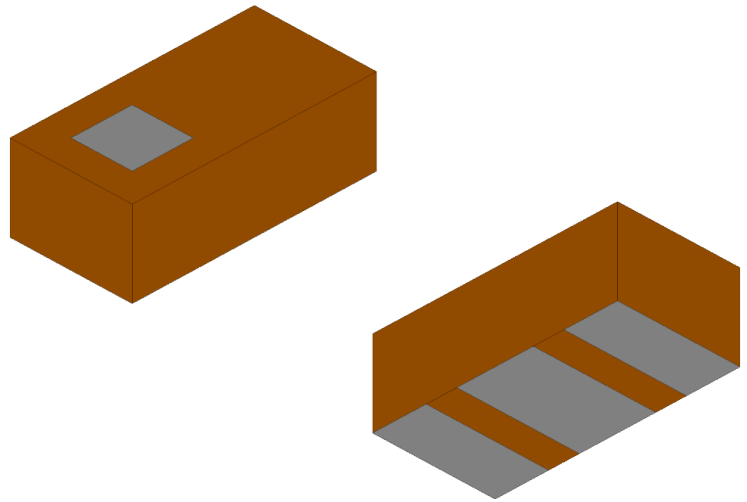




2.45 GHz Band Pass Filter

- 2400 - 2500 MHz passband
- Great for wireless communication systems: Bluetooth, Zigbee, WLAN, WiFi, etc.
- High out-of-band rejection
- SMD, EIA 0603
- LGA bottom-only pads (reduced footprint)
- RoHS complaint



General Specifications^{1 2}

Insertion Loss (dB)	2400 - 2500 MHz	2.5 Typ.	2.8 Max.
Return Loss (dB)	2400 - 2500 MHz		10 Min.
Attenuation (dB)	880 - 915 MHz		40 Min.
	1710 - 1850 MHz		40 Min.
	1850 - 1910 MHz		40 Min.
	1920 - 1990 MHz		40 Min.
	2110 - 2170 MHz		25 Min.
	4800 - 5000 MHz		30 Min.
	7200 - 7500 MHz		20 Min.

Maximum Ratings

Power Capacity (W)	1 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH +5 to +35 °C 18 Months Max.

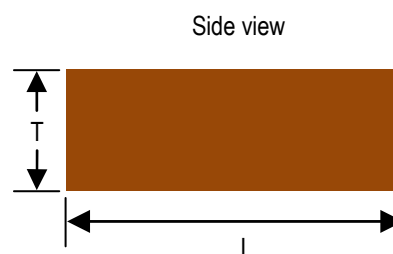
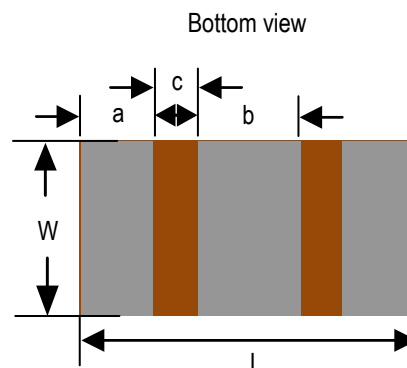
¹ Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.

² General specifications measured on Johanson's evaluation board P/N 2450BP14M0100001CE1.



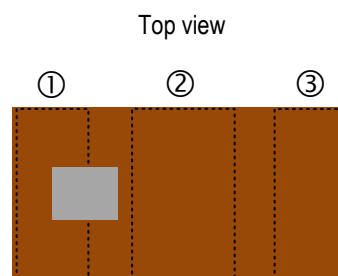
Mechanical Dimensions

	Inches			Millimeters		
L	0.063	±	0.006	1.60	±	0.15
W	0.031	±	0.006	0.80	±	0.15
T	0.024		Max.	0.60		Max.
a	0.014	±	0.004	0.35	±	0.10
b	0.020	±	0.004	0.50	±	0.10
c	0.008	±	0.002	0.20	±	0.05



Terminal Configuration³

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

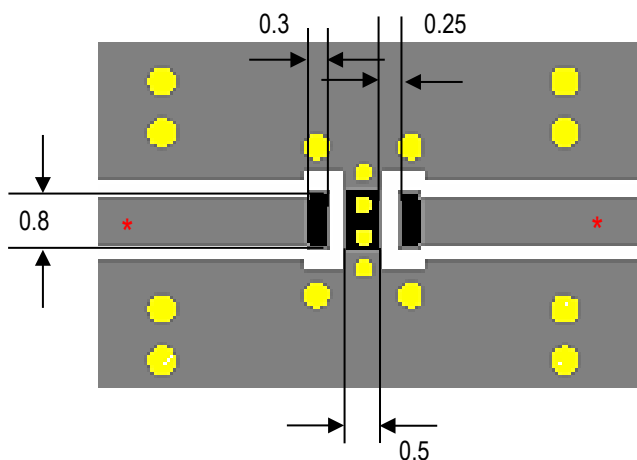


³ The termination type is Nickel-Tin. Go to <https://www.johansontechnology.com/tech-notes/silver-leaded-components-soldering-profile> for Typical Soldering Profile.



Recommended PCB Layout

Note: Mount device with colored mark facing up.



Units in mm

Solder Resist

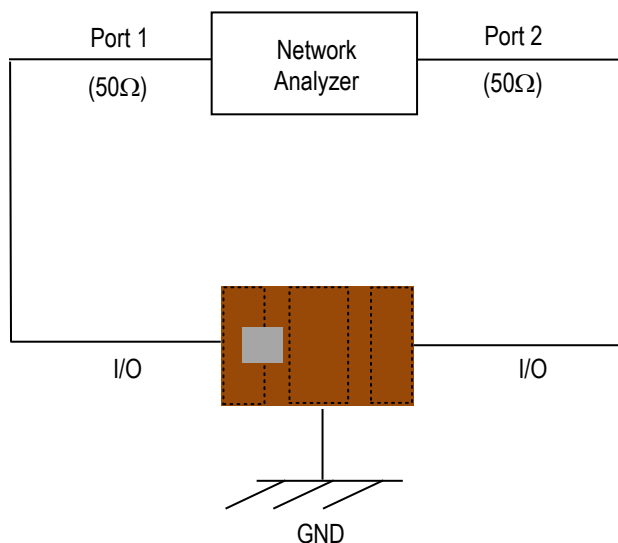
Land

Through-hole ($\phi 0.2$)

* 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>

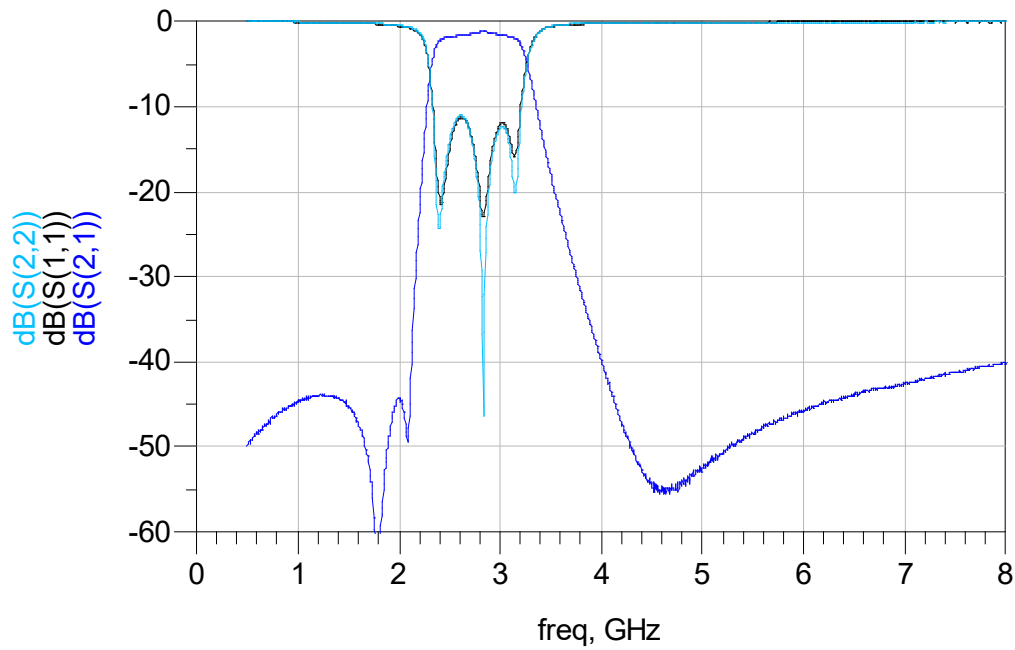
Measuring Diagram





RF Measurement (T = 25°C)

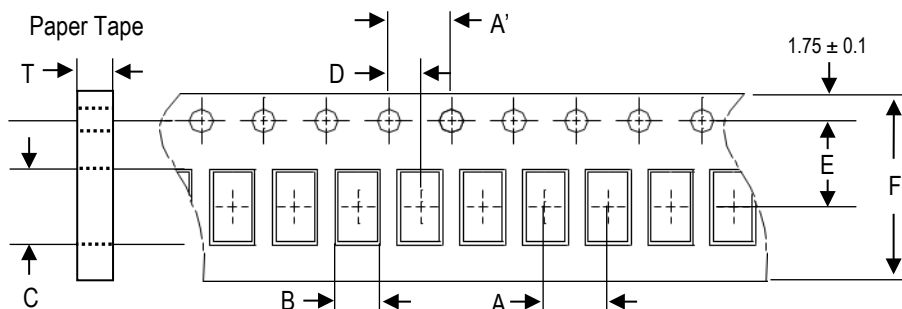
Insertion Loss, Return Loss and Attenuation



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

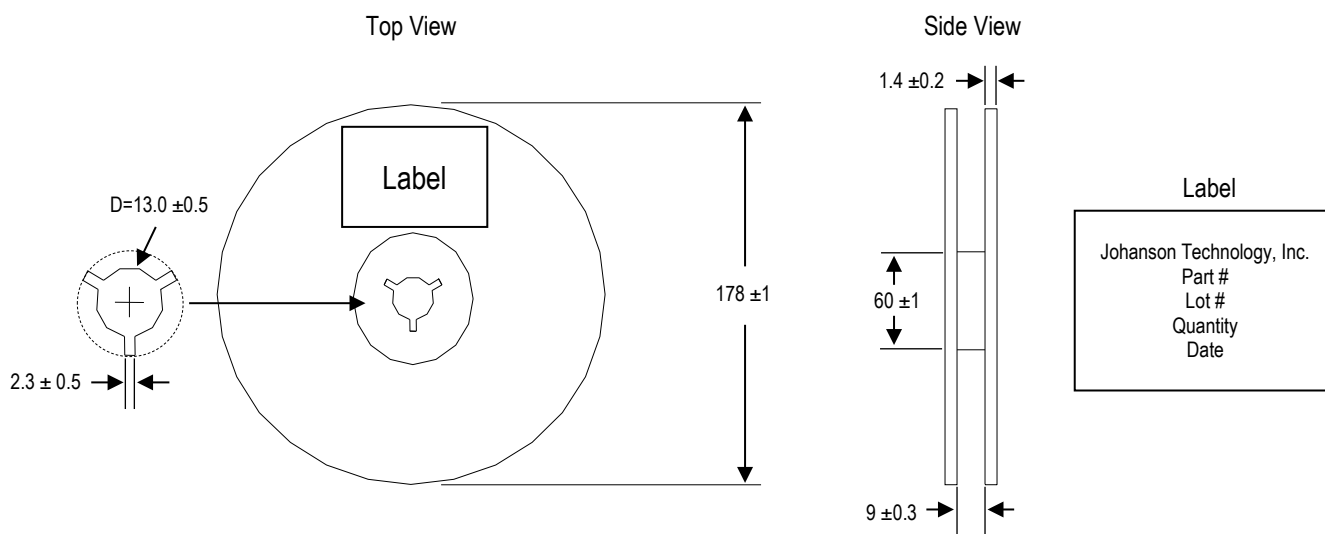
Tape and Reel Specification (Units in mm)

Tape Dimensions

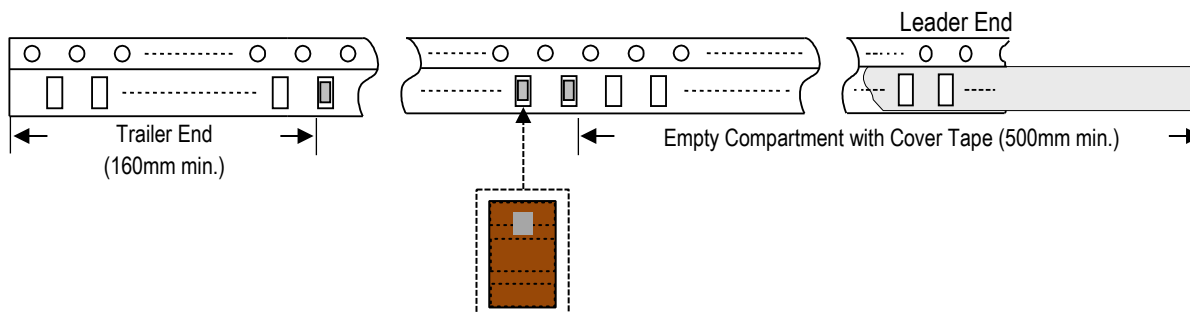


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.02 ±0.05	1.84 ±0.05	2.0 ±0.05	3.5 ±0.05	8.0 ±0.1	0.75 ±0.05	4,000 pcs.	Paper

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP14M0100001B	Nickel-Tin
T & R (7" Reel Paper Tape)	2450BP14M0100001T (Qty: 4,000 pcs./reel)	
Evaluation Board with 2 SMA Connectors	2450BP14M0100001CE1	

Important Links

[2450BP14M0100001T 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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