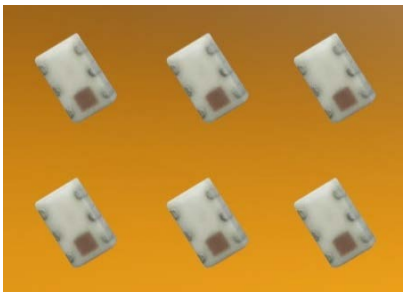
High Frequency Ceramic Solutions

900MHz Balun, 1:1 Impedance Ratio, EIA 0603 **P/N 0896BL14B050**

Detail Specification: 4/13/2018

General Specifications

Part Number	0896BL14B050		
Frequency (MHz)	851 - 960		
Unbalanced Impedance	50 Ω		
Balanced Impedance	50 Ω		
Insertion Loss	1.5 dB max.		
Return Loss	9.5 dB min.		
Phase Difference	180 ± 10 deg.		
Amplitude Difference	0.7 dB max.		
Power Capacity	3W max. (CW)	**Operating Temperature**	-40 to +85°C
Reel Quantity	4,000 pcs	**Storage Temperature**	-40 to +85°C
Storage Conditions	18 months max. Vacuum packaging is mandatory if device soldering will not occur within 168 hours after opening the vacuum pack.		



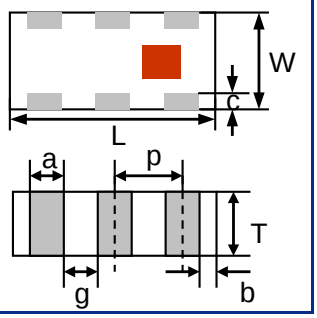
You can download measured s-parameters of this component at: https://www.johansontechnology.com/baluns

Part Number Explanation

P/N Suffix	**Packing Style**	Bulk	Suffix = S	Eg. 0896BL14B050S
		T & R	Suffix = T	Eg. 0896BL14B050T
	Termination style	AgPt	Suffix = None	Eg. 0896BL14B050 (T or S)
	Evaluation Board	0896BL14B050-EB1SMA (3 female SMA connectors)		

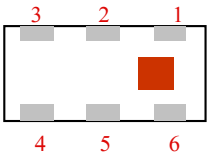
Mechanical Dimensions

	In	mm
L	0.063 ± 0.004	1.60 ± 0.10
W	0.031 ± 0.004	0.80 ± 0.10
T	0.024 ± 0.004	0.60 ± 0.10
a	0.008 ± 0.004	0.20 ± 0.10
b	0.008 +.004/-.006	0.20 +0.1/-0.15
c	0.006 ± 0.004	0.15 ± 0.10
g	0.012 ± 0.004	0.30 ± 0.10
p	0.020 ± 0.002	0.50 ± 0.05



Terminal Configuration

1	Unbalanced Port	**4**	Balanced Port
2	GND or DC Feed + RF GND	**5**	GND
3	Balanced Port	**6**	NC



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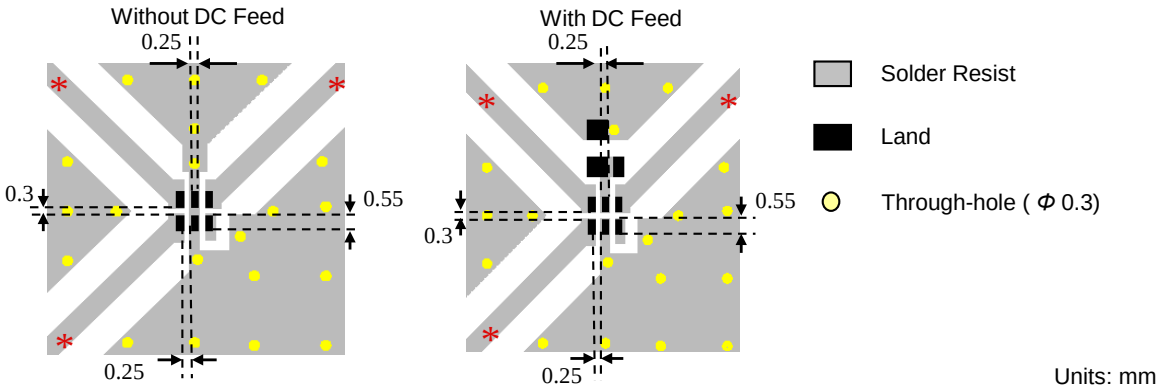
Mounting Considerations

Mount these devices with colored mark facing up.

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

* * By-pass capacitor should be connected when feeding DC power.



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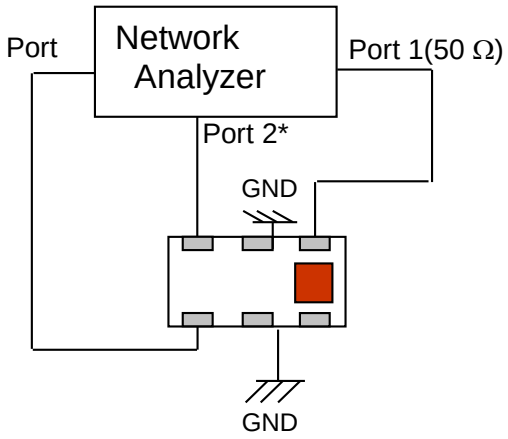
Measuring Diagram

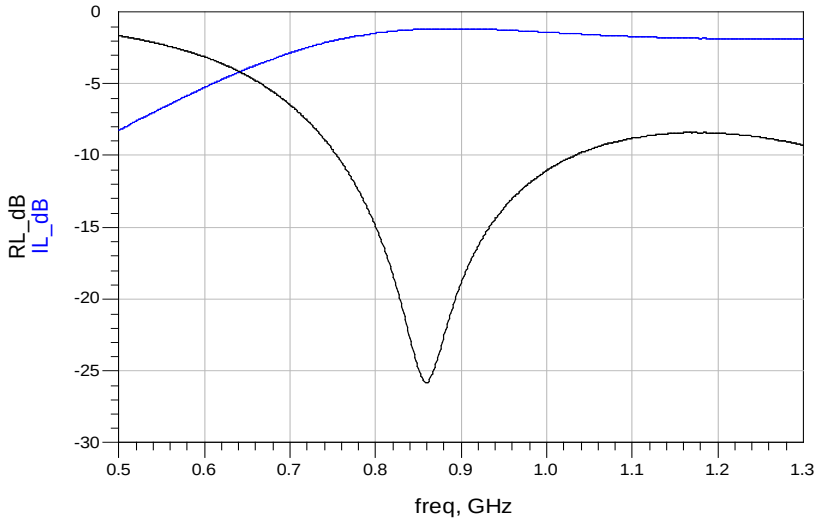


Port 1:Unbalanced Port
Ports 2 and 3: Balanced Port
IL=Sds21
RL=Sss11
Amp_balance = dB(S(2,1)/S(3,1))
Phase_balance = Phase(S(2,1)/S(3,1))

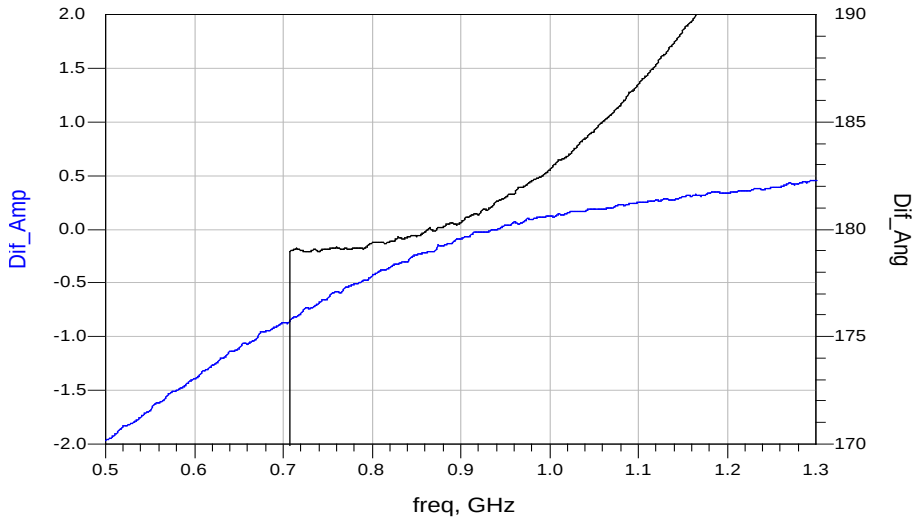
*Impedance for ports 2 and 3 = Balanced Impedance/2
**E5071B from Agilent

Typical Electrical Characteristics (T=25°C)

Insertion and Return Loss



Amplitude and Phase Balance



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