

Product Information

Control No. : ARL-466104-E 1

Established on July 7, 2006

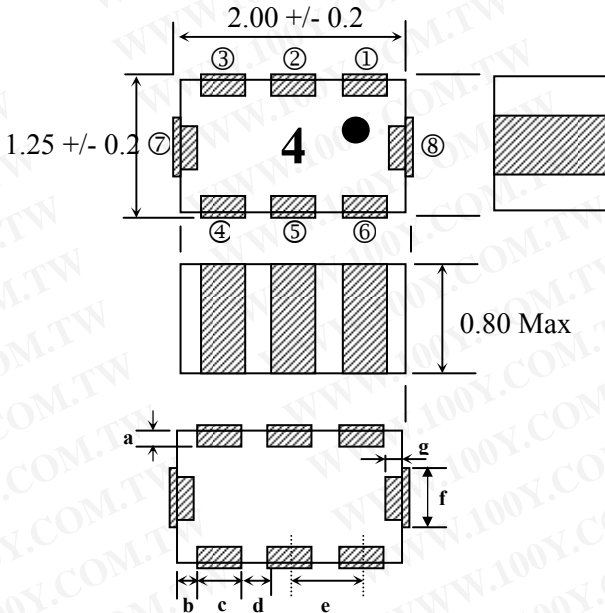
Application : Balance Filter for Bluetooth

1. Type No.

DBF81F104 - 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.	1.85	dB	
Insertion Loss at -40 to +85degC.	2.7 Max.	-	dB	
Insertion Loss at -55 to +125degC.	2.8 Max.	-	dB	
Unbalance port VSWR in BW	2.0 Max.	1.23	-	
Balance port VSWR in BW	2.0 Max.	1.26	-	
Ripple	1.0 Max.	0.29	dB	
Amplitude balance	1.0 Max.	0.04	dB	
Phase differential	180±5	182.78	deg	

Attenuation	Specification	Typical	Unit	Remark
880 MHz - 960 MHz	35 Min.	57.60	dB	
1710 MHz - 1910 MHz	25 Min.	28.36	dB	
4804 MHz - 4960 MHz	20 Min.	24.81	dB	2*f
7206 MHz - 7440 MHz	20 Min.	45.74	dB	3*f

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

4. Note

4.1 Operating Temperature Range

: -55 to +125 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)

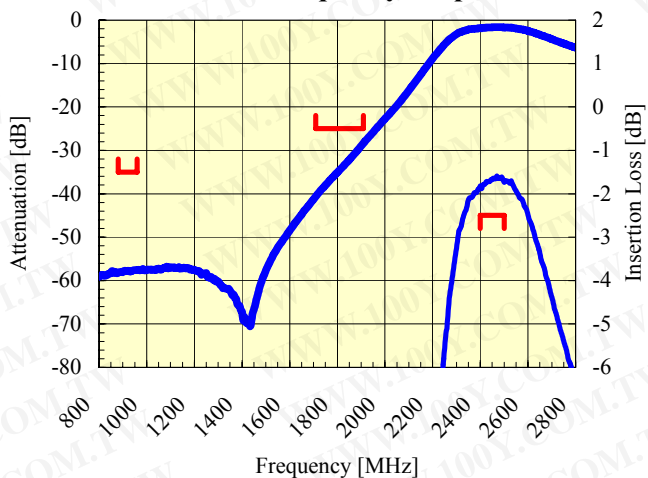
勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Approved by	Confirmed by	Raised by
T.Hirai	Y.Mizutani	M.Urano

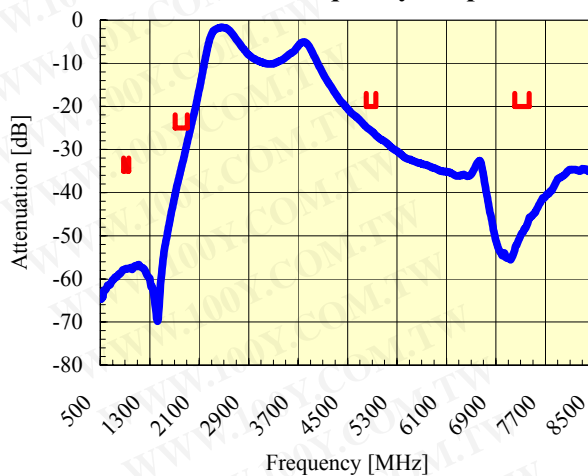
SOSHIN ELECTRIC CO., LTD

5. Representative characteristics

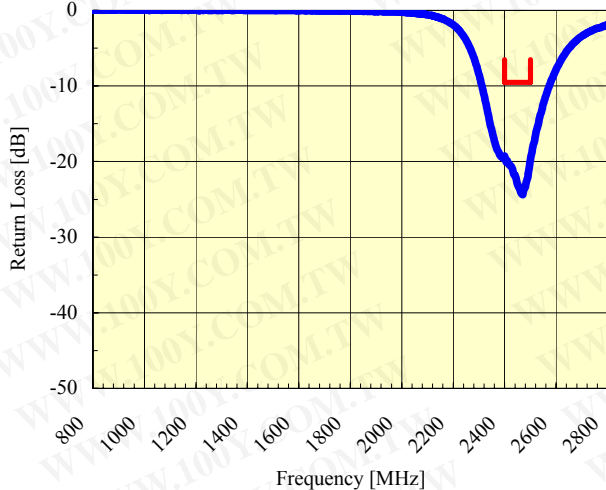
Pass Band Frequency Response



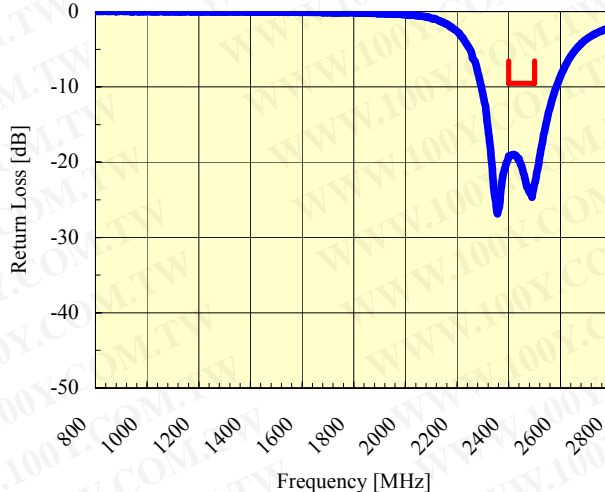
Broad Band Frequency Response



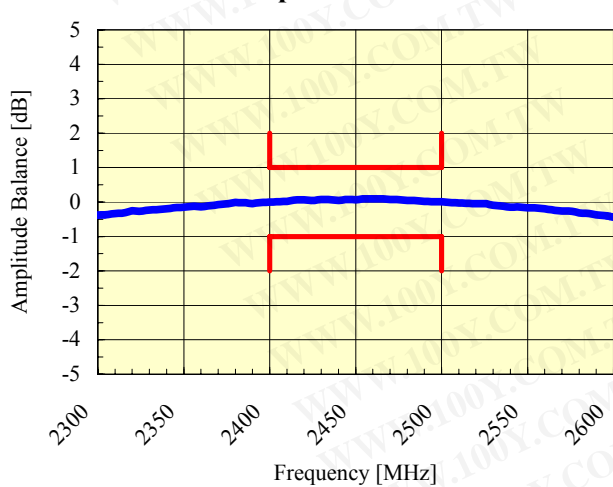
Unbalance Port Return Loss



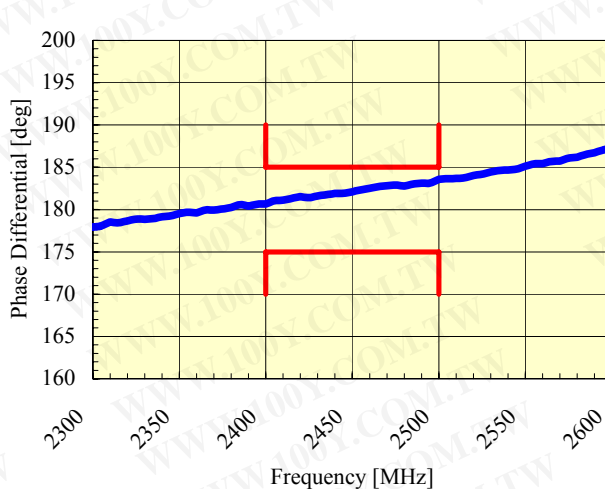
Balance Port Return Loss



Amplitude Balance

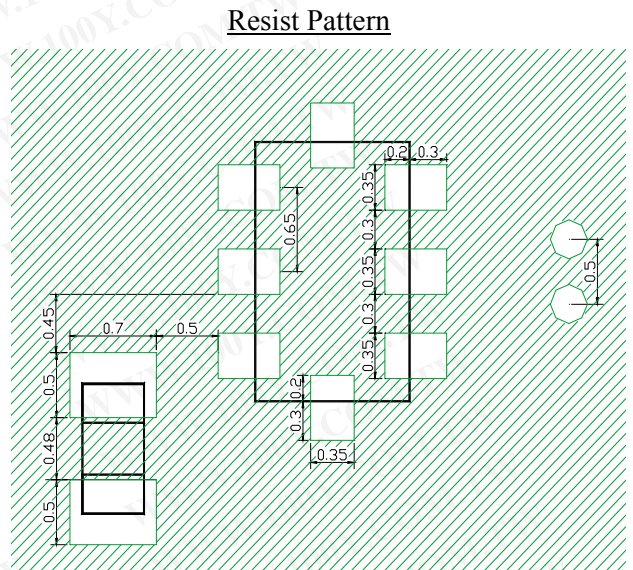
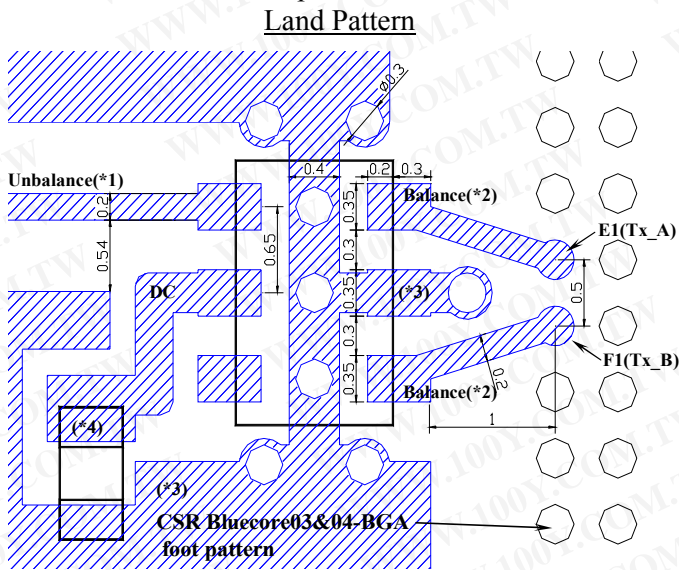


Phase Differential

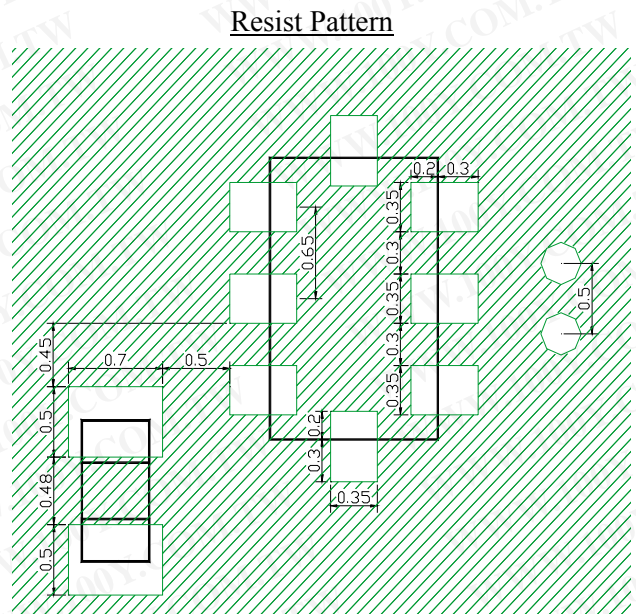
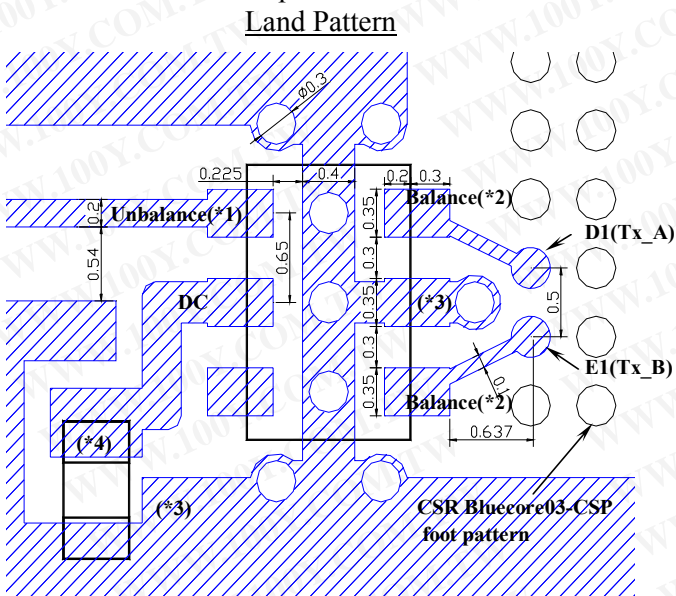


6.Recommendation Land Pattern (Unit:mm)

6.1 Recommendation land pattern for BC03&04-BGA

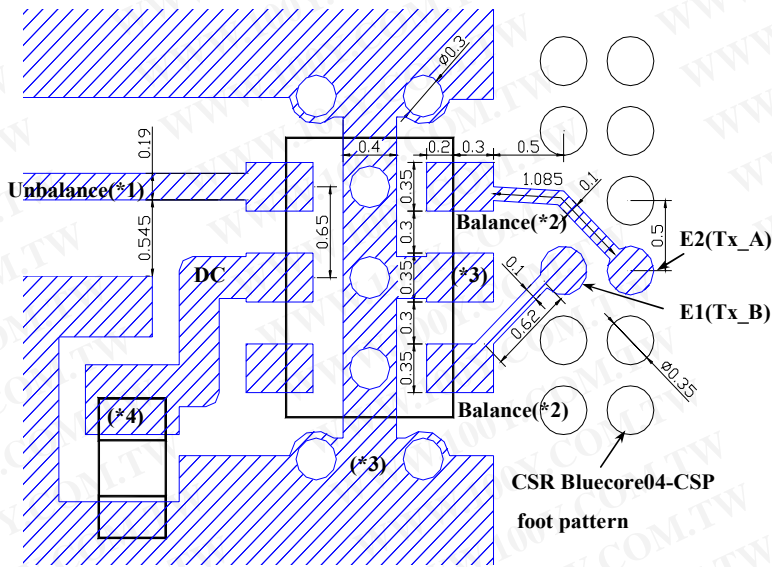


6.2 Recommendation land pattern for BC03-CSP

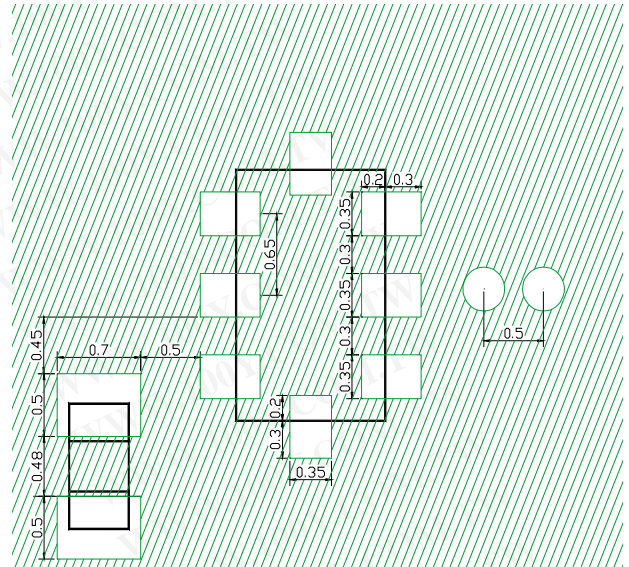


6.3 Recommendation land pattern for BC04-CSP

Land Pattern



Resist Pattern



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

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Cross Section

