

# High Frequency Ceramic Solutions

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

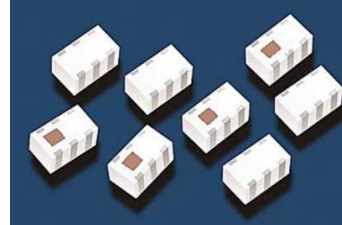
P/N 1600BL15B100

Detail Specification: 3/13/2014

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### General Specifications

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

<b>P/N Suffix</b>	<b>Packing Style</b>	Bulk	Suffix = S	eg. 1600BL15B100S
		T & R	Suffix = E	eg. 1600BL15B100E
	<b>Evaluation Board</b>	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 device

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

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**P/N 1600BL15B100**

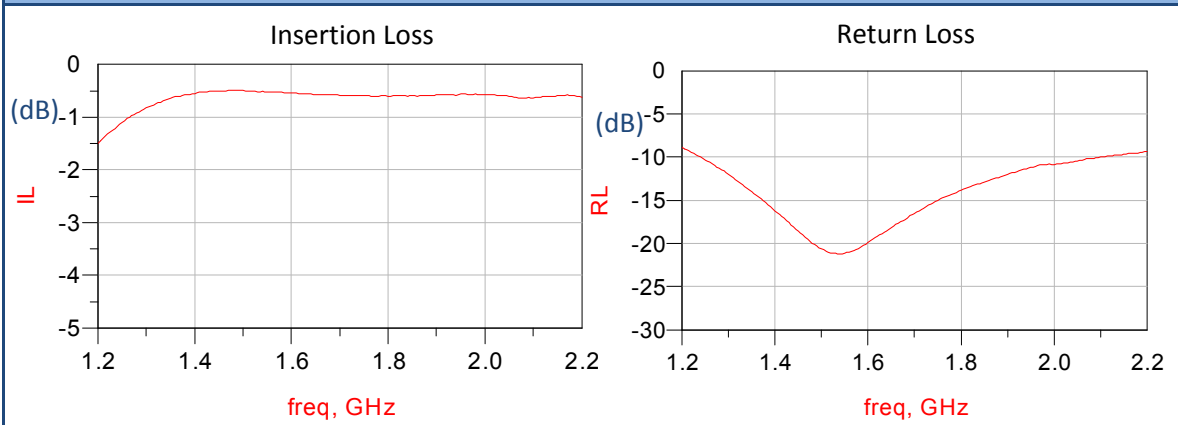
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## General Specifications

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

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



## More Baluns

[www.johansontechnology.com/rfbaluns](http://www.johansontechnology.com/rfbaluns)

## RoHS Compliance

[www.johansontechnology.com/technical-notes/rohs-compliance.html](http://www.johansontechnology.com/technical-notes/rohs-compliance.html)

## Packaging information

[www.johansontechnology.com/ipcpackaging.html](http://www.johansontechnology.com/ipcpackaging.html)

## Soldering Information (i.e. recommended profile)

[www.johansontechnology.com/ipcsoldering-profile](http://www.johansontechnology.com/ipcsoldering-profile)

## Layout Files, s-parameters and any other technical questions

[www.johansontechnology.com/component/techquestion/?Itemid=407](http://www.johansontechnology.com/component/techquestion/?Itemid=407)

## MSL Info

[www.johansontechnology.com/technical-notes/msl-rating.html](http://www.johansontechnology.com/technical-notes/msl-rating.html)

## Recommended Storage Condition and Max Shelf Life

[www.johansontechnology.com/ipcstorage-shelflife](http://www.johansontechnology.com/ipcstorage-shelflife)

## Antenna layout and tuning techniques

[www.johansontechnology.com/tuning](http://www.johansontechnology.com/tuning)

## Antenna layout review, tuning, and characterization services

[www.johansontechnology.com/ipcantennaservices](http://www.johansontechnology.com/ipcantennaservices)

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