

# High Frequency Ceramic Solutions

**868MHz Impedance Matched/Balun/BPF Integrated Component for T.I. CC110X, P/N 0868BM15C0001  
CC111X, CC113X and CC115X, CC110L, CC113L, CC115L, CC430 and RF430**

Detail Specification: 09/09/2011

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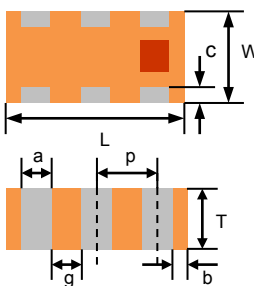
General Specifications			
Part Number	0868BM15C0001	Insertion Loss	2.1 dB max.
Operating Frequency	863 - 873 (MHz)	Return Loss	9.5 dB min.
Unbalanced Impedance	50 Ω	Phase Difference	180° ± 15
Balanced Impedance	Impedance-Matched to T.I. CC110X, CC111X, CC113X and CC115X, CC110L, CC113L, CC115L, CC430 and RF430 Chipsets	Amplitude Difference	1.5 dB max.
		Input Power	1W max. (CW)
		Reel Quantity	4,000
Attenuation*	10 dB min. @ 699MHz	Operating Temperature	-40 to +85°C
	30 dB min. @ 1736MHz	Storage Temperature Range	+5 ~ +35 °C, Humidity 45~75%RH, 18 months. 1 week max after opened**
	30 dB min. @ 2604MHz		
	35 dB min. @ 3472MHz		
30 dB min. @ 4340MHz			

\* Band Pass Filtering

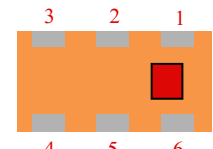
\*\*For more info go to [www.johansontechnology.com/silverleads](http://www.johansontechnology.com/silverleads)

Part Number Explanation				
P/N Suffix	Packing Style	Bulk	Suffix = S	Eg. 0868BM15C0001S
		T & R	Suffix = E	Eg. 0868BM15C0001E
	Termination style	AgPt	Suffix = None	Eg. 0868BM15C0001 (E or S)
	Evaluation Board	0868BM15C0001-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/-.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			
No.	Function	No.	Function
1	Unbalanced Port	4	Balanced Port***
2	GND	5	GND
3	Balanced Port***	6	GND



\*\*\*Balanced ports are DC-Blocked from pins 1-2-5-6, capacitor is embedded. No need for external DC-Blocking cap at GND pins or unbalanced port.

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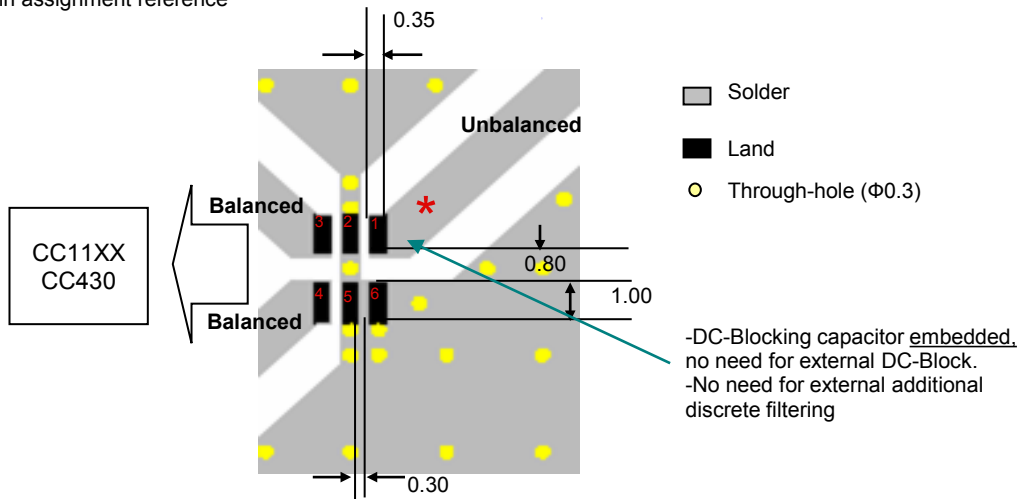
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## Mounting Considerations

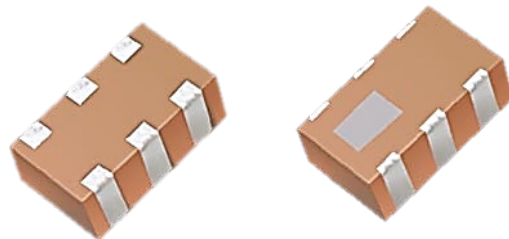
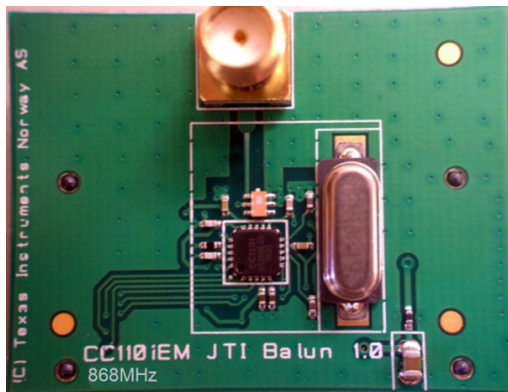
Mount these devices with brown mark facing up. Units: mm

\* Unbalanced trace/port must exhibit a 50Ω characteristic impedance

# Pin assignment reference



To obtain application notes, information how to implement this component, or obtain gerber files, go to: [www.johansontechnology.com/ti](http://www.johansontechnology.com/ti) or contact our Apps Engineering Team at: [www.johansontechnology.com/component/techquestion/?Itemid=407](http://www.johansontechnology.com/component/techquestion/?Itemid=407)



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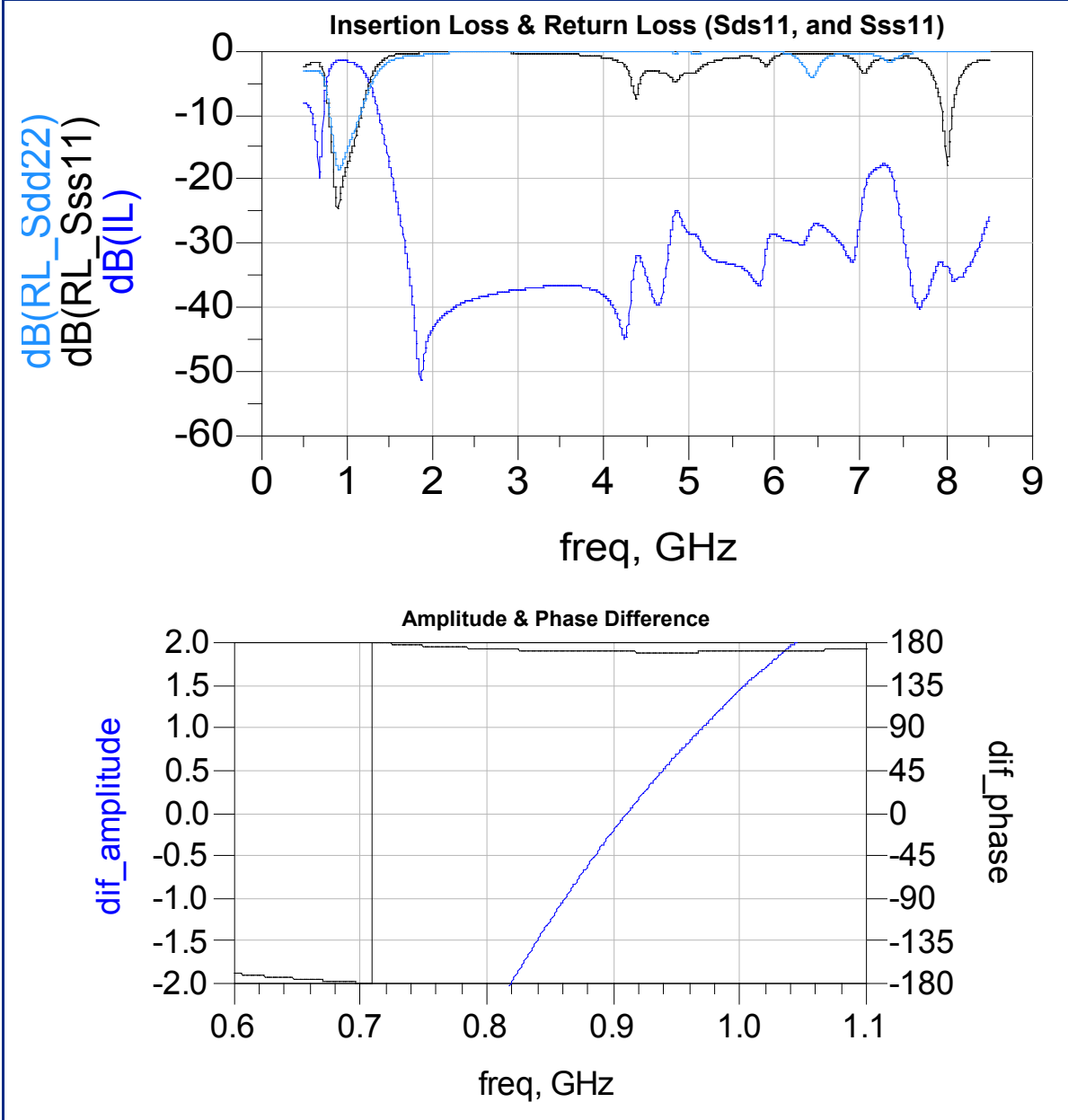
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## Typical Electrical Performance (T=25°C)



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Detail Specification: 7/8/2014

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## RoHS Compliance

[www.johansontechnology.com/technical-notes/rohs-compliance.html](http://www.johansontechnology.com/technical-notes/rohs-compliance.html)

## Packaging information

[www.johansontechnology.com/ipcpackaging.html](http://www.johansontechnology.com/ipcpackaging.html)

## Soldering Information

[www.johansontechnology.com/ipcsoldering-profile](http://www.johansontechnology.com/ipcsoldering-profile)

## Antenna layout and tuning techniques

[www.johansontechnology.com/tuning](http://www.johansontechnology.com/tuning)

## Antenna layout review, tuning, and characterization services

[www.johansontechnology.com/ipcantennaservices](http://www.johansontechnology.com/ipcantennaservices)

## Pad metalization information

[www.johansontechnology.com/silverleads](http://www.johansontechnology.com/silverleads)

## MSL Info

[www.johansontechnology.com/technical-notes/msl-rating.html](http://www.johansontechnology.com/technical-notes/msl-rating.html)

## Recommended Storage Condition and Max Shelf Life

[www.johansontechnology.com/ipcstorage-shelflife](http://www.johansontechnology.com/ipcstorage-shelflife)

## Application Notes, Layout Files, and more

[www.johansontechnology.com/ti.html](http://www.johansontechnology.com/ti.html)

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