

# High Frequency Ceramic Solutions

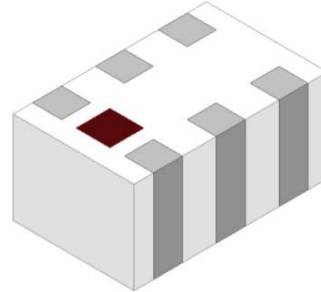
900MHz Balun, 1:2 Impedance Ratio, EIA 1206

P/N 0917BL18B100

Detail Specification: 3/19/2020

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General Specifications	
Part Number	0917BL18B100
Frequency (MHz)	889 - 945
Unbalanced Impedance	50 $\Omega$
Balanced Impedance	100 $\Omega$
Insertion Loss	1.0 dB max.
Return Loss	9.5 dB min.
Phase Difference	180 $\pm$ 10 deg.
Amplitude Difference	2.0 dB max.
Power Capacity	3W max. (CW)
Reel Quantity	3,000 pcs
Operating Temperature	-40 to +85°C



Recommended Storage Conditions of unused product on T&R	+5 to +35°C, 18 mos. max. Humidity 45~75% RH
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You can download measured s-parameters of this component at: <https://www.johansontechnology.com/baluns>

Part Number Explanation				
P/N Suffix	Packing Style	Bulk	Suffix = S	Eg. 0917BL18B100S
		T & R	Suffix = E	Eg. 0917BL18B100E
	Termination style	100% Tin	Suffix = None	Eg. 0917BL18B100 (E or S)
	Evaluation Board	0917BL18B100-EB2SMA (3 female SMA connectors)		

Mechanical Dimensions		
	In	mm
L	0.126 $\pm$ 0.006	3.20 $\pm$ 0.15
W	0.063 $\pm$ 0.006	1.60 $\pm$ 0.15
T	0.034 $\pm$ 0.004	0.85 $\pm$ 0.10
a	0.022 $\pm$ 0.006	0.55 $\pm$ 0.15
b	0.014 $\pm$ 0.006	0.35 $\pm$ 0.15
c	0.012 +.004/-0.008	0.30 +0.1/-0.2
g	0.016 $\pm$ 0.006	0.40 $\pm$ 0.15
p	0.039 $\pm$ 0.004	1.00 $\pm$ 0.10

Terminal Configuration	
1	GND or DC feed
2	Unbalanced Port (1)
3	GND or DC feed
4	Balanced Port (2)
5	NC
6	Balanced Port (3)

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Ver 1.1

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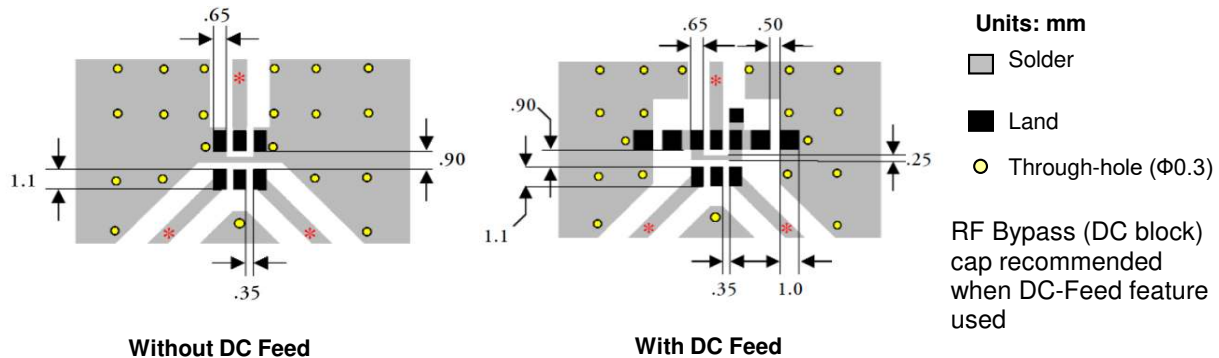
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## Mounting Considerations

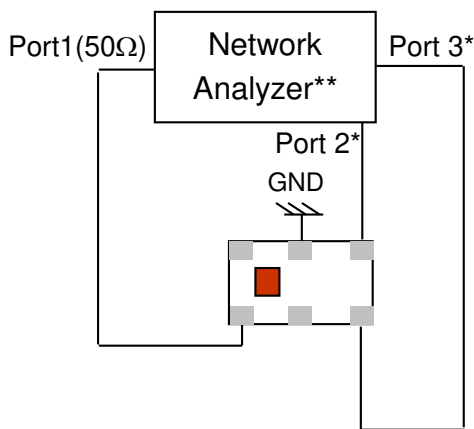
Mount these devices with colored mark facing up.

\* Line width should be designed to provide 50ohm impedance matching characteristics.



Need our help laying this out for you? Need the layout file? Send us a message at:  
<https://www.johansontechnology.com/component/techquestion>

## Measuring Diagram



Port 1: Unbalanced Port  
 Ports 2 and 3: Balanced Port  
 IL=Sds21  
 RL=Sss11  
 $Amp\_balance = dB(S(2,1)/S(3,1))$   
 $Phase\_balance = Phase(S(2,1)/S(3,1))$

\*Impedance for ports 2 and 3 = Balanced Impedance/2

\*\*E5071B from Agilent

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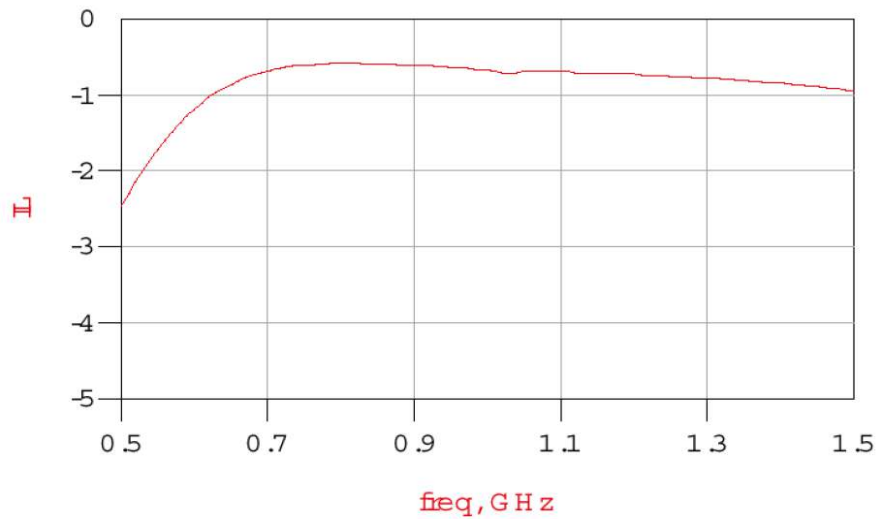
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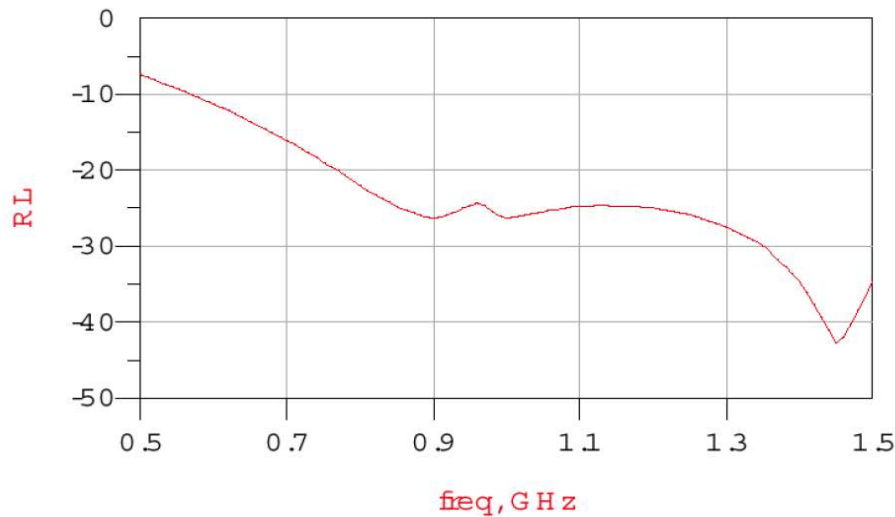
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## Typical Electrical Characteristics (T=25°C)

### Insertion Loss



### Return Loss



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## Application Notes, Layout Files, and more

<https://www.johansontechnology.com/baluns>

## Packaging information

<https://www.johansontechnology.com/tape-reel-packaging>

## Soldering Information

<https://www.johansontechnology.com/ipcsoldering-profile>

## MSL Info

<https://www.johansontechnology.com/msl-rating>

## Recommended Storage Condition and Max Shelf Life

<https://www.johansontechnology.com/recommended-storage-conditions>

## RoHS Compliance

<https://www.johansontechnology.com/rohs-compliance>

## Antenna layout and tuning techniques

<https://www.johansontechnology.com/tuning>

## Antenna layout review, tuning, and characterization services

<https://www.johansontechnology.com/ipc-antenna-services>

## P/N Explanation and Breakdown

<https://www.johansontechnology.com/ipc-pn-explained>

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