



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# High Frequency Ceramic Solutions

**Ultra Miniature 2.45GHz Impedance Matched FCC / ETSI Compliant Low Pass Filter: Optimized for Nordic's Chipset nRF52832-CIAA**

P/N 2450FM07A0035

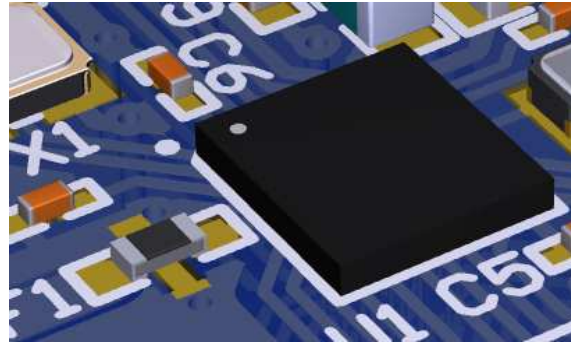
Detail Specification: 10/18/2017

Page 1 of 4

AEC-Q200 qualified component available, contact us at: [www.johansontechnology.com/ask-a-question](http://www.johansontechnology.com/ask-a-question)

## General Specifications

<b>Part Number</b>	2450FM07A0035
<b>Frequency (MHz)</b>	2400 - 2500
<b>Insertion loss (dB)</b>	0.35 Typ. (0.75 max.)
<b>Return Loss (dB)</b>	10 Typ. (10 min.)
<b>Input Impedance (Terminal Towards Chipset)</b>	Impedance matched to Nordic Semiconductor nRF52832-CIAA
<b>Output Impedance</b>	50Ω
<b>Power Capacity</b>	3W max. (CW)
<b>Attenuation (dB)</b>	
4800~5000MHz	26 typ.@25°C 24 min.
7200~7500MHz	17 typ.@25°C 15 min.



<b>Reel Quantity</b>	10,000 pcs
<b>Operating Temperature</b>	-40 to +85°C
<b>Recommended Storage Conditions for unused T&amp;R product</b>	+5 to +35°C, Humidity: 45-75%RH, 18 mo. Max.

You can download measured s-parameters of this component at: [www.johansontechnology.com/nordic](http://www.johansontechnology.com/nordic)

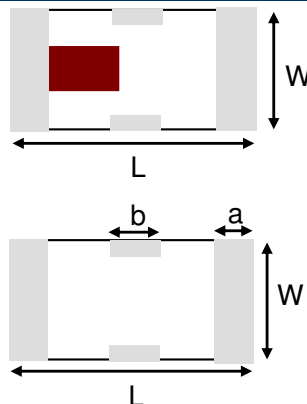
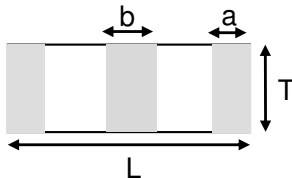
## Part Number Explanation

<b>P/N Suffix</b>	<b>Packaging Style</b>	Bulk	Suffix = S	E.g. 2450FM07A0035S
		T & R	Suffix = T	E.g. 2450FM07A0035T
	<b>Termination Style</b>	100% Tin	Suffix = None	E.g. 2450FM07A0035(T or S)

For the Full App Note and Layout Files, go to: [www.johansontechnology.com/nordic](http://www.johansontechnology.com/nordic)

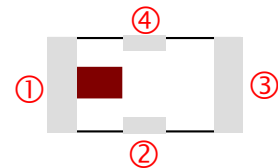
## Mechanical Dimensions

	In	mm
<b>L</b>	0.039 ± 0.002	1.00 ± 0.05
<b>W</b>	0.020 ± 0.002	0.50 ± 0.05
<b>T</b>	0.016 max.	0.40 max.
<b>a</b>	0.007 ± 0.004	0.18 ± 0.10
<b>b</b>	0.010 ± 0.004	0.25 ± 0.10



## Terminal Configuration

No.	Function
1	IN (To the nRF52)
2	GND
3	OUT (To Antenna)
4	GND



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



Ver. 1.0

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

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

2017 Johanson Technology, Inc. All Rights Reserved

# High Frequency Ceramic Solutions

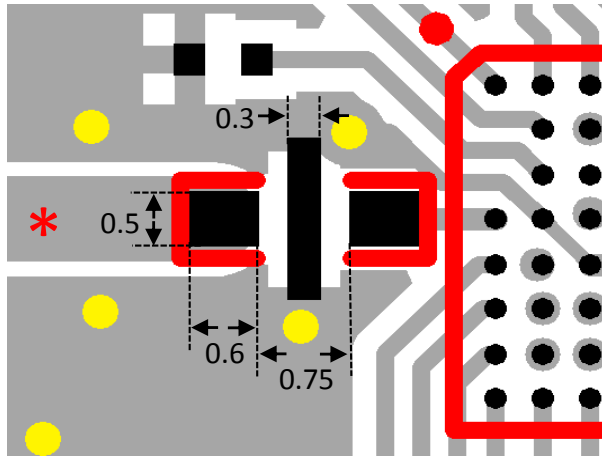
Ultra Miniature 2.45GHz Impedance Matched FCC / ETSI Compliant Low Pass Filter:  
Optimized for Nordic's Chipset nRF52832-CIAA




P/N 2450FM07A0035

Detail Specification: 10/18/2017

Page 2 of 4

## Mounting Pad Dimensions

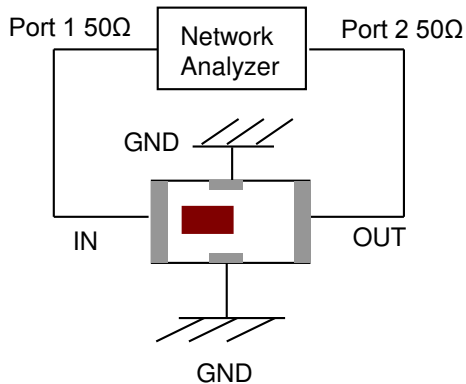


-  Solder Resist
-  Land
-  Through-hole ( $\phi$  0.20)

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

Do you need the layout files of the above? Go to: [www.johansontechnology.com/nordic](http://www.johansontechnology.com/nordic) or send us a message to review your layout at: [www.johansontechnology.com/ask-a-question](http://www.johansontechnology.com/ask-a-question)

## Measurement Schematic



Port 1: Filter IN (marking side)  
Port 2: Filter OUT

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



Ver. 1.0

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

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

2017 Johanson Technology, Inc. All Rights Reserved

# High Frequency Ceramic Solutions

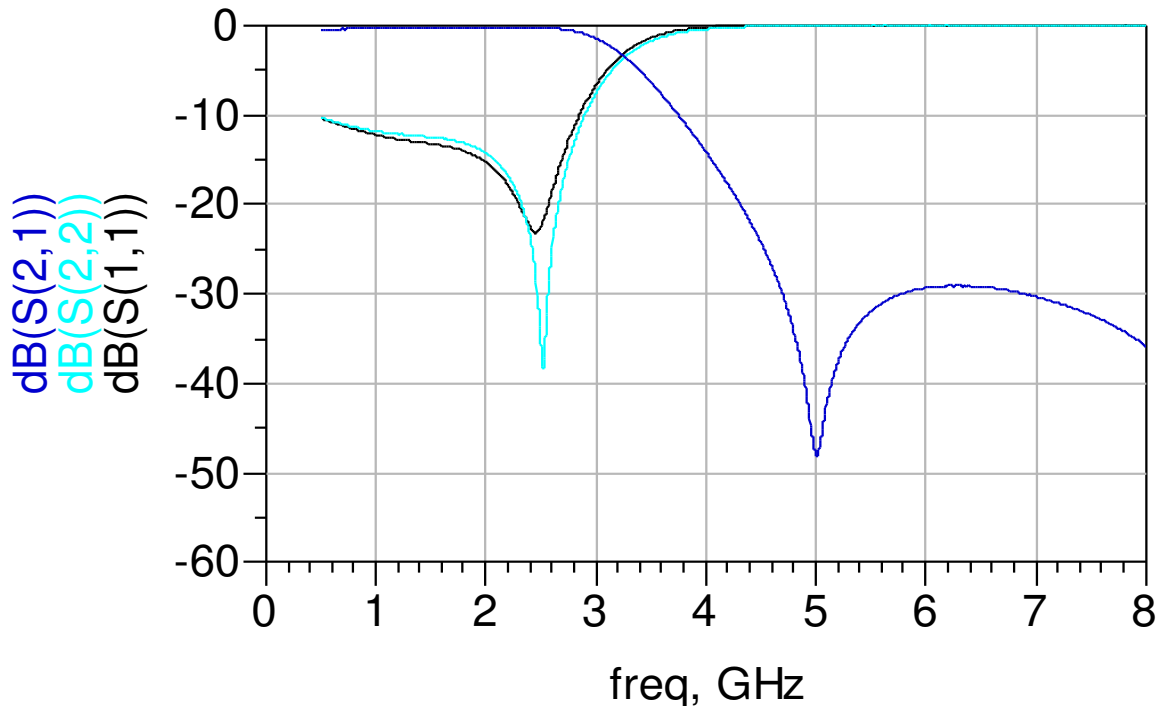
Ultra Miniature 2.45GHz Impedance Matched FCC / ETSI Compliant Low Pass Filter:  
Optimized for Nordic's Chipset nRF52832-CIAA

P/N 2450FM07A0035

Detail Specification: 10/18/2017

Page 3 of 4

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



If you would like recommendation on a mini 2.4G embedded antenna, free layout verification, reference design files (gerbers, schematic, etc) or s-parameter files, please contact us at:

[www.johansontechnology.com/ask-a-question](http://www.johansontechnology.com/ask-a-question)

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, USA • TEL +1.805.389.1166

Ver. 1.0 2017 Johanson Technology, Inc. All Rights Reserved

# High Frequency Ceramic Solutions

Ultra Miniature 2.45GHz Impedance Matched FCC / ETSI Compliant Low Pass Filter:  
Optimized for Nordic's Chipset nRF52832-CIAA

P/N 2450FM07A0035

Detail Specification: 10/18/2017

Page 4 of 4

## Application Notes, Layout Files, and more

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

## Packaging information

[www.johansontechnology.com/tape-reel-packaging](http://www.johansontechnology.com/tape-reel-packaging)

## Soldering Information

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

## MSL Info

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

## Recommended Storage Condition and Max Shelf Life

[www.johansontechnology.com/recommended-storage-conditions](http://www.johansontechnology.com/recommended-storage-conditions)

## RoHS Compliance

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

## Antenna layout and tuning techniques

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

## Antenna layout review, tuning, and characterization services

[www.johansontechnology.com/ipc-antenna-services](http://www.johansontechnology.com/ipc-antenna-services)

Johanson uses 6/6 RoHS Green Low-Temperature-Co-fired-Ceramic (LTCC) integrated passive technology in a 4-pin (Sn plated) monolithic structure. This component is 100% RF Tested, making it a more reliable system, impedance controlled environment, consistent-guaranteed RF performance in a very small RF front end-solution compared to the L/C discrete solution.



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



Ver. 1.0

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

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

2017 Johanson Technology, Inc. All Rights Reserved