



**THE DATASHEET OF
2450DP15L5400E**



High Frequency Ceramic Solutions

2.45 / 5.4GHz Low Loss Ceramic Chip Diplexer (LPF/BPF type)

P/N 2450DP15L5400

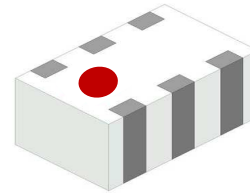
Detail Specification: 4/6/2021

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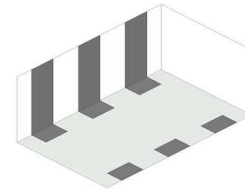
Not exactly what you are looking for and want to see our other diplexers? Go to: <https://www.johansontechnology.com/diplexers>

General Specifications

Part Number	2450DP15L5400	
Passband (MHz)	2400-2500	4900-5950
Insertion Loss (dB)	0.25 typ.(0.5 max.)	0.35 typ.(0.65 max.)
Return Loss (dB)	20 typ.(10 min.)	15 typ.(10 min.)
Attenuation (dB)	27 typ. (20 min.) @ 4.8-6.0GHz	23 typ. (20 min.) @ 0.8-2.5GHz
	30 typ. (20 min.) @ 7.2-7.5GHz	18 typ. (15 min.) @ 9.8-11.9GHz
Isolation (dB)	22 typ. (20 min.) @ DC-2.5GHz	27 typ. (20 min.) @ 4.9-5.95GHz
Power Capacity (W)	2 max. (CW)	
Operating Temp.	-40 to +85 °C	
Recommended Storage Conditions and Period for Unused Product on T&R	+5°C to +35°C Humidity 45 - 75% RH 18 months max.	
Reel Quantity (pcs/reel)	4,000	



Top



Bottom

Note: This component is identical to p/n: 2450DP15K5400 except that the 2.4G and 5G pins are swapped in functionality and has a round top red mark for distinction.

Part Number Explanation

P/N Suffix	Packing Style	Bulk (loose pcs.)	Suffix = S	e.g. 2450DP15L5400S
		T & R	Suffix = E	e.g. 2450DP15L5400E
		100% Tin	Suffix = None	e.g. 2450DP15L5400(E or S)
	Evaluation Board	2450DP15L5400-EB1SMA		

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 ± 0.004/-0.008	0.30 ± 0.1/-0.2
g	0.014 ± 0.004	0.35 ± 0.10
p	0.026 ± 0.002	0.65 ± 0.05

Terminal Configuration

No.	Function	No.	Function
1	GND	4	High Freq Band
2	Common Port	5	GND
3	GND	6	Low Freq Band

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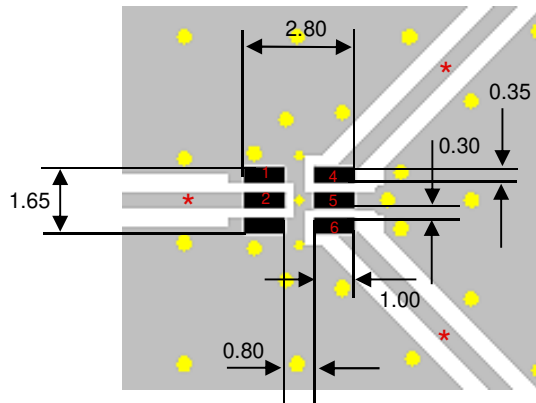
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Mounting Considerations

Units in mm



■ Solder Resist

■ Land

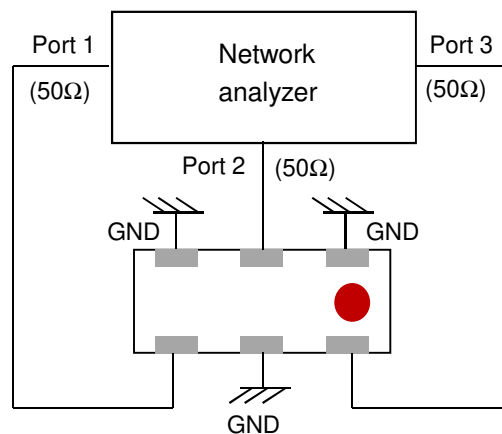
● Through-hole ($\phi 0.35$)

● Through-hole ($\phi 0.2$)

* Line width should be designed to maintain 50 Ω characteristic impedance (CPWG preferred), depending on PCB material and thickness.

Need help with the layout, s-parameters, simulation, or design validation?
Send us a message at: <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram



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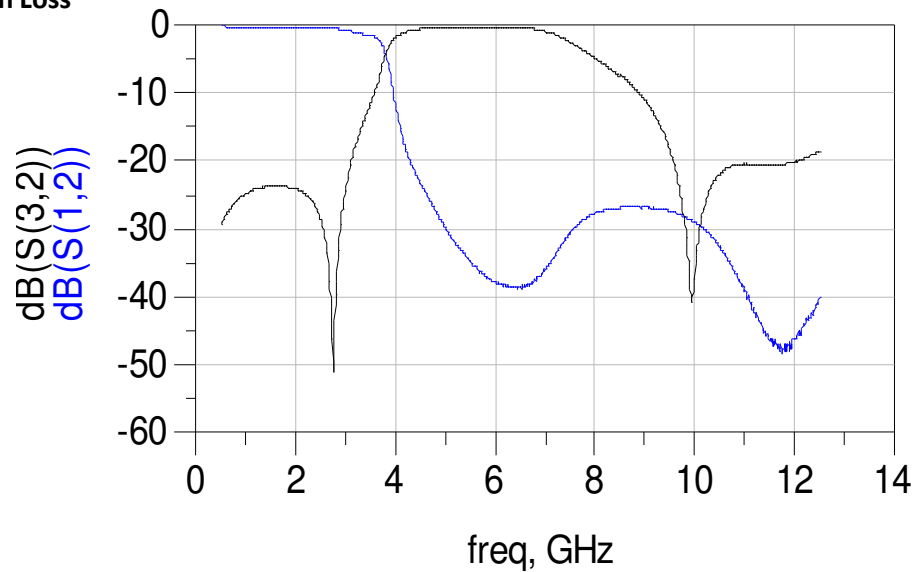
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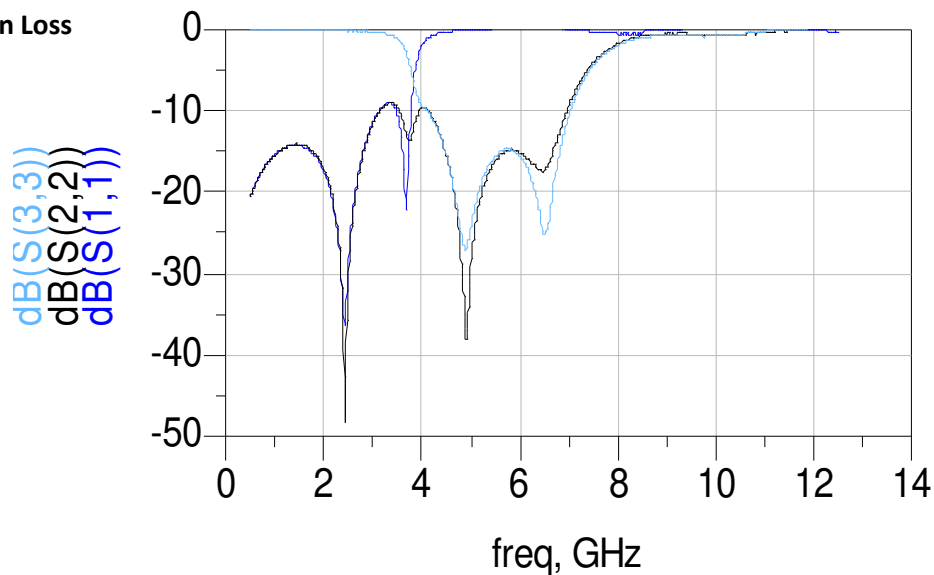
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Typical Electrical Characteristics (T=25 °C)

Insertion Loss



Return Loss



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Application Notes, Layout Files, and more

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

Packaging information

<https://www.johansontechnology.com/tape-reel-packaging>

Soldering Information

<https://www.johansontechnology.com/ipcsoldering-profile>

MSL Info

<https://www.johansontechnology.com/msl-rating>

Recommended Storage Condition and Max Shelf Life

<https://www.johansontechnology.com/recommended-storage-conditions>

RoHS Compliance

<https://www.johansontechnology.com/technical-notes/rohs-compliance>

Antenna layout and tuning techniques

<https://www.johansontechnology.com/tuning.html>

Antenna layout review, tuning, and characterization services

<https://www.johansontechnology.com/ipc-antenna-services>

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