

Product Information

Control No. : ARL-466001-F 1

Issued on March 25, 2014

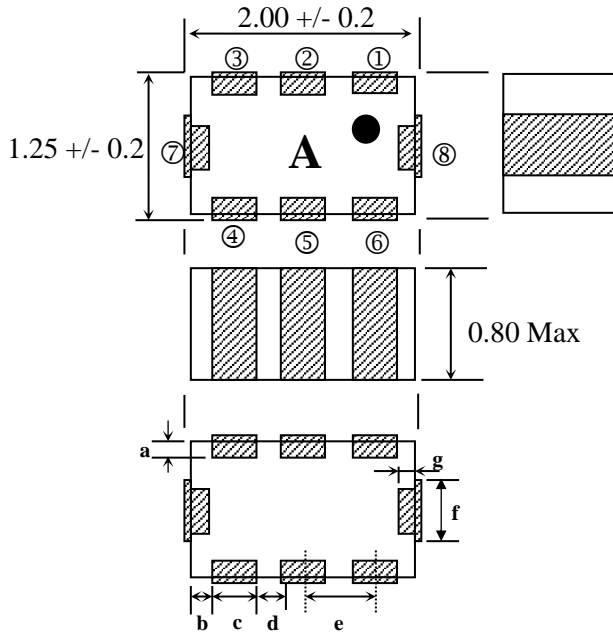
Application : Balance Filter for Bluetooth & Wireless LAN

1. Type No.

DBF81F001 - T

RoHS Compliant Parts

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)	2450	-	MHz	
Pass band frequency	2400-2500	-	MHz	
Unbalance Port Impedance at fc	50	-	ohm	Nominal
Balance Port Impedance at fc	100	-	ohm	Nominal
Insertion Loss at 25degC.	2.5 Max.	2.06	dB	
Insertion Loss at -40 to +85degC.	2.7 Max.	-	dB	
Unbalance port VSWR in BW	2.0 Max.	1.43	-	
Balance port VSWR in BW	2.0 Max.	1.47	-	
Ripple	1.0 Max.	0.30	dB	
Amplitude balance	1.0 Max.	0.17	dB	
Phase differential	180±5	178.3	deg	

Attenuation	Specification	Typical	Unit	Remark
880 MHz - 960 MHz	35 Min.	53.20	dB	
1710 MHz - 1910 MHz	25 Min.	31.70	dB	
4800 MHz - 5000 MHz	25 Min.	34.87	dB	2*f
7200 MHz - 7500 MHz	25 Min.	39.92	dB	3*f

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	M.Urano

SOSHIN ELECTRIC CO., LTD

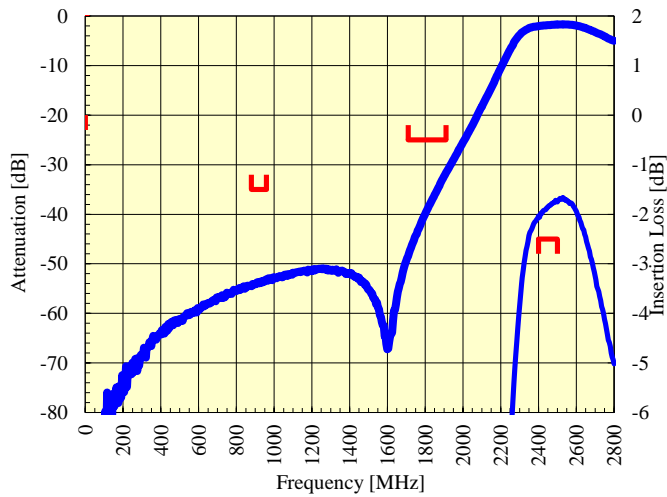
Product Information

Control No. : ARL-466001-F 2

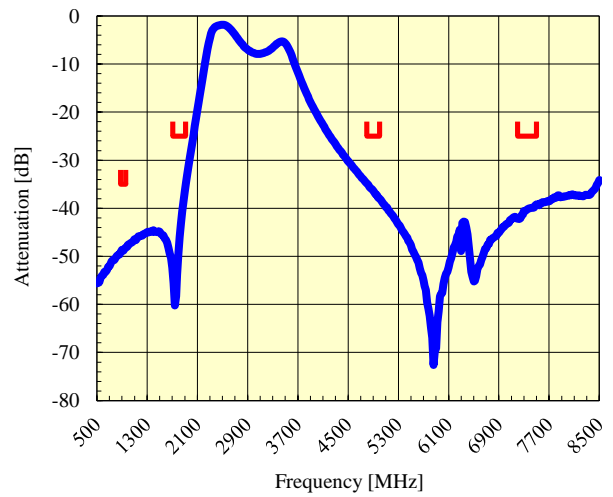
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5. Representative characteristics

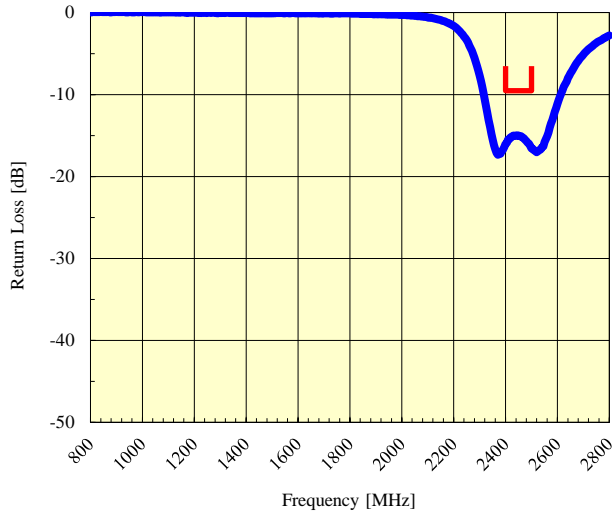
Pass Band Frequency Response



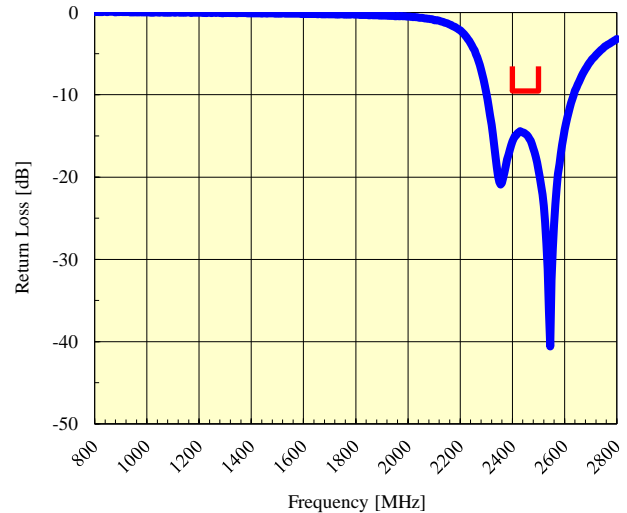
Broad Band Frequency Response



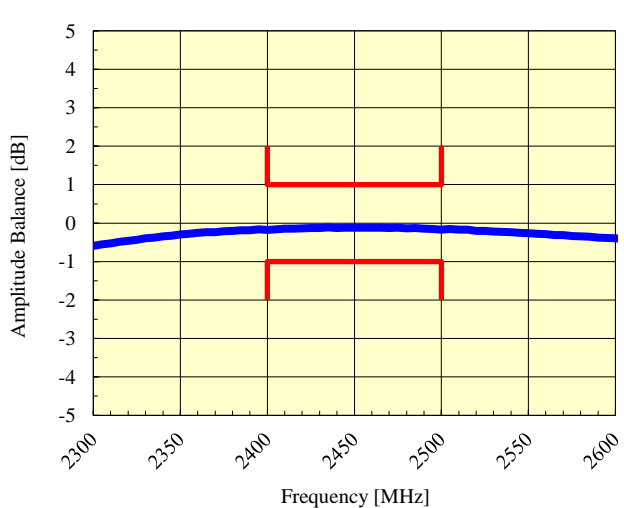
Unbalance Port Return Loss



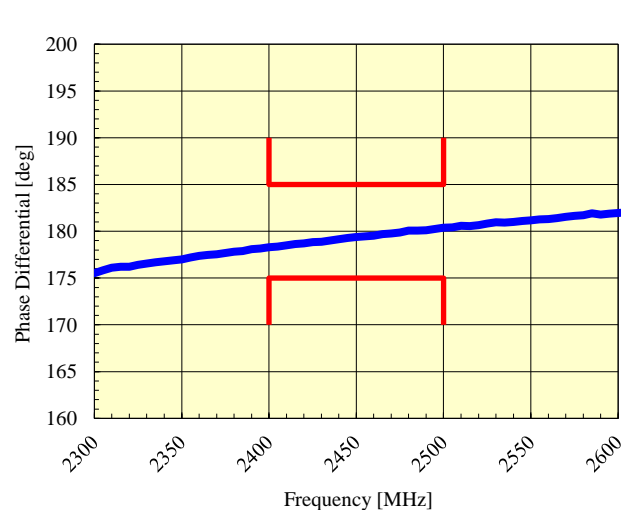
Balance Port Return Loss



Amplitude Balance

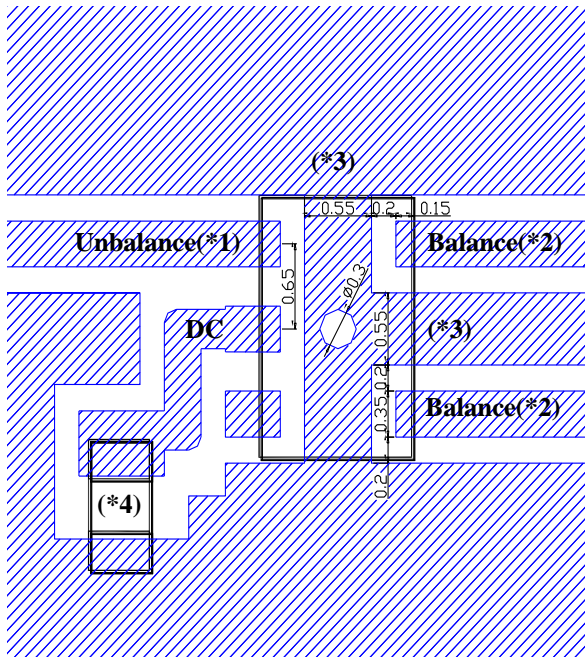


Phase Differential

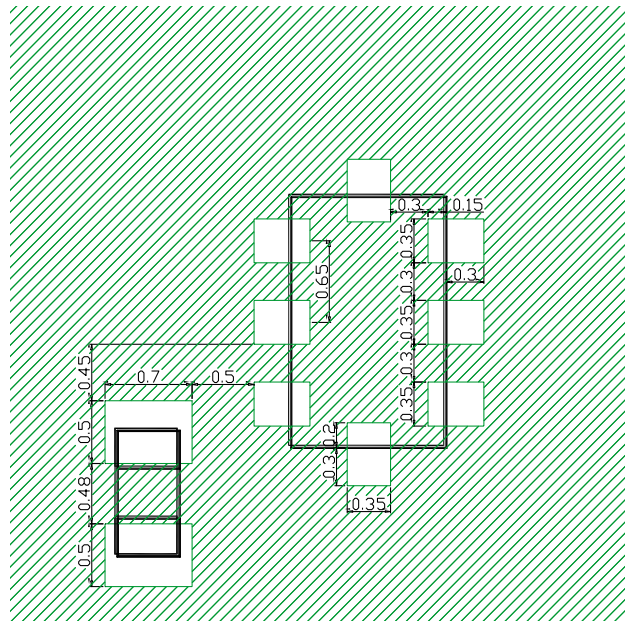


6.Recommendation Land Pattern (Unit:mm)

Land Pattern



Resist Pattern



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