

# "High Frequency Ceramic Solutions"

**2.45 GHz Impedance matched Balun-Filter for Texas Instruments' CC2500, CC2510, and CC2511 Chipsets**

**P/N 2450BM15B0003**

Detail Specification: 9/12/2012

Page 1 of 3

## General Specifications

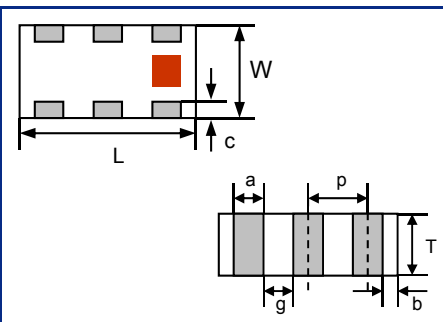
Part Number	2450BM15B0003
Frequency (MHz)	2400~2500
Unbalanced Impedance	50 Ω
Differential Balanced Impedance	Conjugate match to TI CC2500, CC2510, CC2511 chipsets
Insertion Loss	2.2 dB max. 1.7dB typ
Return Loss	10 dB min.
Phase Difference	180° ± 12
Amplitude Difference	2.0 dB max.

Differential Mode Attenuation (dB)	20 min.@ 4800~5000MHz 20 min.@ 7200~7500MHz
Common Mode Attenuation (dB)	17 min.@ 4800~5000MHz
Operating Temperature	-40°C to +125°C
Recommended Storage Conditions	+5 to +35°C, Humidity: 45-75%RH, 12 mos. Max
Input Power	2 Watts max.
Reel Quantity	4,000

\* 18 months in vacuum sealed bag and 1 week after opened. For more info go to [www.johansontechnology.com/silverleads](http://www.johansontechnology.com/silverleads)

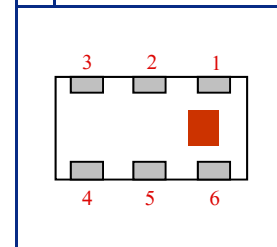
## Mechanical Dimensions

	In	mm
L	0.079 ± 0.004	2.00 ± 0.10
W	0.049 ± 0.004	1.25 ± 0.10
T	0.031 ± 0.004	0.80 ± 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
1	Unbalanced Port
2	DC Feed + RF GND
3	Balanced Port
4	Balanced Port
5	GND
6	GND



## Mounting Considerations

The diagram shows a PCB layout for mounting the component. It includes a CC2500 chip and a Johanson Chip Inductor. Dimensions are provided in millimeters. A callout box specifies: "0402 22pF RF GND cap Johanson p/n: 500R07S220JV4". Another callout box specifies: "Johanson Chip Inductor p/n L-07C10NJV6 (EIA 0402)". A legend indicates: Solder Resist (grey), Land (black), and Through-hole (φ 0.3) (yellow circle). A note states: "\* Line width should be designed to match 50 W characteristic impedance, depending on PCB material and thickness. - Go to page 2 for a more detailed layout".

Johanson Technology, Inc. reserves the right to make design changes without notice.  
All sales are subject to Johanson Technology, Inc. terms and conditions.



[www.johansontechnology.com](http://www.johansontechnology.com)  
4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

2012 Johanson Technology, Inc. All Rights Reserved

# "High Frequency Ceramic Solutions"

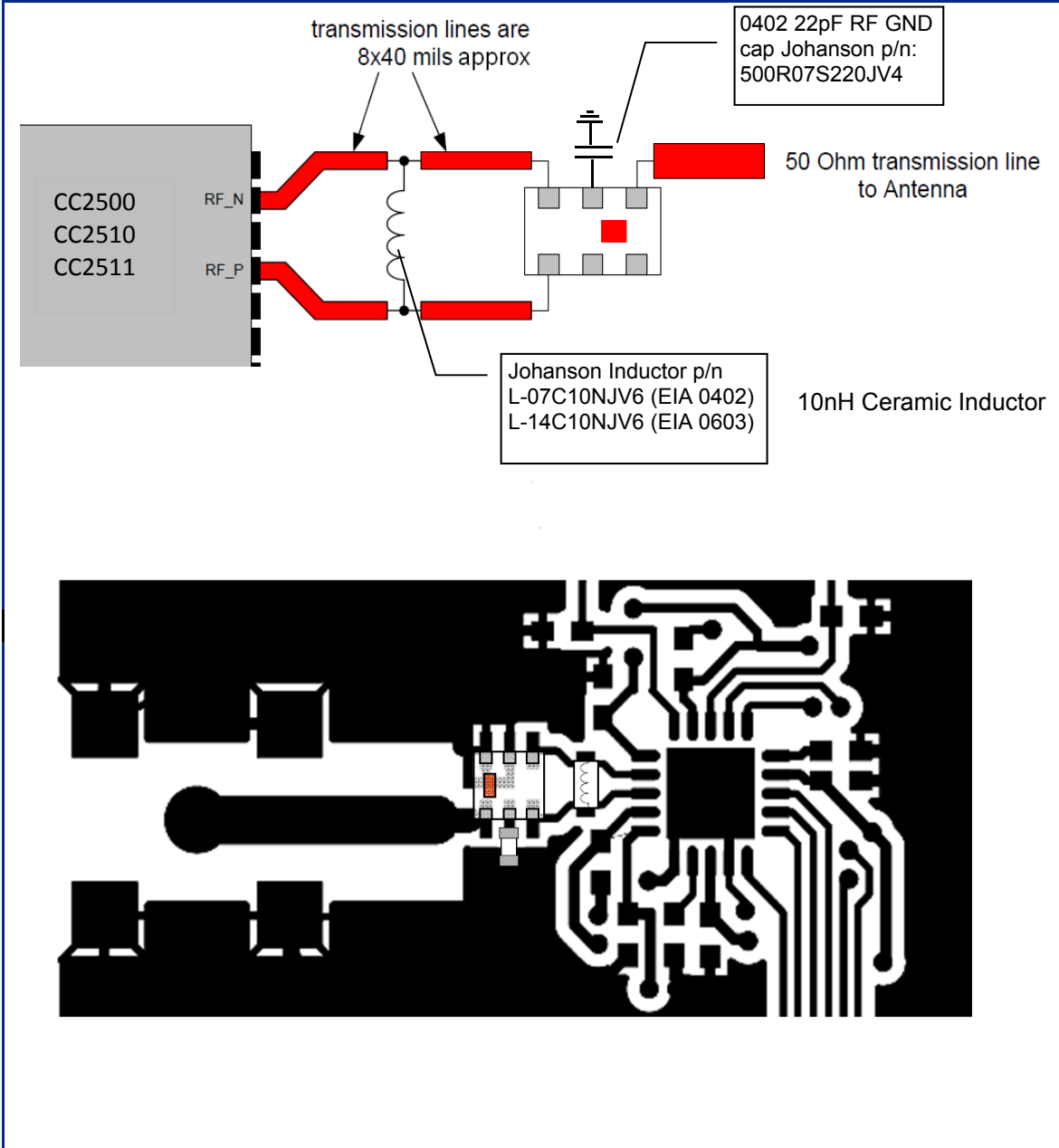
2.45 GHz Impedance matched Balun-Filter for Texas Instruments' CC2500, CC2510, and CC2511 Chipsets

P/N 2450BM15B0003

Detail Specification: 9/12/2012

Page 2 of 3

## Recommended Layout



Johanson Technology, Inc. reserves the right to make design changes without notice.  
All sales are subject to Johanson Technology, Inc. terms and conditions.



[www.johansontechnology.com](http://www.johansontechnology.com)  
4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

2012 Johanson Technology, Inc. All Rights Reserved

# "High Frequency Ceramic Solutions"

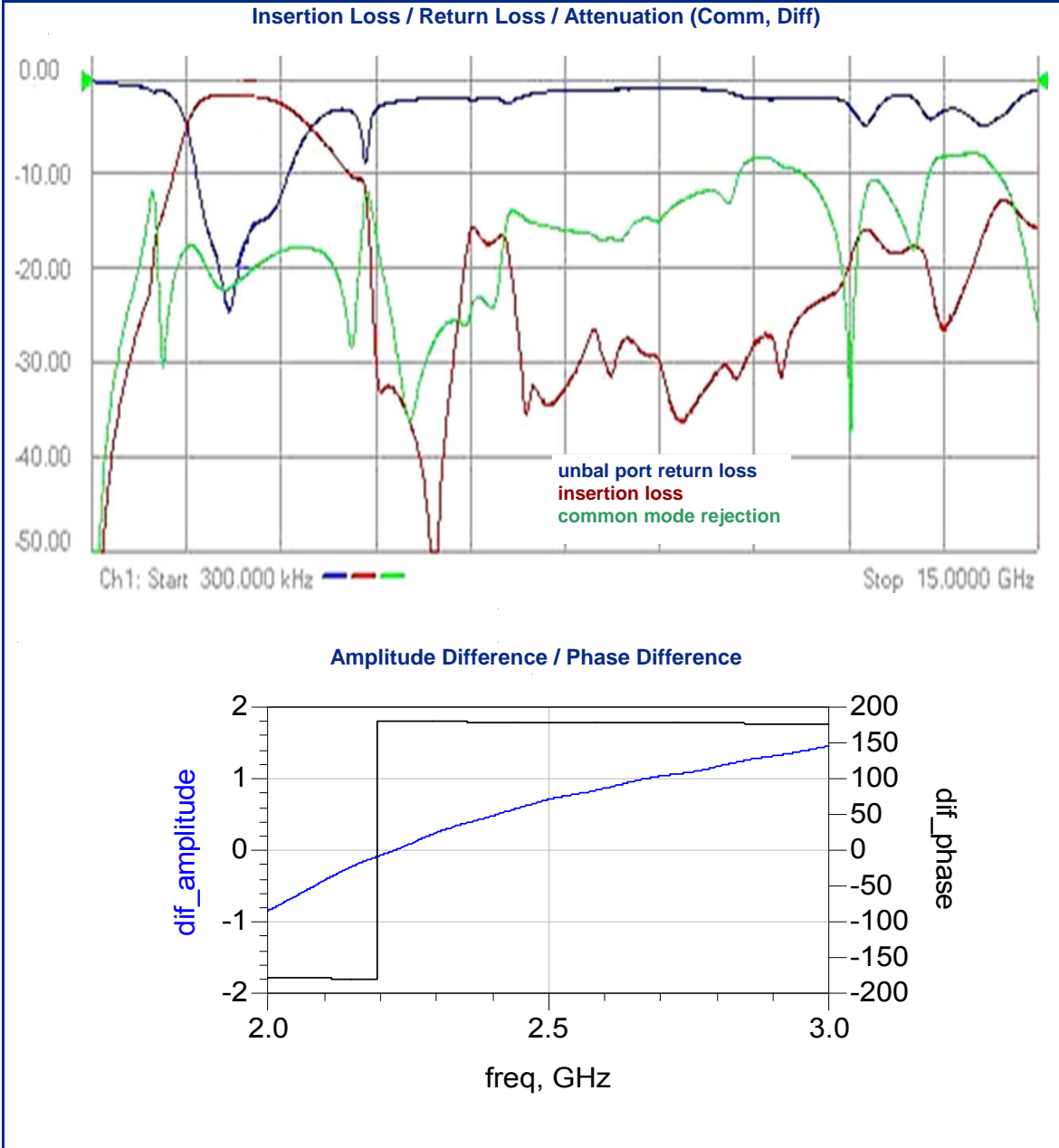
2.45 GHz Impedance matched Balun-Filter for Texas Instruments' CC2500, CC2510, and CC2511 Chipsets

P/N 2450BM15B0003

Detail Specification: 9/12/2012

Page 3 of 3

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



Johanson Technology, Inc. reserves the right to make design changes without notice.  
All sales are subject to Johanson Technology, Inc. terms and conditions.



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

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

2012 Johanson Technology, Inc. All Rights Reserved

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Johanson:](#)

[2450BM15B0003E](#)