

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 2450DP14C5400

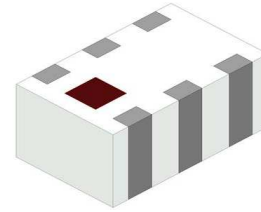
Detail Specification: 4/28/2021

Page 1 of 4

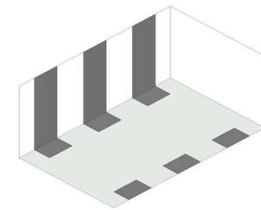
Not exactly what you are looking for and want to see our other diplexers? Go to: <https://www.johansontechnology.com/diplexers>

General Specifications

Part Number	2450DP14C5400	
Passband (MHz)	2400-2500	4900-5900
Insertion Loss (dB)	0.8 max.	1.2 max.
Return Loss (dB)	9.5 min.	9.5 min.
Attenuation (dB)	18 min. @ 4.8-6.0GHz 20 min. @ 7.2-7.5GHz	18 min. @ 2.4-2.5GHz 18 min. @ 9.8-11.8GHz
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

Part Number Explanation

P/N Suffix	Packing Style	Bulk (loose pcs.)	Suffix = S	e.g. 2450DP14C5400S
		T & R	Suffix = T	e.g. 2450DP14C5400T
		100% Tin	Suffix = None	e.g. 2450DP14C5400(T or S)
	Evaluation Board	2450DP14C5400-EB1SMA		

Would you like the layout file for component? Please send us as message at: <https://www.johansontechnology.com/ask-a-question>

Mechanical Dimensions

	In	mm
L	0.063 ± 0.004	1.6 ± 0.1
W	0.031 ± 0.004	0.8 ± 0.1
T	0.024 ± 0.004	0.6 ± 0.1
a	0.008 ± 0.004	0.2 ± 0.1
b	0.008 +.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	High Freq Band	4	GND
2	GND	5	Common Port
3	Low Freq Band	6	GND

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



<https://www.johansontechnology.com>
4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821
Ver. 1.3

2021 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

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

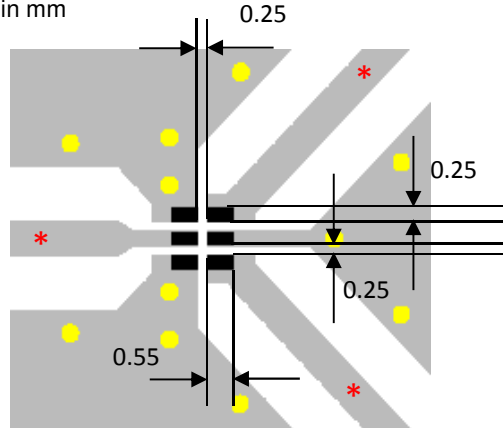
P/N 2450DP14C5400

Detail Specification: 4/28/2021

Page 2 of 4

Mounting Considerations

Units in mm



■ Solder Resist

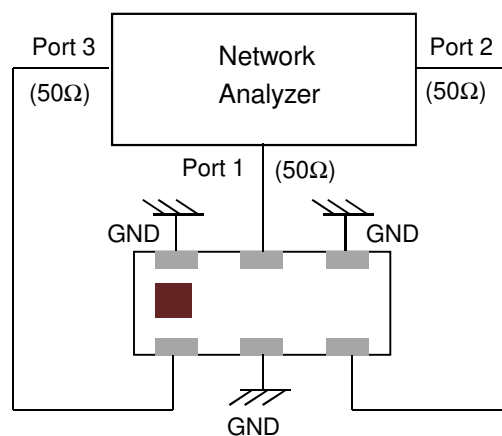
■ Land

● Through-hole ($\phi 0.35$)

* 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



Johanson Technology, Inc. reserves the right to make design changes without notice.
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

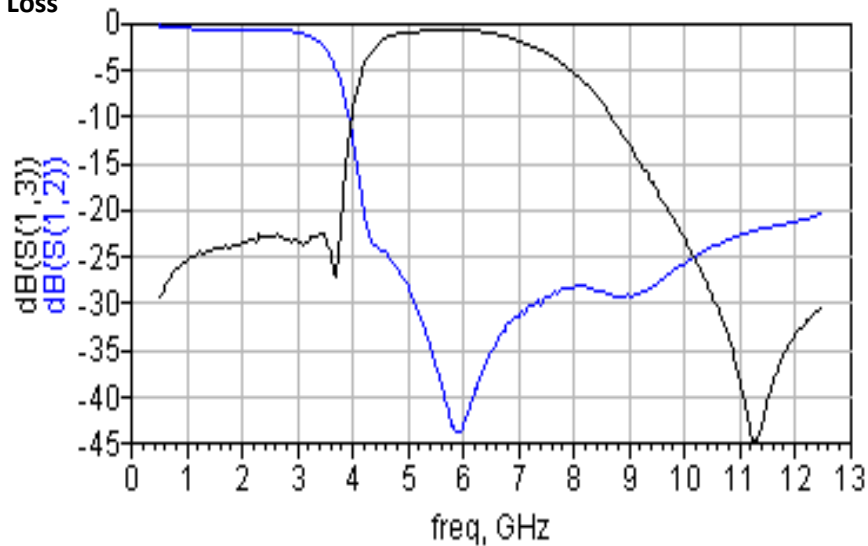
P/N 2450DP14C5400

Detail Specification: 4/28/2021

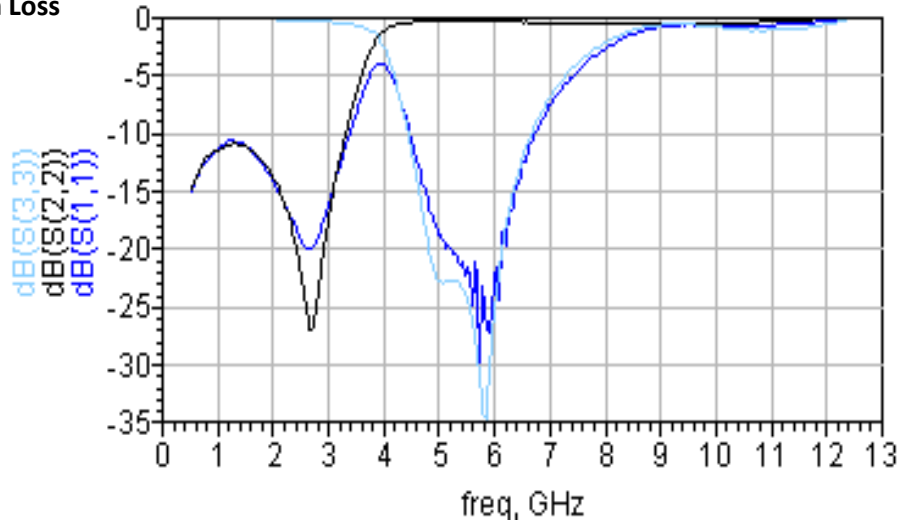
Page 3 of 4

Typical Electrical Characteristics (T=25 °C)

Insertion Loss



Return Loss



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



<https://www.johansontechnology.com>

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

Ver. 1.3

2021 Johanson Technology, Inc. All Rights Reserved

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 2450DP14C5400

Detail Specification: 4/28/2021

Page 4 of 4

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>

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



<https://www.johansontechnology.com>
4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821
Ver. 1.3 2021 Johanson Technology, Inc. All Rights Reserved