

High Frequency Ceramic Solutions

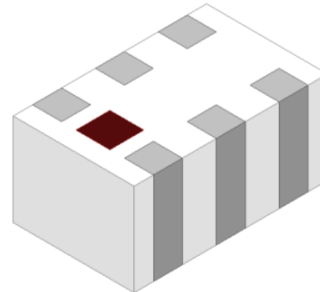
900MHz Balun, 1:2 Impedance Ratio, EIA 1206

P/N 0917BL18B100

Detail Specification: 3/19/2020

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General Specifications	
Part Number	0917BL18B100
Frequency (MHz)	889 - 945
Unbalanced Impedance	50 Ω
Balanced Impedance	100 Ω
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
--------------------------------------------------------------------	-------------------------------------------------

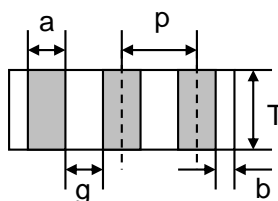
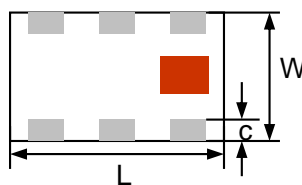
You can download measured s-parameters of this component at: <https://www.johansontechnology.com/baluns>

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)		

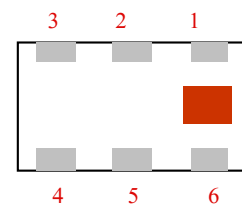
Mechanical Dimensions

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

P/N 0917BL18B100

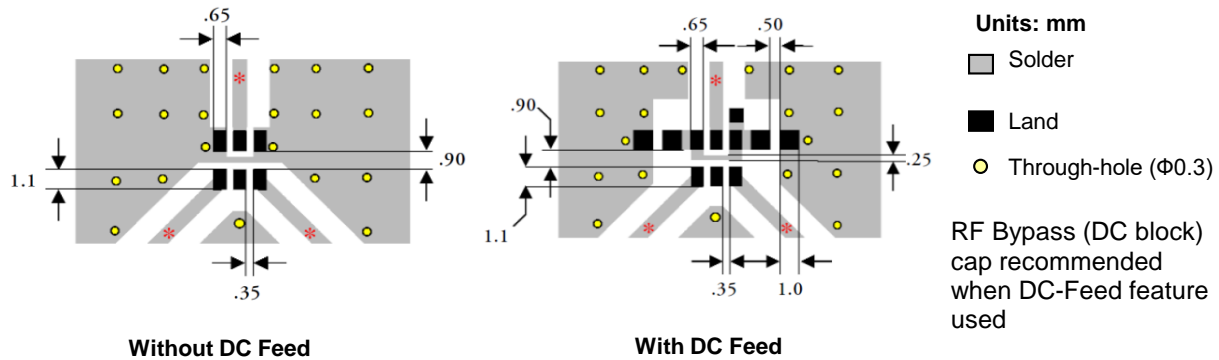
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Mounting Considerations

Mount these devices with colored mark facing up.

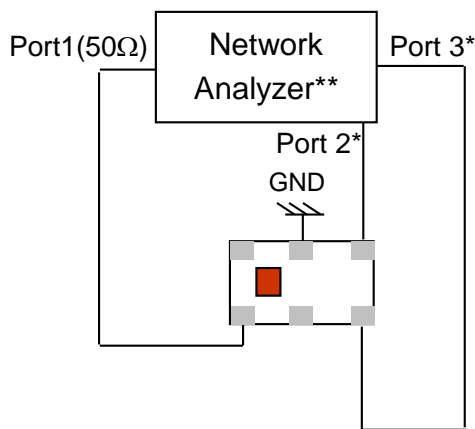
* Line width should be designed to provide 50ohm impedance matching characteristics.



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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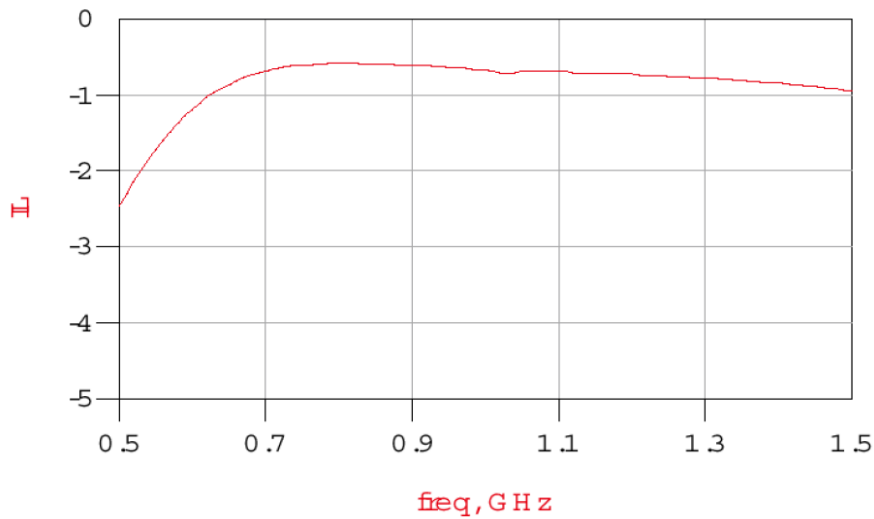
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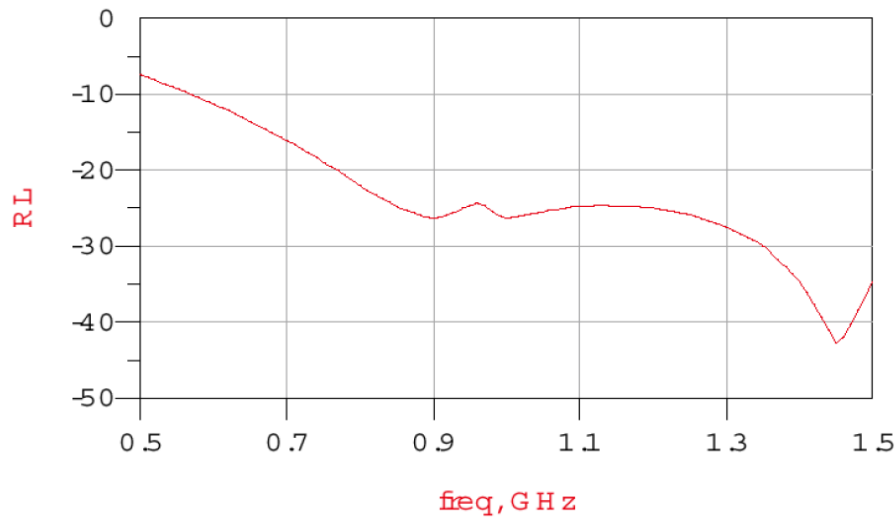
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Typical Electrical Characteristics (T=25°C)

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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