

High Frequency Ceramic Solutions

1.7GHz 1:2 Ratio RF Balun, EIA 0805 SMD

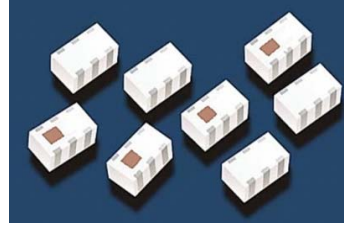
P/N 1600BL15B100

Detail Specification: 3/13/2014

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General Specifications

Part Number	1600BL15B100		
Unbalanced Impedance	50 Ω		
Differential Balanced Imp.	100 Ω		
Frequency 1 (MHz)	1500~1700		
Insertion Loss 1	1.0 dB max.		
Return Loss 1	9.5 dB min.	Frequency 2 (MHz)	1275~2200
Phase Difference 1	180° ± 10°	Insertion Loss 2	1.5 dB max.
Amplitude Difference	2.0 dB max.	Return Loss 2	8.5 dB min.
Power Capacity	3.0 watts max.(CW)	Phase Difference 2	180° ± 15°



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/-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	No.	Function
1	Unbalanced Port	4	Balanced Port
2	GND (when no DC feed needed), or DC Bias+ RF Bypass Cap (when DC feed needed)	5	GND
		6	NC
3	Balanced Port		

P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 1600BL15B100S
		T & R	Suffix = E	eg. 1600BL15B100E
	Evaluation Board	1600BL15B100-EB1SMA (orderable item, 3-port female SMA 50Ohm board)		

Mounting Considerations

Mount these devices with brown mark facing up.

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

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

Without DC feed

When DC feed Used

RF GND
Cap 10-15pF
EIA 0402 (1)

(1)The by-pass capacitor should be placed as close as possible to the pin2 of dc

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

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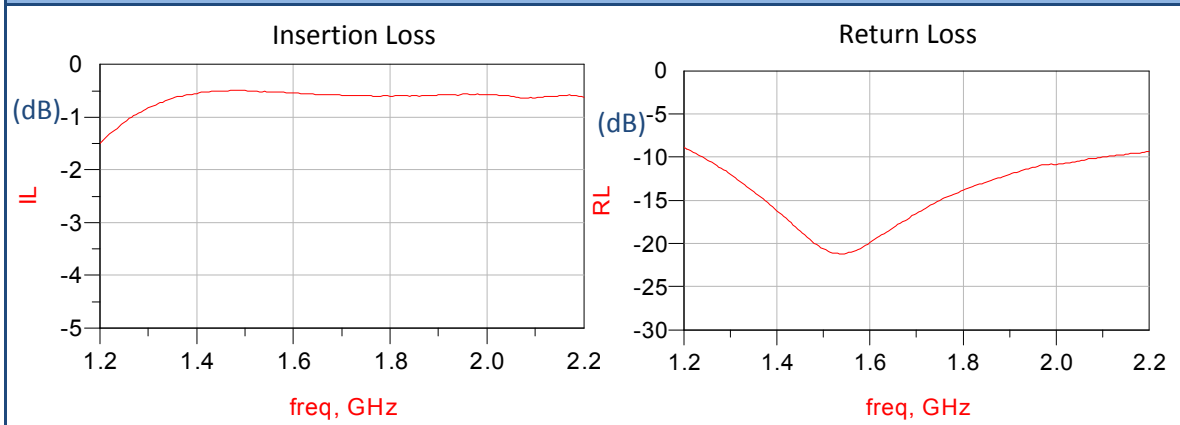
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General Specifications

Reel Quantity	4,000 pcs	Operating Temperature	-40 to +85°C
Rec. Storage Conditions	+5 ~ +3° C, Humidity 45~75%RH		

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

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