

Product Information

Control No. : Mar-566108-C 1

Established on March 16, 2009

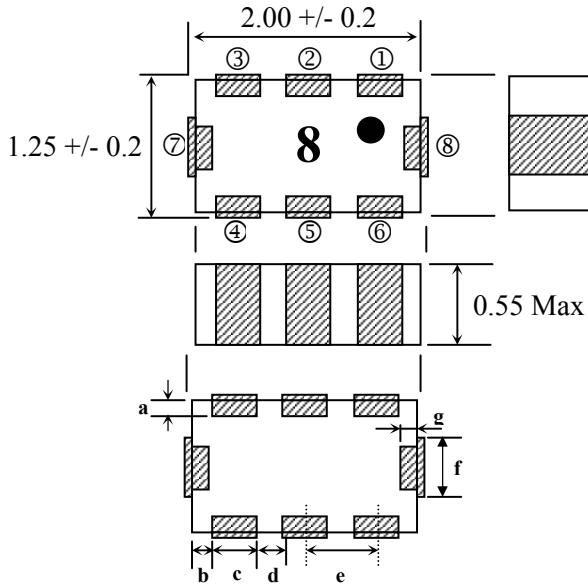
Application : Balance Filter for Bluetooth

1. Type No.

DBF81F107 - CSR - T

RoHS Compliant Parts & Lead Free

2. Dimension (Unit : mm)



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

Terminal Dimensions	
a	0.15 Typ.
b	0.20 +/- 0.15
c	0.30 +/- 0.10
d	0.35 +/- 0.10
e	0.65 +/- 0.10
f	0.50 +/- 0.10
g	0.15 Typ.

3. Electrical characteristics

Pass band	Specification	Typical	Unit	Remark
fc (Center frequency)	2441	-	MHz	
Pass band frequency	2402-2480	-	MHz	
Unbalance Port Impedance at fc	50	-	ohm	Nominal
Balance Port Impedance at fc	*1)	-	ohm	Nominal
Insertion Loss at 25degC.	2.5 Max.	2.20	dB	
Insertion Loss at -40 to +85degC.	2.7 Max.	-	dB	
Unbalance port VSWR in BW	2.0 Max.	1.60	-	
Balance port VSWR in BW	2.0 Max.	1.38	-	
Ripple	1.0 Max.	0.15	dB	
Amplitude balance	1.0 Max.	0.79	dB	
Phase differential	180±5	181.89	deg	

Attenuation	Specification	Typical	Unit	Remark
880 MHz - 960 MHz	35 Min.	44.3	dB	
1710 MHz - 1910 MHz	25 Min.	39.8	dB	
4804 MHz - 4960 MHz	20 Min.	28.2	dB	2*f
7206 MHz - 7440 MHz	20 Min.	44.9	dB	3*f

*1) Conjugate match to BC5 of Cambridge Silicon Radio.Co.,Ltd

4. Note

- | | |
|--|---------------------------------|
| 4.1 Operating Temperature Range | : -40 to +85 deg.C |
| 4.2 Storage Temperature Range before soldering in taping package | : -20 to +35 deg.C |
| 4.3 Minimum Ordering Quantity | : 2,000 pcs (per reel, per bag) |

Approved by	Confirmed by	Raised by
T.Hirai	Y.Mizutani	S.Rimud

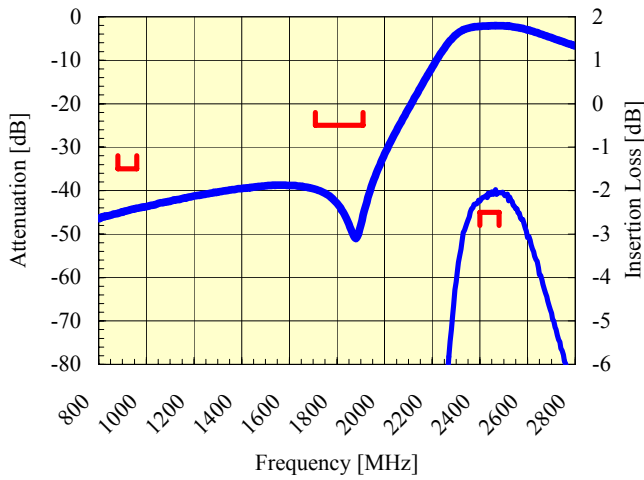
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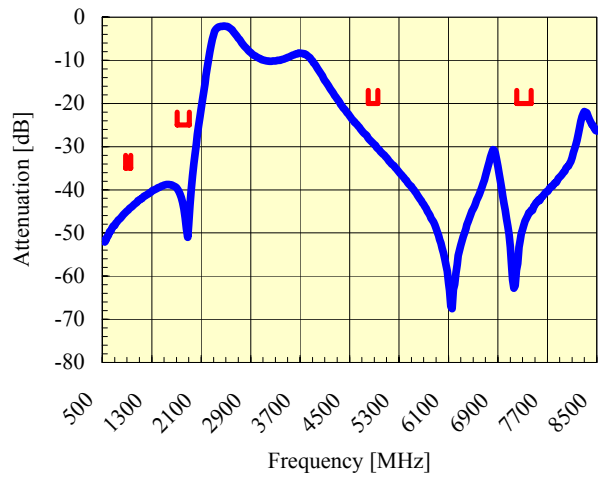
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5. Representative characteristics

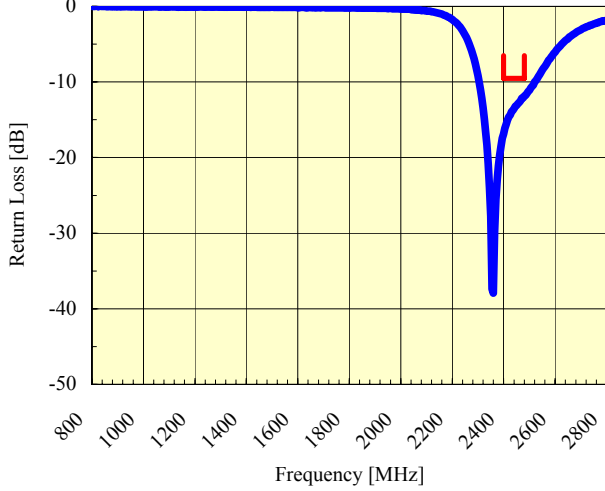
Pass Band Frequency Response



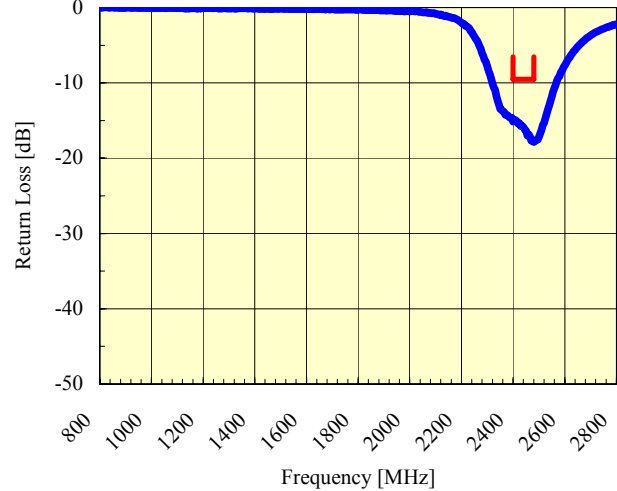
Broad Band Frequency Response



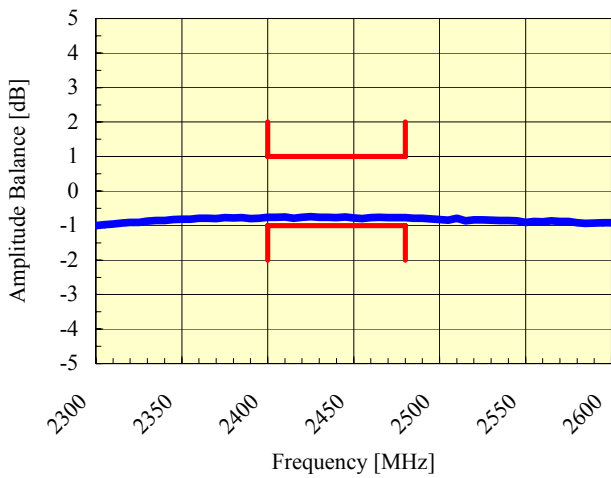
Unbalance Port Return Loss



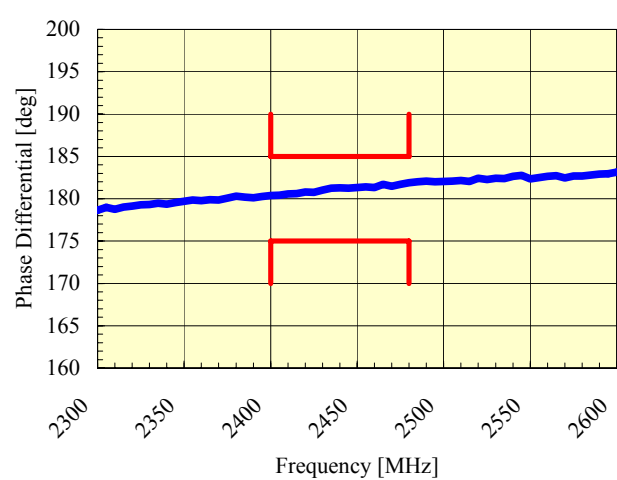
Balance Port Return Loss



Amplitude Balance

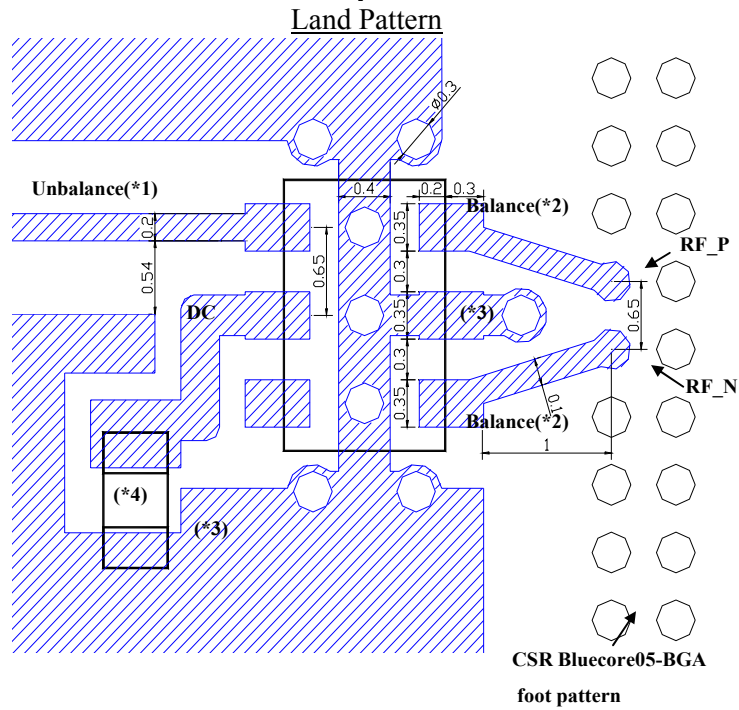


Phase Differential

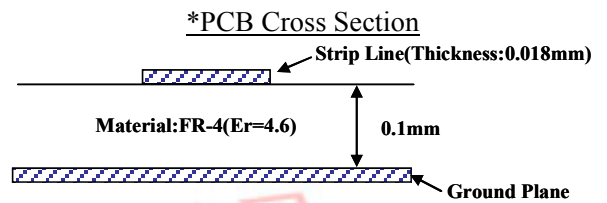
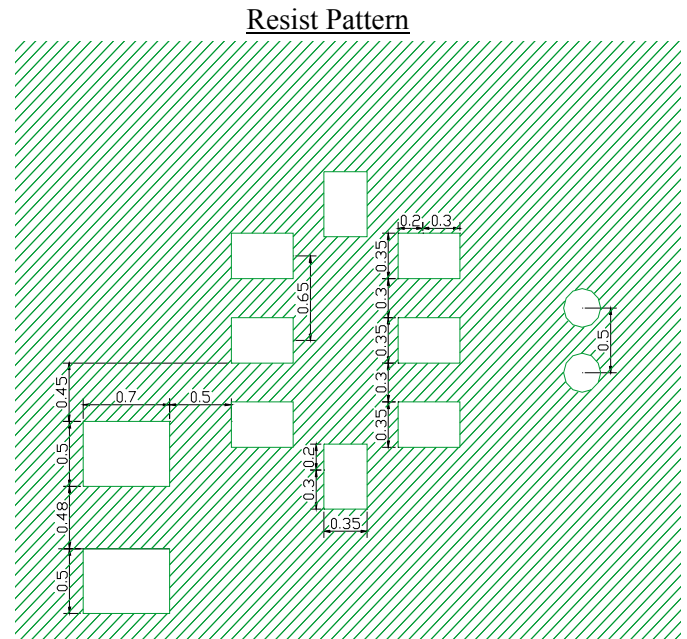


Product Information

6. Recommendation land pattern



- *1 50 ohm impedance Line
- *2 50 ohm impedance Line
- *3 Ground Plane
- *4 Decoupling Capacitor = 100pF



深圳市诚至微科技有限公司
 电话：0755-83328582
 手机：13510662515
 http://www.czwtech.com