

# Product Information

Control No. : ARL-466106-G 1

Established on September 11, 2006

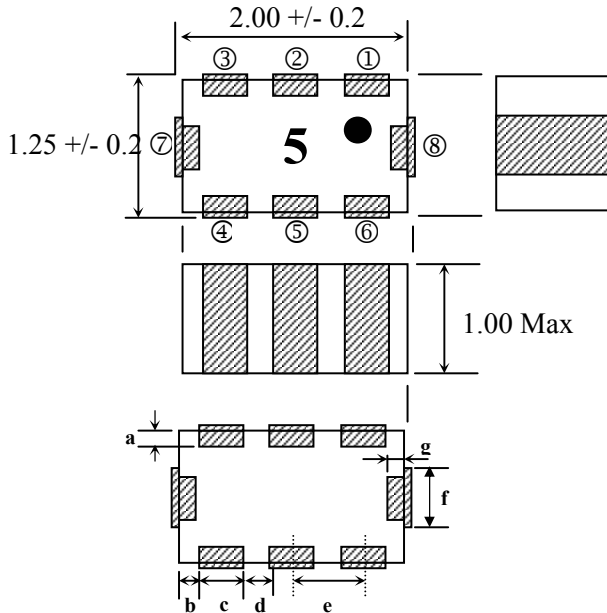
## Application : Balance Filter for Bluetooth

### 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

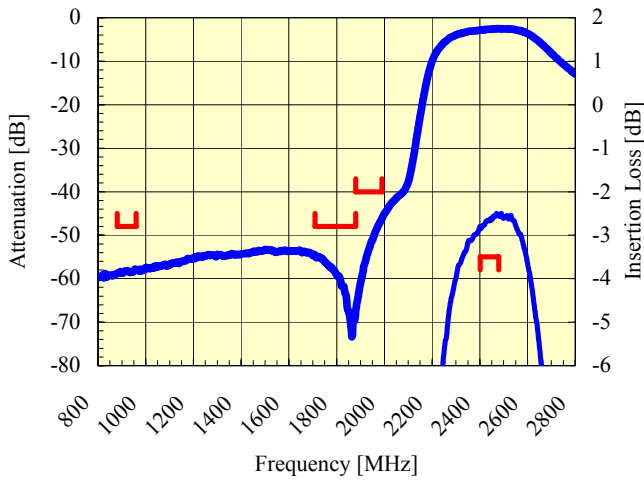
- |  |                                 |
|--|---------------------------------|
| 4.1 Operating Temperature Range                                  | : -40 to +85 deg.C              |
| 4.2 Storage Temperature Range before soldering in taping package | : -20 to +35 deg.C              |
| 4.3 Minimum Ordering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

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

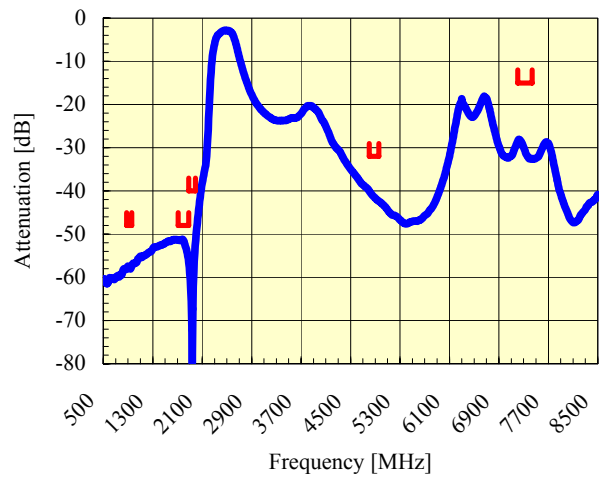
SOSHIN ELECTRIC CO., LTD

## 5. Representative characteristics

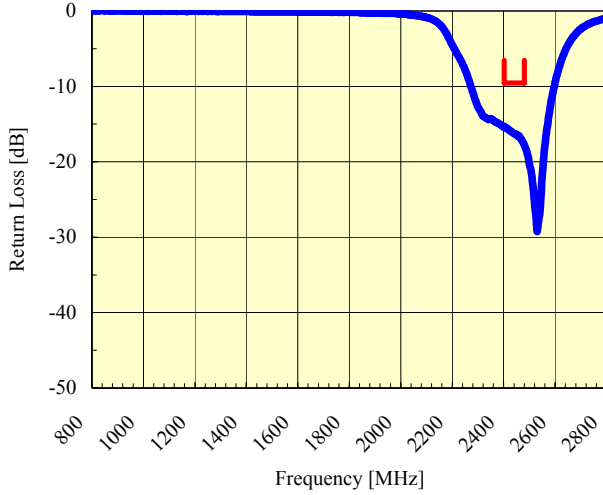
**Pass Band Frequency Response**



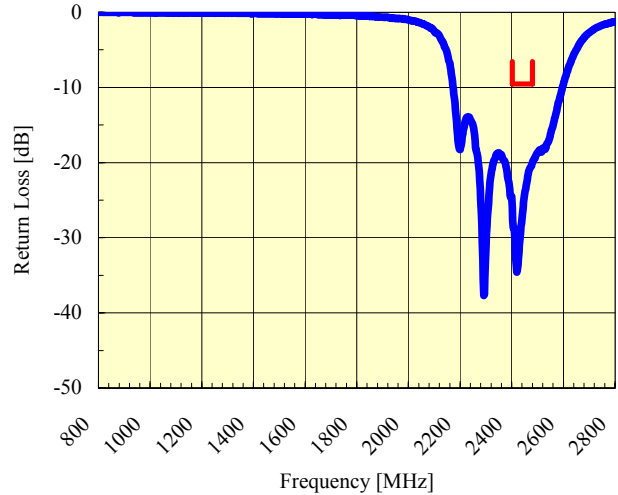
**Broad Band Frequency Response**



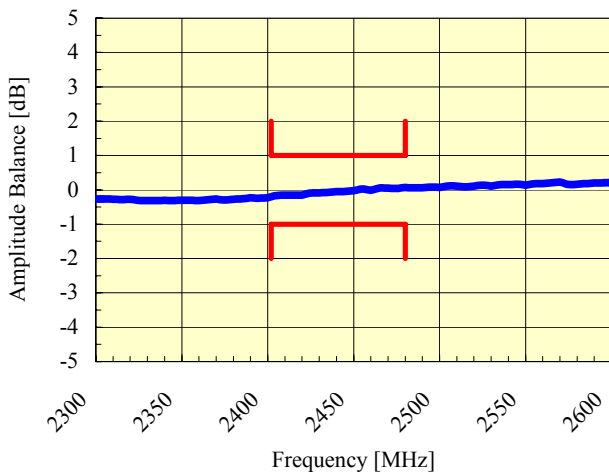
**Unbalance Port Return Loss**



**Balance Port Return Loss**



**Amplitude Balance**



**Phase Differential**

