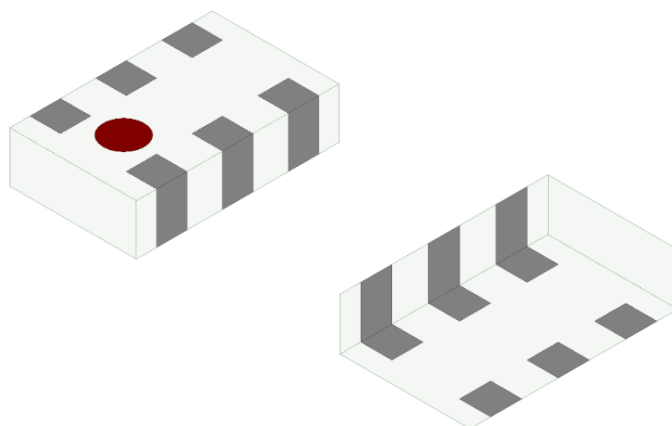


2450 / 5400 MHz RF Diplexer

- 2400 - 2500 / 4900 - 5950 MHz operational bands
- WiFi, Bluetooth, 5GHz UNII Bands
- SMD, EIA 0805
- RoHS compliant



General Specifications^{1 2}

Passband Frequency (MHz)	2400 - 2500	4900 - 5950
Insertion Loss (dB)	0.25 Typ. (0.7 Max)	0.35 Typ. (0.90 Max)
Return Loss (dB)	20 Typ. (10 Min.)	15 Typ. (10 Min.)
Attenuation (dB)	27 Typ. (20 Min.) @4800 - 6000 MHz	23 Typ. (20 Min.) @800 - 2500 MHz
	30 Typ. (20 Min.) @7200 - 7500 MHz	18 Typ. (15 Min.) @9800 - 11900 MHz
Isolation (dB)	22 Typ. (20 Min.) @DC - 2500 MHz	27 Typ. (20 Min.) @4900 - 5950 MHz

Maximum Ratings

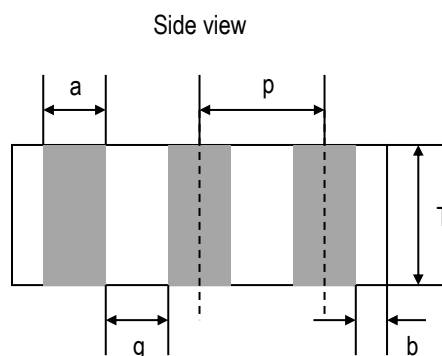
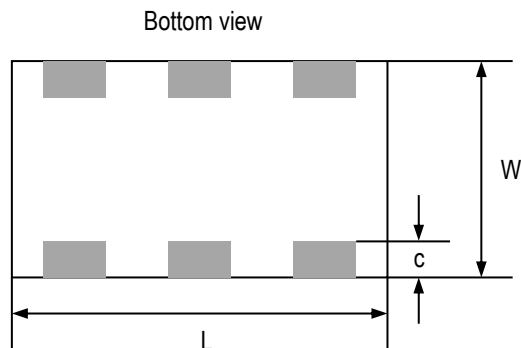
Power Capacity (W)	2 Max. (CW)
Operating Temperature (°C)	-40 to +105
Recommended Storage Conditions post-installation (°C)	-40 to +105
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH +5 to +35 °C 18 Months Max.

¹ Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.

² General specifications measured on Johanson's evaluation board P/N 2450DP15L5400001CE1.

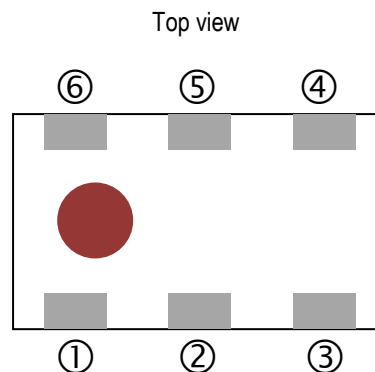
Mechanical Dimensions

	Inches			Millimeters		
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 Configuration³

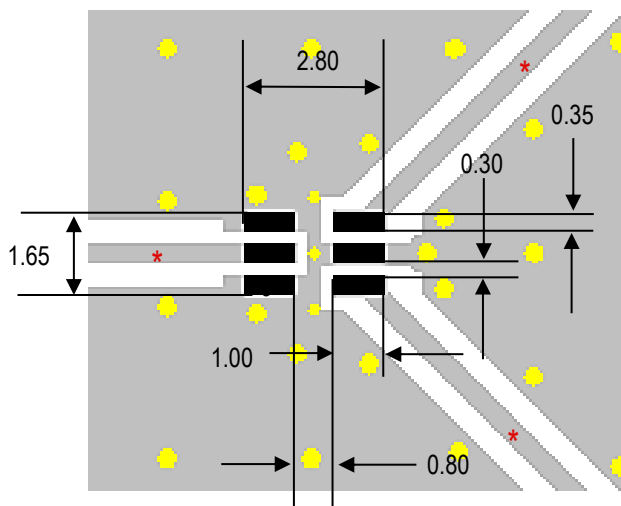
Pin Number	Function
1	GND
2	Common Port
3	GND
4	Higher Freq. Port
5	GND
6	Lower Freq. Port



³ The termination type is Nickel Tin. Go to: <https://www.johansontechnology.com/tech-notes/typical-soldering-profile-ipc> for Typical Soldering Profile.

Recommended PCB Layout


Note: Mount device with colored mark facing up.



Units in mm

 Solder Resist

 Land

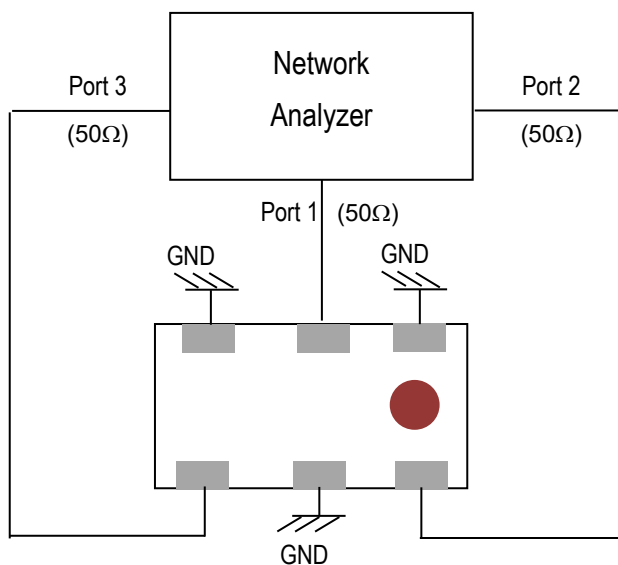
 Through-hole (ϕ 0.35)

 Through-hole (ϕ 0.2)

* Transmission line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

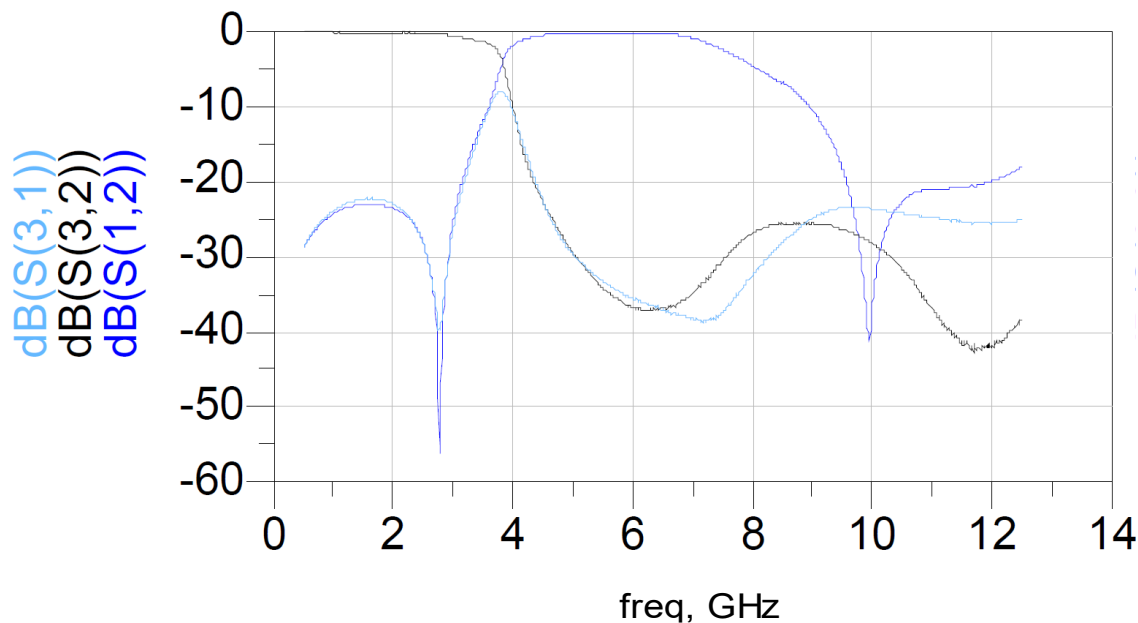
If you would like the CAD PCB layout or have any technical questions, please contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram

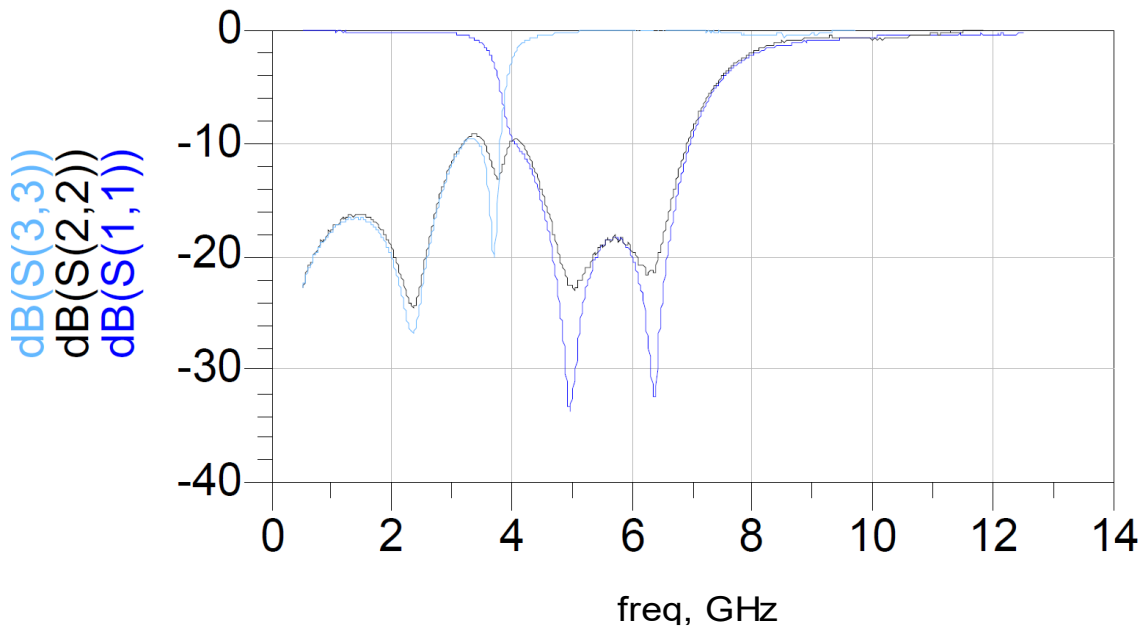


RF Measurements (T = 25°C)

Insertion Loss and Attenuation



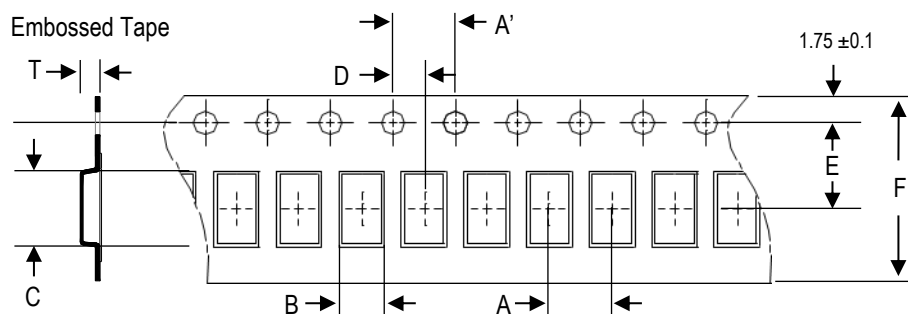
Return Loss



S-parameter and layout files available upon request. Please contact us at <https://www.johansontechnology.com/ask-a-question>

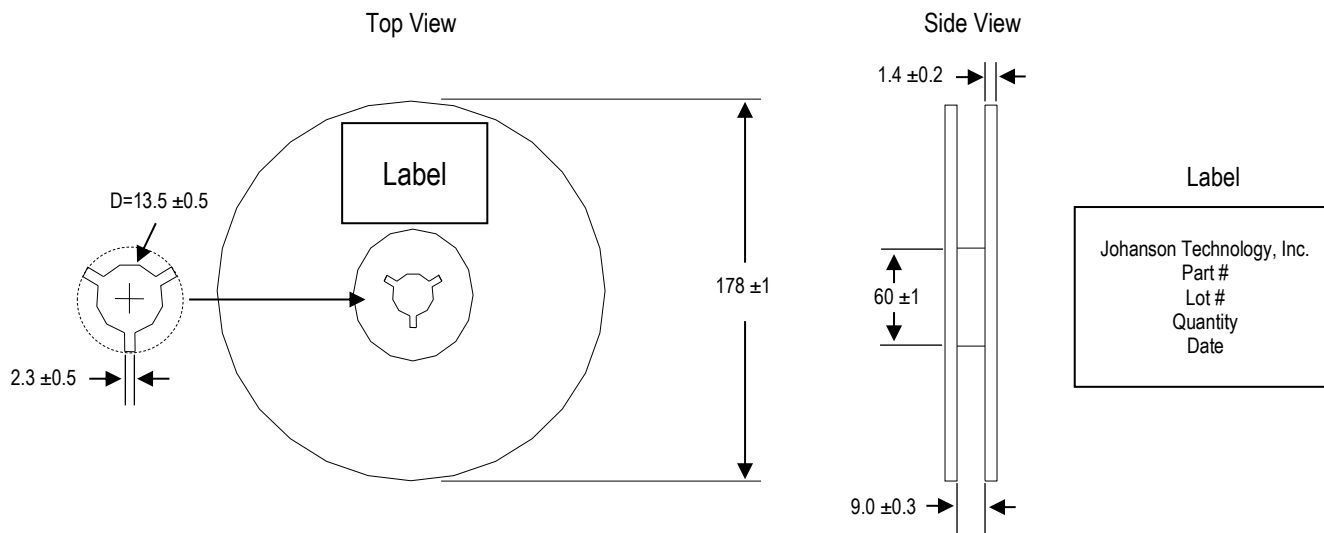
Tape and Reel Specification (Units in mm)

Tape Dimensions

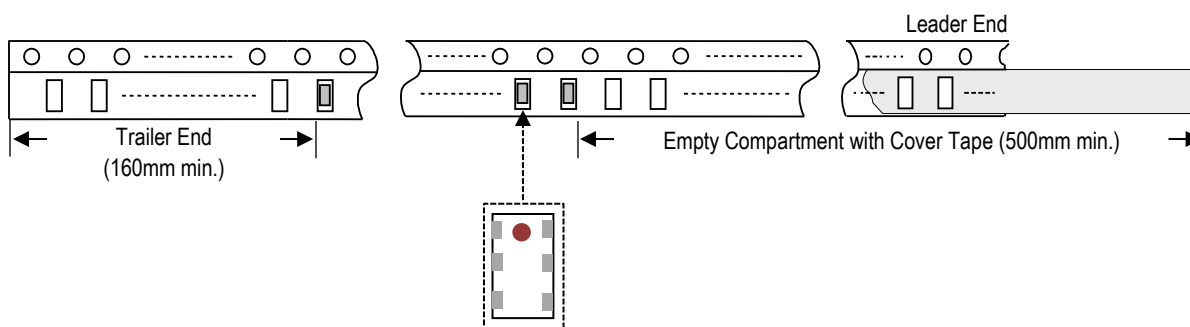


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.35 ±0.05	2.15 ±0.05	2.0 ±0.05	3.5 ±0.1	8.0 ±0.1	0.65 ±0.05	4,000 pcs	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Numbers

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450DP15L5400001B	Nickel Tin
T & R (7" Reel Embossed Tape)	2450DP15L5400001E (Qty: 4,000 pcs/reel)	
Evaluation Board with 3 SMA Connector	2450DP15L5400001CE1	

Important Links

[2450DP15L5400001E Product Page](#)

[More RF Diplexers](#)

[Soldering Information](#)

[MSL Information](#)

[Packaging Information](#)

[Recommended Storage Condition and Max Shelf Life](#)

[RoHS Compliance](#)

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