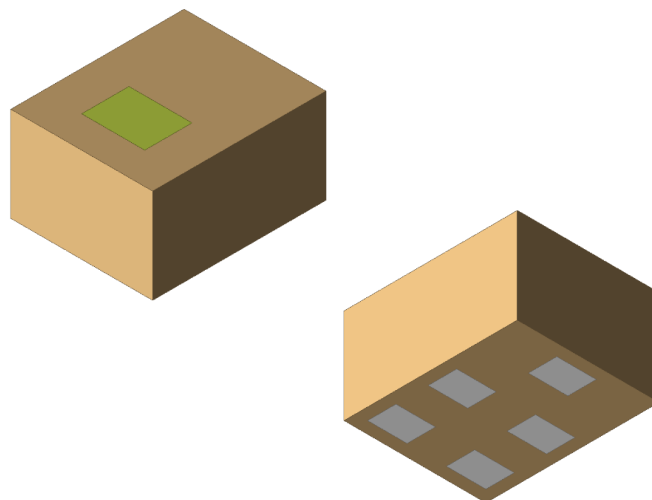




2.45 GHz Band Pass Filter

- 2400 - 2500 MHz pass band
- Optimal for Bluetooth, WiFi, Zigbee, ANT+, Channel Sounding, ISM, MIMO, PDoA, AoA, Thread
- Low insertion loss
- SMD, EIA 0403
- Operating temperature up to +105°C
- RoHS compliant
- Automotive version available



General Specifications¹

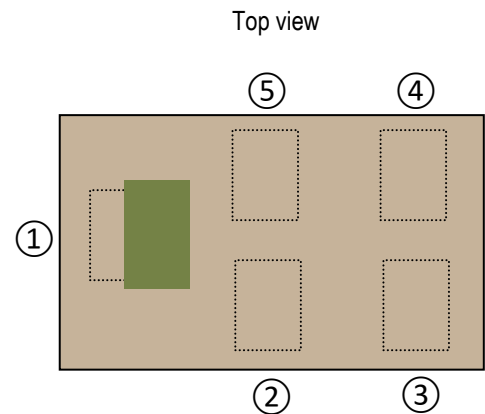
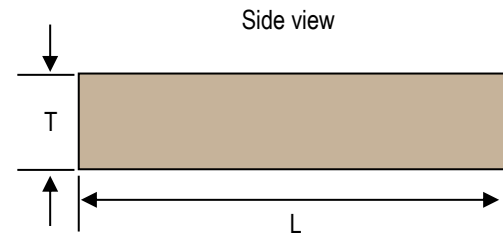
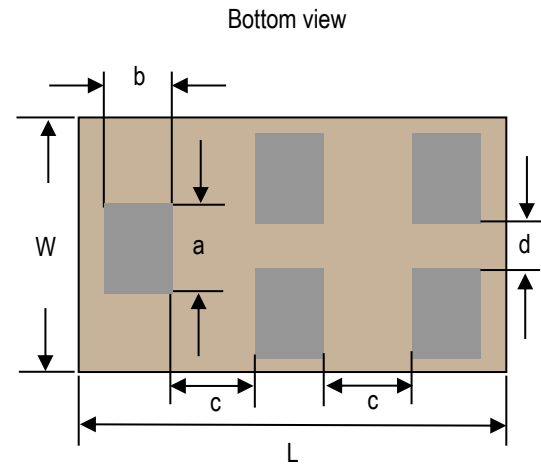
Insertion Loss (dB)	2400 - 2500 MHz	1.25 Typ. @25°C 1.35 Typ. @85°C 1.45 Typ. @125°C	1.4 Max. @25°C 1.5 Max. @85°C 1.6 Max. @125°C
Return Loss (dB)	2400 - 2500 MHz	12 Min.	
Attenuation (dB)	50 - 960 MHz	20 Min.	
	1560 - 1606 MHz	30 Min.	
	1710 - 1990 MHz	15 Min.	
	3200 - 3600 MHz	25 Min.	
	4800 - 5000 MHz	35 Min.	
	5150 - 7125 MHz	30 Min.	
	7200 - 7500 MHz	25 Min.	

Maximum Ratings

Power Capacity (W)	1 Max. (CW)
Operating Temperature (°C)	-40 to +125
Recommended Storage Conditions post-installation (°C)	-40 to +125
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH +5 to +35 °C 18 Months Max.

¹ General specifications measured on Johanson's evaluation board P/N 2450BP08D0100001CE1.

	Inches			Millimeters		
L	0.043	±	0.004	1.10	±	0.10
W	0.035	±	0.004	0.90	±	0.10
T	0.024		Max.	0.60		Max.
a	0.010	±	0.002	0.25	±	0.05
b	0.007	±	0.002	0.18	±	0.05
c	0.008	±	0.002	0.205	±	0.05
d	0.010	±	0.002	0.25	±	0.05
e	0.003	±	0.003	0.075	±	0.08



Terminal Configuration²

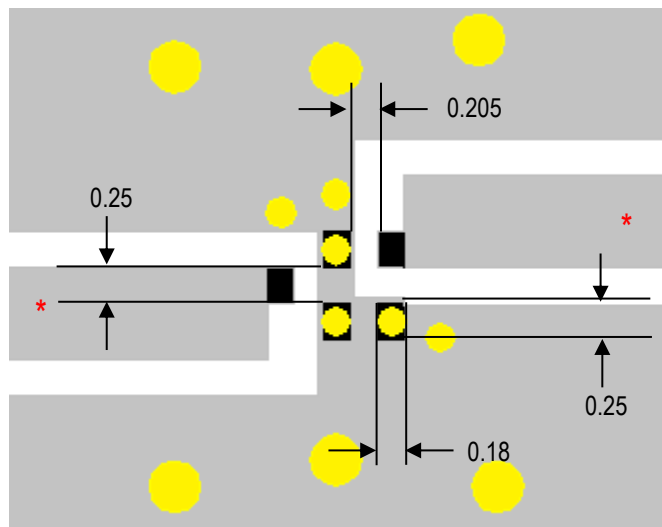
Pin Number	Function
1	INPUT / OUTPUT
2	GND
3	GND
4	INPUT / OUTPUT
5	GND

² The termination type is Nickel-Tin. Go to: <https://www.johansontechnology.com/ipcsoldering-profile> for Typical Soldering Profile.

Recommended Mounting Configuration

Note: Mount device with colored mark facing up.

P/N: 2450BP08D0100001T



Units in mm



Solder Resist



Land

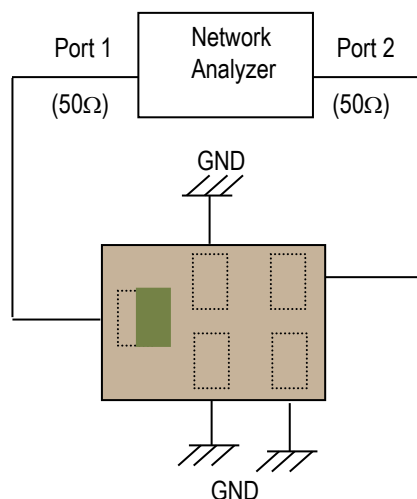


Through-hole (ϕ 0.2, 0.35)

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

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

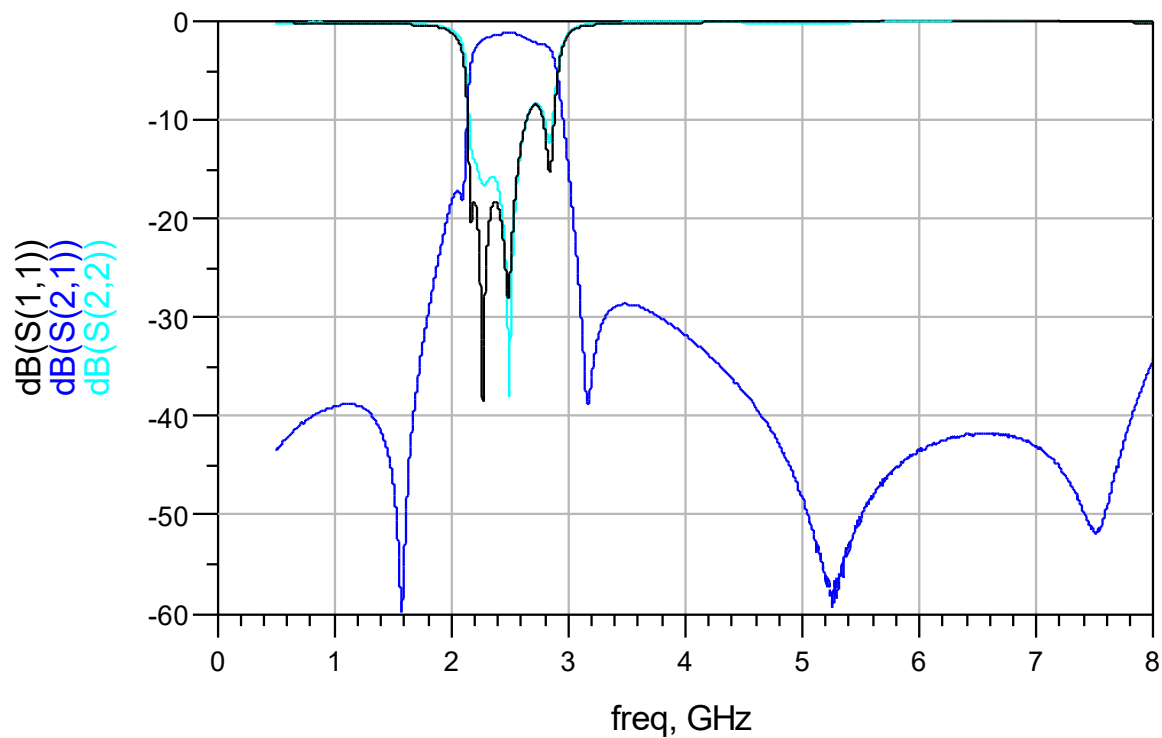
Measuring Diagram





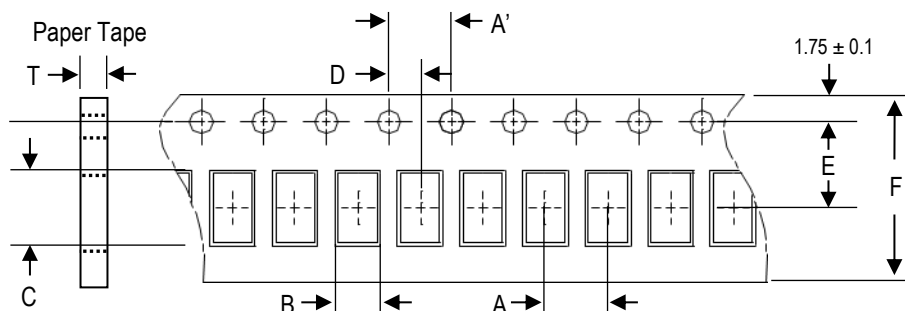
RF Measurement (T = 25°C)

Insertion Loss, Return Loss



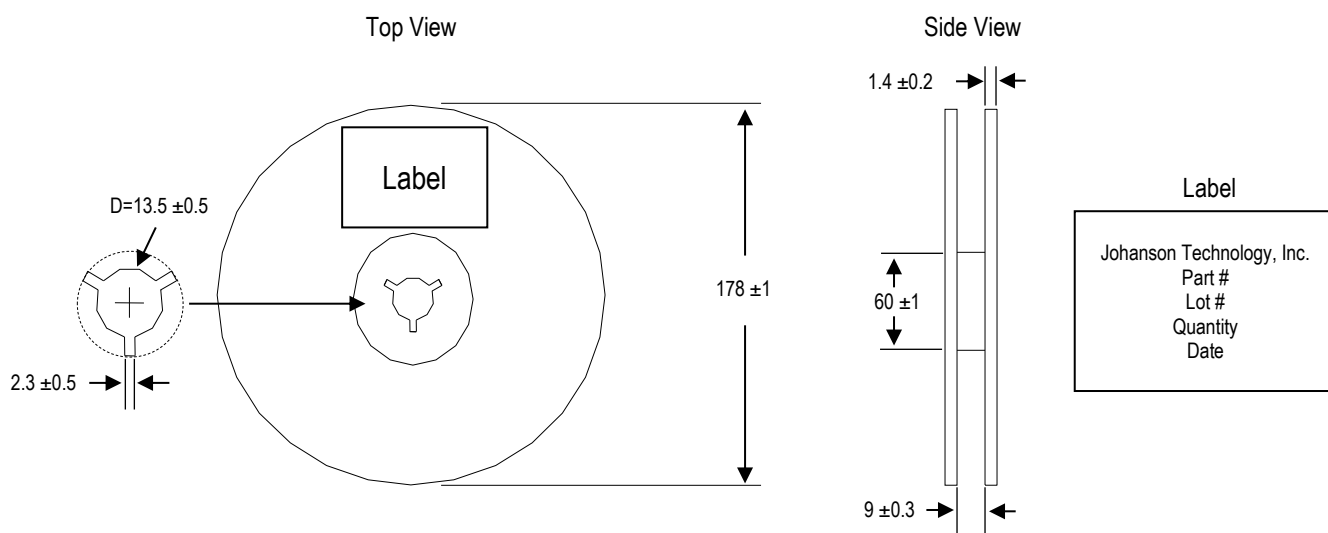
S-parameter, layout files and complimentary design review available upon request. Contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Tape Dimensions

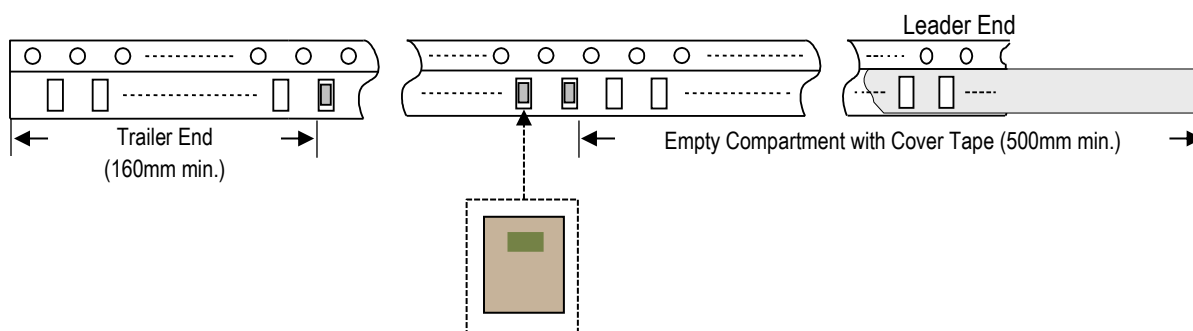


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.08 ±0.05	1.25 ±0.05	2.0 ±0.05	3.5 ±0.05	8.0 ±0.1	0.6 ±0.03	6,000 pcs.	Paper

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Numbers

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP08D0100001B	Nickel-Tin
T & R (7" Reel Paper Tape)	2450BP08D0100001T (Qty: 6,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	2450BP08D0100001CE1	

Important Links

[2450BP08D0100001T Product Page](#)

[More Band Pass Filters](#)

[Antenna Tuning, Optimization, and Validation Services](#)

[Soldering Information](#)

[MSL Information](#)

[Packaging Information](#)

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

[RoHS Compliance](#)

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