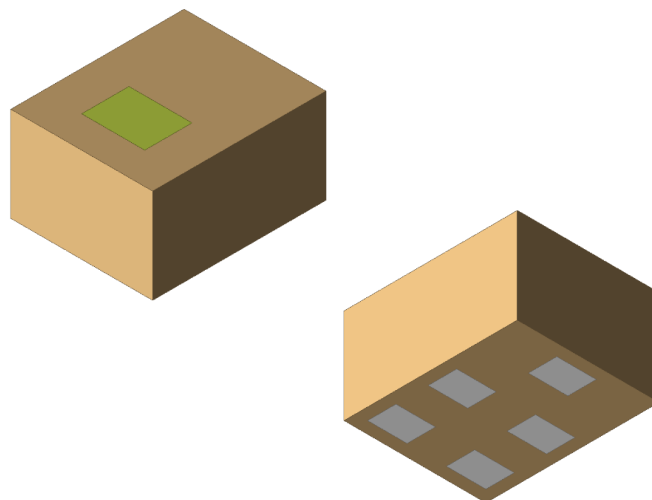




2.45 GHz Band Pass Filter, Automotive Qualified

- 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
- AEC-Q200 qualified



General Specifications¹

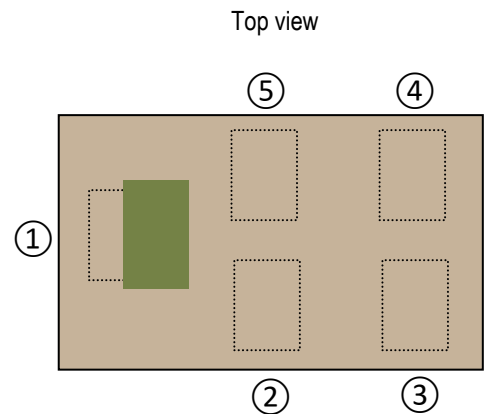
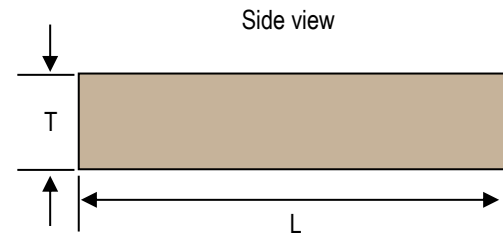
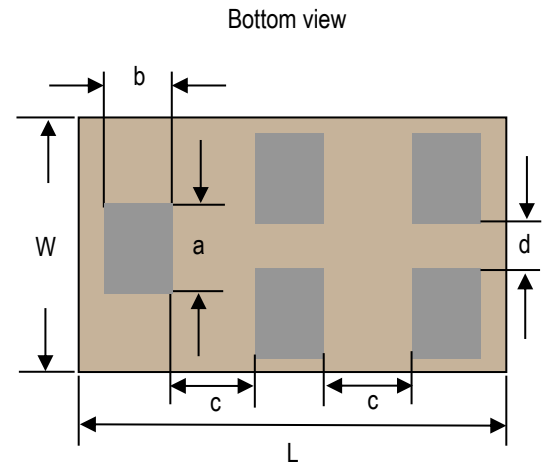
Insertion Loss (dB)	2400 - 2500 MHz	1.25 Typ.	1.4 Max.
Return Loss (dB)	2400 - 2500 MHz		12 Min.
Attenuation (dB)	50 - 960 MHz		20 Min.
	1560 - 1606 MHz		30 Min.
	1710 - 1990 MHz		15 Min.
	3200 - 3600 MHz		25 Min.
	4800 - 5000 MHz		35 Min.
	7200 - 7500 MHz		25 Min.

Maximum Ratings

Power Capacity (W)	1 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 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

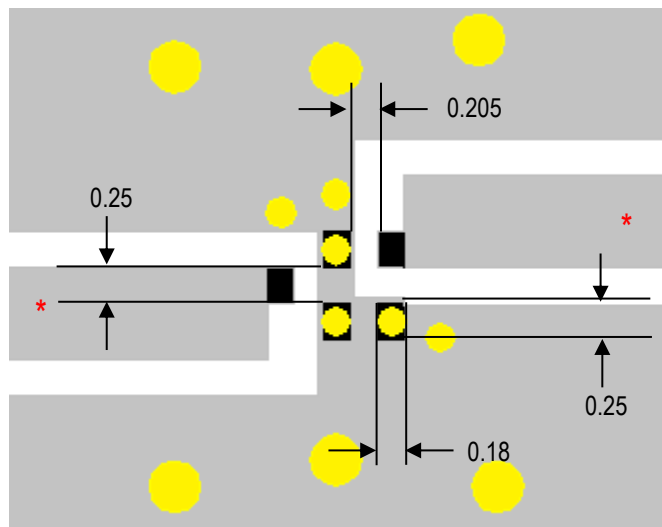
Pin Number	Function
1	INPUT / OUTPUT
2	GND
3	GND
4	INPUT / OUTPUT
5	GND

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: 2450BP08D0100002T



Units in mm



Solder Resist



Land

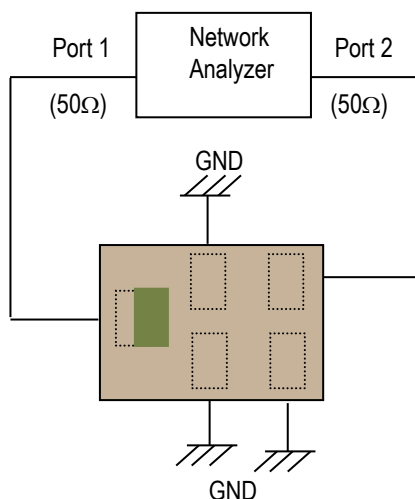


Through-hole (ϕ 0.2, 0.35)

* Transmission line width should be designed to match 50Ω 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>

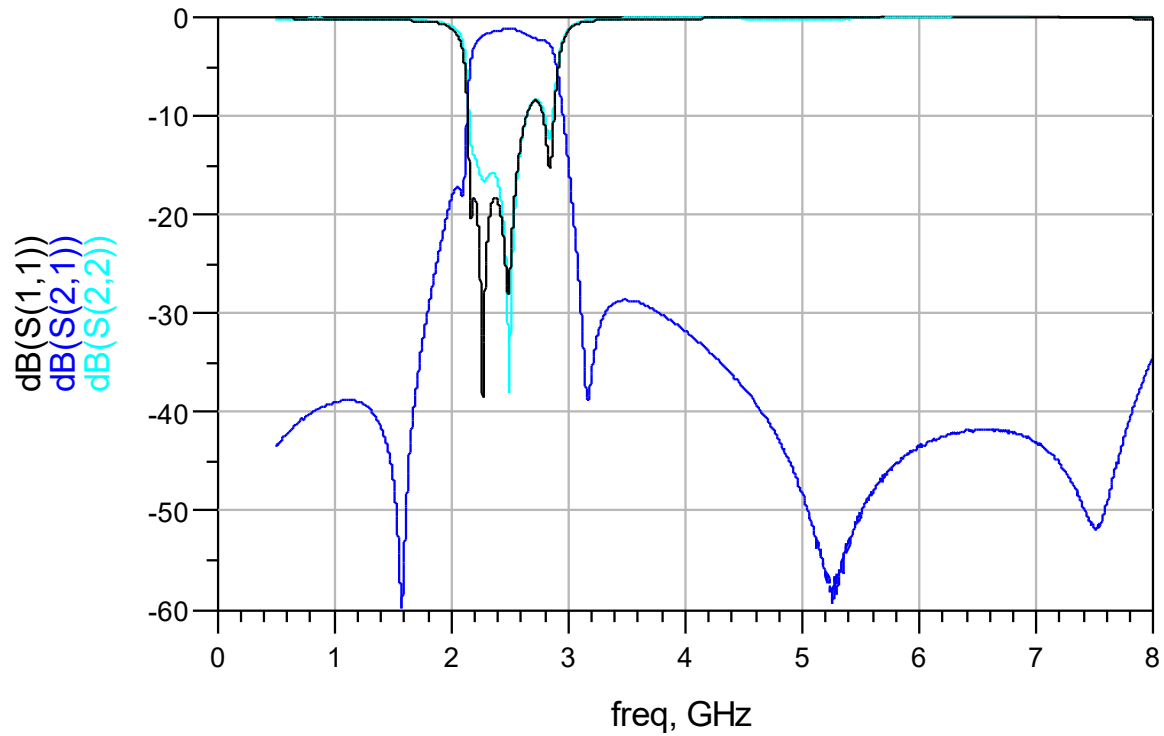
Measuring Diagram





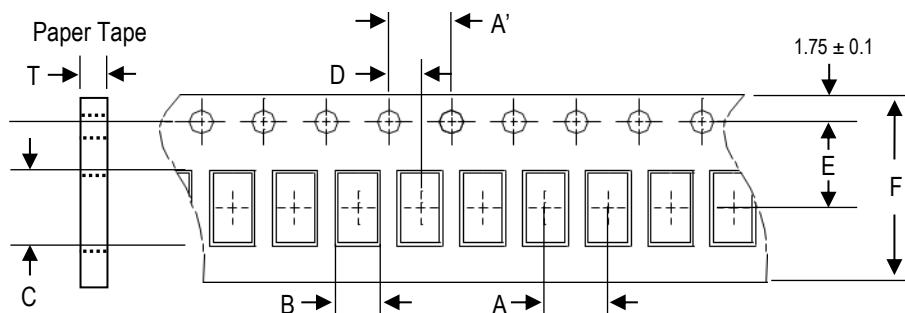
RF Measurement (T = 25°C)

Insertion Loss, Return Loss



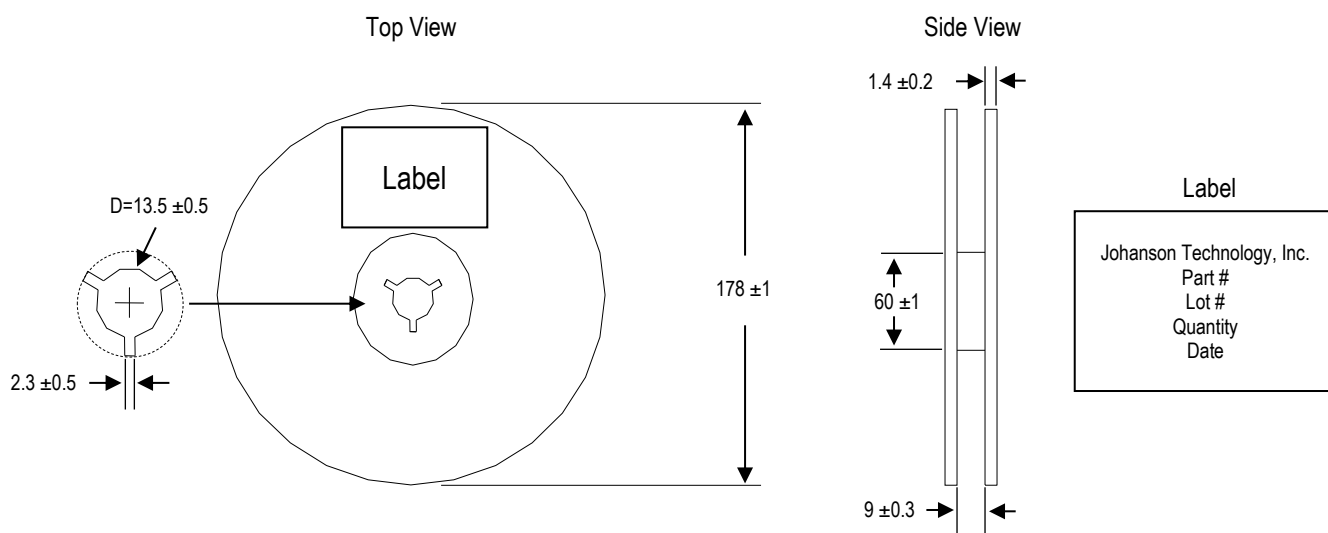
S-parameter, layout files and complimentary design review available upon request. Contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Tape Dimensions

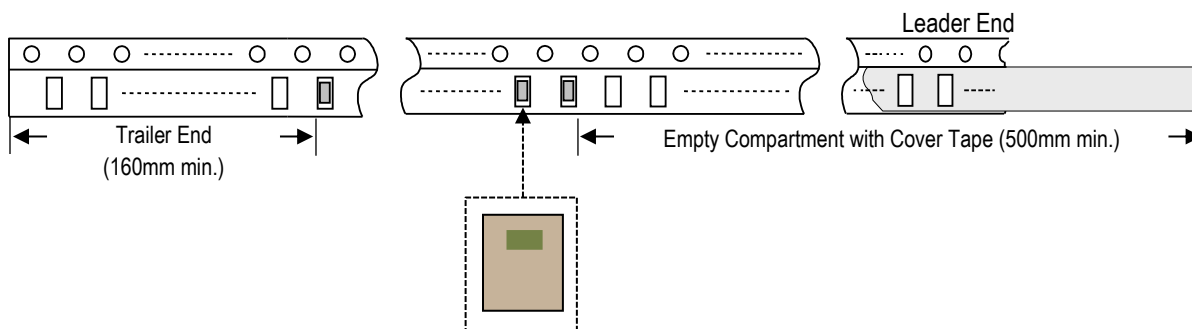


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.08 ±0.05	1.25 ±0.05	2.0 ±0.05	3.5 ±0.05	8.0 ±0.1	0.6 ±0.03	6,000 pcs.	Paper

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Numbers

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP08D0100002B	Nickel-Tin
T & R (7" Reel Paper Tape)	2450BP08D0100002T (Qty: 6,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	2450BP08D0100001CE1	

Important Links

[2450BP08D0100002T 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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