

High Frequency Ceramic Solutions

Mini Passive RF Diplexer 2.4/7GHz for Wi-Fi, Bluetooth, UWB
AEC-Q200 Qualified

P/N 2450DP14B7200T-AEC

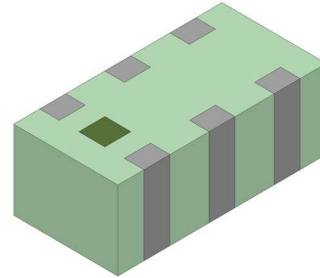
Detail Specification: 6/15/2021

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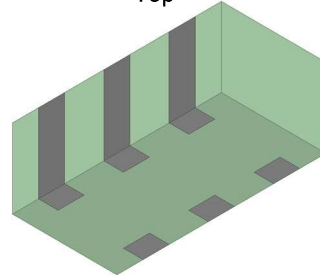
Not exactly what you are looking for and want to see our other diplexers? Go to: <https://www.johansontechnology.com/diplexers>

General Specifications

Part Number	2450DP14B7200T-AEC	
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

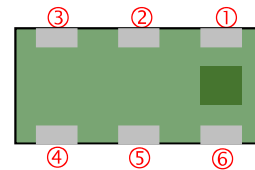
P/N Suffix	Packing Style	Bulk (loose pcs.)	Suffix = S	E.g. 2450DP14B7200S-AEC
		T & R	Suffix = T	E.g. 2450DP14B7200T-AEC
	Evaluation Board	2450DP14B7200-EB1SMA		

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



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<https://www.johansontechnology.com>
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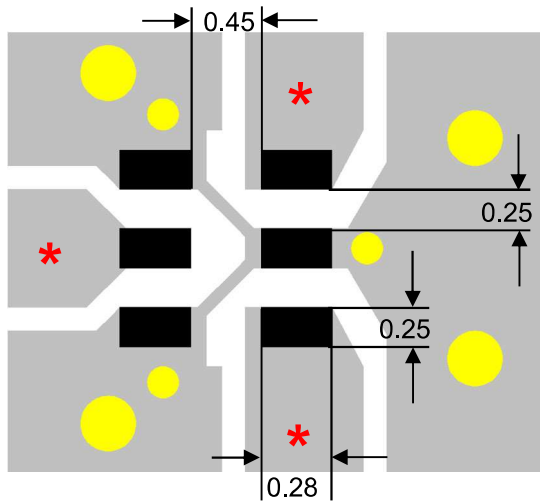
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Mounting Considerations

Units in mm

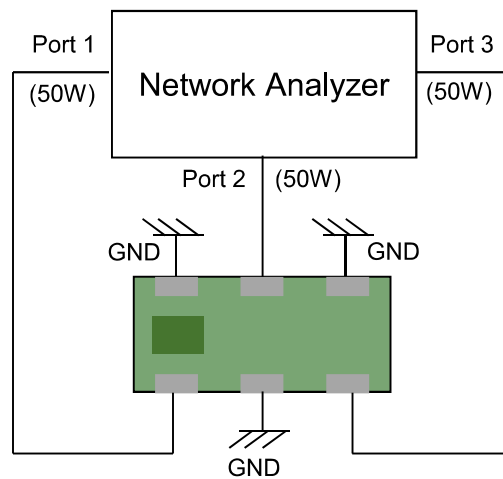


- Solder Resist
- Land
- Through-hole (ϕ 0.35)
- Through-hole (ϕ 0.2)

* 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



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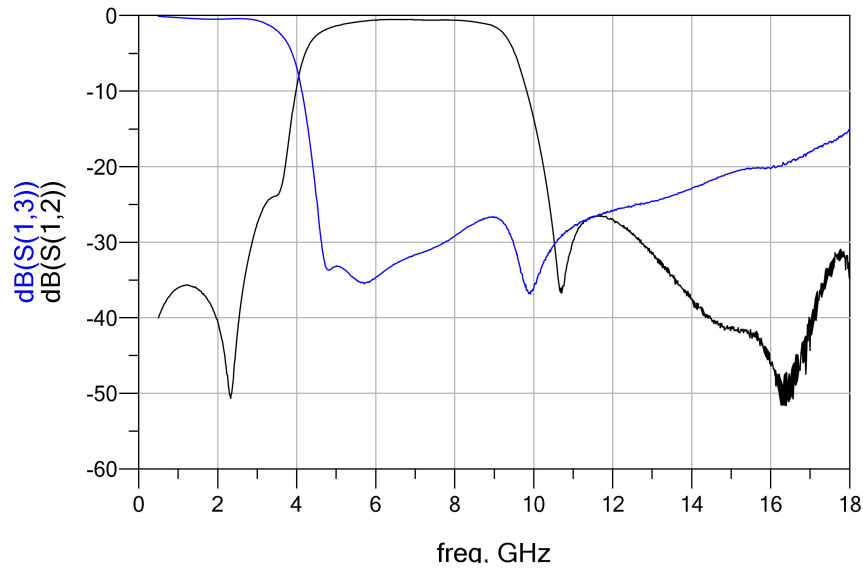
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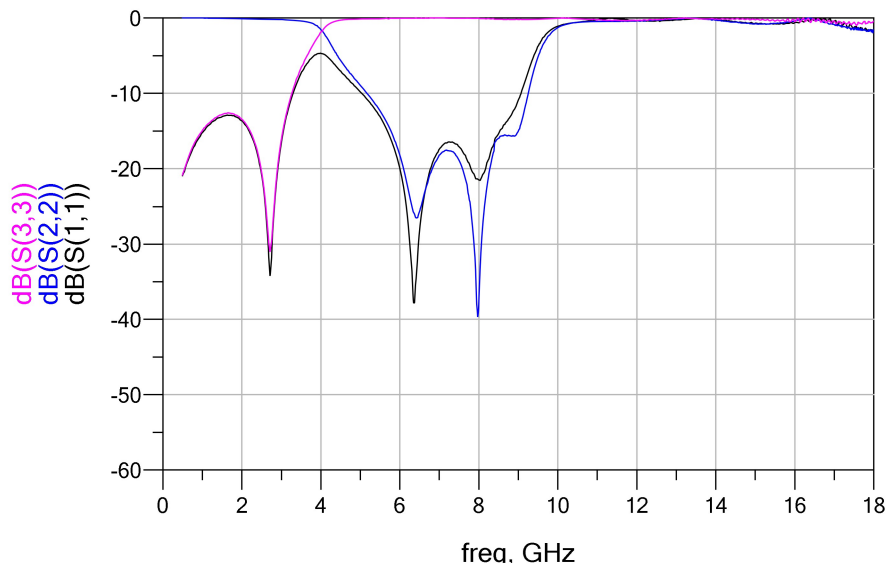
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Typical Electrical Characteristics (T=25 °C)

Insertion Loss



Return Loss



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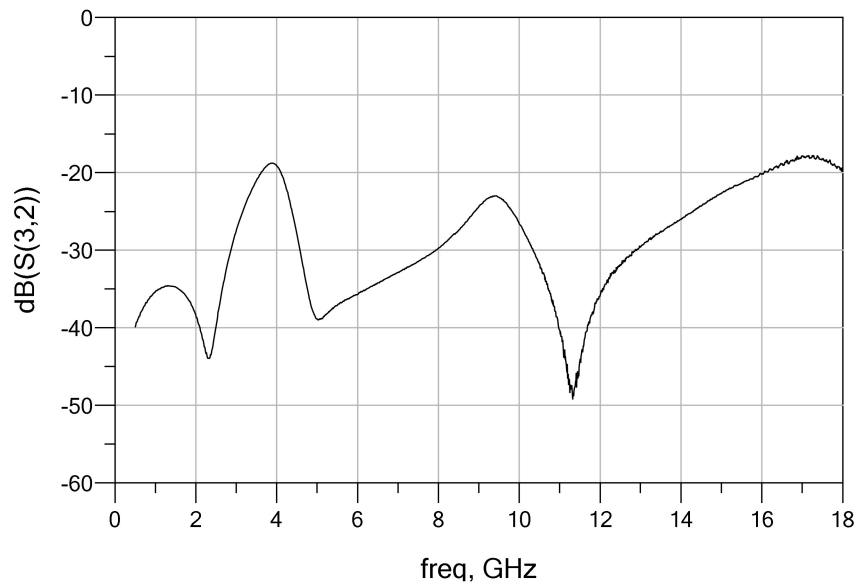
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Typical Electrical Characteristics (T=25 °C)

Isolation



Request our measured S-parameter files here:
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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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