	1			
	2496~2690	1.12	1.45			
	3300~3400	0.73	0.95	10(15Typ)	19dB Min./ 21dB Typ.@ 500~960 MHz 15dB Min./ 17dB Typ.@ 1427~2690 MHz 19dB Min./ 22dB Typ.@ 10300~11850 MHz	
	3400~3600	0.61	0.85			
	3600~3800	0.53	0.8			
	3800~4200	0.52	0.7			
	4400~5000	0.49	0.7			
	5150~5925	0.67	0.85			
BTLT002520JNOKBA10	617~1990	0.53	0.8	10(14.1Typ)	15dB Min./ 17.2dB Typ.@ 3300~3700 MHz 15dB Min./ 17dB Typ.@ 3700~3800 MHz 15dB Min./ 17dB Typ.@ 3800~4200 MHz 25dB Min./ 35.1dB Typ.@ 4400~5000 MHz 25dB Min./ 42.8dB Typ.@ 5150~5925 MHz 10dB Min./ 18dB Typ.@ 5925~12750 MHz	LTE/ NR
	2300~2496	0.68	0.9			
	2496~2690	1.1	1.35			
	4400~5000	0.91	1.35	10(14Typ)	16dB Min./ 18.1dB Typ.@ 617~2690 MHz 14dB Min./ 16dB Typ.@ 2170~3150 MHz 14dB Min./ 16.9dB Typ.@ 3300~3600 MHz 17dB Min./ 21.1dB Typ.@ 3600~3800 MHz 2.1dB Typ.@ 3800~4200 MHz 15dB Min./ 17.1dB Typ.@ 0.88~1 GHz 5dB Min./ 11.9dB Typ.@ 1.32~1.5 GHz	
BTLT002520NOLKBA10	3300~4100	1.85	TBD	10(14.3Typ)	TBDdB Min./ 17.2dB Typ.@ 4500~4600 MHz TBDdB Min./ 29.9dB Typ.@ 5150~7125 MHz	LTE/ NR
	4500~4600	2.09	TBD	10(21.1Typ)	TBDdB Min./ 15.1dB Typ.@ 3300~4100 MHz TBDdB Min./ 29.9dB Typ.@ 5150~7125 MHz	
	5150~7125	1.82	TBD	10(15.2Typ)	TBDdB Min./ 21dB Typ.@ 3300~4100 MHz TBDdB Min./ 22.7dB Typ.@ 4500~4600 MHz	

- Operating temperature range －40℃～85℃

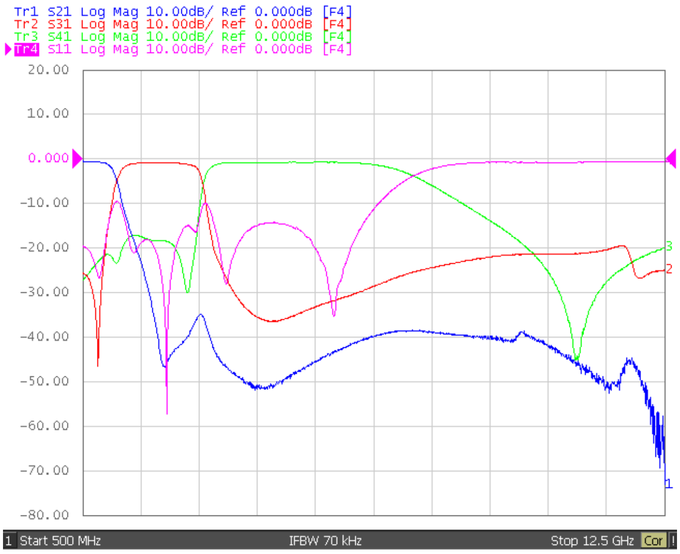
Electrical Characteristics

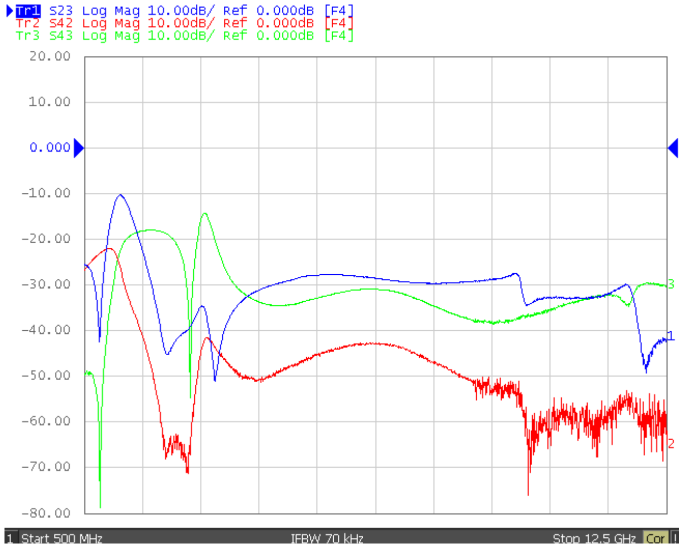
Part Number	Pass Band (MHz)	Isolation (dB)					
		Low to Middle band		Middle to High band		Low to High band	
		Min	Typ	Min	Typ	Min	Typ
BTLT002520DHNKTA10	500~960	19	21	35	40	19	21
	1427~2690	10	13	15	18	30	32
	3300~5925	25	27	21	23	35	42
BTLT002520JNOKBA10	617~960	16	18.4	25	43.4	22	25.6
	1427~1606	-	-	25	38.9	18	21.3
	1695~1710	15	17	-	-	18	20.8
	1710~2200	15	17	25	28	16	18.4
	2300~2690	14	15.3				
	3300~3600	-	-	16	18.2	-	-
	3600~3800	-	-	16	24.3	-	-
	3300~3800	14	16.6	-	-	22	41.5
	4400~5000	-	-	15	16.8	28	31.6
	5150~5925	18	22.1	-	-	30	45.2
BTLT002520NOLKBA10	3300~4100	TBD	16.6	TBD	18.3	TBD	24.1
	4500~4600	TBD	20.2	TBD	26	TBD	39.6
	5150~7125	TBD	14.1	TBD	17.4	TBD	34

- Operating temperature range －40℃～85℃

Test Instruments： Agilent E5071 Network Analyzer

BTLT002520DHNKTA10





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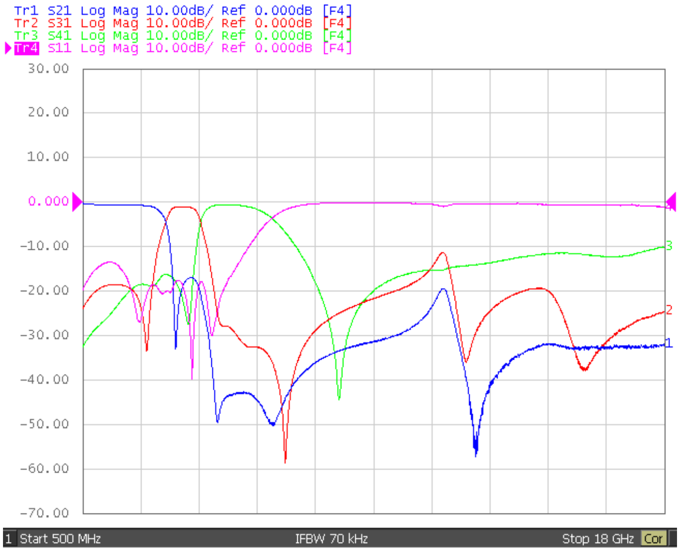

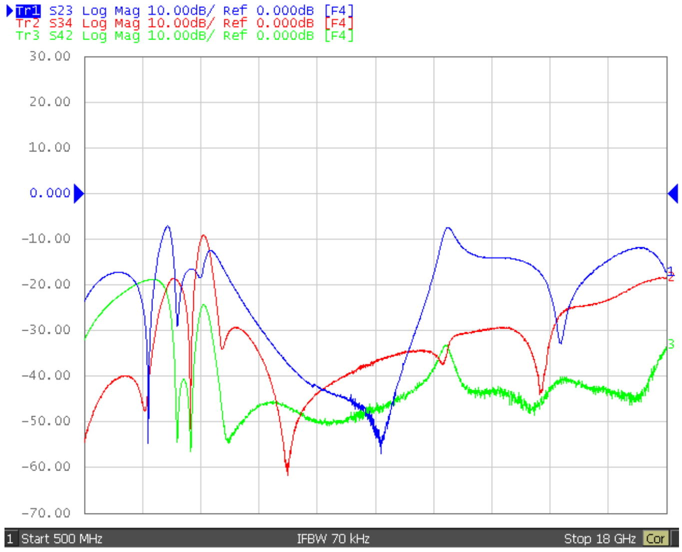

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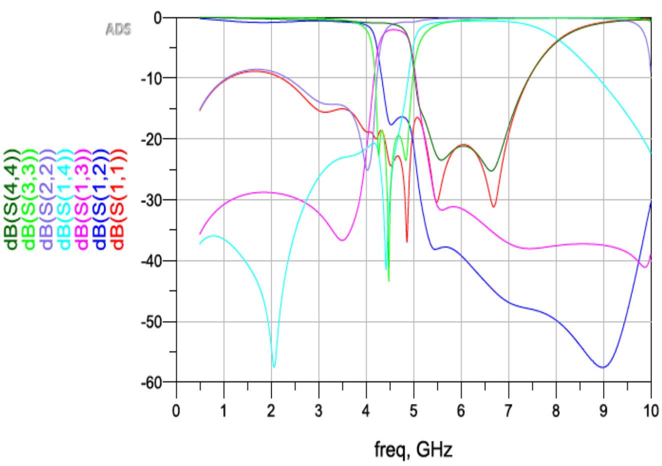
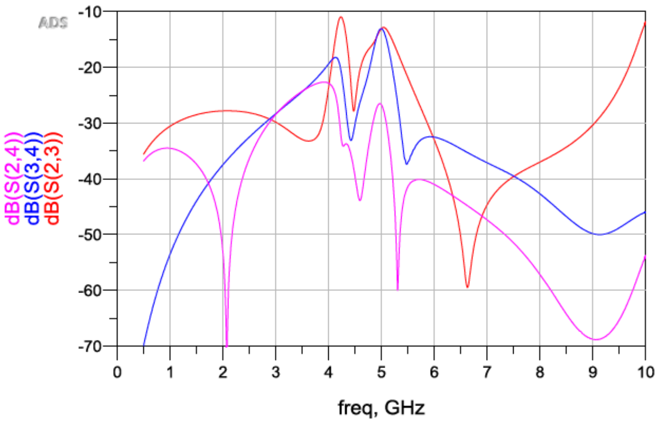
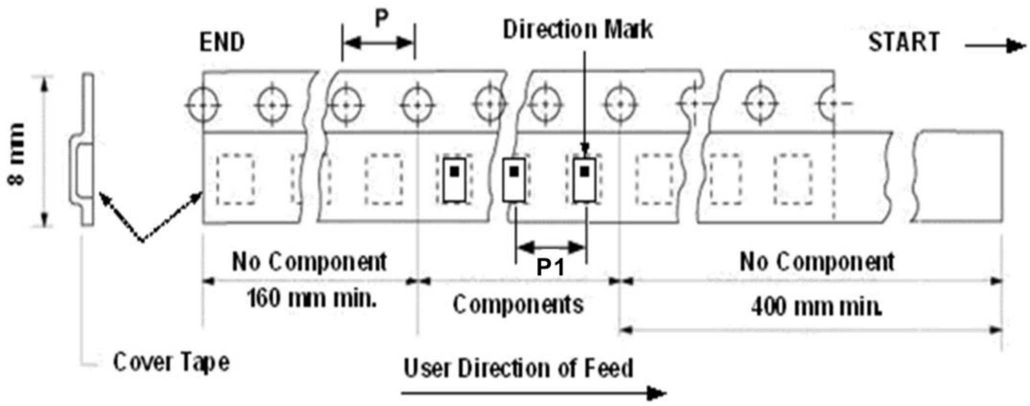


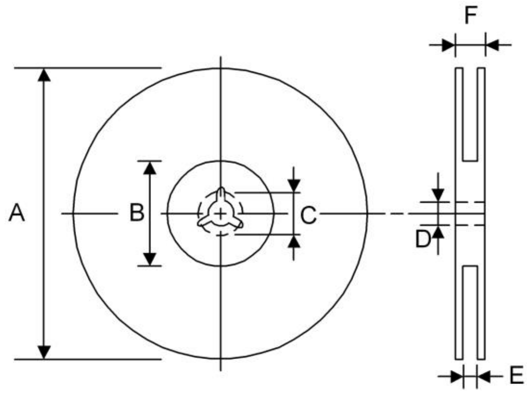


Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions		Reel Dimensions						Quantity
	P	P1	A	B	C	D	E	F	PCS / REEL
BTLT002012	4	4	178	60	-	13	9	12	4000
BTLT002520	4	4	178	60	-	13	9	12	3000

BTLC Series

Chilisin offer multilayer devices of Low-Temperature Cofired Ceramics (LTCC) for applications in wireless communication as WLAN, Bluetooth etc. Our commitment is to meet your goals through extensive technological innovation, excellent quality, short lead time and high volume production capability.

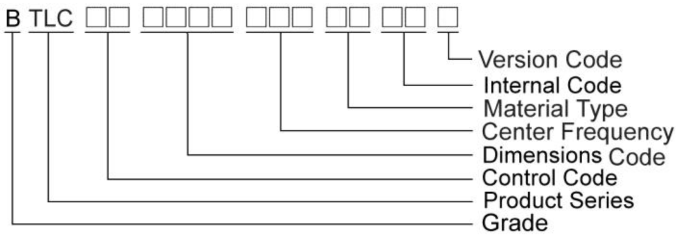
Features

- RoHS, Halogen Free and REACH Compliance
- Miniaturized.
- Low insertion loss
- Eliminate noise over a wide frequency range. Idea for high frequency and space limited designs.

Applications

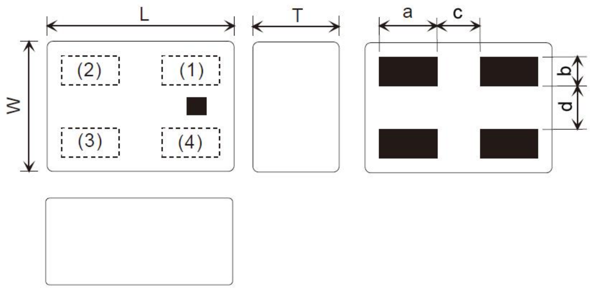
- Wideband coupler for LTE, mobile phone.
- WLAN ,Bluetooth ,Home RF

Product Identification

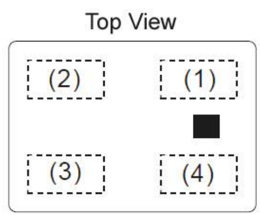


Shapes and Dimensions

BTLC00060525GS1A10

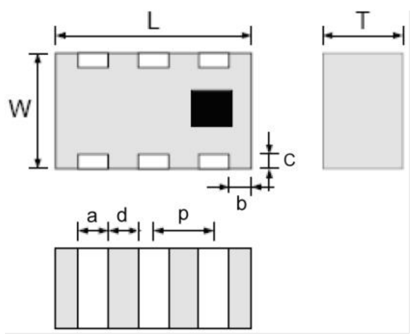


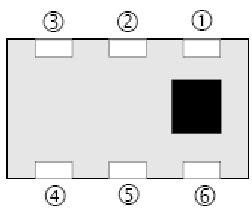
Terminal Configuration



① Coupled Out ② Terminate ③ Output ④ Input

BTLC00160812GS1A80





① Main Out ② GND ③ IN
④ Couple Out ⑤ GND ⑥ Terminate

Dimension in mm

TYPE	L	W	T	a	b	c	d	p
BTLC00060525GS1A10	0.65±0.05	0.5±0.05	0.25±0.05	0.2±0.05	0.1±0.05	0.2±0.05	0.25±0.05	-
BTLC00160812GS1A80	1.6±0.1	0.8±0.1	0.6±0.1	0.2±0.1	$0.2^{+0.1}_{-0.15}$	0.15±0.1	0.3±0.1	0.5±0.05

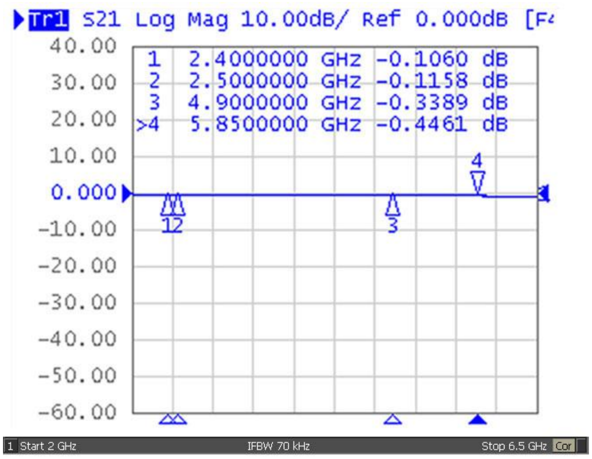
Electrical Characteristics

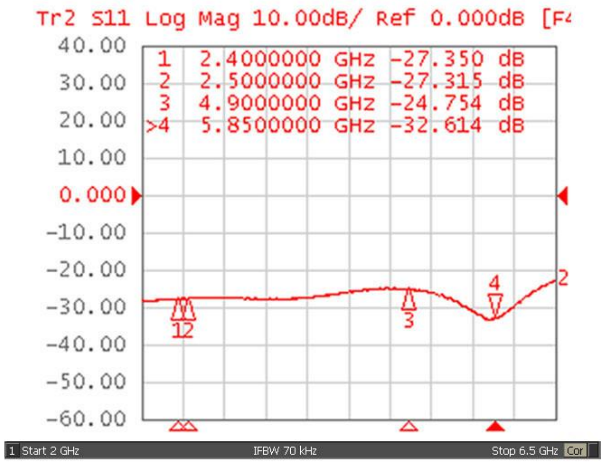
Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Coupling	Isolation (dB)Min	Application
BTLC00060525GS1A10	2400~2500	0.25	17.69	19.0±1.5dB @ 2400~2500 MHz	20	WLAN/BT
	4900~5850	0.55		12.5±1.5dB @ 4900~5850 MHz		

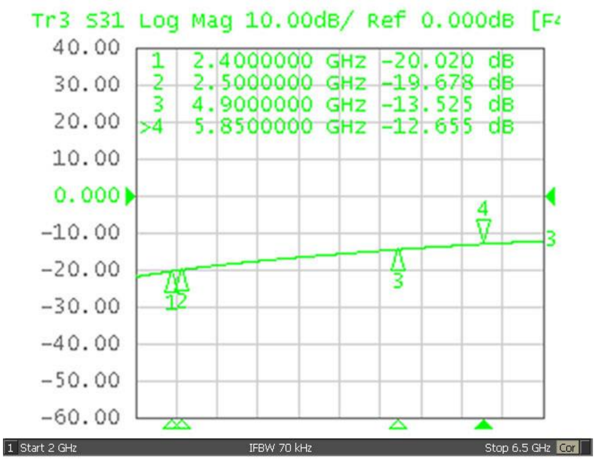
- Operating temperature range －40℃～85℃

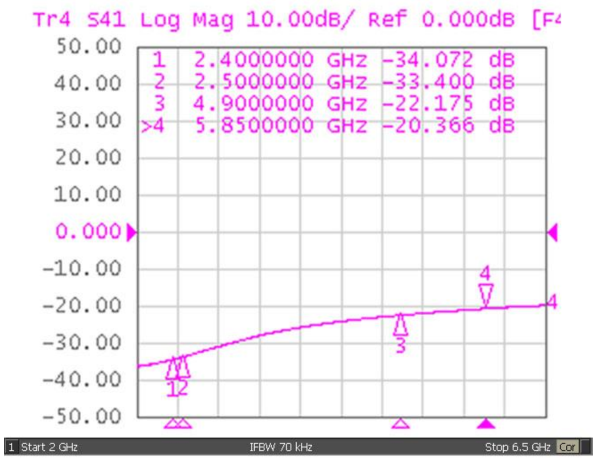
Test Instruments：Agilent E5071 Network Analyzer

BTLC00060525GS1A10









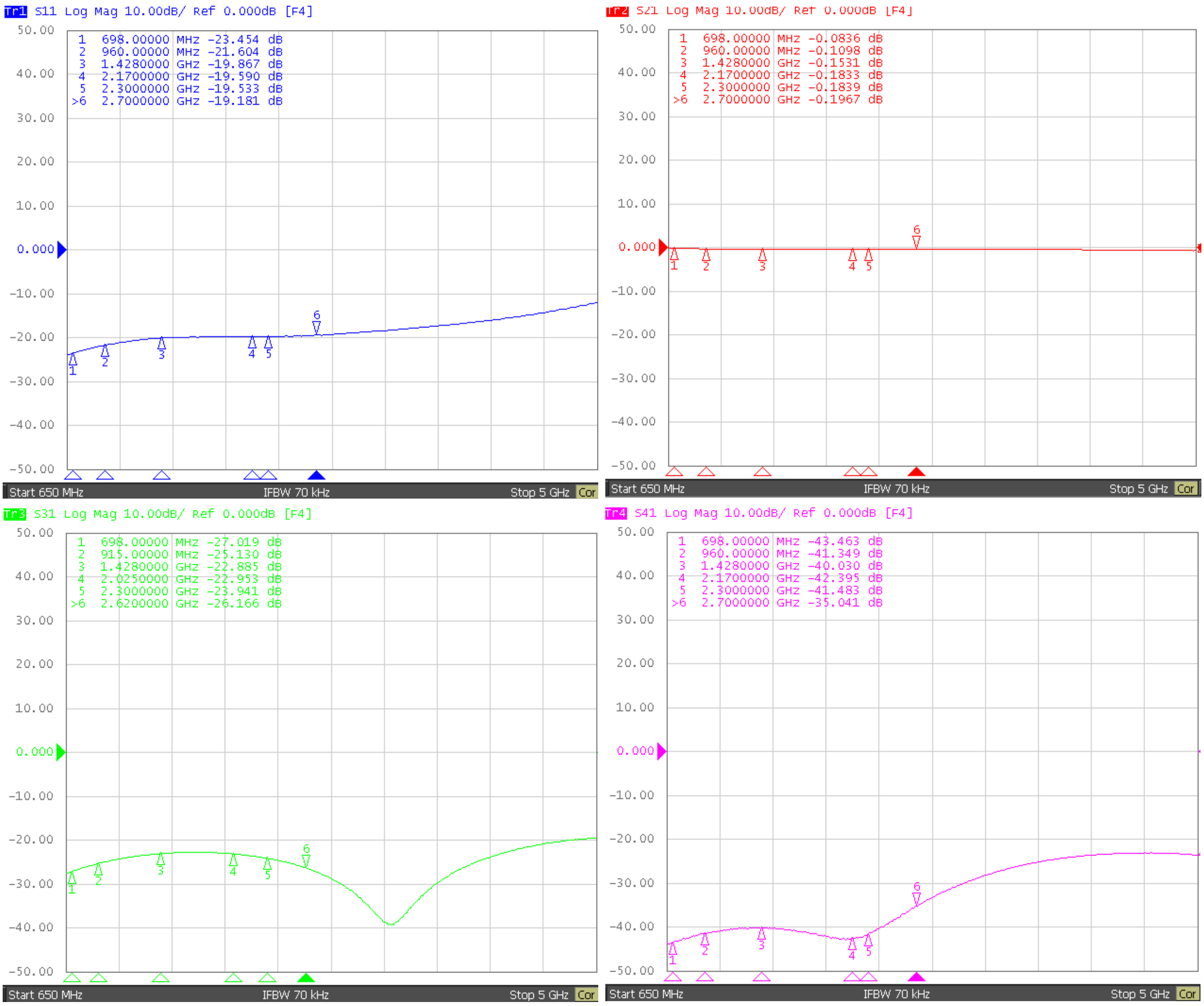
Electrical Characteristics

Part Number	Pass Band (MHz)	Insertion Loss (dB)Max	Return Loss (dB)Min	Coupling	Isolation (dB)Min	Application
BTLC00160812GS1A80	698~960 1428~2170 2300~2700	0.15 0.25 0.25	13.98	26.8±1dB @ 698 MHz 24.9±1dB @ 915 MHz 22.4±1dB @ 1428 MHz 22.0±1dB @ 2025 MHz 24.5±1dB @ 2300 MHz 26.8±1dB @ 2620 MHz	40 35 35	LTE

- Operating temperature range －40℃～85℃

Test Instruments：Agilent E5071 Network Analyzer

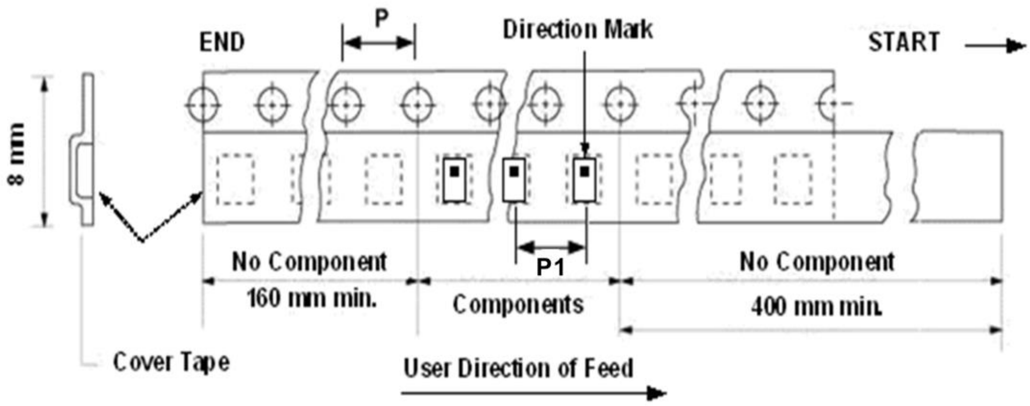
BTLC00160812GS1A80



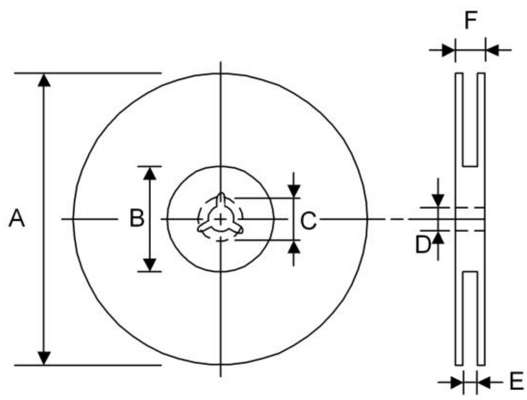
Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions		Reel Dimensions						Quantity
	P	P1	A	B	C	D	E	F	PCS / REEL
BTLC000605	4	2	178	60	-	13	9	12	10000
BTLC001608	4	4	178	60	-	13	9	12	4000