



**THE DATASHEET OF**  
**0896BM15A0001E**



# 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

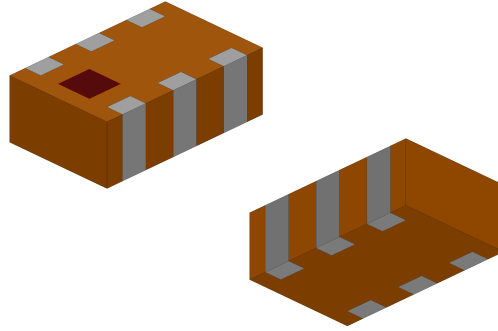
P/N 0896BM15A0001

Detail Specification: 7/19/2022

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## General Specifications

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



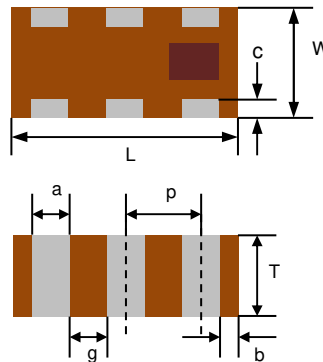
\*18 months max. in vacuum sealed bag and 1 week after opened. Please keep unused parts in vacuum sealed bags. For more info go to <https://www.johansontechnology.com/silverleads-profile>.

## 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

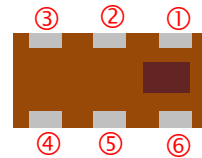
## Mechanical Dimensions

	In	mm
<b>L</b>	0.079 ± 0.004	2.00 ± 0.10
<b>W</b>	0.049 ± 0.004	1.25 ± 0.10
<b>T</b>	0.028 ± 0.004	0.70 ± 0.10
<b>a</b>	0.012 ± 0.004	0.30 ± 0.10
<b>b</b>	0.008 ± 0.004	0.20 ± 0.10
<b>c</b>	0.012 +.004/-0.008	0.30 +0.1/-0.2
<b>g</b>	0.014 0 0.004	0.35 0.10
<b>p</b>	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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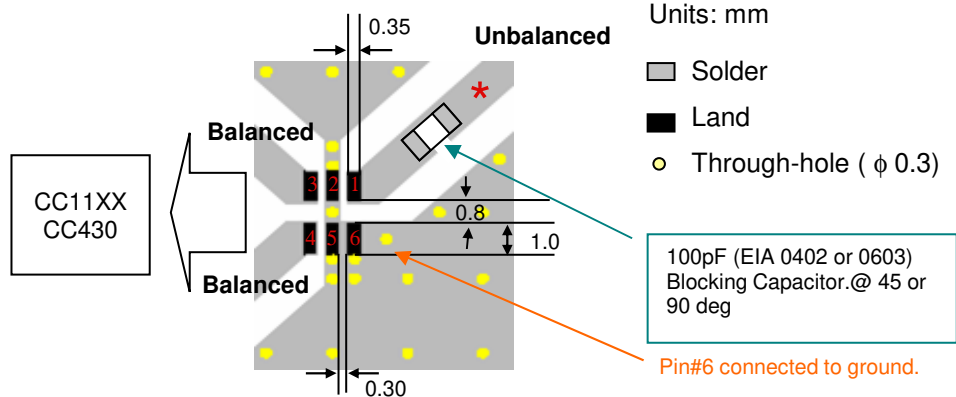
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## Mounting Considerations

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.

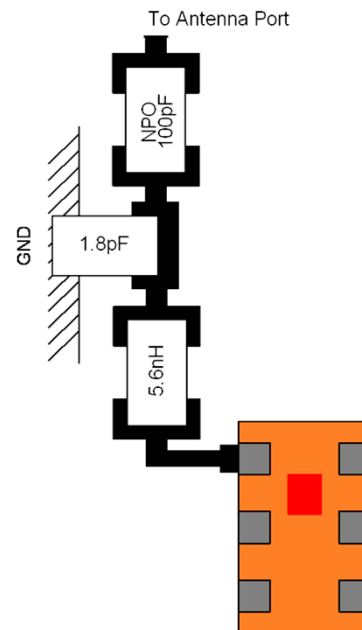
To obtain application notes, information how to implement this component, or obtain gerber files, go to:

<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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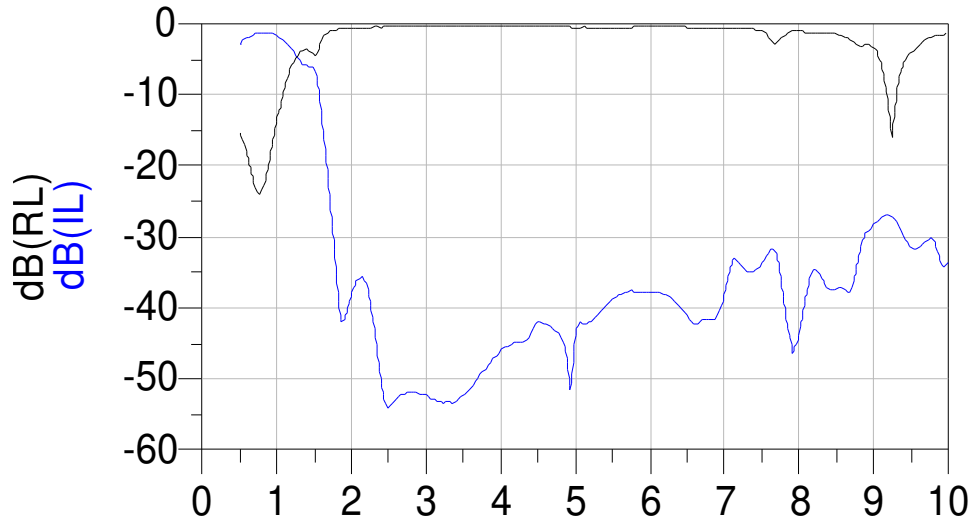
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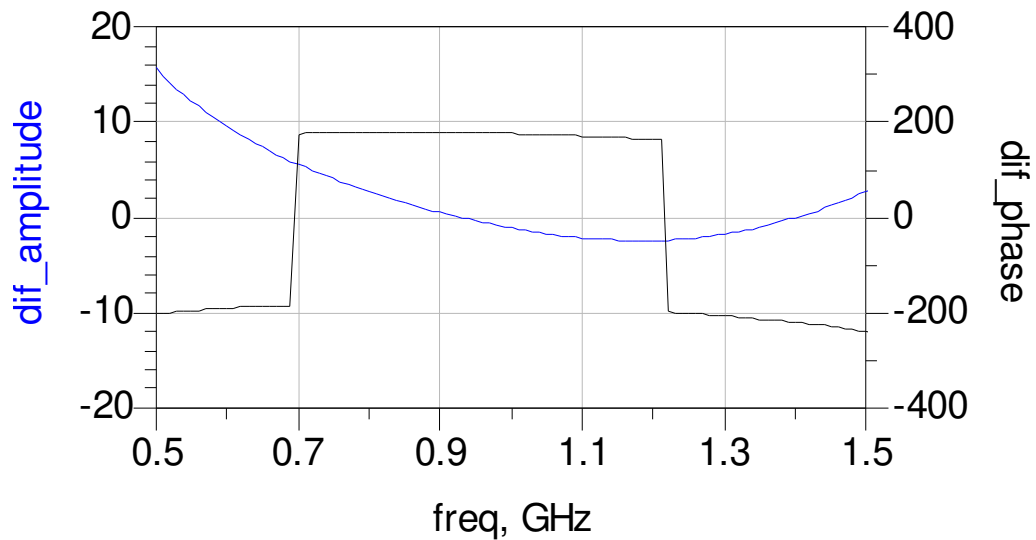
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## Typical Electrical Characteristics (T=25°C)

### Insertion Loss & Return Loss (S<sub>ds11</sub>, and S<sub>ss11</sub>)



### 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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 [Johanson Technology Inc. Information](#)

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