

High Frequency Ceramic Solutions

Mini Passive RF Diplexer 2.4/7GHz for Wi-Fi, Bluetooth, UWB

P/N 2450DP14B7200

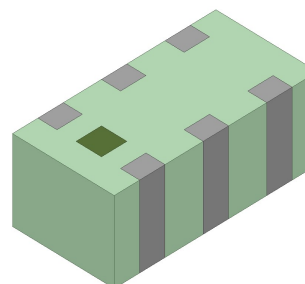
Detail Specification: 6/22/2022

Page 1 of 5

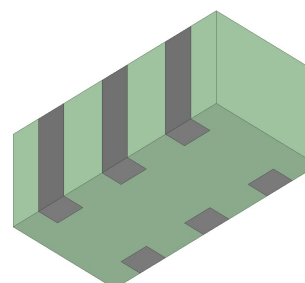
Not exactly what you are looking for and want to see our other diplexers? Go to: <https://www.johansontechnology.com/diplexers>

General Specifications

Part Number	2450DP14B7200	
Passband (MHz)	2400 - 2500	6200 - 8200
Insertion Loss (dB)	0.7 max. @ 25°C 1.0 max. @ -40~105°C	1.0 max. @ 25°C 1.3 max. @ -40~105°C
Return Loss (dB)	10 min.	10 min.
Attenuation (dB)	20 min. @ 4.8-5.0GHz 20 min. @ 6.2-8.5GHz	25 min. @ 2.4-2.5GHz 22 min. @ 12.4-16.4GHz
Isolation (dB)	25 min. @ 2.4-2.5GHz 22 min. @ 6.2-8.5GHz	
Power Capacity (W)	1 max. (CW)	
Operating Temp.	-40 to +105 °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

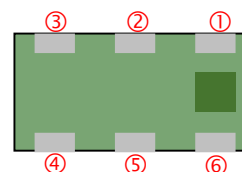
P/N Suffix	Packing Style	Bulk (loose pcs.)	Suffix = S	e.g. 2450DP14B7200S
		T & R	Suffix = T	e.g. 2450DP14B7200T
	Evaluation Board	2450DP14B7200-EB1SMA		

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	GND	4	High Freq. Band
2	Common Port	5	GND
3	GND	6	Low Freq. Band



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



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

Ver. 1.1

<https://www.johansontechnology.com>

2022 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

Mini Passive RF Diplexer 2.4/7GHz for Wi-Fi, Bluetooth, UWB

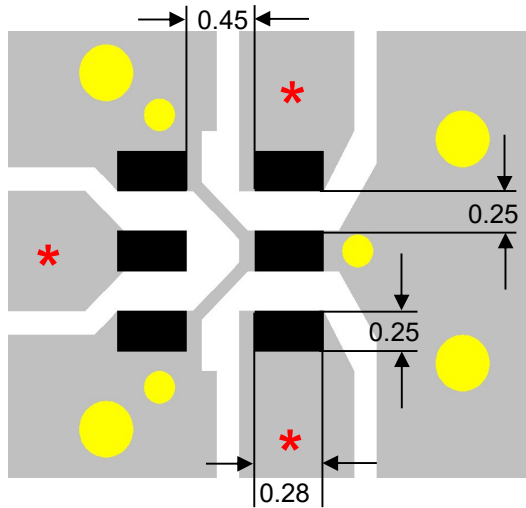
P/N 2450DP14B7200

Detail Specification: 6/22/2022

Page 2 of 5

Mounting Considerations

Units in mm



■ Solder Resist

■ Land

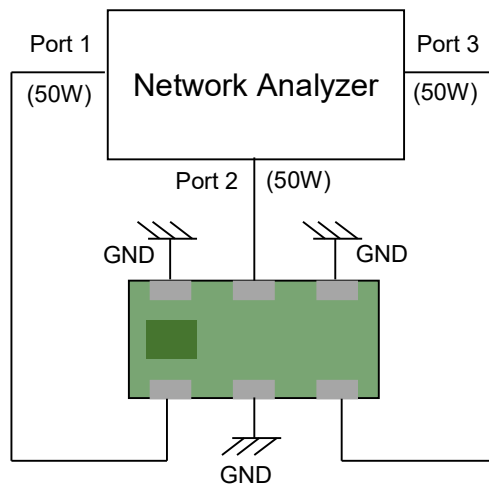
● Through-hole (ϕ 0.35)

● Through-hole (ϕ 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



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 2.4/7GHz for Wi-Fi, Bluetooth, UWB

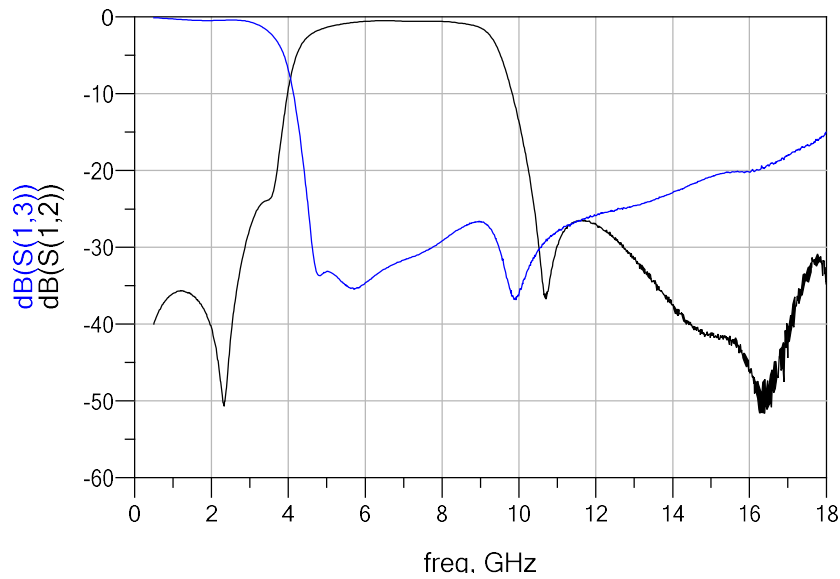
P/N 2450DP14B7200

Detail Specification: 6/22/2022

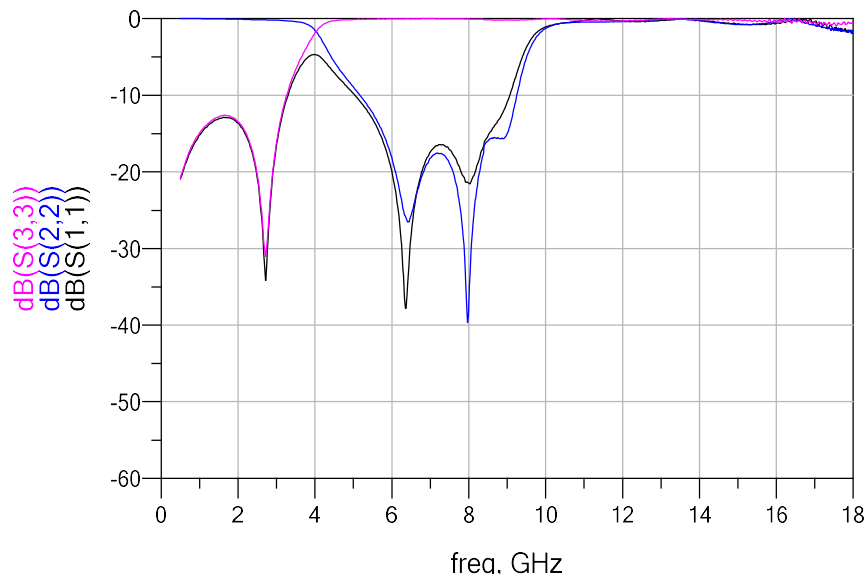
Page 3 of 5

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.



High Frequency Ceramic Solutions

Mini Passive RF Diplexer 2.4/7GHz for Wi-Fi, Bluetooth, UWB

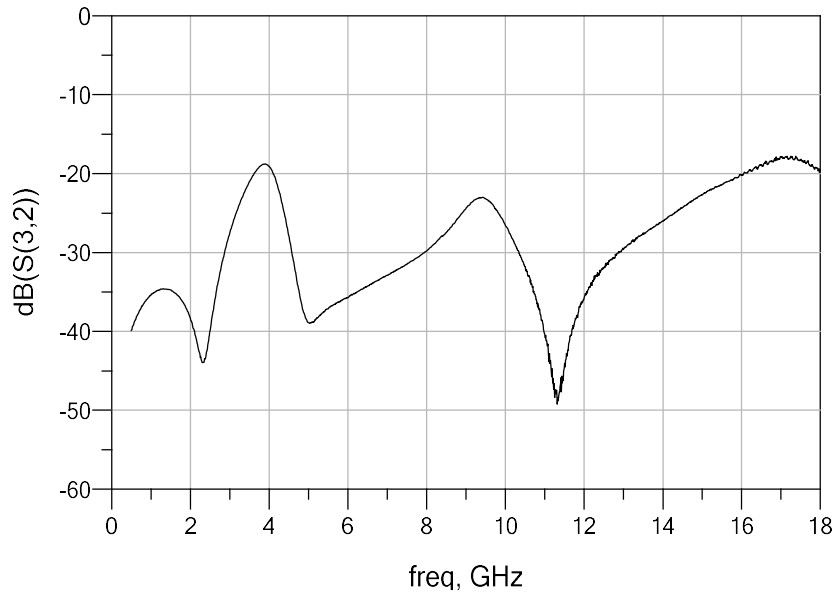
P/N 2450DP14B7200

Detail Specification: 6/22/2022

Page 4 of 5

Typical Electrical Characteristics (T=25 °C)

Isolation



Request our measured S-parameter files here:
<https://www.johansontechnology.com/ask-a-question>

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. 1.1 2022 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

Mini Passive RF Diplexer 2.4/7GHz for Wi-Fi, Bluetooth, UWB

P/N 2450DP14B7200

Detail Specification: 6/22/2022

Page 5 of 5

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. 1.1 2022 Johanson Technology, Inc. All Rights Reserved