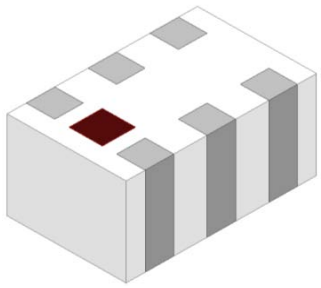
High Frequency Ceramic Solutions

2.8 - 6.0GHz Wideband Ceramic Balun, 1:1 Impedance Ratio, EIA 0805 **P/N 4400BL15A0050**

Detail Specification: 5/18/2018

General Specifications

Part Number	4400BL15A0050
Frequency (GHz)	2.8 - 6.0
Unbalanced Impedance	50 Ω
Balanced Impedance	50 Ω
Insertion Loss	1.5 dB max.
Return Loss	9.5 dB min.
Phase Difference	180 ± 12 deg.
Amplitude Difference	1.8 dB max.
CMRR (dB)	15 dB min.
Power Capacity (W)	3 max. (CW)
Reel Quantity	4,000 pcs
Operating Temperature	-40 to +85°C



Recommended Storage Conditions of unused product on T&R	+5 to +35°C Humidity 45~75% RH 18 months max.

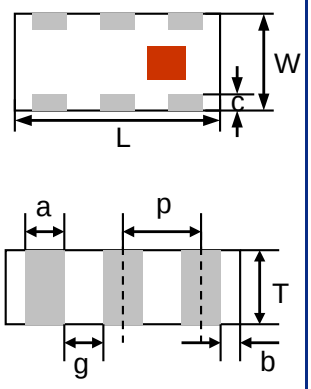
You can download measured s-parameters of this component at: www.johansontechnology.com/baluns

Part Number Explanation

P/N Suffix	**Packing Style**	Bulk	Suffix = S	E.g. 4400BL15A0050S
		T & R	Suffix = E	E.g. 4400BL15A0050E
	Termination style	100% Tin	Suffix = None	E.g. 4400BL15A0050 (E or S)
	Evaluation Board	4400BL15A0050-EB1SMA (3 female SMA connectors)		

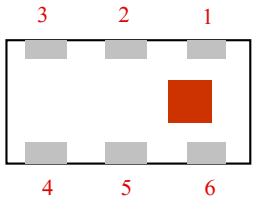
Mechanical Dimensions

	In	mm
L	0.079 ± 0.004	2.00 ± 0.10
W	0.049 ± 0.004	1.25 ± 0.10
T	0.037 ± 0.004	0.95 ± 0.10
a	0.012 ± 0.004	0.30 ± 0.10
b	0.008 ± 0.004	0.20 ± 0.10
c	0.012 +0.004/0.008	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

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



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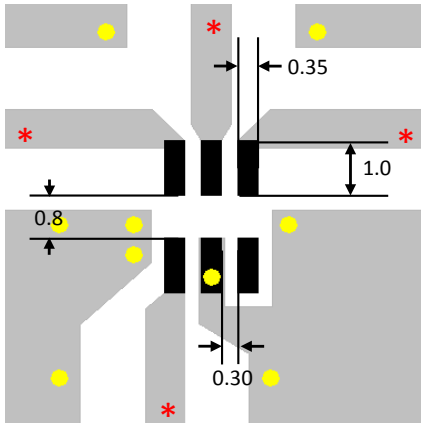
Mounting Considerations

Mount these devices with colored mark facing up.

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



* Line width should be designed to match 50W characteristic impedance, depending on PCB

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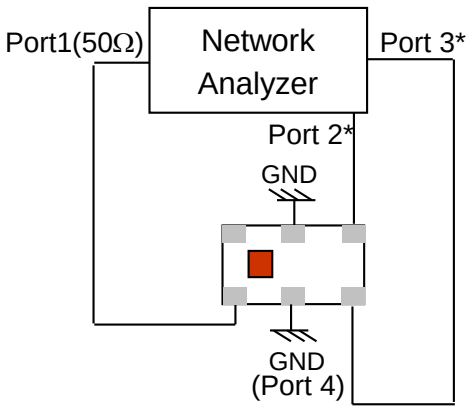
Measuring Diagram



Port 1:Unbalanced Port
Ports 2 and 3: Balanced Port
Port 4: GND or DC feed + RF GND
IL=S_{ds21}
RL=S_{ss11}
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

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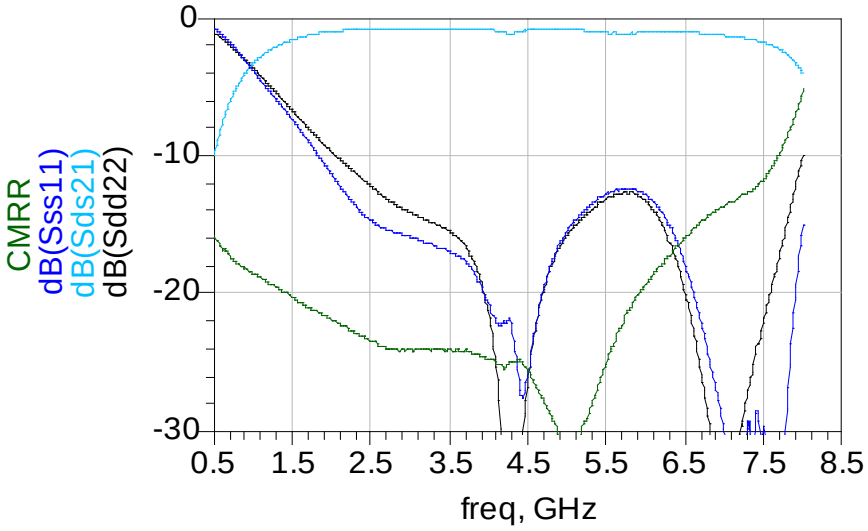
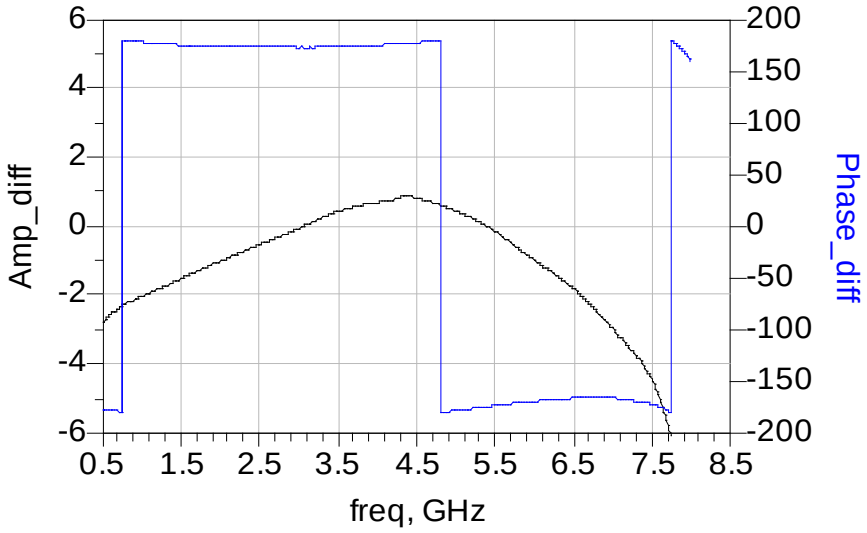
Typical Electrical Characteristics (T=25°C)

Insertion and Return Loss



Amplitude and Phase Balance



Would you like the s-parameter files? Please contact us at: www.johansontechnology.com/ask-a-question

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