

High Frequency Ceramic Solutions

2.45 GHz RF Balun. 1:2 Ratio, 50/100Ω Impedance

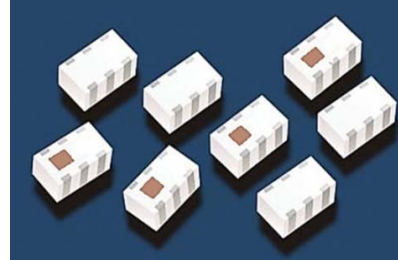
P/N 2450BL15B100

Detail Specification: 3/12/2014

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General Specifications

Part Number	2450BL15B100	Operating Temperature	-40 to +85°C
Frequency (MHz)	2400 ~ 2500	Reel Quantity	4,000
Unbalanced Impedance	50Ω		
Balanced Differential Imped.	100Ω		
Insertion Loss	1.0 dB max.		
Return Loss	9.5 dB min.		
Phase Difference	180° ± 10°		
Amplitude Difference	2.0 dB max.		
Input Power	3 Watts max. (CW)		

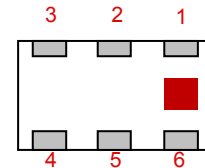


Mechanical Dimensions

	In	mm
L	0.079 ± 0.004	2.00 ± 0.10
W	0.049 ± 0.004	1.25 ± 0.10
T	0.033 ± 0.004	0.85 ± 0.10
a	0.012 ± 0.004	0.30 ± 0.10
b	0.008 ± 0.004	0.20 ± 0.10
c	0.012 +.004/-.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	No.	Function
1	Unbalanced Port	4	Balanced Port
2	GND or DC Feed	5	GND
3	Balanced Port	6	NC



P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 2450BL15B100S
		T & R	Suffix = E	eg. 2450BL15B100E
	Evaluation Board	2450BL15B100-EB1SMA (3 Female SMA connector on a 50Ω PCB)		

Mounting Considerations

Mount these devices with brown mark facing up.

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

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

Want the layout file of the above? Send us a message at: www.johansontechnology.com/component/techquestion

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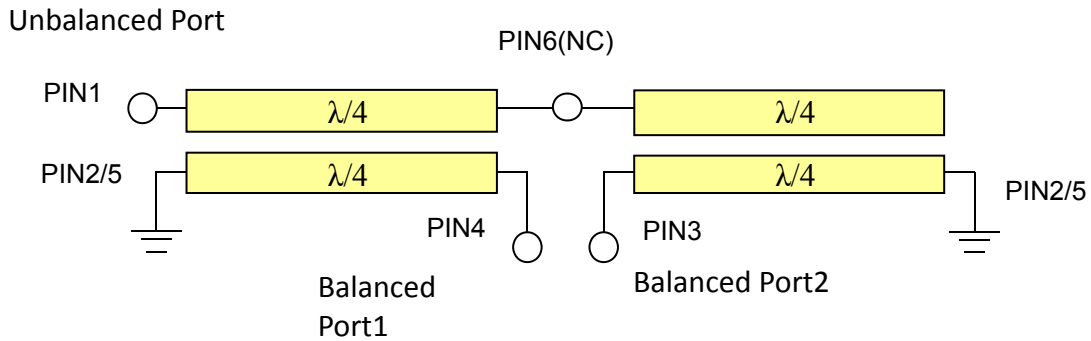
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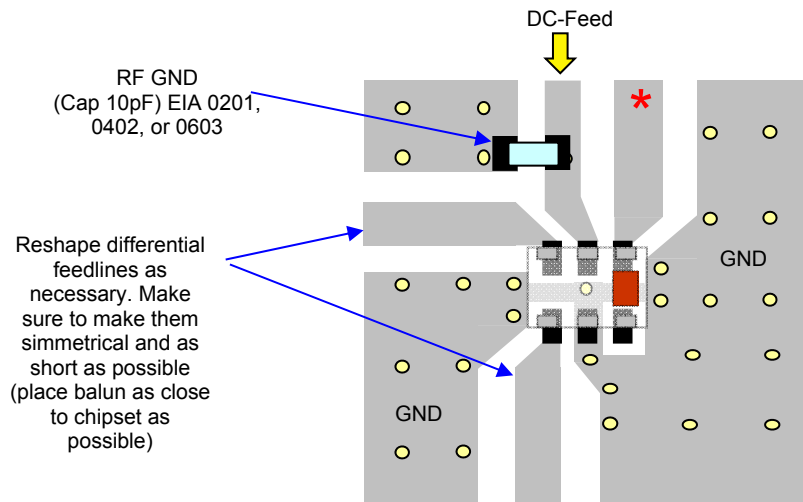
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Internal Equivalent Circuit



Internal Equivalent Circuit



Not quite sure how to layout the balun? We'll help! Send us a message at:
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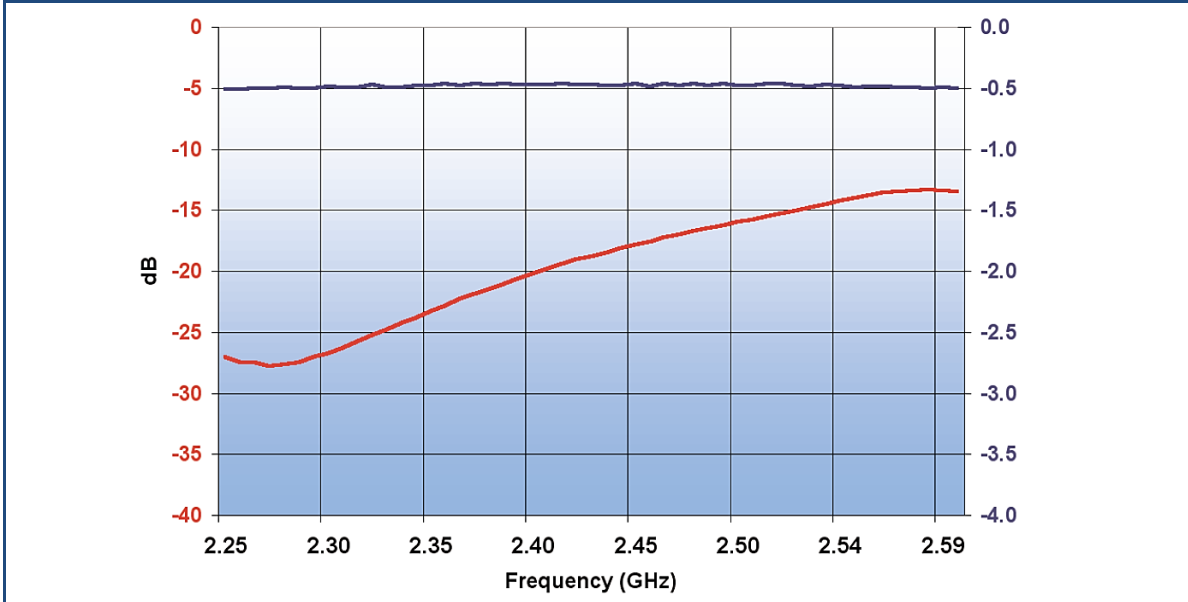
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Typical Electrical Performance (T=25°C)



More Baluns

www.johansontechnology.com/rfbaluns

RoHS Compliance

www.johansontechnology.com/technical-notes/rohs-compliance.html

Packaging information

www.johansontechnology.com/ipcpackaging.html

Soldering Information (i.e. recommended profile)

www.johansontechnology.com/ipcsoldering-profile

Layout Files, s-parameters and any other technical questions

www.johansontechnology.com/component/techquestion/?Itemid=407

MSL Info

www.johansontechnology.com/technical-notes/msl-rating.html

Recommended Storage Condition and Max Shelf Life

www.johansontechnology.com/ipcstorage-shelflife

Antenna layout and tuning techniques

www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services

www.johansontechnology.com/ipcantennaservices

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