

"High Frequency Ceramic Solutions"

Preliminary

2.45 GHz LPF-Balun/Matching Network: for TI Chipset CC2500

P/N 2450BM15B0003

Detail Specification: 06/09/2010

Page 1 of 3

General Specifications

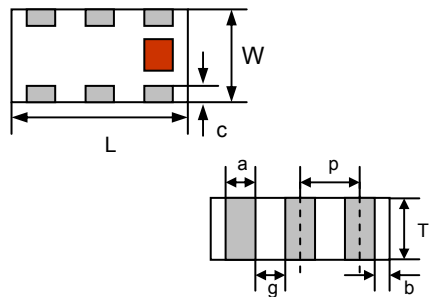
Part Number	2450BM15B0003
Frequency (MHz)	2400~2500
Unbalanced Impedance	50 Ω
Balanced Impedance	Conjugate match TI Chipset 2500
Insertion Loss	2.2 dB max. 1.7dB typ
Return Loss	10 dB min.
Phase Difference	180° ± 12
Amplitude Difference	2.0 dB max.

Differential Mode Attenuation (dB)	20 min.@ 4800~5000MHz
	20 min.@ 7200~7500MHz
Common Mode Attenuation (dB)	17 min.@ 4800~5000MHz
Operating Temperature	-40 to +85°C
Storage Temperature	+5 to +35°C, Humidity: 45-75%RH, 12 mos. Max
Input Power	2 Watts max.
Reel Quantity	4,000

* 12 months in vacuum sealed bag and 1 week after opened

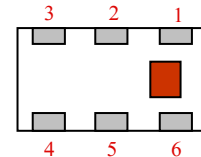
Mechanical Dimensions

	In	mm
L	0.079 ± 0.004	2.00 ± 0.10
W	0.049 ± 0.004	1.25 ± 0.10
T	0.031 ± 0.004	0.80 ± 0.10
a	0.012 ± 0.004	0.30 ± 0.10
b	0.008 ± 0.004	0.20 ± 0.10
c	0.012 +.004/-0.008	0.30 +0.1/-0.2
g	0.014 ± 0.004	0.35 ± 0.10
p	0.026 ± 0.002	0.65 ± 0.05

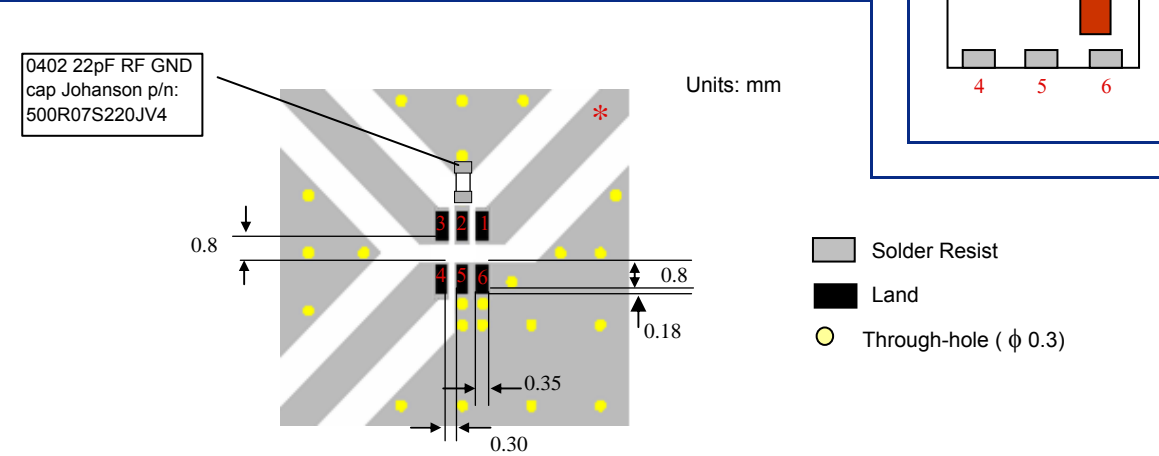


Terminal Configuration

No.	Function
1	Unbalanced Port
2	DC Feed + RF GND
3	Balanced Port
4	Balanced Port
5	GND
6	GND



Mounting Considerations



0402 22pF RF GND cap Johanson p/n: 500R07S220JV4

Units: mm

0.8

0.18

0.35

0.30

Legend:

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

* Line width should be designed to match 50 W characteristic impedance, depending on PCB material and thickness.
- Go to page 2 for a more detailed layout

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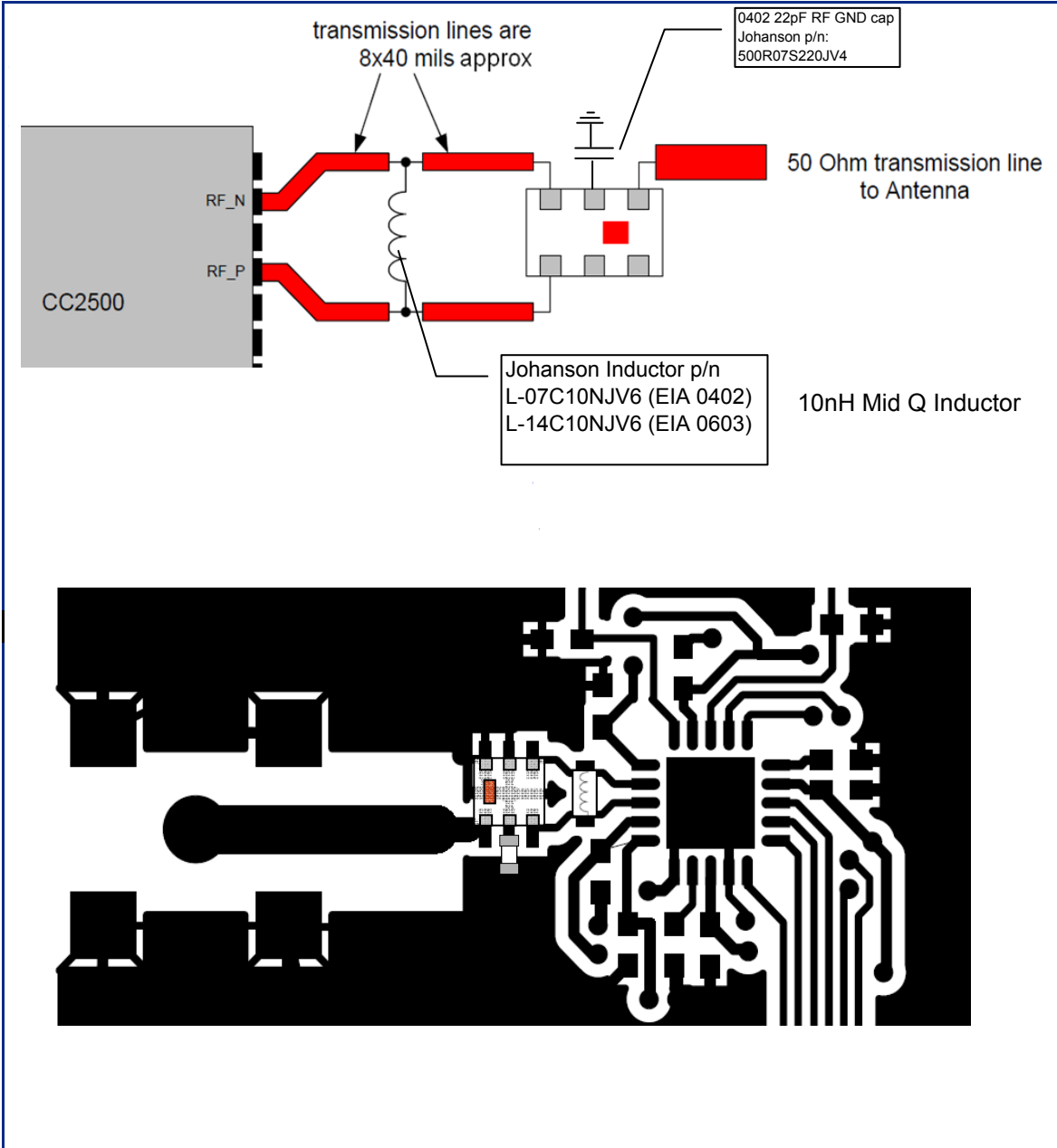
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Recommended Layout



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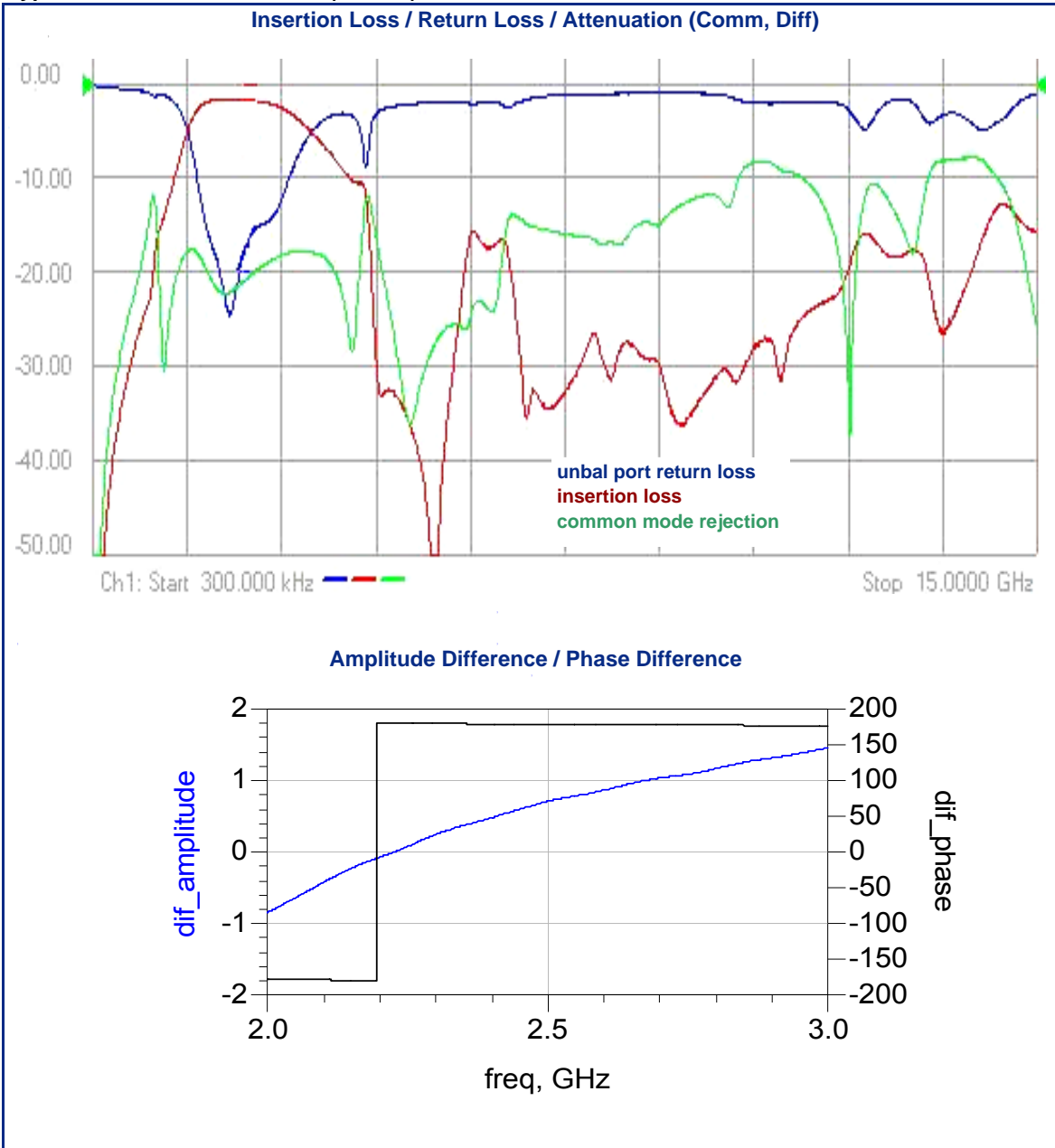
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Typical Electrical Performance (T=25°C)



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