

Diplexer 双工器

■ Application 用途

Dual-band WLAN, GPS + WiFi.

■ Figure and Dimension 外观尺寸

Figure A

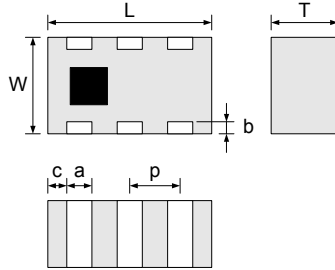


Figure B

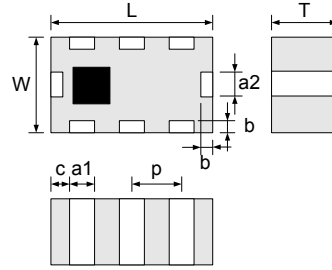
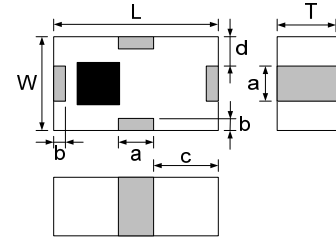


Figure C



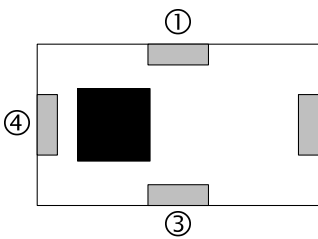
Unit: mm

Figure	L	W	T	a/a1/a2	b	c	d/p
A	1.60±0.10	0.80±0.10	0.60±0.10	0.30+0.10 -0.15	0.15±0.10	0.65±0.15	0.25±0.15
	2.00±0.15	1.25±0.15	0.95±0.10	0.30±0.20	0.25±0.20	0.20±0.20	0.65±0.20
B	2.00±0.15	1.25±0.15	0.95±0.10	0.30±0.20	0.25±0.20	0.20±0.20	0.65±0.20
C	1.60±0.10	0.80±0.10	0.60±0.10	0.30+0.10 -0.15	0.15±0.10	0.65±0.15	0.25±0.15

■ Termination Configuration 脚位图

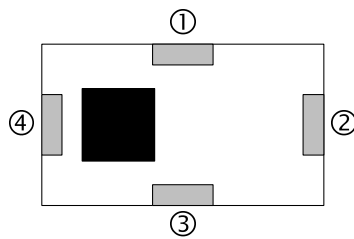
LTD-1608

2G4-A1/A3



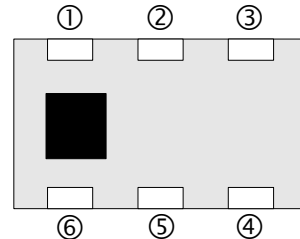
- ① GND
- ② Low Frequency Port
- ③ Common Port
- ④ High Frequency Port

2G4-A2/A4



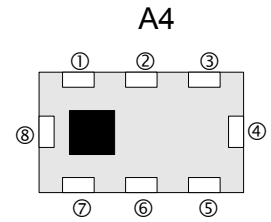
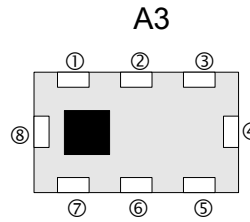
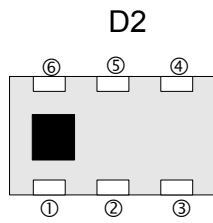
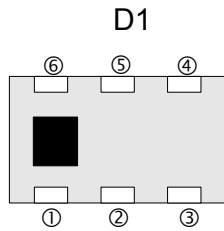
- ① GND
- ② High Frequency Port
- ③ Common Port
- ④ Low Frequency Port

1G5-A1



- ① High Frequency Port
- ②④⑥ GND
- ③ Low Frequency Port
- ⑤ Common Port

LTD-2012



- ① Low Frequency Port
- ③ High Frequency Port
- ⑤ Common Port
- ②④⑥ GND

- ① High Frequency Port
- ③ Low Frequency Port
- ⑤ Common Port
- ②④⑥ GND

- ① ③ ⑤ ⑥ ⑦ GND
- ② Common Port
- ④ High Frequency Port
- ⑧ Low Frequency Port

- ① ② ③ ⑤ ⑦ GND
- ④ High Frequency Port
- ⑥ Common Port
- ⑧ Low Frequency Port

■ Electrical Specification 电气规格

Part No. 型号	Port 埠	Pass Band 带宽 (MHz)	Insertion Loss 插入损耗	VSWR 电压 驻波比	Attenuation 带外抑制	Figure 外观
LTD-1608-1G5S1-A1	Common to Low Freq. Port	1575	0.65dB max.	2.0 max.	18dB min. at 2400~2500 MHz	A
	Common to High Freq. Port	2400~2500	0.65dB max.	2.0 max.	20dB min. at 1575 MHz	
	Common Port	1575	-	2.0 max.	-	
2400~2500		2.0 max.				
LTD-1608-2G4S1-A1	Common to Low Freq. Port	2400~2500	0.8dB max.	2.0 max.	20dB min. at 4900~6000 MHz	C
	Common to High Freq. Port	4900~5850	1.1dB max.	2.0 max.	20dB min. at 2400~2500 MHz	
		15dB min. at 9800~11700 MHz				
Common Port	2400~2500	-	2.0 max.	-		
	4900~5850		2.0 max.			
LTD-1608-2G4S1-A2	Common to Low Freq. Port	2400~2500	0.8dB max.	2.0 max.	20dB min. at 4900~6000 MHz	C
	Common to High Freq. Port	4900~5850	1.1dB max.	2.0 max.	20dB min. at 2400~2500 MHz	
		15dB min. at 9800~11700 MHz				
Common Port	2400~2500	-	2.0 max.	-		
	4900~5850		2.0 max.			
LTD-1608-2G4S1-A3	Common to Low Freq. Port	2400~2500	0.7dB max.	2.0 max.	20dB min. at 4800~6000 MHz	C
	Common to High Freq. Port	4900~5850	0.9dB max.	2.0 max.	20dB min. at 2400~2500 MHz	
		20dB min. at 4800~6000 MHz				
Common Port	2400~2500	-	2.0 max.	-		
	4900~5850		2.0 max.			

**Low Temperature
Cofired Ceramics Series**

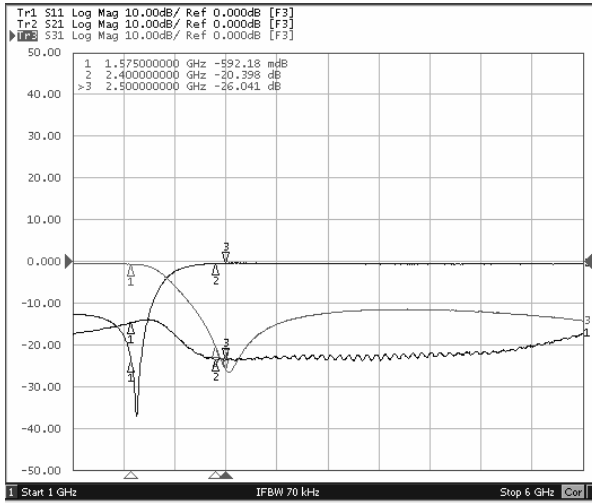
CUTTUNG-EDGE TECHNOLOGY OF RF SOLUTION

Part No. 型号	Port 埠	Pass Band 带宽 (MHz)	Insertion Loss 插入损耗	VSWR 电压 驻波比	Attenuation 带外抑制	Figure 外观
LTD-1608- 2G4S1-A4	Common to Low Freq. Port	2400~2500	0.7 dB max.	2.0 max.	20 dB min. at 4800~6000 MHz	C
	Common to High Freq. Port	4900~5850	0.9 dB max.	2.0 max.	20 dB min. at 2400~2500 MHz	
	Common Port	2400~2500	-	2.0 max.	-	
		4900~5850		2.0 max.		
LTD-2012- 2G4S1-D1	Common to Low Freq. Port	2400~2500	0.7 dB max.	2.0 max.	20 dB min. at 4800~6000 MHz 15 dB min. at 7200~7500 MHz	A
	Common to High Freq. Port	4900~5950	1.0 dB max.	2.0 max.	20 dB min. at 1800~2500 MHz 20 dB min. at 9800~11900 MHz	
	Common Port	2400~2500	-	2.0 max.	-	
		4900~5950		2.0 max.		
LTD-2012- 2G4S1-D2	Common to Low Freq. Port	2400~2500	0.7 dB max.	2.0 max.	20 dB min. at 4800~6000 MHz 20 dB min. at 7200~7500 MHz	A
	Common to High Freq. Port	4900~5950	1.0 dB max.	2.0 max.	20 dB min. at 1800~2500 MHz 25 dB min. at 9800~11900 MHz 15 dB ref. at 14700~17850 MHz	
	Common Port	2400~2500	-	2.0 max.	-	
		4900~5950		2.0 max.		
LTD-2012- 2G4S1-A3	Common to Low Freq. Port	2400~2500	0.7 dB max.	1.7 max.	20 dB min. at 4800~6000 MHz	B
	Common to High Freq. Port	4900~5850	0.9 dB max.	1.8 max.	20 dB min. at 2400~2500 MHz	
	Common Port	2400~2500	-	1.7 max.	-	
		4900~5850		1.8 max.		
LTD-2012- 2G4S1-A4	Common to Low Freq. Port	2400~2500	0.7 dB max.	1.7 max.	20 dB min. at 4800~6000 MHz	B
	Common to High Freq. Port	4900~5850	0.9 dB max.	1.8 max.	20 dB min. at 2400~2500 MHz	
	Common Port	2400~2500	-	1.7 max.	-	
		4900~5850		1.8 max.		

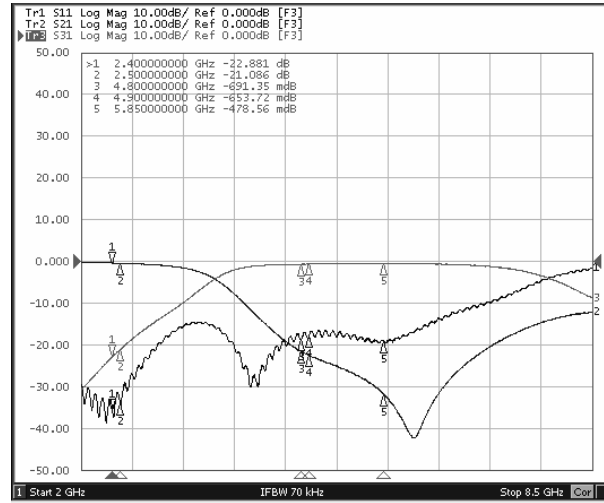
©Please contact us for detail information.

Typical Performance Curve 电气特性图

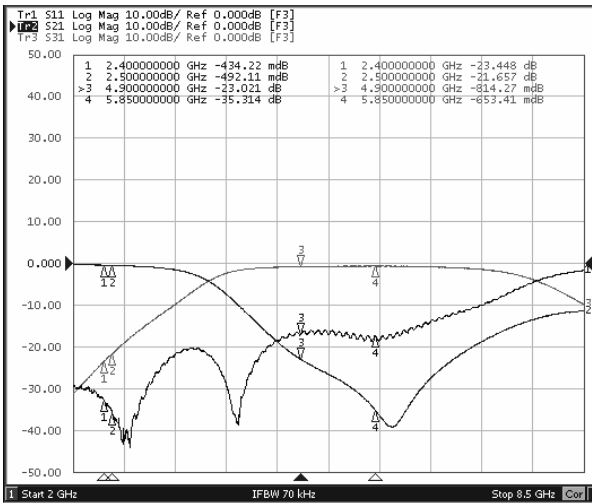
LTD-1608-1G5S1-A1



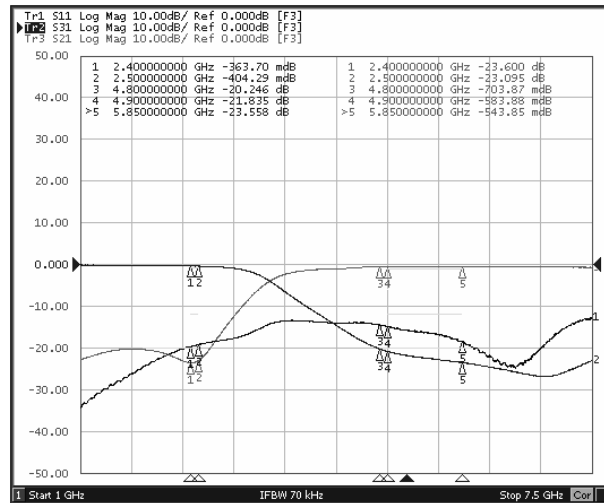
LTD-1608-2G4S1-A1



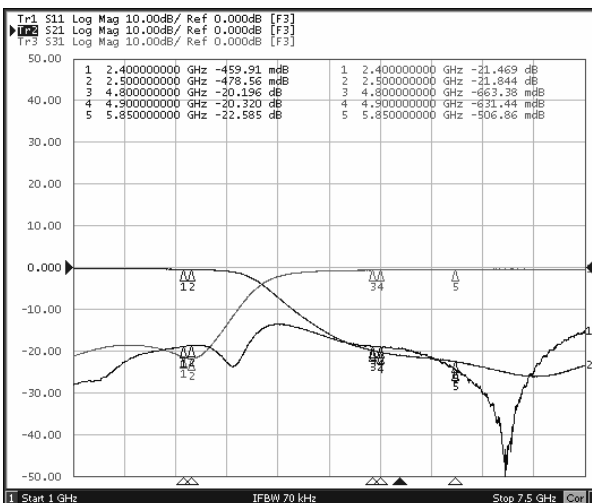
LTD-1608-2G4S1-A2



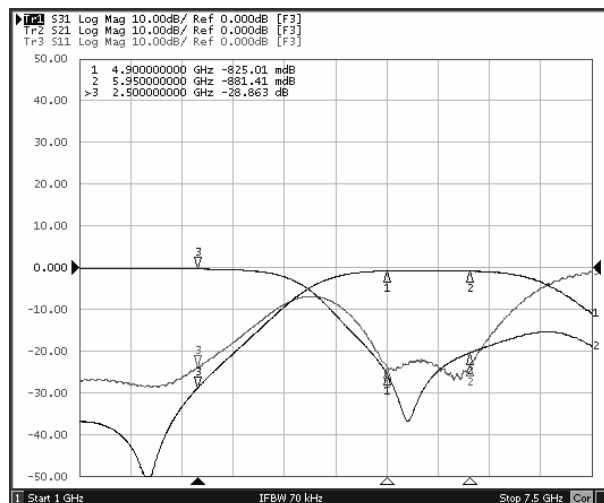
LTD-1608-2G4S1-A3



LTD-1608-2G4S1-A4

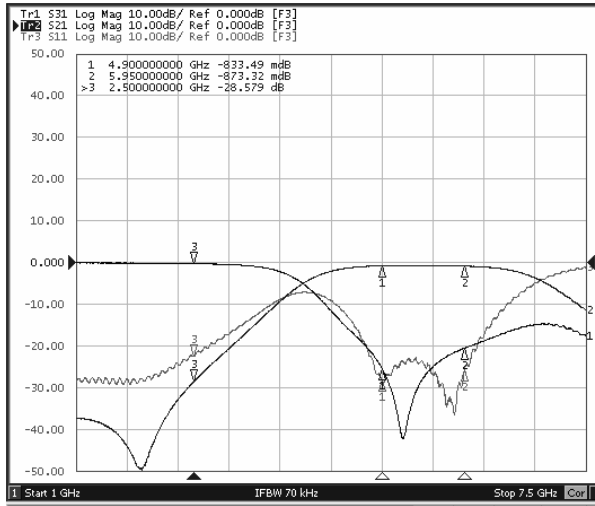


LTD-2012-2G4S1-D1

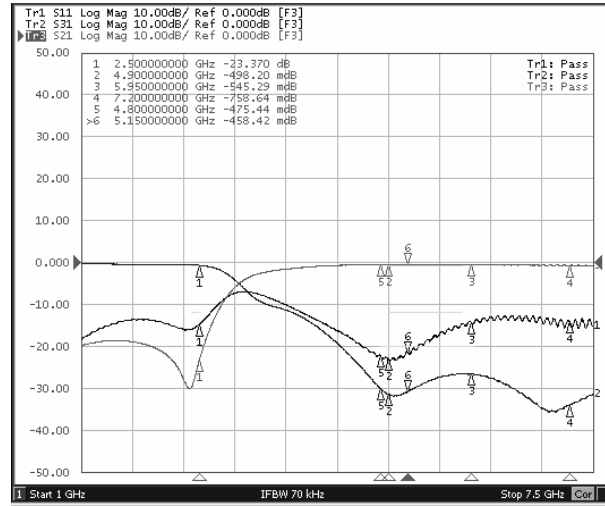


Typical Performance Curve 电气特性图

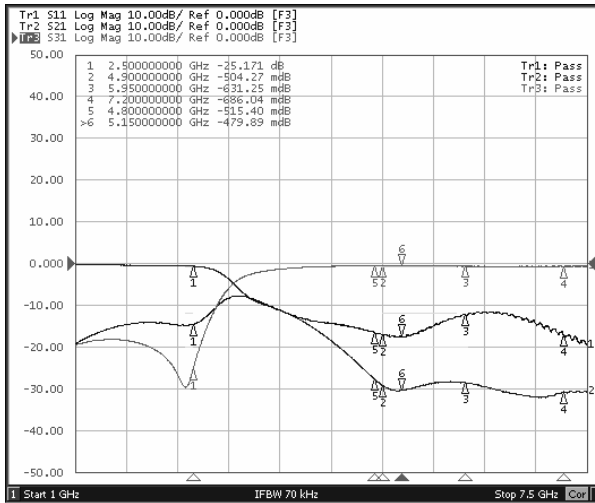
LTD-2012-2G4S1-D2



LTD-2012-2G4S1-A3



LTD-2012-2G4S1-A4



Balance Band-Pass Filter 平衡式带通滤波器

■ Application 用途
WLAN, Bluetooth, Home RF, etc.

■ Figure and Dimension 外观尺寸

Figure A

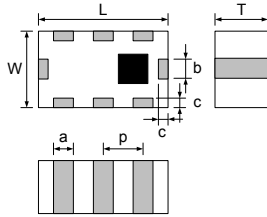


Figure B

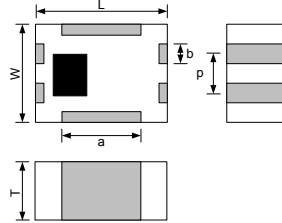


Figure C

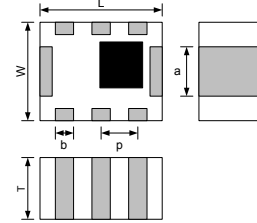
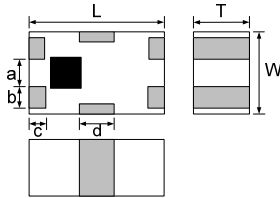


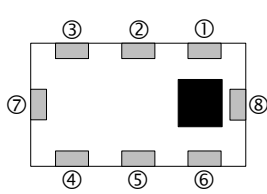
Figure D



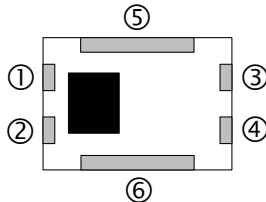
Unit: mm

Figure	L	W	T	a	b	c	p/d
A	2.00±0.20	1.25±0.20	1.00±0.10	0.30+0.10 -0.15	0.30+0.10 -0.15	0.20±0.15	0.65±0.15
			0.70±0.10				
B	2.50±0.20	2.00±0.20	1.20±0.10	1.90±0.20	0.40±0.20	-	0.80±0.20
C	2.50±0.20	2.00±0.15	1.20±0.10	1.70±0.10	0.30+0.10	-	0.70±0.20
D	2.00±0.20	1.25±0.20	1.00±0.10	0.40±0.15	0.30±0.15	0.25±0.15	0.45±0.15

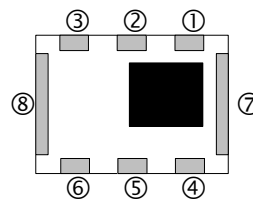
■ Termination Configuration 脚位图



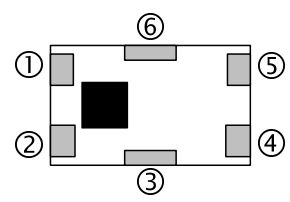
- ① Unbalance Port
- ② DC
- ③ NC
- ④ Balance Port
- ⑤ GND
- ⑥ Balance Port
- ⑦ GND
- ⑧ GND



- ① Unbalance Port
- ② DC
- ③ Balance Port
- ④ Balance Port
- ⑤ GND
- ⑥ GND



- ① N.C.
- ② Unbalance Port
- ③ D.C.
- ④ Balance Port
- ⑤ GND
- ⑥ Balance Port
- ⑦ GND
- ⑧ GND



- ① Unbalanced Port
- ② NC
- ③ GND
- ④ Balance Port
- ⑤ Balance Port
- ⑥ GND

Electrical Specification 电气规格

Part No. 型号	Pass Band 带宽 (MHz)	Insertion Loss 插入损耗	VSWR 电压 驻波比	Phase Difference 相位差	Amplitude Imbalance 振幅差	Attenuation 带外抑制	Figure 外观
BBF-2520-2G3H6-A1	2320~2332.5	2.3dB max.	2.0 max.	180°±10°	1.0dB max.	35dB min. at 800~ 960 MHz 30dB min. at 1710~1910 MHz 30dB min. at 4640~4665 MHz 25dB min. at 6960~6997.5 MHz	C
BBF-2012-2G4H6-A1/B1	2400~2500	3.5dB max.	2.0 max.	180°±10°	1.0dB max.	45dB min. at 880~ 960MHz 35dB min. at 1710~1880MHz 28dB min. at 1880~1990MHz 25dB min. at 4800~5000MHz 20dB min. at 7200~7500MHz	A
BBF-2012-2G4H6-B4	2400~2500	3.5dB max.	2.0 max.	180°±10°	1.0dB max.	30dB min. at 860~ 960MHz 25dB min. at 1710~1910MHz 25dB min. at 4800~5000MHz 20dB min. at 7200~7500MHz	A
BBF-2012-2G4H6-A5	2400~2500	3.5dB max.	2.0 max.	180°±10°	1.0dB max.	5dB min. at DC~1000MHz 20dB min. at 1000~2000MHz 12dB min. at 2000~2170MHz 20dB min. at 4800~5800MHz 20dB min. at 7200~7500MHz	A
BBF-2012-2G4H6-A8	2400~2500	3.5dB max.	2.0 max.	180°±10°	1.0dB max.	35dB min. at 880~ 960MHz 25dB min. at 1710~1910MHz 20dB min. at 4800~5000MHz 15dB min. at 7200~7500MHz	A
BBF-2012-2G4H6-A9	2400~2500	2.5dB max.	2.0 max.	180±10 deg.	2.0dB max.	35dB min. at 860~960MHz 25dB min. at 1710~1910MHz 20dB min. at 4800~5000MHz 20dB min. at 7200~7500MHz	A
BBF-2012-2G4H6-A10	2400~2500	3.6dB max.	2.0 max.	180±10 deg.	2.0dB max.	35dB min. at 860~960MHz 25dB min. at 1710~1910MHz 20dB min. at 4800~5000MHz	D
BBF-2012-2G4S1-A1	2400~2500	2.5dB max.	2.0 max.	180°±20°	2.0dB max.	-	A
BBF-2520-2G4H6-A1	2400~2500	3.5dB max.	2.0 max.	180°±10°	2.0dB max.	40dB min. at 880~ 960 MHz 28dB min. at 1710~1910 MHz 25dB min. at 4800~5000 MHz 25dB min. at 7200~7500 MHz	B
BBF-2520-2G4H6-B1	2400~2500	3.3dB max.	2.0 max.	180°±10°	2.0dB max.	50dB min. at 880~960MHz 48dB min. at 1710~1880MHz 40dB min. at 1880~1990MHz 20dB min. at 2100~2170MHz 30dB min. at 4800~5000MHz 30dB min. at 7200~7500MHz	B
BBF-2012-2G5H6-A1	2300~2700	2.5dB max.	2.0 max.	180°±10°	1.0dB max.	14dB min. at 100~1800MHz 14dB min. at 3400MHz 14dB min. at 4600~8000MHz	D
BBF-2012-2G5H6-A2	2300~2700	2.5dB max.	2.0 max.	180°±10°	1.0dB max.	15dB min. at 960~1700MHz 25dB min. at 1710~1910MHz 25dB min. at 4900~5900MHz	D

**Low Temperature
Cofired Ceramics Series**

Part No. 型号	Pass Band 带宽 (MHz)	Insertion Loss 插入损耗	VSWR 电压驻 波比	Phase Difference 相位差	Amplitude Imbalance 振幅差	Attenuation 带外抑制	Figure 外观
BBF-2520- 2G6H6-A1	2500~2700	3.3dB max.	2.2 max.	$180^{\circ} \pm 10^{\circ}$	2.0dB max.	47dB min. at 824~ 960MHz 39dB min. at 1710~1990MHz 20dB min. at 2110~2170MHz 20dB min. at 5000~5400MHz 20dB min. at 7500~8100MHz	B
BBF-2520- 2G6H6-A2	2500~2700	3.3dB max.	2.2 max.	$180^{\circ} \pm 10^{\circ}$	2.0dB max.	47dB min. at 824~ 960MHz 39dB min. at 1710~1990MHz 20dB min. at 2110~2170MHz 20dB min. at 5000~5400MHz 20dB min. at 7500~8100MHz	B
BBF-2012- 3G5H6-A1	3400~3600	2.7dB max.	2.0 max.	$180^{\circ} \pm 10^{\circ}$	1.0dB max.	14dB min. at 100~1800MHz 14dB min. at 3400MHz 14dB min. at 4600~8000MHz	D
BBF-2520- 3G5H6-A1	3400~3600	2.9dB max.	2.0 max.	$180^{\circ} \pm 10^{\circ}$	2.0dB max.	35dB min. at 1088~1152MHz 40dB min. at 2040~2160MHz 32dB min. at 2720~2880MHz 20dB min. at 5150~5900MHz	B

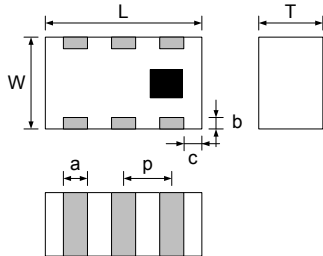
©Please contact us for detail information.

Coupler 耦合器

■ Application 用途

WLAN, Bluetooth, Home RF, WiMAX, etc.

■ Dimensions 外观尺寸

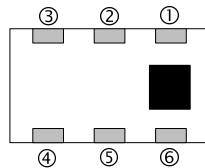


Unit: mm

Size	L	W	T	a	b	c	p
LTC-1608	1.60±0.15	0.8±0.10	0.60±0.10	0.30±0.10	0.30±0.20	0.10±0.10	0.55±0.10
LTC-2012	2.00±0.15	1.25±0.15	0.95±0.10	0.30±0.20	0.25±0.20	0.20±0.20	0.65±0.20

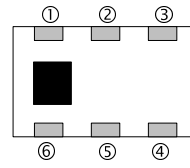
■ Termination Configuration 脚位图

LTC-1608



- ① IN
- ② GND
- ③ Coupled Out
- ④ Terminate
- ⑤ GND
- ⑥ Main Out

LTC-2012



- ① Terminate
- ② GND
- ③ In
- ④ Out1
- ⑤ GND
- ⑥ Out2

■ Electrical Specification 电气规格

Part No. 型号	Pass Band 带宽 (MHz)	Insertion Loss 插入损耗	VSWR 电压 驻波比	Coupling in BW 耦合	Isolation in BW 绝缘
LTC-1608-2G4S1-A1	2400~2500	1.65dB max.	1.5 max.	6.5dB ± 1dB	23dB min.
LTC-1608-2G4S1-A2	2400~2500	0.7dB max.	1.8 max.	17dB ± 1dB	23dB min.

Part No. 型号	Pass Band 带宽 (MHz)	Insertion Loss 插入损耗	VSWR 电压 驻波比	Isolation 绝缘	Amplitude Balance 振幅差	Phase Deviation 相位差
LTC-2012-2G4S1-A1	2300~2800	3.3±0.5dB	2.0 max.	18dB min.	1.0dB max.	90°±10°
LTC-2012-3G5S1-A1	3300~3800	3.3±0.5dB	2.0 max.	18dB min.	1.0dB max.	90°±10°
LTC-2012-5G5S1-A1	4900~5900	3.3±0.5dB	2.0 max.	18dB min.	1.0dB max.	90°±10°

© Please contact us for detail information.

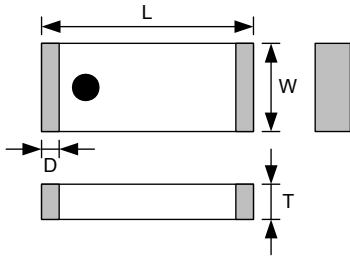
Chip Antenna 片式天线

■ Application 用途

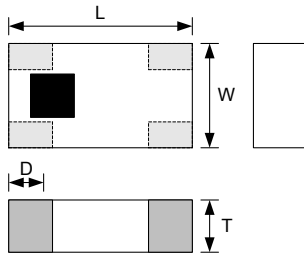
WLAN, Bluetooth, Home RF, GPS, etc.

■ Dimensions 外观尺寸

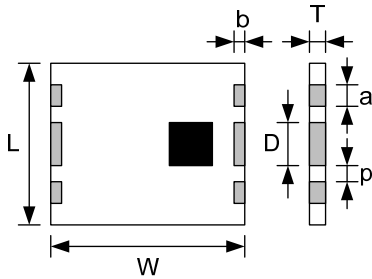
NOTE : Dimensions in mm



Dimension	L	W	T	D
3216	3.20±0.2	1.60±0.2	1.20±0.2	0.40±0.2
5020	5.00±0.2	2.00±0.2	0.80±0.2	0.40±0.2
5220	5.20±0.2	2.00±0.2	0.85±0.2	0.40±0.2
5320	5.30±0.2	2.00±0.2	1.20±0.2	0.40±0.2
5824	5.80±0.2	2.40±0.2	0.90±0.15	0.30±0.1



Dimension	L	W	T	D
6025	6.00±0.2	2.50±0.2	2.00±0.2	1.50±0.2
9037	9.00±0.5	3.75±0.2	0.80±0.2	1.50±0.2

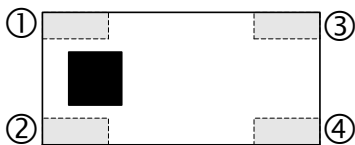


Dimension	L	W	T	D
9075	7.50±0.2	9.00±0.2	0.80±0.15	2.00±0.2
	b	a	p	
	0.30±0.2	1.00±0.2	1.00±0.2	

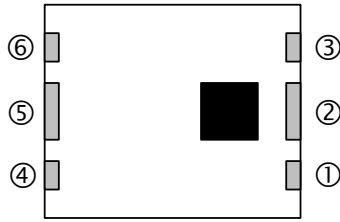
■ Termination Configuration 脚位图



- ① Feed Termination
- ② Solder Termination



- ① GND
- ② Feed Termination
- ③ GND (N.C. for 6025-B1)
- ④ GND (N.C. for 6025-B1)



①③④⑤⑥ N.C

② Feed Termination

Electrical Specification 电气规格

Part NO. 型号	Center Frequency 中心频率	Impedance 特性阻抗	Bandwidth* 带宽	Gain* 增益	VSWR 电压驻波比	Polarization 极化
LTA-9037-1G5S3-A1	1575 MHz	50 Ohms	~30MHz	-1 dBi	2.0 max.	Linear
LTA-3216-2G4S3-A1	2450 MHz	50 Ohms	~100 MHz	0~1 dBi	2.0 max.	Linear
LTA-5020-2G4S3-A1	2450 MHz	50 Ohms	~200 MHz	0~1 dBi	2.0 max.	Linear
LTA-5020-2G4S3-A2	2450 MHz	50 Ohms	~200 MHz	0~1 dBi	2.0 max.	Linear
LTA-5220-2G4S3-A1	2450 MHz	50 Ohms	~200 MHz	0~1 dBi	2.0 max.	Linear
LTA-5320-2G4S3-A1	2450 MHz	50 Ohms	~150 MHz	0~1 dBi	2.0 max.	Linear
LTA-5824-2G4S4-A1	2450 MHz	50 Ohms	~150 MHz	1~2 dBi	2.0 max.	Linear
LTA-6025-2G4S3-B1	2450 MHz	50 Ohms	~100 MHz	0 dBi	2.5 max.	Linear
LTA-6025-2G4S3-B2	2450 MHz	50 Ohms	~100 MHz	2dBi	2.5 max.	Linear
LTA-9037-2G4S3-B1	2450 MHz	50 Ohms	~100 MHz	1dBi	2.0 max.	Linear
LTA-9075-4G0S3-A1	4000 MHz	50 Ohms	~1800 MHz	1dBi	3.0 max.	Linear

*Depend on PCB layout.

©Please contact us for detail information.

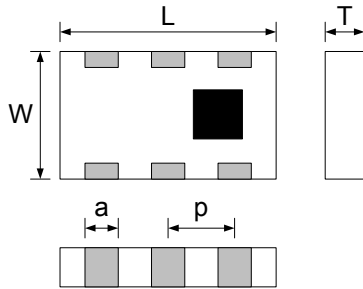
Dual Band Antenna 双频天线

Application 用途

Dual-band WLAN, WiMAX.

Dimensions 外观尺寸

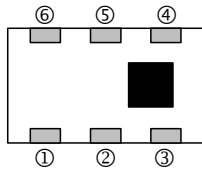
NOTE : Dimensions in mm



DBA-7040			
L	W	T	a
7.00 ± 0.20	4.00 ± 0.20	0.75 ± 0.15	0.80 ± 0.20
b	p		
0.30 ± 0.15	3.00 ± 0.20		

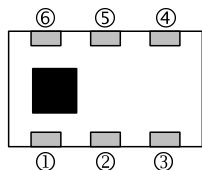
Termination Configuration 脚位图

DBA-7040-25GS3-A1



- ① For 2.4 GHz Tuning Stub
- ② N.C.
- ③ For 5.5 GHz Tuning Stub
- ④ N.C.
- ⑤ Feed Termination
- ⑥ N.C.

DBA-7040-3G0S3-A1



- ① Solder Termination
- ② Solder Termination
- ③ Solder Termination
- ④ N.C.
- ⑤ Feed Termination
- ⑥ N.C.

Electrical Specification 电气规格

Part NO. 型号	Center Frequency 中心频率	Bandwidth* 带宽	Impedance 特性阻抗	Gain* 增益	VSWR 电压驻波比	Polarization 极化
DBA-7040-25GS3-A1	2450 MHz	100 MHz	50 ohm	> 1dBi	2.5 max.	Linear
	5400 MHz	1000 MHz				
DBA-7040-3G0S3-A1	2550 MHz	300 MHz	50 ohm	> 1dBi	2.0 max.	Linear
	3600 MHz	600 MHz				

*Depend on PCB layout.

©Please contact us for detail information

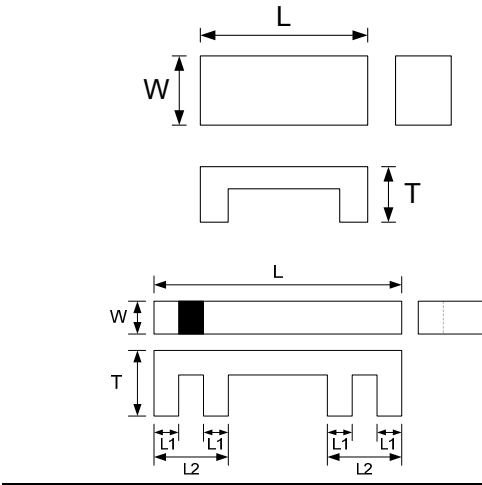
Ceramic Block Antenna 陶瓷块天线

■ Application 用途

WLAN, Bluetooth, Home RF, GPS, etc.

■ Dimensions 外观尺寸

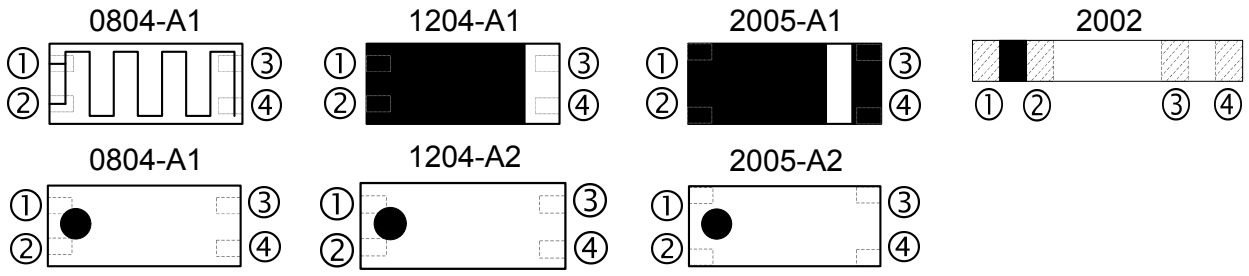
NOTE : Dimensions in mm



Dimension	L	W	T
0804	8.0±0.2	4.0±0.2	3.0±0.2
1204	12.0±0.2	4.0±0.2	3.5±0.2
2005	20.0±0.2	5.0±0.2	5.0±0.2 10.0±0.2

Dimension	L	W	T
2002	20.0±0.2	2.0±0.2	3.5±0.2
	L1	L2	
	1.5±0.2	4.5±0.2	

■ Termination Configuration 脚位图



① GND ② Feed Termination
③ N.C. ④ N.C.

① GND ② Feed Termination
③ GND ④ GND.

■ Electrical Specification 电气规格

Part No. 型号	Center Frequency 中心频率	Impedance 特性阻抗	Bandwidth* 带宽	Gain* 增益	VSWR 电压驻波比	Polarization 极化
CBA-0804-2G4S2-A2	2450 MHz	50 Ohms	>100 MHz	>1dBi	3.0 max.	Linear
CBA-1204-2G4S2-A2	2450 MHz	50 Ohms	~100 MHz	>1dBi	2.0 max.	Linear
CBA-2002-1G5S2-A2	1575 MHz	50 Ohms	~20 MHz	>1dBi	2.0 max.	Linear
CBA-2002-2G4S2-A2	2450 MHz	50 Ohms	~100 MHz	>1dBi	2.0 max.	Linear
CBA-2005-2G4S2-A1	2450 MHz	50 Ohms	>100 MHz	>1dBi	2.0 max.	Linear
CBA-2005-2G4S2-A1	2450 MHz	50 Ohms	>100 MHz	>2dBi	2.0 max.	Linear

*Depend on PCB layout.

◎Please contact us for detail information.

Patch Antenna 微波介质天线

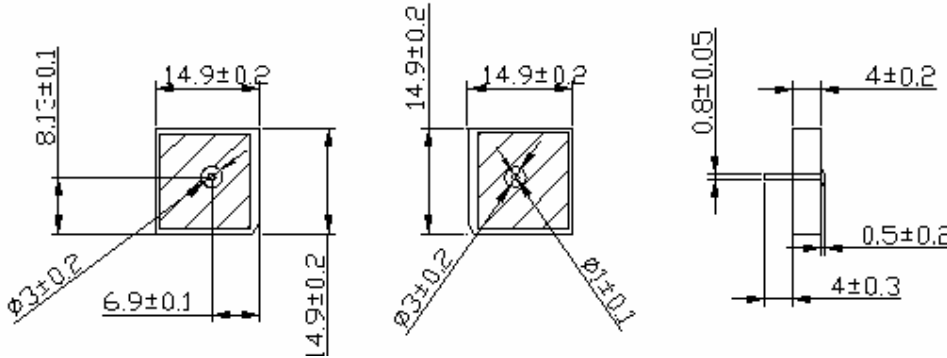
Application 用途

Vehicle navigation systems, GPS hand-held devices, Cellular phones/A-GPS cellular phones, GPS CF cards.

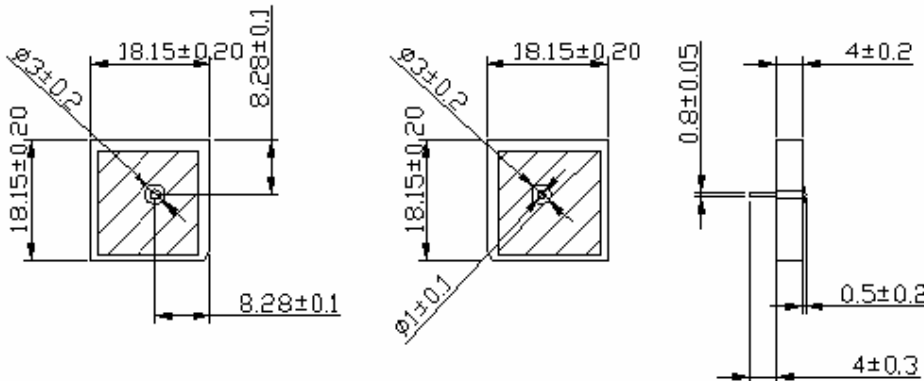
Dimension 外观尺寸

NOTE : Dimensions in mm

DPA-151504



DPA-181804



Electrical Specification 电气规格

Part NO. 型号	Center Frequency 中心频率	Polarization 极化	Bandwidth 带宽	Gain @Zenith 增益	Axial Ratio 轴比	VSWR 电压驻波比	Impedance 特性阻抗
DPA-151504-1G5D2-A1	1575.42±2MHz	R.H.C.P.	9MHz min.	2.0dBic typical	3.0 max.	2.0 max.	50 ohm
DPA-181804-1G5D2-A1	1575.42±2MHz	R.H.C.P.	9MHz min.	2.5dBic typical	3.0 max.	2.0 max.	50 ohm

※ Testing Condition: 70mm x 70mm Square Ground Plane

©Please contact us for detail information.