

High Frequency Ceramic Solutions

Wideband Ceramic Balun, 1:2 Impedance Ratio, EIA 0805

P/N 1720BL15A0100

Detail Specification: 1/22/2016

Page 1 of 4

General Specifications

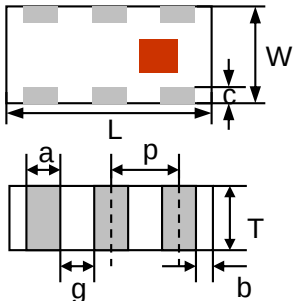
Part Number	1720BL15A0100		
Frequency (MHz)	625 ~ 2815		
Unbalanced Impedance	50 Ω		
Balanced Impedance	100 Ω		
Insertion Loss	1.5 dB max.		
Return Loss	9.5 dB min.		
Phase Difference	180 $\pm$ 10 deg.		
Amplitude Difference	1.0 dB max.		
CMRR	20 dB min.	Operating Temperature	-40 to +85°C
Power Capacity	2W max. (CW)	Storage Temperature	-40 to +85°C
Reel Quantity	4,000 pcs	Storage Period	18 months max.

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

Part Number Explanation

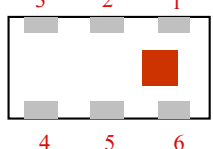
P/N Suffix	Packing Style	Bulk	Suffix = S	Eg. 1720BL15A0100S
		T & R	Suffix = E	Eg. 1720BL15A0100E
	Termination style	100% Tin	Suffix = None	Eg. 1720BL15A0100 (E or S)
	Evaluation Board	1720BL15A0100-EB1SMA (3 female SMA connectors)		

Mechanical Dimensions

	In	mm	
L	0.079 $\pm$ 0.004	2.00 $\pm$ 0.10	
W	0.049 $\pm$ 0.004	1.25 $\pm$ 0.10	
T	0.037 $\pm$ 0.004	0.95 $\pm$ 0.10	
a	0.012 $\pm$ 0.004	0.30 $\pm$ 0.10	
b	0.008 $\pm$ 0.004	0.20 $\pm$ 0.10	
c	0.012 +0.004/0.008	0.30 +0.1/-0.2	
g	0.014 $\pm$ 0.004	0.35 $\pm$ 0.10	
p	0.026 $\pm$ 0.002	0.65 $\pm$ 0.05	

Terminal Configuration

1	Unbalanced Port (IN)	4	Balanced Port (OUT2)
2	GND or DC Feed + RF GND	5	GND
3	Balanced Port (OUT1)	6	NC



Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

Ver 1.1

2015 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

Wideband Ceramic Balun, 1:2 Impedance Ratio, EIA 0805

P/N 1720BL15A0100

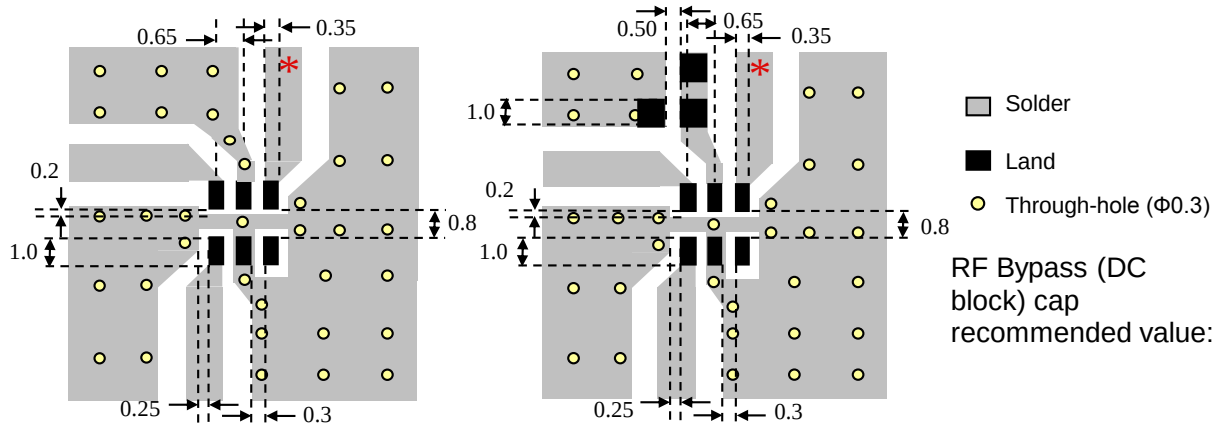
Detail Specification: 1/22/2016

Page 2 of 4

Mounting Considerations

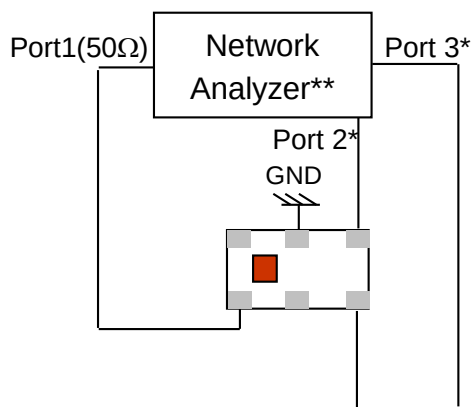
Mount these devices with colored mark facing up.

* 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:
www.johansontechnology.com/component/techquestion

Measuring Diagram



Port 1: Unbalanced Port
 Ports 2 and 3: Balanced Port
 $IL = S_{ds21}$
 $RL = S_{ss11}$
 $Amp_balance = dB(S(2,1)/S(3,1))$
 $Phase_balance = Phase(S(2,1)/S(3,1))$

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

**E5071B from Agilent

Johanson Technology, Inc. reserves the right to make design changes without notice.
 All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

Ver 1.1

2015 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

Wideband Ceramic Balun, 1:2 Impedance Ratio, EIA 0805

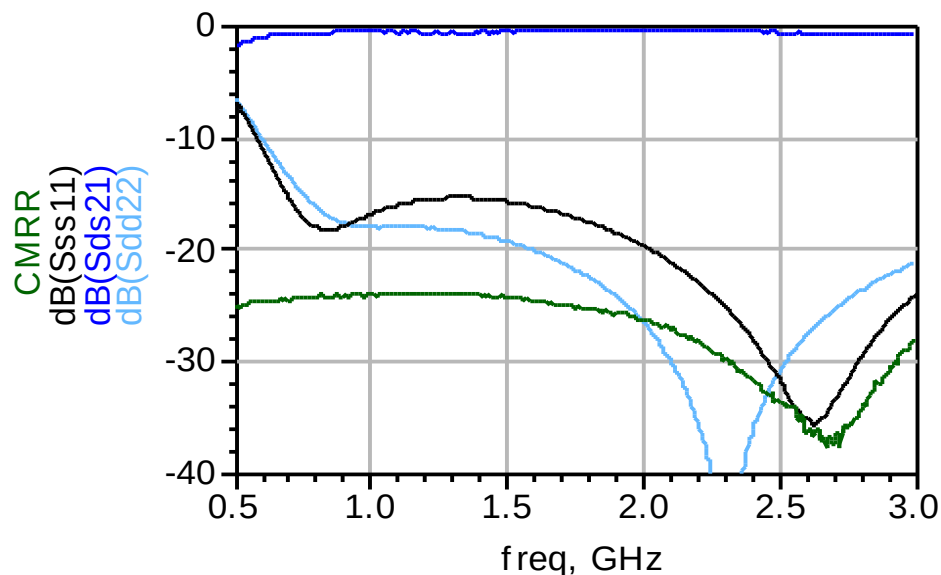
P/N 1720BL15A0100

Detail Specification: 1/22/2016

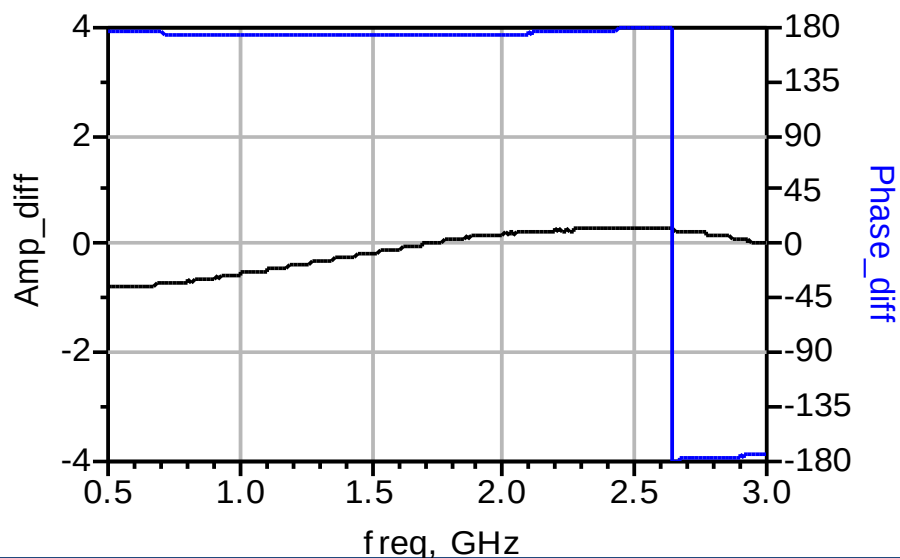
Page 3 of 4

Typical Electrical Characteristics (T=25°C)

Insertion and Return Loss



Amplitude and Phase Balance



Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

Ver 1.1

2015 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

Wideband Ceramic Balun, 1:2 Impedance Ratio, EIA 0805

P/N 1720BL15A0100

Detail Specification: 1/22/2016

Page 4 of 4

More Filter-Balun info at:

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

Packaging information

www.johansontechnology.com/tape-reel-packaging

Soldering Information

www.johansontechnology.com/typical-soldering-profile

MSL Info

www.johansontechnology.com/msl-rating

Recommended Storage Condition and Max Shelf Life

www.johansontechnology.com/recommended-storage-conditions

RoHS Compliance

www.johansontechnology.com/rohs-compliance

Layout review services

www.johansontechnology.com/ask-a-question

Antenna layout review, tuning, and characterization services

www.johansontechnology.com/ipc-antenna-services

Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

Ver 1.1

2015 Johanson Technology, Inc. All Rights Reserved