

High Frequency Ceramic Solutions

868/915 MHz Impedance Matched Balun/LPF Integrated Passive Component for T.I. CC110X, CC111X, CC113X and CC115X, CC110L, CC113L, CC115L, CC430 and RF430

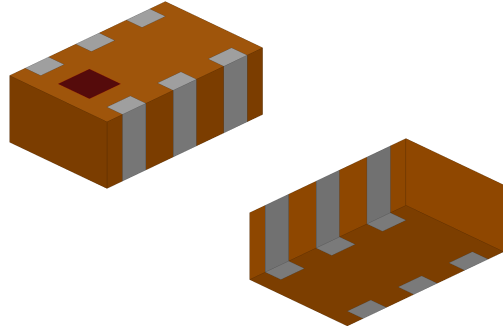
P/N 0896BM15A0001

Detail Specification: 7/19/2022

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General Specifications

Part Number	0896BM15A0001		
Operating Frequency (MHz)	863 - 928		
Insertion Loss 1 (dB)	1.5 max (-40C to +85C)		
Insertion Loss 2 (dB)	1.55 max (-40C to +125C)		
Return Loss (dB)	9.5 min.		
Unbalanced Impedance	50 Ω		
Differential Balanced Impedance	Impedance-Matched to T.I. CC110X, CC111X, CC113X and CC115X, CC110L, CC113L, CC115L, CC430 and RF430 Chipsets		
Attenuation (dB)	25 min.@ 1726 - 1856MHz	Recommended Storage Conditions and Period for Unused Product on T&R*	+5 to +35°C
	35 min.@ 2589 - 2784MHz		Humidity 45~75%RH
	35 min.@ 3452 - 3712MHz		18 months max.
	35 min.@ 4315 - 4640MHz		
Phase Difference	180° ± 10	Power Rating	1W max. (CW)
Amplitude Difference (dB)	1.5 max.	Operating Temperature	-40 to +125°C
		Reel Quantity (pcs/reel)	4,000



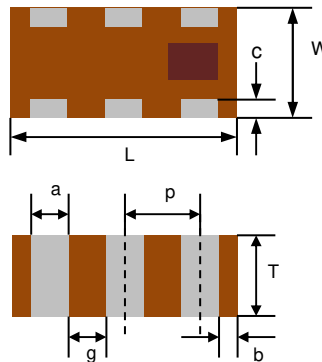
*18 months max. in vacuum sealed bag and 1 week after opened. Please keep unused parts in vacuum sealed bags. For more info go to <https://www.johansontechnology.com/silverleads-profile>.

Part Number Explanation

P/N Suffix	Packing Style	Bulk	Suffix = S	E.g. 0896BM15A0001S
		T & R	Suffix = E	E.g. 0896BM15A0001E
	Termination Style	Ag/Pt	Suffix = None	E.g. 0896BM15A0001(E or S)
	Evaluation Board	50Ω SMA	Suffix = EBSMA	E.g. 0896BM15A0001-EBSMA

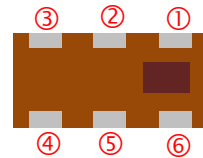
Mechanical Dimensions

	In	mm
L	0.079 ± 0.004	2.00 ± 0.10
W	0.049 ± 0.004	1.25 ± 0.10
T	0.028 ± 0.004	0.70 ± 0.10
a	0.012 ± 0.004	0.30 ± 0.10
b	0.008 ± 0.004	0.20 ± 0.10
c	0.012 +.004/-0.008	0.30 +0.1/-0.2
g	0.014 0 0.004	0.35 0.10
p	0.026 0 0.002	0.65 0.05



Terminal Configuration

No.	Function
1	Unbalanced Port
2	GND
3	Balanced Port
4	Balanced Port
5	GND
6	GND



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Ver. 3.0

<https://www.johansontechnology.com>

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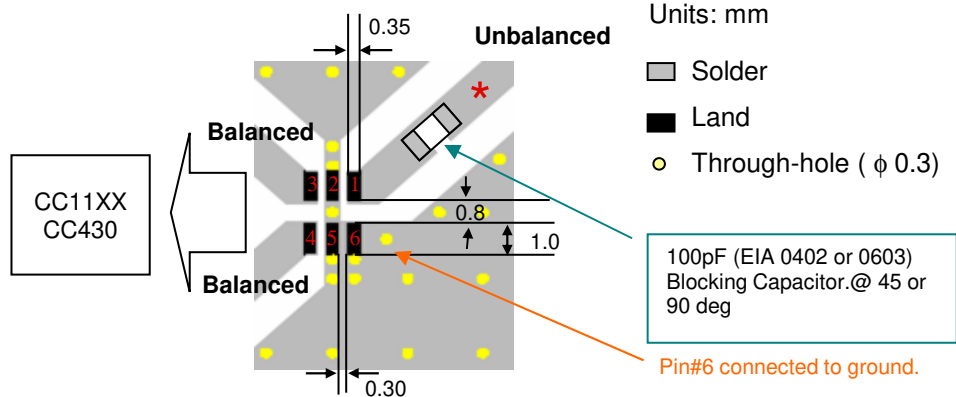
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Mounting Considerations

Mount device with colored mark facing up.

* Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

Pin reference



Additional output filtering may be required depending on output power in order to comply with FCC and/or ETSI regulations.

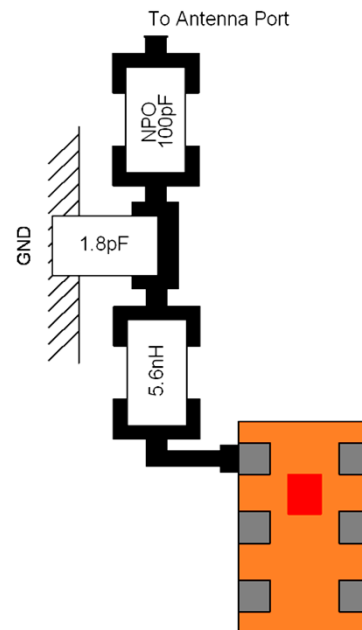
To obtain application notes, information how to implement this component , or obtain gerber files, go to:

<https://www.johansontechnology.com/ti>

or contact our Apps Engineering Team at:

<https://www.johansontechnology.com/ask-a-question>

Component P/N:
 5.6nH Inductor: L-07C5N6SV6T
 1.8pF Capacitor: 500R07S1R8BV4T



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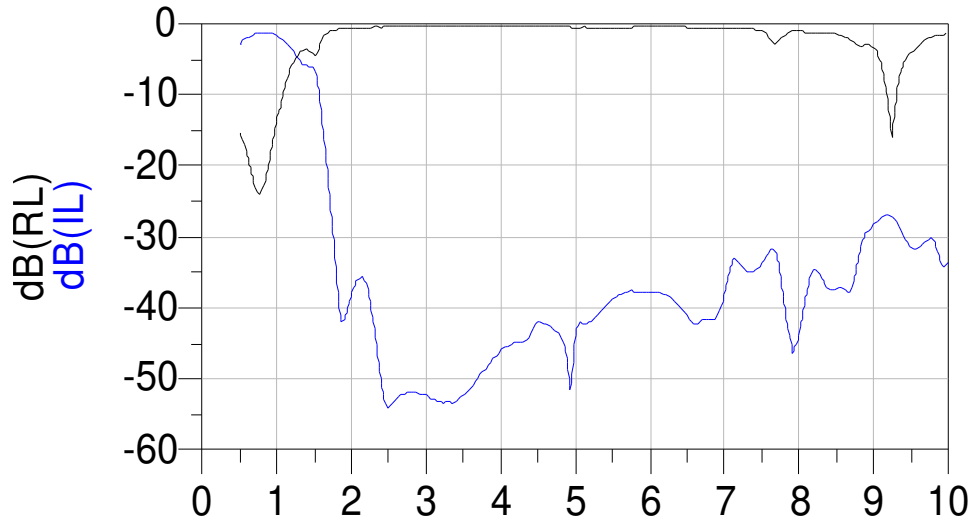
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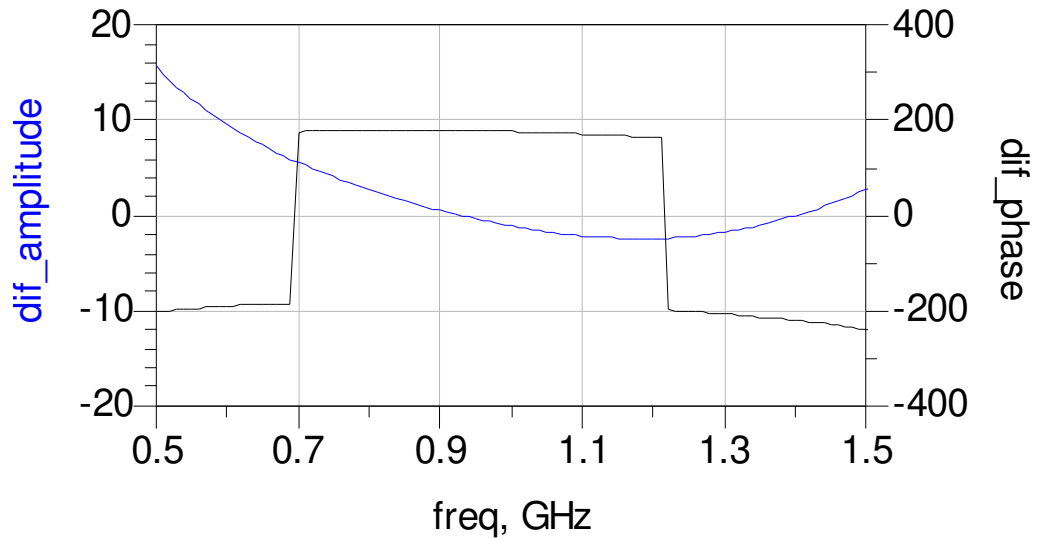
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Typical Electrical Characteristics (T=25°C)

Insertion Loss & Return Loss (S_{ds11}, and S_{ss11})



Amplitude & Phase Difference



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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>

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