

"High Frequency Ceramic Solutions"

2.45 GHz Filter Balun, conjugate match for MTK and BC05 chipsets

P/N 2450FB15M0001

Detail Specification: 12/03/2009

Page 1 of 3

General Specifications

Part Number	2450FB15M0001
Frequency (MHz)	2400~2500
Unbalanced Impedance	50 Ω
Balanced Impedance	Conjugate match to MTK and BC05 chipset
Insertion Loss	3 dB max.
Return Loss	9.5 dB min.
Phase Difference	180° \pm 15
Amplitude Difference	2.0 dB max.

Attenuation (dB)	40 min.@ 880~960MHz
	35 min.@1710~1880 MHz
	25 min.@1880~1990MHz
	35 min.@4800~5000MHz
	25 min.@7200~7500MHz
Operating Temperature	-40 to +85°C
Storage Temperature	+5 to +35°C, Humidity: 45-75%RH, 12 mos. Max
Input Power	1 Watt max.
Reel Quantity	4,000

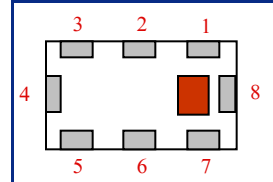
Mechanical Dimensions

	In	mm
L	0.079 \pm 0.008	2.00 \pm 0.20
W	0.049 \pm 0.008	1.25 \pm 0.20
T	0.028 \pm 0.004	0.70 \pm 0.10
a	0.012 \pm 0.004	0.30 \pm 0.10
b	0.008 \pm 0.004	0.20 \pm 0.10
c	0.012 +.004/-0.008	0.30 +0.1/-0.2
g	0.014 \pm 0.004	0.35 \pm 0.10
p	0.026 \pm 0.002	0.65 \pm 0.05

Case size/type 43-3

Terminal Configuration

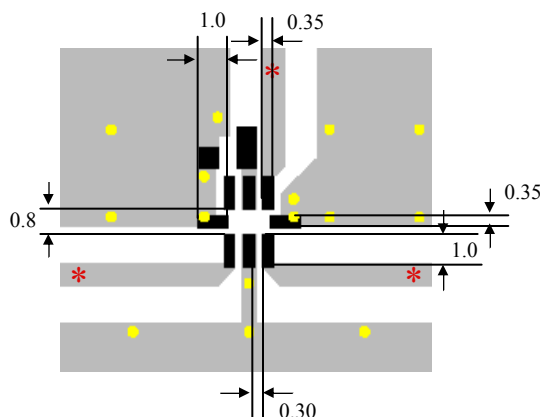
No.	Function
1	Unbalanced Port
2	NC or DC Feed
3	NC
4	GND
5	Balanced Port
6	GND
7	Balanced Port
8	GND



Mounting Considerations

* Line width should be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

** By-pass capacitor should be connected when feeding DC power



- Solder Resist
- Land
- Through-hole (ϕ 0.3)

Units: mm

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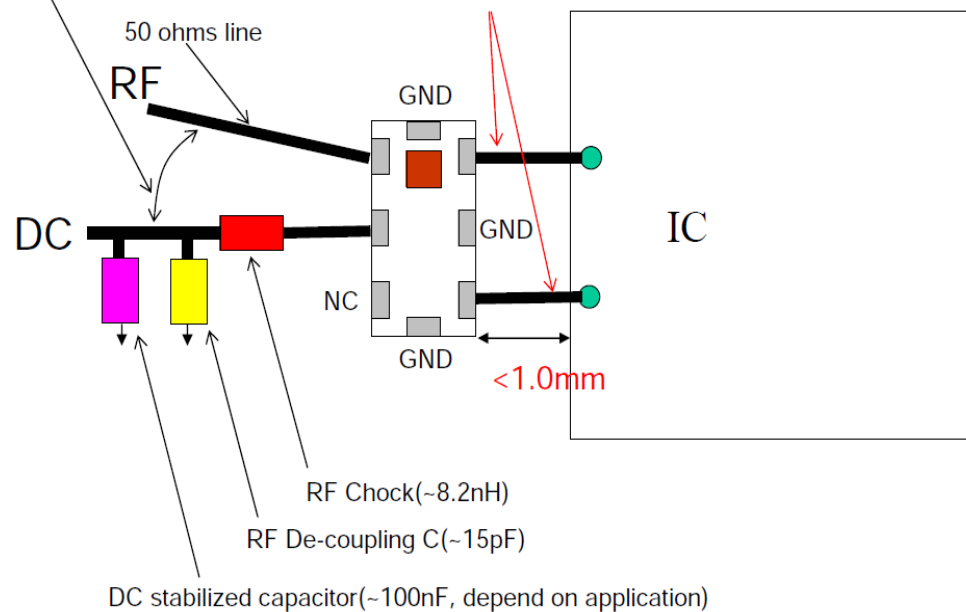
Detail Specification: 12/03/2009

Page 2 of 3

Technical Note for DC Feed

To avoid RF signal coupled to VCO via DC line, it is better to have larger spacing between RF and DC lines

1. Keep the same width and length for these two lines, and the length should be designed less than 1.0mm.
2. Line impedance is about 40-60 ohms. The main concern is convenience to layout.



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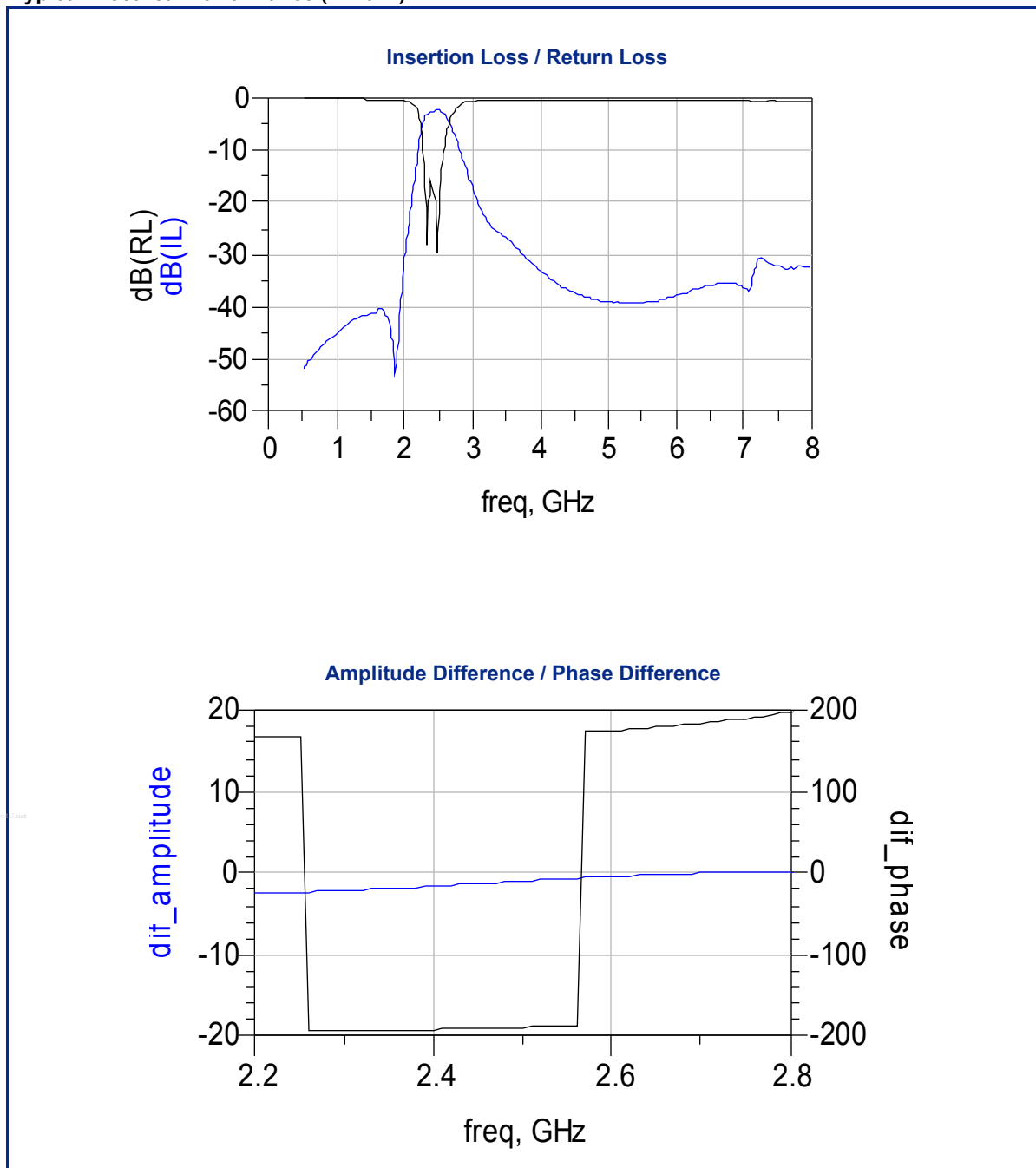
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Page 3 of 3

Typical Electrical Performance (T=25°C)



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