

# "High Frequency Ceramic Solutions"

Mini Passive RF Diplexer 2.4/5.4GHz for 802.11-WLAN-WiFi

P/N 2450DP14D5400

EIA 0603 with LPF/BPF Filtering Scheme

Detail Specification: 9/24/2014

Page 1 of 3

Not exactly what you are looking for and want to see our other diplexers? Go to: [www.johansontechnology.com/diplexers](http://www.johansontechnology.com/diplexers)

## General Specifications

<b>Part Number</b>	2450DP14D5400			
<b>Passband (MHz)</b>	2400~2500	4900~5900		
<b>Insertion Loss (dB)</b>	0.5 typ (0.68 max.)	0.55 typ (0.78 max.)		
<b>Attenuation I (db)</b>	10min. @3.6~3.75GHz	25min. @0.86~0.96GHz		
<b>Attenuation II (db)</b>	20min. @4.8~6.0GHz	25min. @1.545~1.605GHz		
<b>Attenuation III (db)</b>	10min. @7.2~7.5GHz	25min. @1.71~1.99GHz		
<b>Attenuation IV (db)</b>	10min. @9.6~10GHz	30min. @2.17GHz	<b>Operating Temp. Range</b>	-40 to +85 °C
<b>Attenuation V (db)</b>		10min. @8.1~8.8GHz	<b>Recom. Storage Conditions<sup>1</sup></b>	+5 to +35 °C, Humidity 45~75%RH
<b>Attenuation VI (db)</b>		15min. @8.82~9.8GHz	<b>Storage Period</b>	18 months max.
<b>Attenuation VII (db)</b>		25min. @9.8~11.8GHz	<b>Power Capacity</b>	2W max. (CW)
<b>Passband VSWR</b>	2.0 max.	2.0 max.	<b>Reel Quantity</b>	4,000



<sup>1</sup>This applies on to pre-intallation storage (i.e. still on T&R)

## Mechanical Dimensions

	In	mm	
<b>L</b>	0.063 ± 0.004	1.6 ± 0.1	
<b>W</b>	0.031 ± 0.004	0.8 ± 0.1	
<b>T</b>	0.016 ± 0.004	0.4 ± 0.1	
<b>a</b>	0.008 ± 0.004	0.2 ± 0.1	
<b>b</b>	0.008 ± 0.004	0.2 ± 0.1	
<b>c</b>	0.006 ± 0.004	0.15 ± 0.1	
<b>g</b>	0.012 ± 0.004	0.3 ± 0.1	
<b>p</b>	0.020 ± 0.002	0.5 ± 0.05	

## Terminal Configuration

No.	Function	No.	Function
1	Low Freq (2.45GHz) Band	4	GND
2	GND	5	Common Port
3	High Freq (5.4GHz) Band	6	GND

## Part Number Explanation

<b>P/N Suffix</b>	<b>Packing Style</b>	Bulk	Suffix = S	eg. 2450DP14D5400S
		T & R	Suffix = E	eg. 2450DP14D5400T
	<b>Termination style</b>	100% Tin	Suffix = None	eg. 2450DP14D5400(T or S)
	<b>Evaluation Board</b>	2450DP14D5400-EB1SMA		

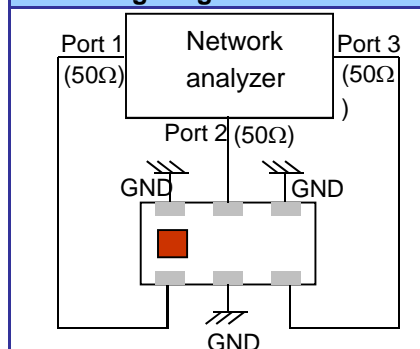
## Mounting Considerations

Solder Resist  
 Land  
 Through-hole (φ 0.35)

\* Line width should be designed to match 50ohm characteristic impedance, depending on PCB material

Need the layout file of the above? Send us a message at: <http://www.johansontechnology.com/component/techquestion>

## Measuring Diagram



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

Ver. 1.1

2014 Johanson Technology, Inc. All Rights Reserved

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

# "High Frequency Ceramic Solutions"

Mini Passive RF Diplexer 2.4/5.4GHz for 802.11-WLAN-WiFi  
EIA 0603 with LPF/BPF Filtering Scheme

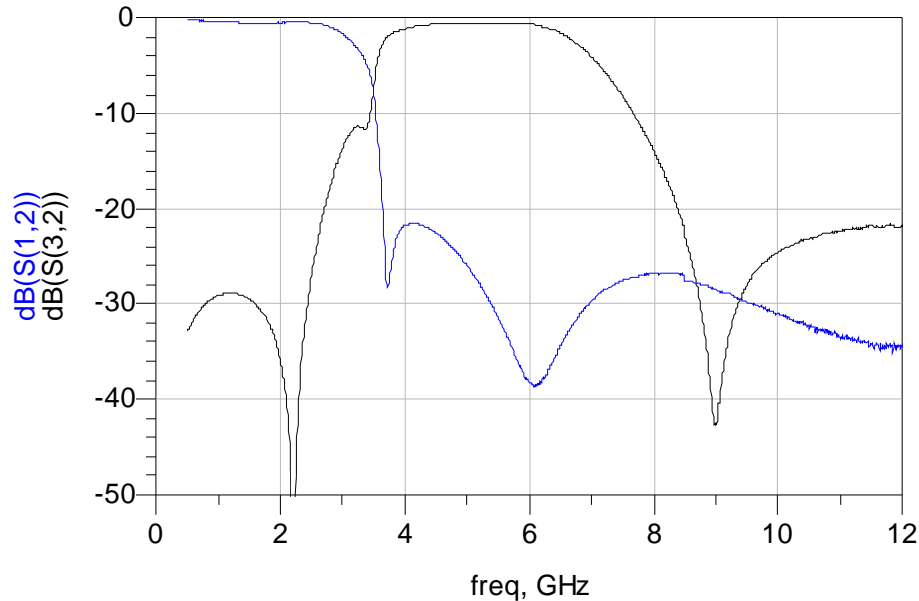
P/N 2450DP14D5400

Detail Specification: 9/24/2014

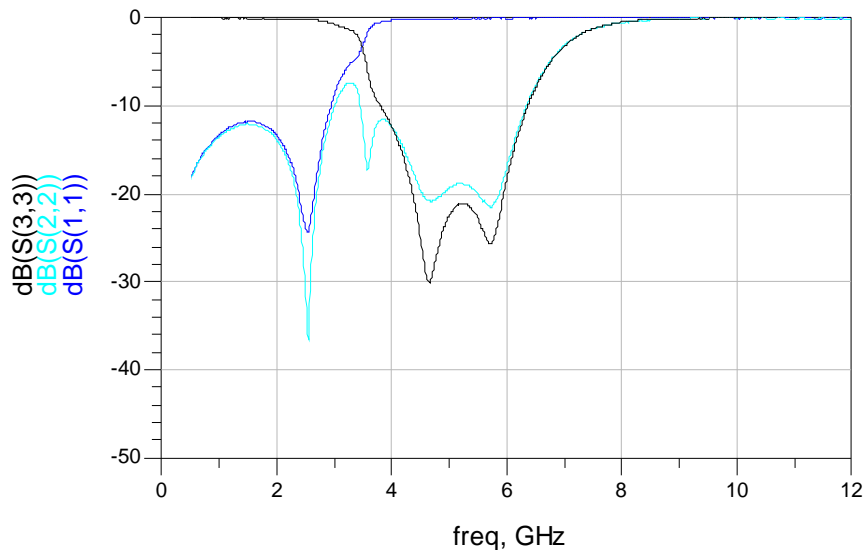
Page 2 of 3

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

### Attenuation



### Return Loss



The contents of this data sheet are subject to change without notice. Please confirm the specifications and delivery conditions when placing your order. All sales are subject to Johanson Technology, Inc. terms and conditions.

# "High Frequency Ceramic Solutions"

**Mini Passive RF Diplexer 2.4/5.4GHz for 802.11-WLAN-WiFi  
EIA 0603 with LPF/BPF Filtering Scheme**

**P/N 2450DP14D5400**

Detail Specification: 9/24/2014

Page 3 of 3

## RoHS Compliance

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

## Packaging information

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

## Soldering Information

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

## Layout Files, s-parameters and any other technical questions

[www.johansontechnology.com/component/techquestion/?Itemid=407](http://www.johansontechnology.com/component/techquestion/?Itemid=407)

## MSL Info

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

## Recommended Storage Condition and Max Shelf Life

[www.johansontechnology.com/ipcstorage-shelflife](http://www.johansontechnology.com/ipcstorage-shelflife)

## Antenna layout and tuning techniques

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

## Antenna layout review, tuning, and characterization services

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

The contents of this data sheet are subject to change without notice. Please confirm the specifications and delivery conditions when placing your order. All sales are subject to Johanson Technology, Inc. terms and conditions.



Ver. 1.1

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

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

2014 Johanson Technology, Inc. All Rights Reserved

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Signal Conditioning](#) category:*

*Click to view products by [Johanson](#) manufacturer:*

Other Similar products are found below :

[MAPDCC0001](#) [MAPDCC0004](#) [PD0409J5050S2HF](#) [880157](#) [HHS-109-PIN](#) [DC1417J5005AHF](#) [AFS14A30-2185.00-T3](#) [AFS14A35-1591.50-T3](#) [B39321R801H210](#) [1A0220-3](#) [JP510S](#) [LFB212G45SG8C341](#) [LFB322G45SN1A504](#) [LFL182G45TC3B746](#) [SF2159E](#) [30057](#) [FM-104-PIN](#) [CER0813B](#) [MAPDCC0005](#) [3A325](#) [40287](#) [41180](#) [ATB3225-75032NCT](#) [BD0810N50100AHF](#) [BD2425J50200AHF](#) [C5060J5003AHF](#) [JHS-115-PIN](#) [JP503AS](#) [DC0710J5005AHF](#) [DC2327J5005AHF](#) [DC3338J5005AHF](#) [43020](#) [LFB2H2G60BB1C106](#) [LFL15869MTC1B787](#) [X3C19F1-20S](#) [XC3500P-20S](#) [10013-20](#) [SF2194E](#) [CDBLB455KCAX39-B0](#) [TGL2208-SM, EVAL](#) [RF1353C](#) [PD0922J5050D2HF](#) [1E1305-3](#) [1F1304-3S](#) [1G1304-30](#) [B0922J7575AHF](#) [2020-6622-20](#) [TP-103-PIN](#) [BD1222J50200AHF](#) [BD1722J50100AHF](#)