

# High Frequency Ceramic Solutions

## 2.45 GHz Balun / Matching Network

P/N 2450BM18A001

Part Of The Series of Baluns Optimized For Specific Chipsets, Contact Factory For More Information

Detail Specification: 09/19/05

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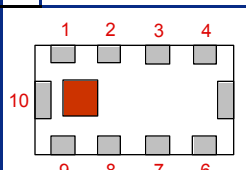
### General Specifications

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 ± 10	180 ± 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.

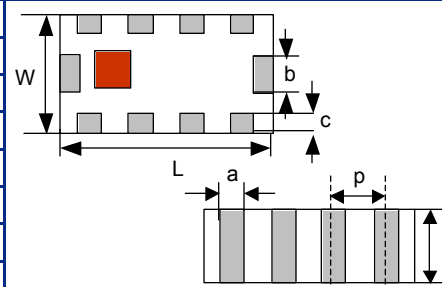
### Terminal Configuration

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 ± 0.008	3.20 ± 0.20
W	0.063 ± 0.008	1.60 ± 0.20
T	0.035 ± 0.008	0.90 ± 0.20
a	0.014 ± 0.008	0.35 ± 0.20
b	0.024 ± 0.006	0.60 ± 0.15
c	0.012 +.004/-0.008	0.30 +0.1/-0.2
p	0.031 ± 0.004	0.80 ± 0.10



### Mounting Considerations

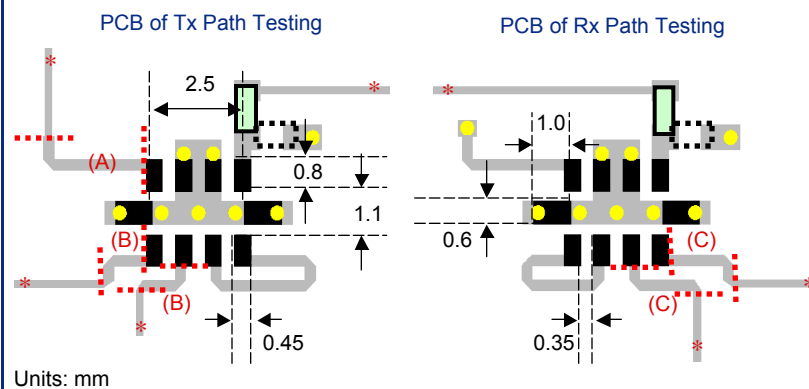
Mount these devices with brown mark facing up.

\* 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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[www.johansontechnology.com](http://www.johansontechnology.com)

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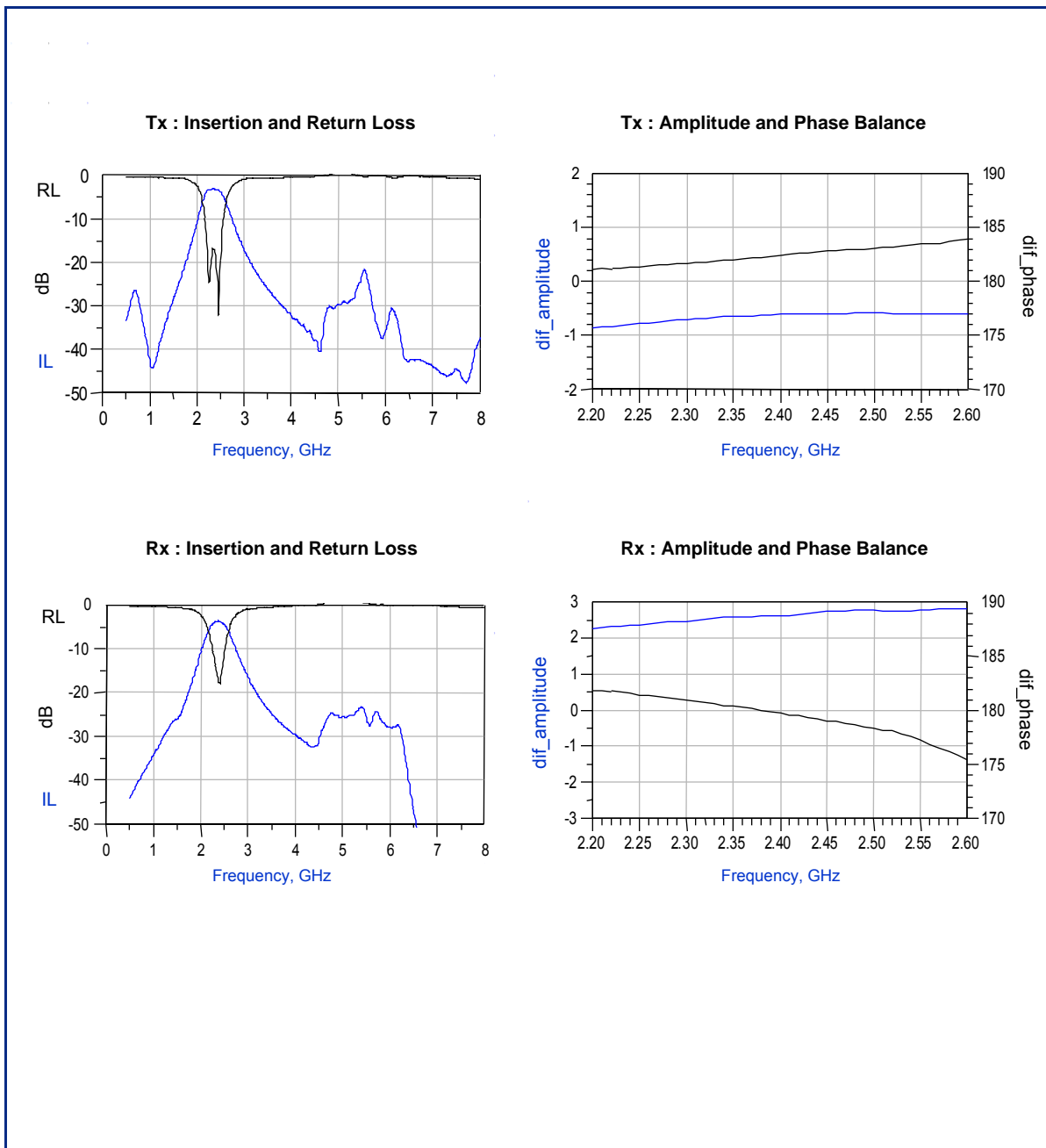
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## Typical Electrical Performance (T=25°C)



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