

# "High Frequency Ceramic Solutions"

## 2.45 / 5.5GHz Ceramic Chip Diplexer (LPF/BPF type) with high 2.45GHz isolation P/N 2450DP15Q5400

Detail Specification: 08/22/14

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*This diplexer has improved port-to-port isolation and has swapped High and Low Band Pin assignment from 2450DP15P5400*

### General Specifications

Part Number		2450DP15Q5400			Stor. Temp	-40 to +85°C
Passband (MHz)	Insertion Loss (dB)	Attenuation		Return Loss (dB)	Isolation (dB)	Oper. Temp
						Impedance
2400~2500	0.5 max. (0.25 typ.)	20dB min. (27 typ.) @4.8-6.0GHz	10 min. (20 typ.)	32 min. (35 typ.) @2.4-2.5GHz	Recommended Conditions for unused T&R	+5 to +35°C, Humidity 45~75%RH, 18 mos max
		20dB min. (30 typ.) @7.2-7.5GHz				
4900~5950	0.65 max. (0.35 typ.)	20dB min. (23 typ.) @ 0.8-2.5GHz	10 min. (15 typ.)	20 min. (30 typ.) @4.9-5.95GHz	Input Power	2W max (CW)
		15dB min. (18typ.) @9.8-11.9GHz			Reel Quantity	4000

Packaging Style	Bulk	Suffix = S	Eg. 2450DP15Q5400S
	T & R	Suffix = E	Eg. 2450DP15Q5400E (4000 pcs)
Termination Style	Ni/Sn	Suffix = None	Eg. 2450DP15Q5400(E or S)
	EVB	2450DP15Q5400S-EB1SMA (3-port SMA)	

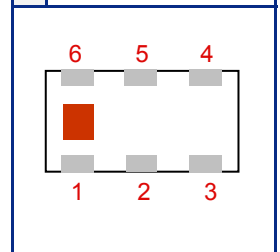
### Terminal Configuration

No.	Function
1	GND
2	Common Port
3	GND
4	Higher Freq. Port
5	GND
6	Lower Freq. Port

### Mechanical Dimensions

	In	mm
L	0.079 ± 0.004	2.00 ± 0.10
W	0.049 ± 0.004	1.25 ± 0.10
T	0.020 ± 0.004	0.50 ± 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

Units : mm



### Mounting Considerations and Appearance

\*Line width should be designed to provide 50 Ω impedance matching characteristics.

Evalboard  
P/N:2450DP15Q5400-EB1SMA

Units: mm

- Solder Resist
- Land
- Through-hole (φ 0.35 / 0.20)

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

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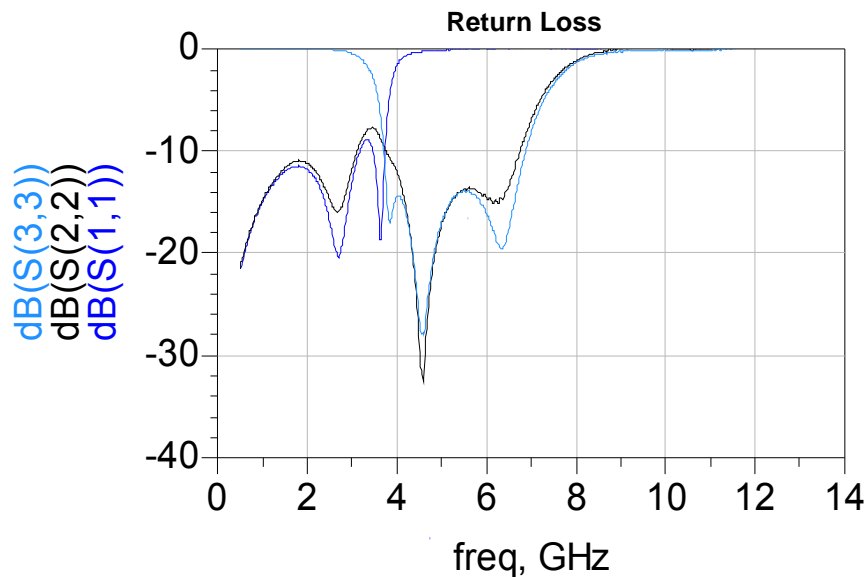
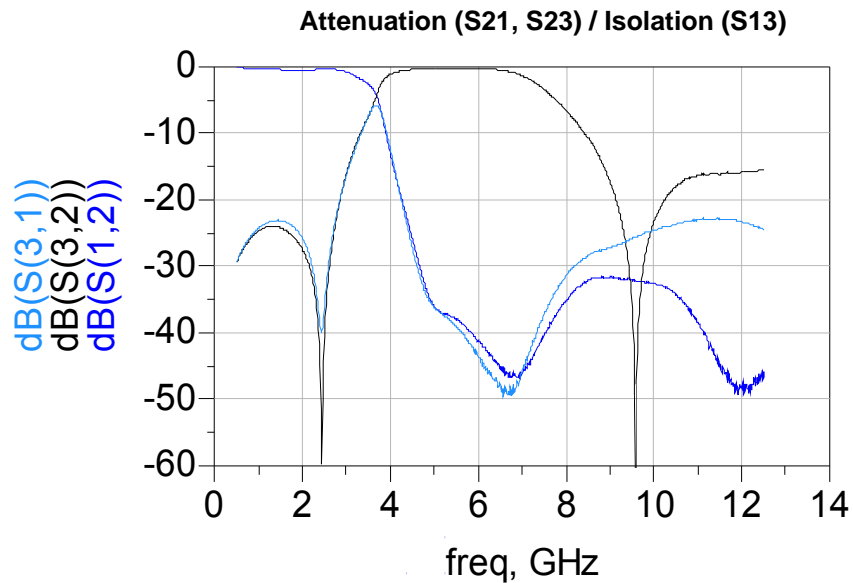
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## Typical Electrical Characteristics (T=25 °C)



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## More diplexers and s-parameters

<http://www.johansontechnology.com/diplexers>

## RoHS Compliance

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

## Packaging information

<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)

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