

High Frequency Ceramic Solutions

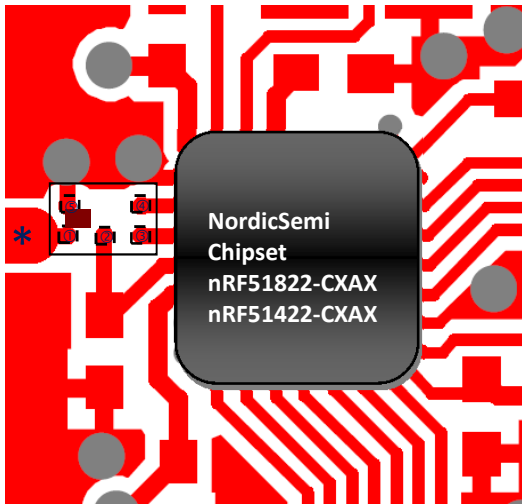
2.45GHz Impedance Matched Balun + Band Pass Filter: Optimized for Nordic's Chipset nRF5188-CEAA, nRF5188-CDAB, nRF5188-CDAB, nRF51422-CEAA, nRF51422-CDAB, nRF51422-CFAC

P/N 2450BM08B0003

Detail Specification: 7/29/2015

Page 2 of 4

Mounting Considerations



*Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

□ Land

● Through-hole (ϕ 0.3)

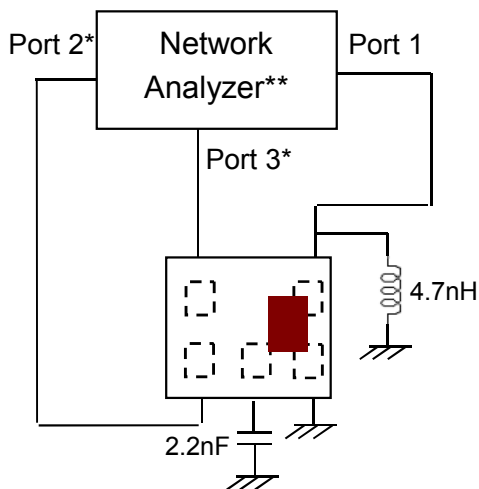
Download the gerber files at:
www.johansontechnology.com/nordic

Would you like us to review your layout for free? Please go to this link to contact our RF team:

<http://www.johansontechnology.com/ask-a-question> select "Applications Engineering" on the drop down

If you need 2.45GHz mini-antennas to go with your compact design, go to: <http://johansontechnology.com/antennas>

Measuring Diagram



Port 1: Unbalanced Port
Ports 2 and 3: Balanced Port

$$IL = S_{ds21}$$

$$RL = S_{ss11}$$

$$\text{Amp_balance} = \text{dB}(S(2,1)/S(3,1))$$

$$\text{Phase_balance} = \text{Phase}(S(2,1)/S(3,1))$$

*Impedance for ports 2 and 3
= Conjugate to Balanced Impedance/2

**E5071C from Agilent

You can download layout files, schematics, output power measured results (App Note AN030), and s-parameters at:
<http://johansontechnology.com/nordic>

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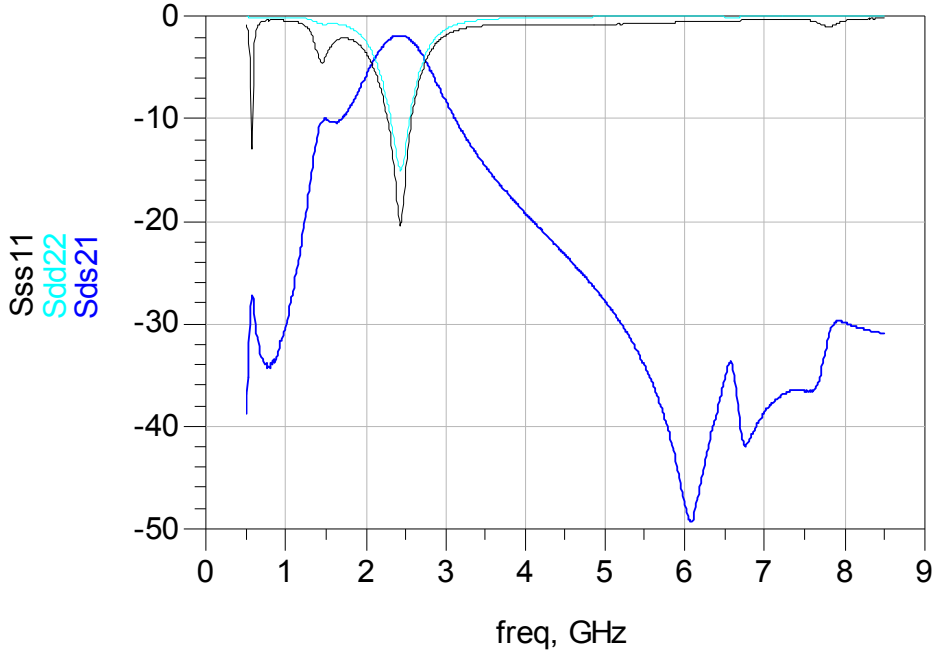
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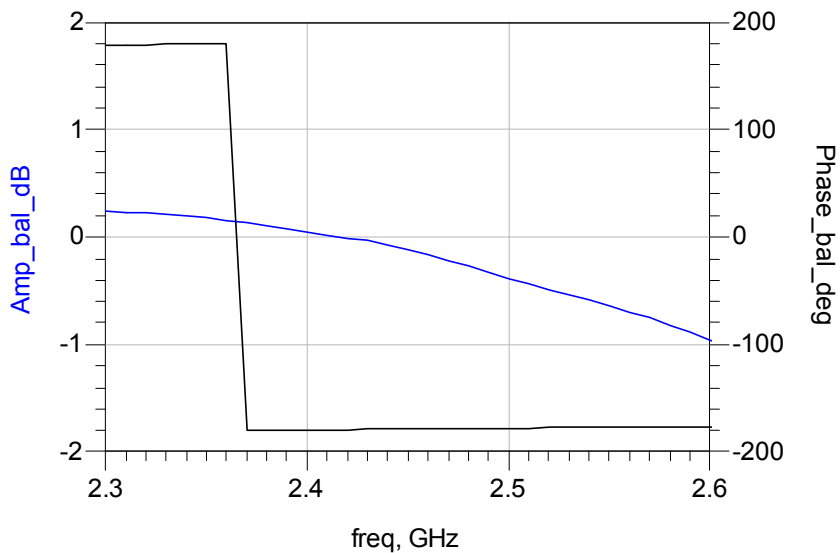
Page 3 of 4

Typical Electrical Characteristics (T=25°C)

Insertion and Return Loss



Amplitude and Phase Balance



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Page 4 of 4

Application Notes, Layout Files, and more

<http://johansontechnology.com/nordic>

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

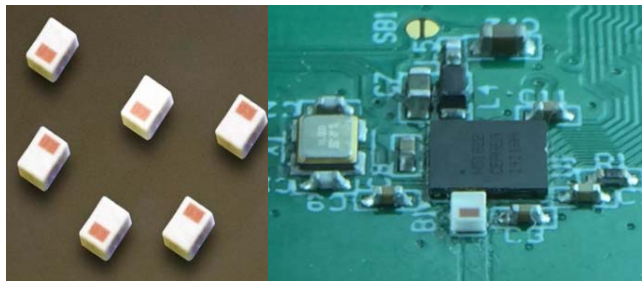
www.johansontechnology.com/technical-notes/rohs-compliance.html

Antenna layout and tuning techniques

www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services

www.johansontechnology.com/ipcantennaservices



In-Application Image

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