

"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

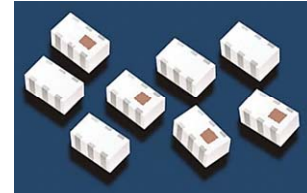
Detail Specification: 9/24/2014

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

General Specifications

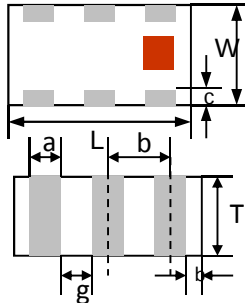
Part Number	2450DP14D5400	
Passband (MHz)	2400~2500	4900~5900
Insertion Loss (dB)	0.5 typ (0.68 max.)	0.55 typ (0.78 max.)
Attenuation I (dB)	10min. @3.6~3.75GHz	25min. @0.86~0.96GHz
Attenuation II (dB)	20min. @4.8~6.0GHz	25min. @1.545~1.605GHz
Attenuation Iil (dB)	10min. @7.2~7.5GHz	25min. @1.71~1.99GHz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



¹This applies on to pre-installation storage (i.e. still on T&R)

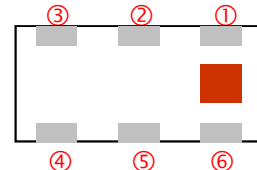
Mechanical Dimensions

	In	mm
L	0.063 ± 0.004	1.6 ± 0.1
W	0.031 ± 0.004	0.8 ± 0.1
T	0.016 ± 0.004	0.4 ± 0.1
a	0.008 ± 0.004	0.2 ± 0.1
b	0.008 +0.004/-0.006	0.2 +0.1/-0.15
c	0.006 ± 0.004	0.15 ± 0.1
g	0.012 ± 0.004	0.3 ± 0.1
p	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

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

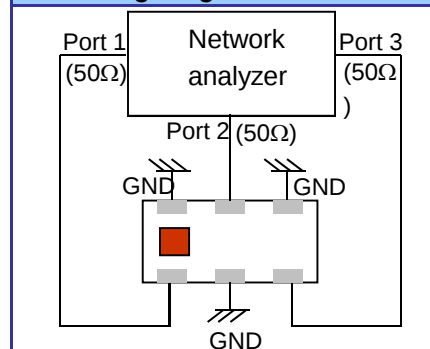
Mounting Considerations

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



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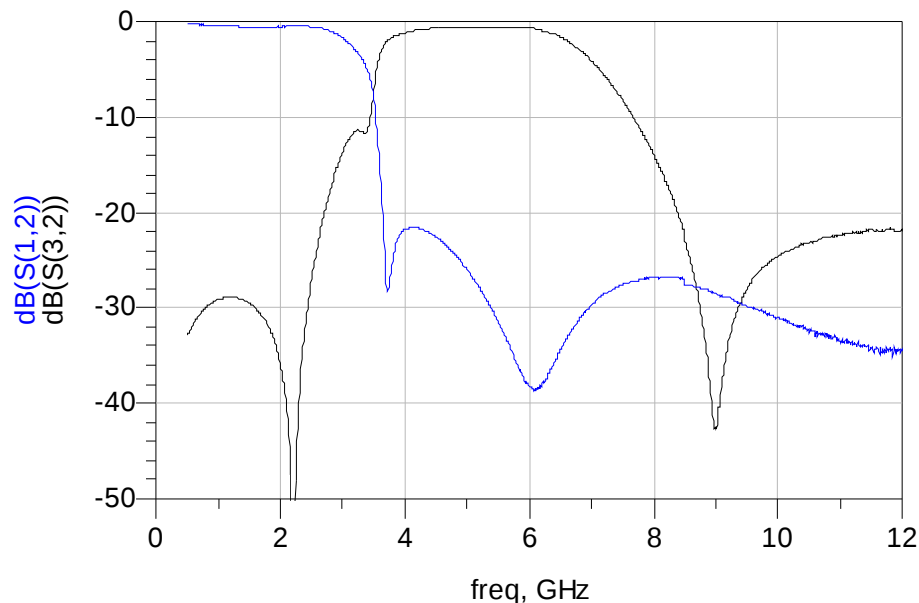
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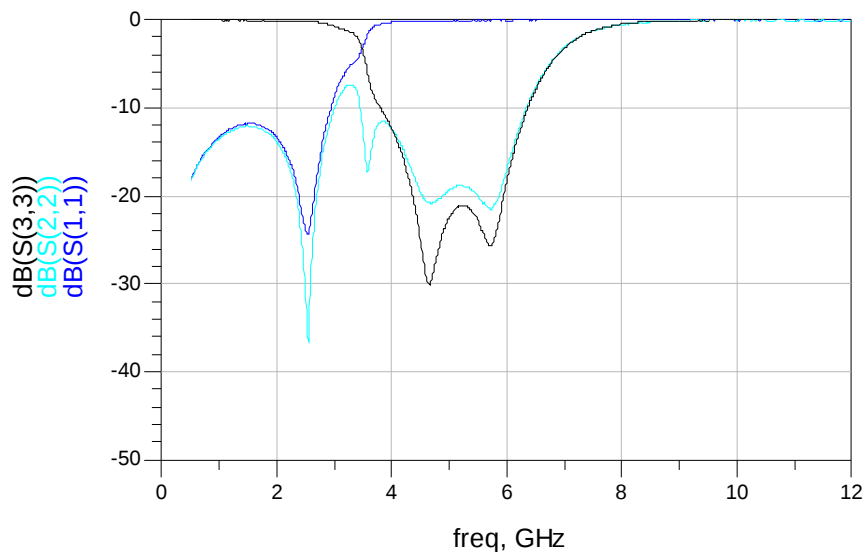
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Typical Electrical Characteristics (T=25 °C)

Attenuation



Return Loss



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RoHS Compliance

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

Packaging information

www.johansontechnology.com/ipcpackaging.html

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

Layout Files, s-parameters and any other technical questions

www.johansontechnology.com/component/techquestion/?Itemid=407

MSL Info

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

Recommended Storage Condition and Max Shelf Life

www.johansontechnology.com/ipcstorage-shelflife

Antenna layout and tuning techniques

www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services

www.johansontechnology.com/ipcantennaservices

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Ver. 1.1

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