

High Frequency Ceramic Solutions

2.45 GHz Balun / Matching Network

P/N 2450BM18A001

Optimized For Zeevo / Broadcom Chipset ZV4301

Detail Specification: 09/19/05

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General Specifications

Part Number	2450BM18A001	
Band	Tx	Rx
Frequency (MHz)	2400 - 2500	2400 - 2500
Unbalanced Impedance	50 Ω	50 Ω
Balanced Imp.	51.4-j151.9 @2.45GHz	6.5 - j43.8 @2.45GHz
Insertion Loss	4.2 dB max.	5.0 dB max.
Return Loss	9.5 dB min.	9.5 dB min.
Phase Difference (degree)	180 $\pm$ 10	180 $\pm$ 10
Amplitude Difference	2.0 dB max.	3.0 dB max.

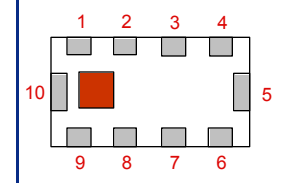
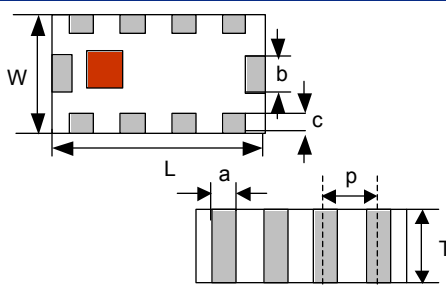
Operating Temp.	-40 to +85°C
Reel Quantity	4000
Power Capacity	100 mW max.

Terminal Configuration

No.	Function
1	PA bias
2	GND
3	GND
4	Ant
5	GND
6	RX-
7	RX+
8	TX-
9	TX+
10	GND

Mechanical Dimensions

	In	mm
L	0.126 $\pm$ 0.008	3.20 $\pm$ 0.20
W	0.063 $\pm$ 0.008	1.60 $\pm$ 0.20
T	0.035 $\pm$ 0.008	0.90 $\pm$ 0.20
a	0.014 $\pm$ 0.008	0.35 $\pm$ 0.20
b	0.024 $\pm$ 0.006	0.60 $\pm$ 0.15
c	0.012 $\pm$ 0.004/-0.008	0.30 $\pm$ 0.1/-0.2
p	0.031 $\pm$ 0.004	0.80 $\pm$ 0.10



Mounting Considerations

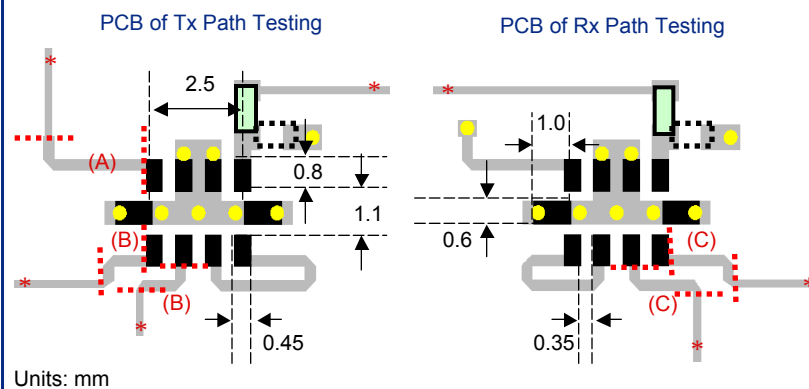
Mount these devices with brown mark facing up.

* Line width should be designed to provide proper impedance matching characteristics.

*** Inductor of 3.3nH is connected in series at Antenna Port when measuring, and pads in shunt are reserved for additional matching.

** Interconnecting lines are added on the test board. Lines impedance and length are:

Line (A) : Impedance = 40ohm,
Length = 7.3degrees @ 1GHz for Er = 1
Line (B) : Impedance = 40ohm,
Length = 3.1degrees @ 1GHz for Er = 1
Line (C) : Impedance = 40ohm,
Length = 4.5degrees @ 1GHz for Er = 1



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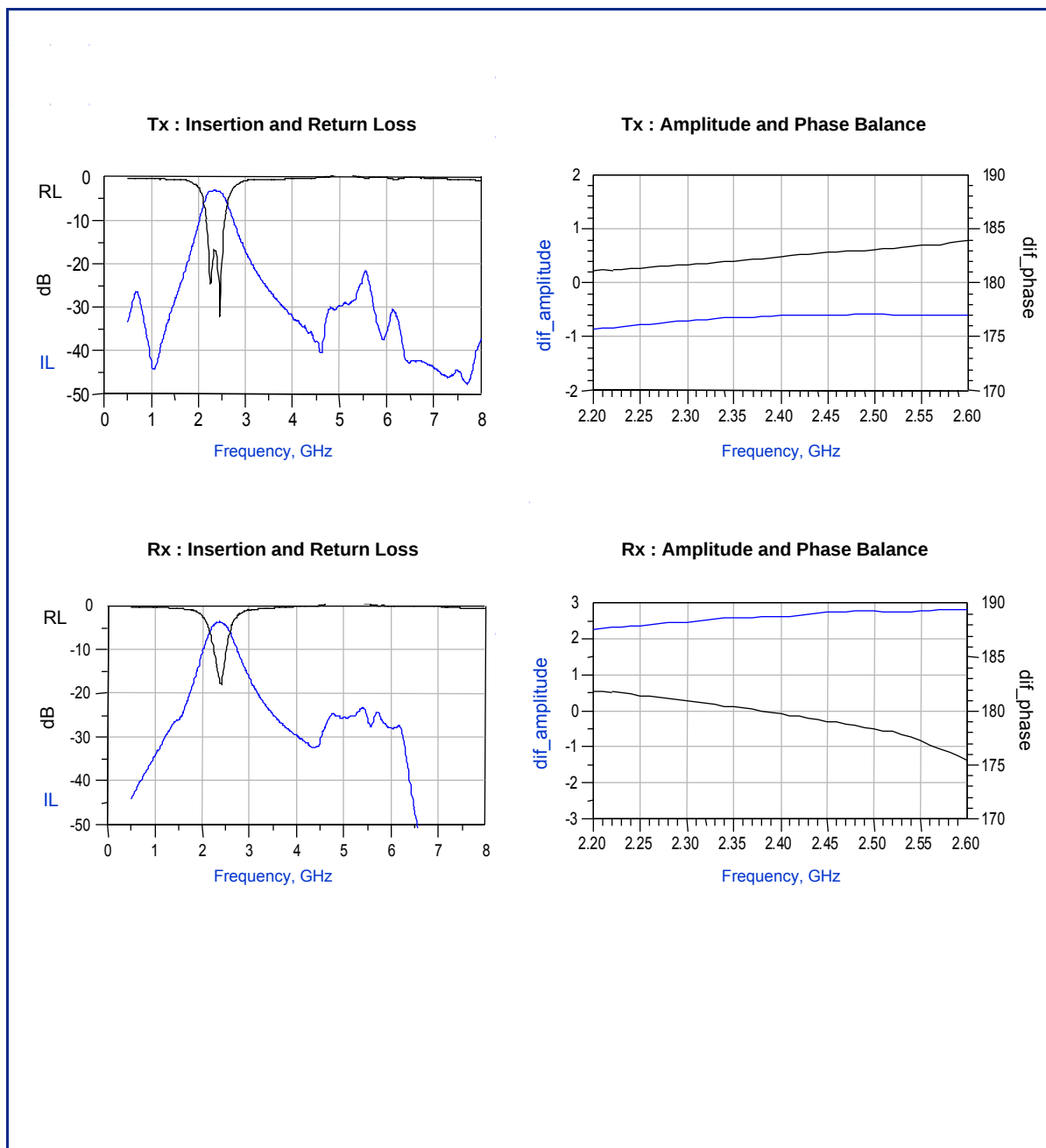
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Typical Electrical Performance (T=25°C)



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