

Product Information

Control No. : ARL-466106-G 1

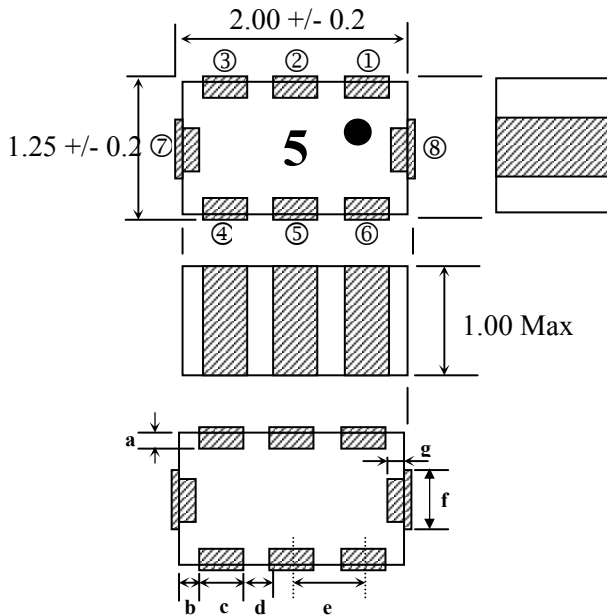
Established on September 11, 2006

Application : Balance Filter for Bluetooth

1. Type No.
DBF81F106 - 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.	3.5 Max.	2.85	dB	
Insertion Loss at -40 to +85degC.	3.8 Max.	-	dB	
Unbalance port VSWR in BW	2.0 Max.	1.41	-	
Balance port VSWR in BW	2.0 Max.	1.22	-	
Ripple	1.0 Max.	0.35	dB	
Amplitude balance	1.0 Max.	0.20	dB	
Phase differential at 25degC.	180±5	182.12	deg	
Phase differential at -40 to	180±9	-	dB	

Attenuation	Specification	Typical	Unit	Remark
880 MHz - 960 MHz	48 Min.	57.78	dB	
1710 MHz - 1880 MHz	48 Min.	54.55	dB	
1880 MHz - 1990 MHz	40 Min.	46.16	dB	
4804 MHz - 4960 MHz	32 Min.	40.05	dB	2*f
7206 MHz - 7440 MHz	15 Min.	28.08	dB	3*f

*1) Conjugate match to BC03&BC04-BGA of Cambridge Silicon Radio.Co.,Ltd Nominal

4. Note

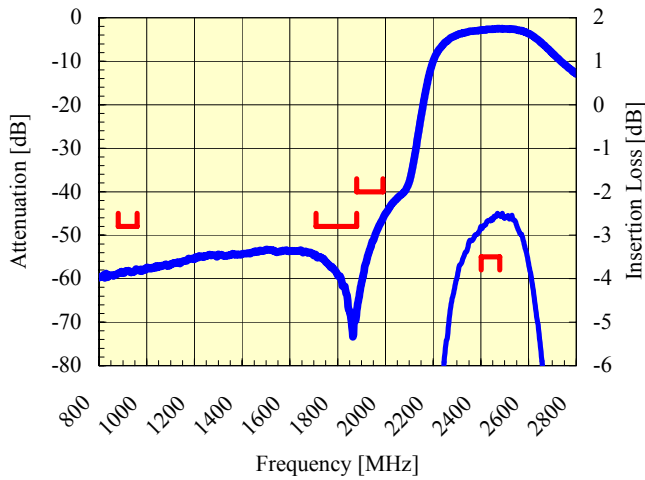
- 4.1 Operating Temperature Range : -40 to +85 deg.C
- 4.2 Storage Temperature Range before soldering in taping package : -20 to +35 deg.C
- 4.3 Minimum Ordering Quantity : 2,000 pcs (per reel, per bag)

Approved by	Confirmed by	Raised by
T.Hirai	T.Haketa	M.Urano

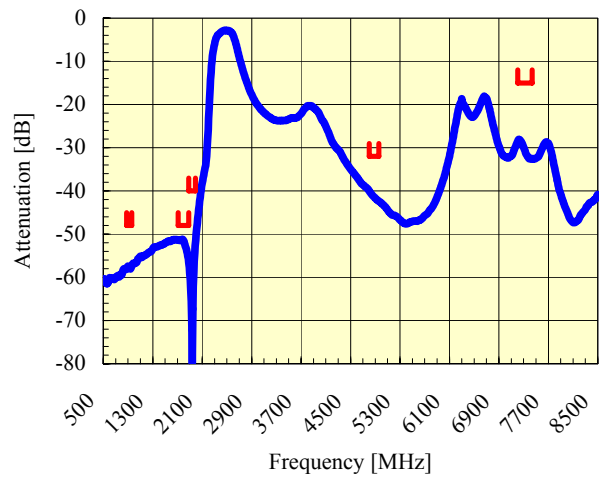
SOSHIN ELECTRIC CO., LTD

5. Representative characteristics

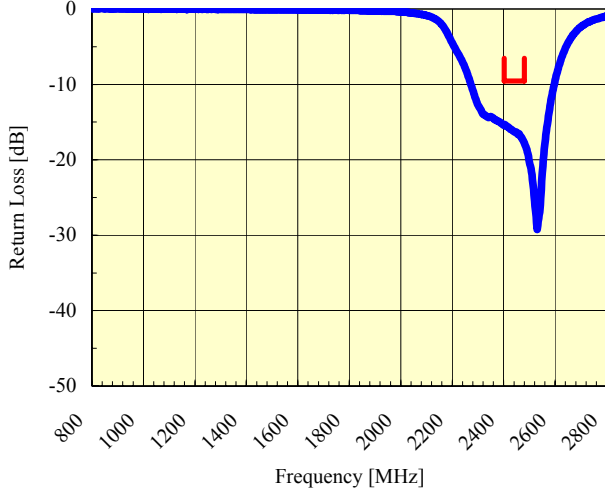
Pass Band Frequency Response



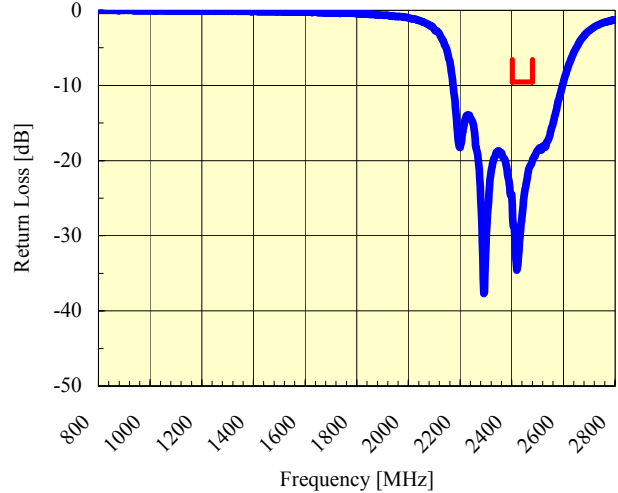
Broad Band Frequency Response



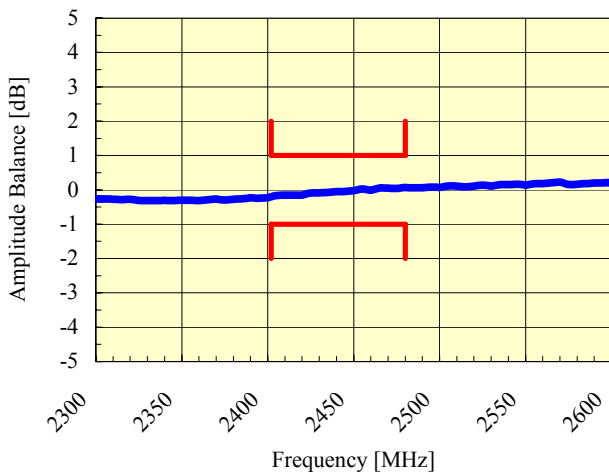
Unbalance Port Return Loss



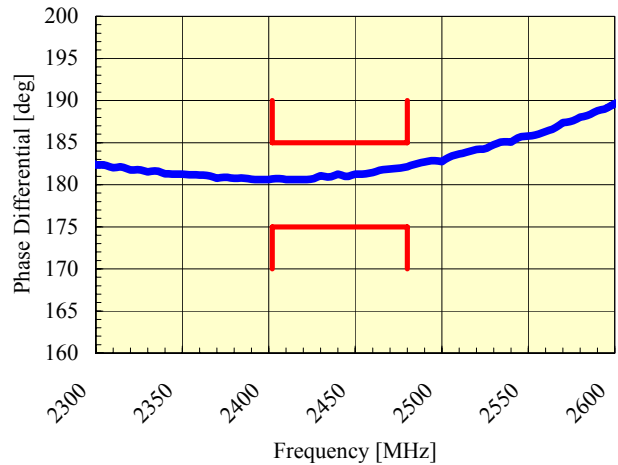
Balance Port Return Loss



Amplitude Balance

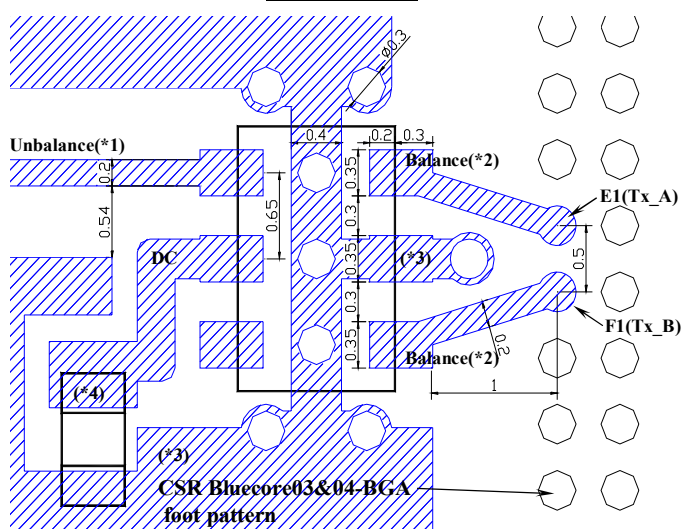


Phase Differential

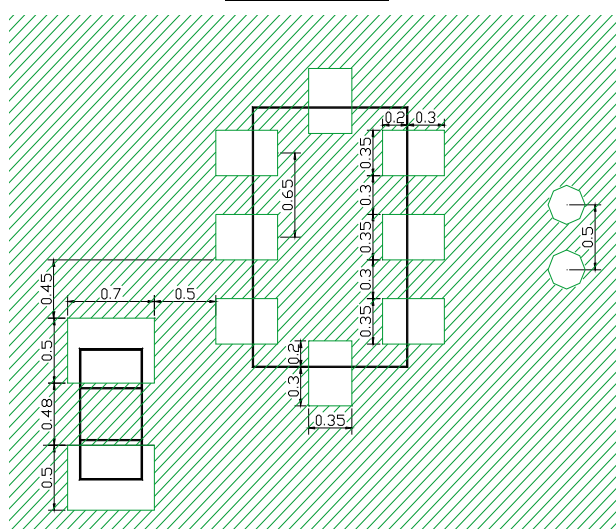


6.Recommendation Land Pattern (Unit:mm)

Land Pattern



Resist Pattern



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

Cross Section

