

High Frequency Ceramic Solutions

AEC-Q200 Qualified Component

2.45 GHz Impedance Matched Balun-BPF: For TI CC253X, CC254X, CC257X, CC853X and CC852X Chipset families

Detail Specification: 5/8/2014

Page 1 of 3

General Specifications	
Part Number	2450BM15A0002E-AEC
Frequency (MHz)	2400 - 2500
Unbalanced Impedance	50 Ω
Balanced Differential Impedance	Impedance match to T.I. CC253X, CC254X, CC257X, CC853X and CC852X Chipsets
Insertion Loss	1.5 dB max. (-40°C to +85°C)
Insertion Loss	1.7 dB max. (-40°C to +125°C)
Return Loss (-40°C to 125°C)	9.5 dB min.

Differential Mode Attenuation (dB) -40°C to 125°C	12 min. @ 1GHz 18 min. @ 4800~5000MHz 20 min. @ 7200~7500MHz
Phase Diff. (-40°C to 125°C)	180° ± 15
Input Power	2W max.
Reel Quantity	4,000
Operating Temperature	-40°C to +125°C
Recommended Storage Conditions	+5 ~ +35 °C, Humidity 45~75%RH, 18 mos. max

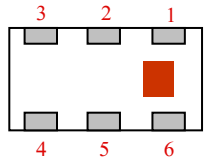
You can download measured s-parameters of this component at: www.johansontechnology.com/ti.html

Part Number Explanation

P/N Suffix	Packaging Style	Bulk	Suffix = S	Eg. 2450BM15A0002S-AEC
		T & R	Suffix = E	Eg. 2450BM15A0002E-AEC
	Termination Style	100% Tin	Suffix = None	Eg. 2450BM15A0002(E or S)

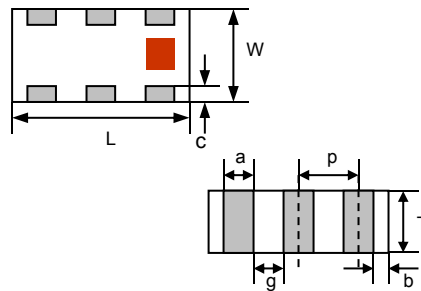
Terminal Configuration

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



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

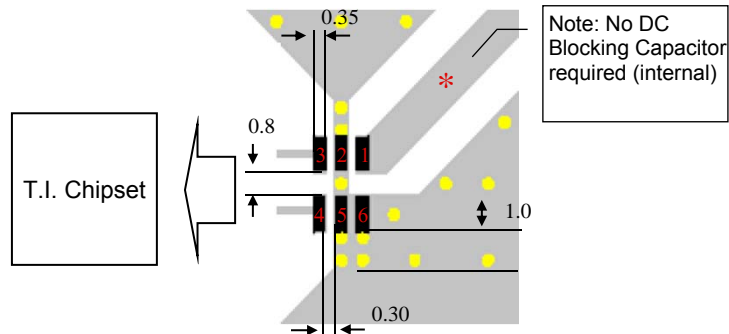


Mounting Considerations

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

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

-  Solder Resist
-  Land
-  Through-hole (∅0.3)



Do you need the layout/gerber files of the above? Send us a message at: <http://www.johansontechnology.com/component/techquestion/?Itemid=407>

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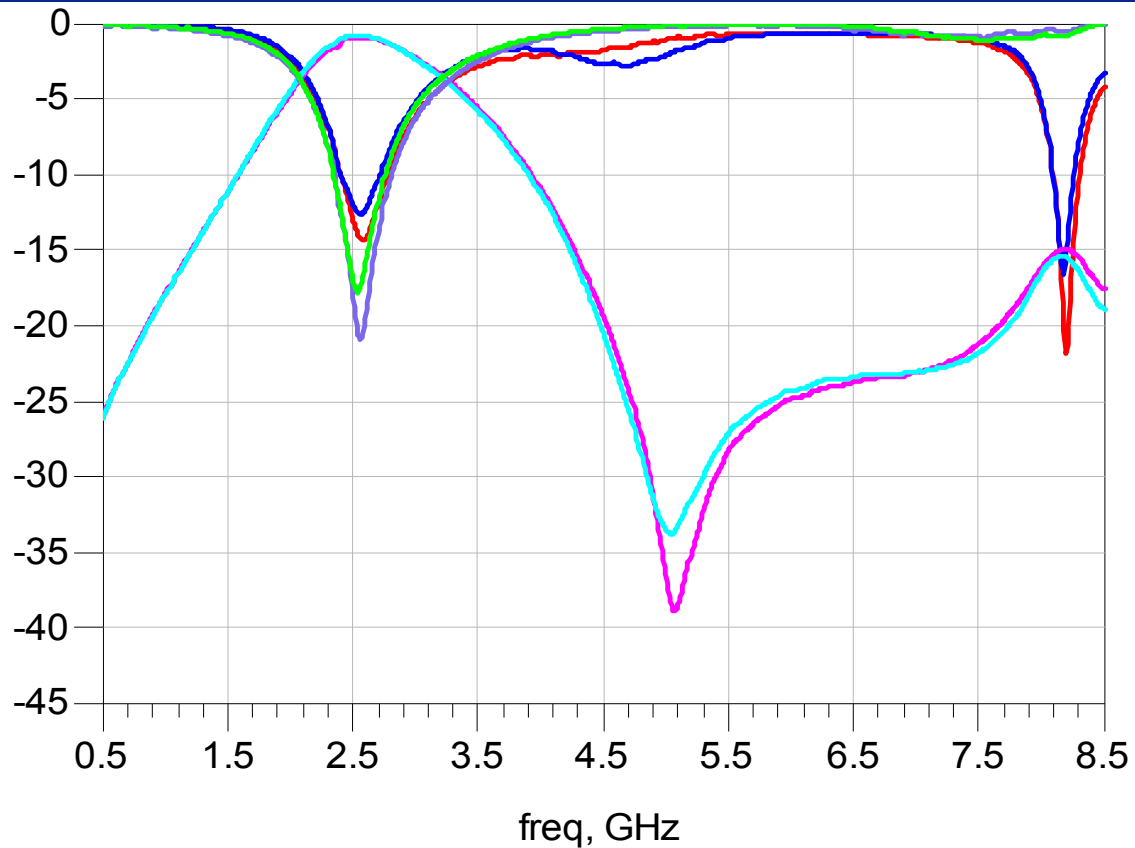
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Page 2 of 3

Typical Electrical Performance at 25°C and 125°C



25C Unbalanced RL 25C Balanced Return Loss 25C Insertion Loss/Attenuation (Differential Mode)

125C Unbalanced RL 125C Balanced Return Loss 125C Insertion Loss/Attenuation (Differential Mode)

Technical notes and Reference Designs

Technical Note:
www.johansontechnology.com/CC2530AppNote

Gerber Files and TI Reference Notes:
<http://www.ti.com/tool/cc2530balun-refdes>



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Page 3 of 3

Application Notes, Layout Files, and more

www.johansontechnology.com/ipcpackaging.html

Packaging information

www.johansontechnology.com/ipcpackaging.html

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

MSL Info

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

Recommended Storage Condition and Max Shelf Life

www.johansontechnology.com/ipcstorage-shelflife

RoHS Compliance

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

Antenna layout and tuning techniques

www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services

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