High Frequency Ceramic Solutions

2450 MHz EIA 0603 RF Balun

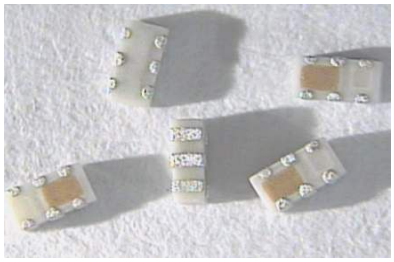
P/N 2450BL14C050

Detail Specification: 2/7/2018

General Specifications

Part Number	2450BL14C050
Frequency (MHz)	2400 ~ 2500
Unbalanced Impedance	50 Ω
Balanced Differential Impedance	50 Ω
Insertion Loss	1.2 dB max.
Return Loss	9.5 dB min.
Phase Difference	180 ± 10 deg.
Amplitude Difference	2 dB max.
Operating Temperature	-40 to +85°C
Storage Temperature Range	-40 to +85°C

Reel Quantity	4,000 pcs
Power Capacity	3W max. (CW)



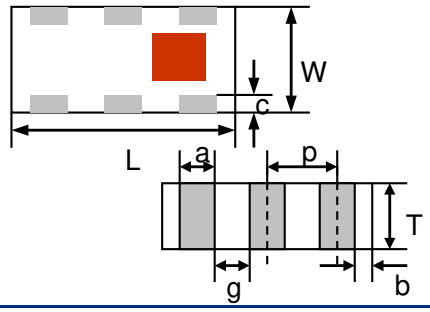
You can download measured s-parameters of this component at: https://www.johansontechnology.com/rfbaluns

Part Number Explanation

P/N Suffix	**Packaging Style**	Bulk	Suffix = S	Eg. 2450BL14C050S
		T & R	Suffix = T	Eg. 2450BL14C050T
	Termination Style	100% Tin	Suffix = None	Eg. 2450BL14C050(T or S)

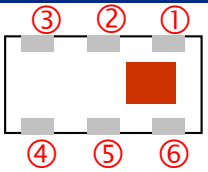
Mechanical Dimensions

	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 +0.004/0.008	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 ± 0.004	0.50 ± 0.10

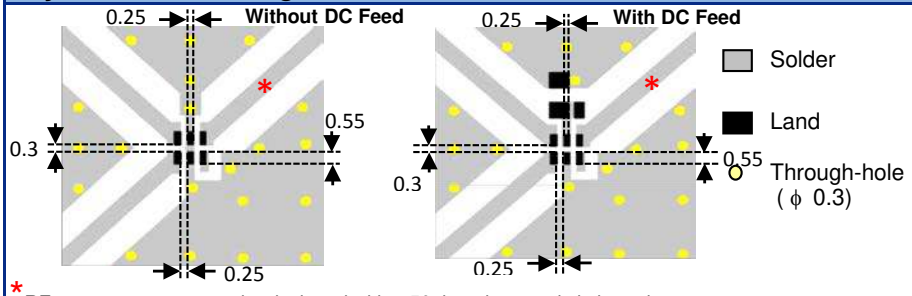


Terminal Configuration

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



Layout and Mounting Considerations



Mount these devices with red mark facing up.
Line width should be designed to provide proper impedance matching characteristics.

Units: mm

* RF trace geometry must be designed with a 50ohm characteristic impedance

Need help with the balun's layout? Want the layout file? Send us a message at: www.johansontechnology.com/component/techquestion

JOHANSON TECHNOLOGY

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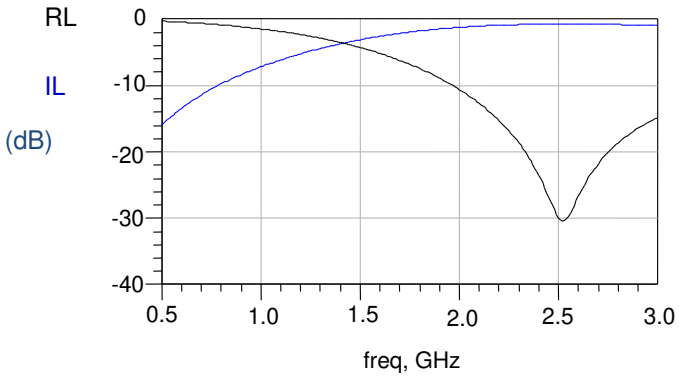
P/N 2450BL14C050

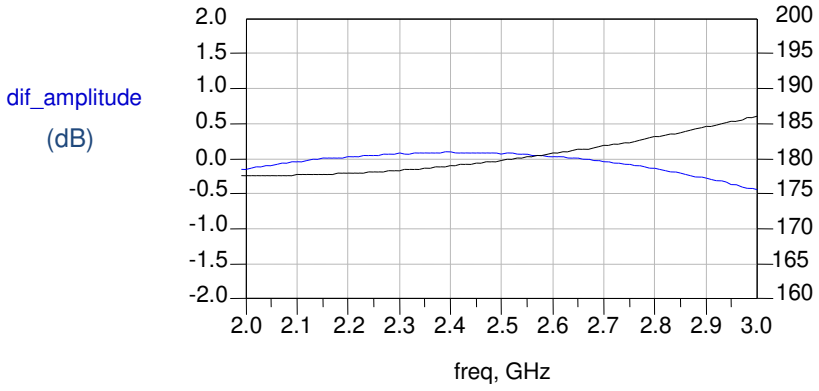
Detail Specification: 2/7/2018

Typical Electrical Characteristics (T=25°C)

Insertion and Return Loss



Amplitude and Phase Balance



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More Balun info at:
www.johansontechnology.com/rfbaluns

Packaging information
www.johansontechnology.com/ipcpackaging.html

Soldering Information
www.johansontechnology.com/ipcsoldering-profile

MSL Info
www.johansontechnology.com/technical-notes/msl-rating.html

Recommneded Storage Condition and Max Shelf Life
www.johansontechnology.com/ipcstorage-shelflife

RoHS Compliance
www.johansontechnology.com/technical-notes/rohs-compliance.html

Antenna layout and tuning techniques
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