

"High Frequency Ceramic Solutions"


430/403 MHz Impedance Matched Balun/LPF Integrated Component for T.I. Chipsets: CC1100, CC1101, CC110L, CC1111, CC1130, CC1131, CC1150, CC1151, CC115L, CC113L, CC115L, CC430 and RF430.

P/N 0433BM15A0001

Detail Specification: 7/8/2014

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General Specifications

Part Number	0433BM15A0001	This balun-filter works great with 430/433MHz ISM, 403.5MHz MICS bands and any frequencies in between	
Balanced Impedance	Impedance-Matched to T.I. CC110X, CC111X, CC113X and CC115X, CC110L, CC113L, CC115L, CC430 and RF430 Chipsets		
Unbalanced Impedance	50 Ω		
Recommended Storage Conditions	+5 ~ +35 °C, Humidity 45~75%RH, 18 months. 1 week max after opened*	Input Power	1W max. (CW)
Frequency 1 (MHz)	430 - 435	Reel Quantity	4,000
Insertion Loss 1	1.9 dB max.	Frequency 2 (MHz)	402 - 405
Attenuation 1 (min.)	34 min. @ 2FO	Insertion Loss 2	1.9 dB max.
	35 min. @ 3FO	Attenuation 2 (min.)	25 min. @ 2FO
	35 min. @ 4FO		35 min. @ 3FO
	35 min. @ 5FO		35 min. @ 4FO
	35 min. @ 5FO		
Return Loss 1	1.9 dB max.	Return Loss 2	9.5 dB max.
Phase Difference 1	180° ± 10	Phase Difference 2	180° ± 10
Amplitude Difference 1	1.5 dB max.	Amplitude Difference 2	3.0 dB max.
		Operating Temperature	-40 to +85°C

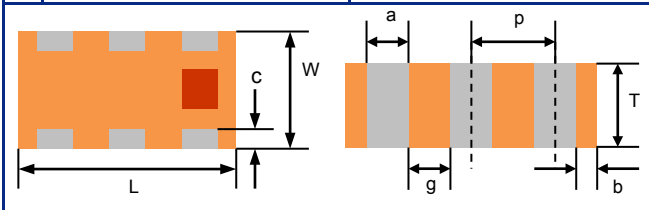
*For more info go to www.johansontechnology.com/silverleads

Part Number Explanation

P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 0433BM15A0001S
		T & R	Suffix = T	eg. 0433BM15A0001E
	Termination style	AgPt	Suffix = None	eg. 0433BM15A0001(E or S)

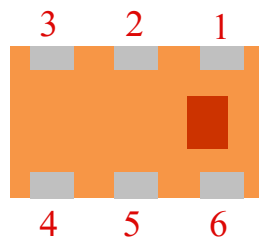
Mechanical Dimensions

	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 + +0.004/-0.008	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
1	Unbalanced Port
2	GND
3	Balanced Port**
4	Balanced Port**
5	GND
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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Ver 2.2

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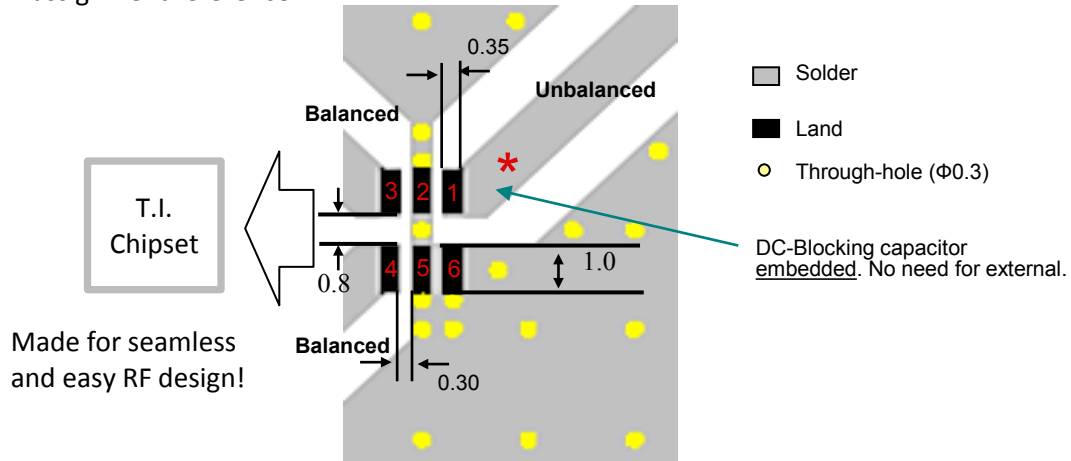
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Mounting Considerations

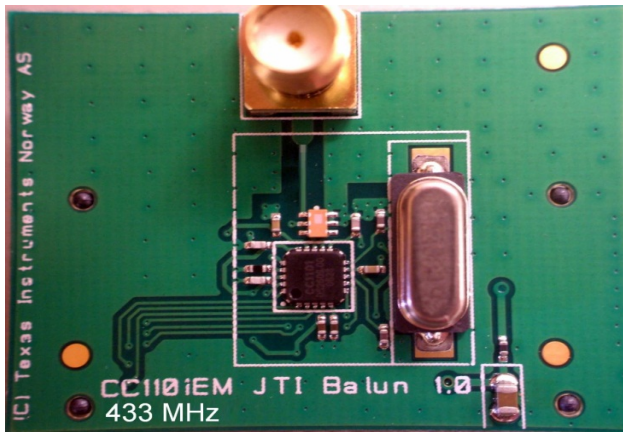
Mount these devices with brown mark facing up. Units: mm

*Line width should be designed to provide 50 Ω impedance matching characteristics.

Pin assignment reference



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



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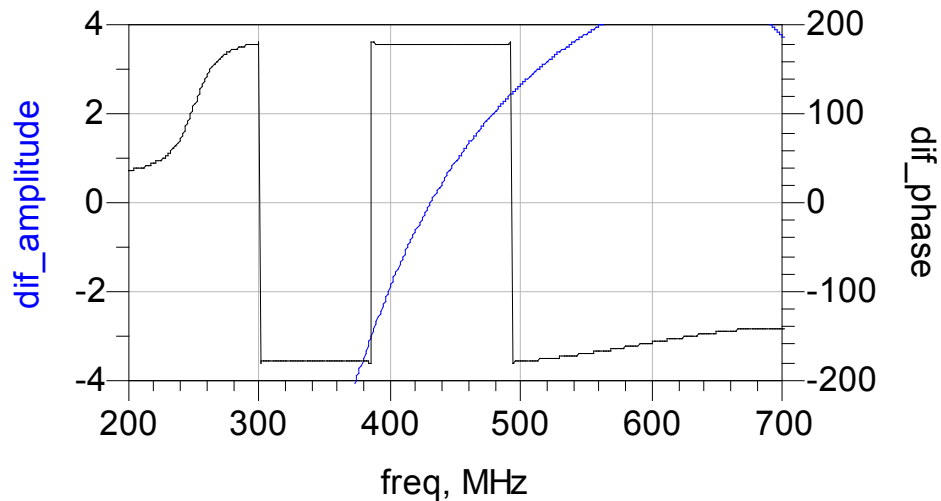
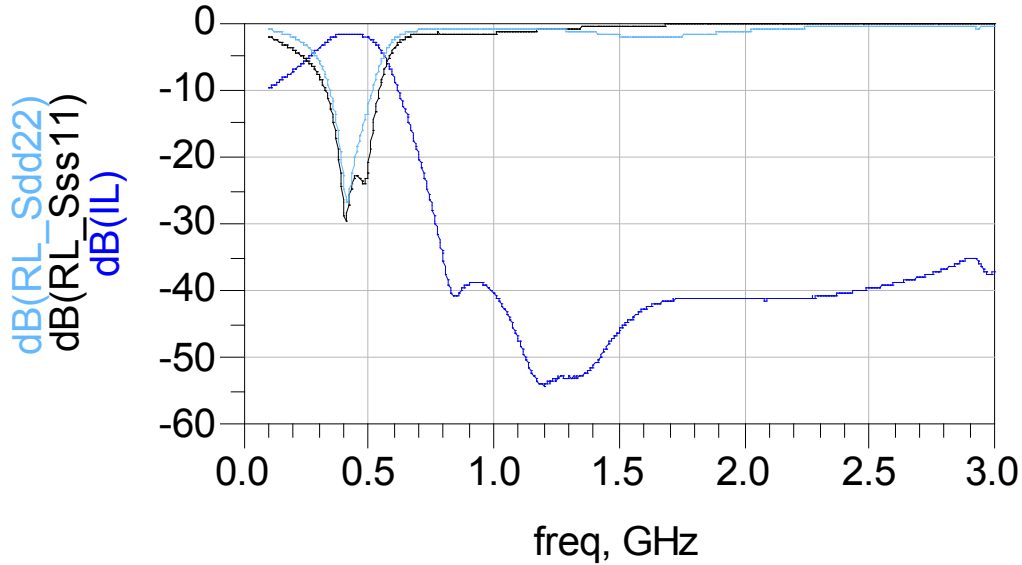
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Typical Electrical Performance (T=25°C)

Insertion Loss & Return Loss (Sds11, Sdd22, and Sss11)



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RoHS Compliance

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

Packaging information

www.johansontechnology.com/ipcpackaging.html

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

Antenna layout and tuning techniques

www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services

www.johansontechnology.com/ipcantennaservices

Pad metalization information

www.johansontechnology.com/silverleads

MSL Info

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

Recommended Storage Condition and Max Shelf Life

www.johansontechnology.com/ipcstorage-shelflife

Application Notes, Layout Files, and more

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