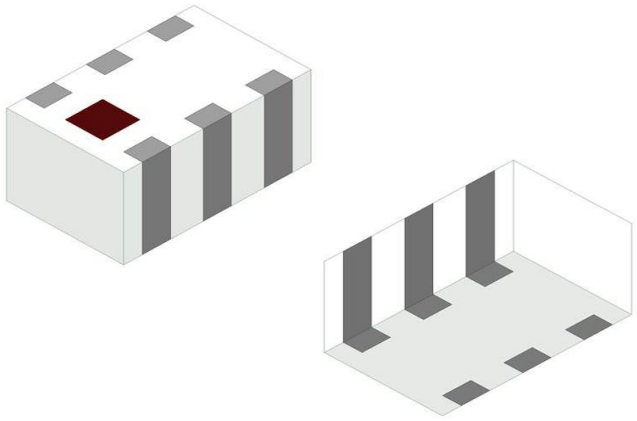
2.45 GHz Low Pass Filter

- 2.4 - 2.5 GHz passband
- Optimal for Bluetooth, WiFi, Zigbee, ANT+, Channel Sounding, ISM, MIMO, PDoA, AoA, LoRa, Thread
- Low insertion loss
- SMD, EIA 0603
- RoHS compliant



General Specifications[1] [2]

Insertion Loss (dB)	2400 - 2500 MHz		0.5 Max.
Return Loss (dB)	2400 - 2500 MHz	14 Min.	
Attenuation (dB)	4800 - 5000 MHz	25 Min.	
	7200 - 7500 MHz	18 Min.	

Maximum Ratings

Power Capacity (W)	2 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 PN 2450LP14A0100001CE1.

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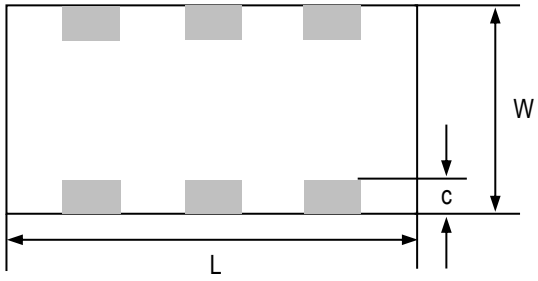
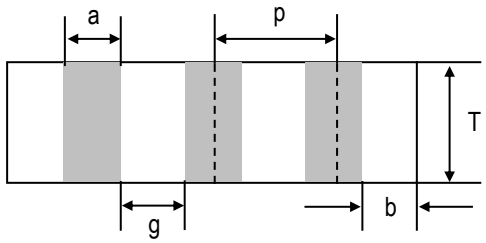
Mechanical Dimensions

	Inches			Millimeters		
L	0.063	±	0.004	1.60	±	0.10
W	0.031	±	0.004	0.80	±	0.10
T	0.024	±	0.004	0.60	±	0.10
a	0.008	±	0.004	0.20	±	0.10
b	0.008	+0.004/-0.006		0.20	+0.10/-0.15	
c	0.006	±	0.004	0.15	±	0.10
g	0.012	±	0.004	0.30	±	0.10
p	0.020	±	0.002	0.50	±	0.05

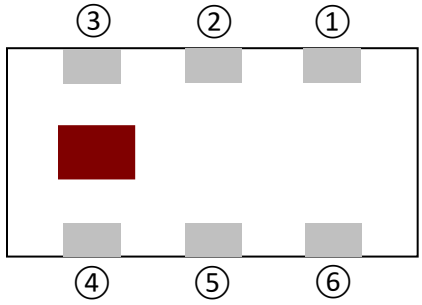
Bottom view



Side view



Top view



Terminal Configuration[3]

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

[3] The termination type is Nickel Tin. Go to: https://www.johansontechnology.com/ipcsoldering-profile for Typical Soldering Profile.

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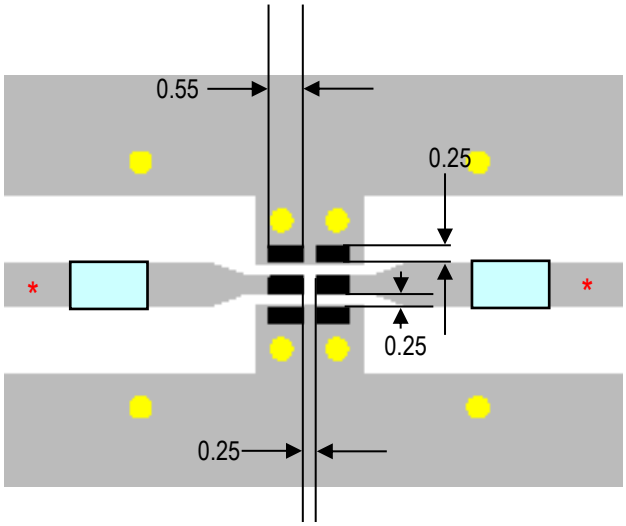
Recommended PCB Layout

Note: Mount device with colored mark facing up.



Units in mm

Solder Resist

Land

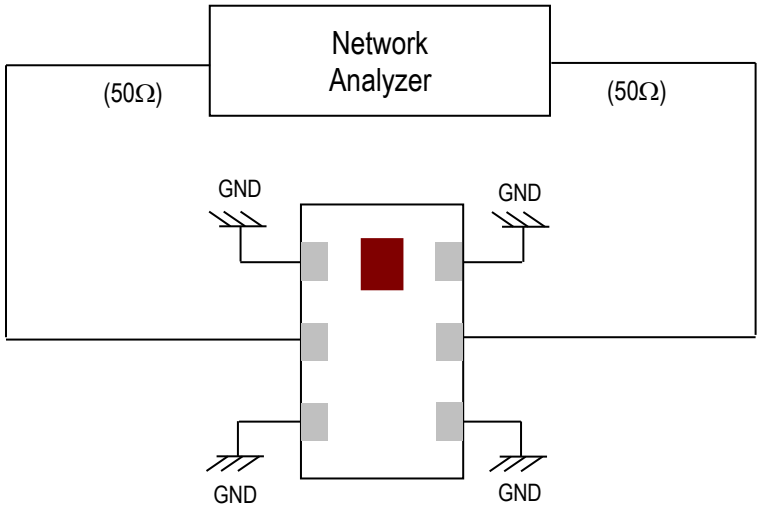
Through-hole (ϕ0.35)

DC Blocking Capacitor (connected in series at each In/Out Port)

* 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



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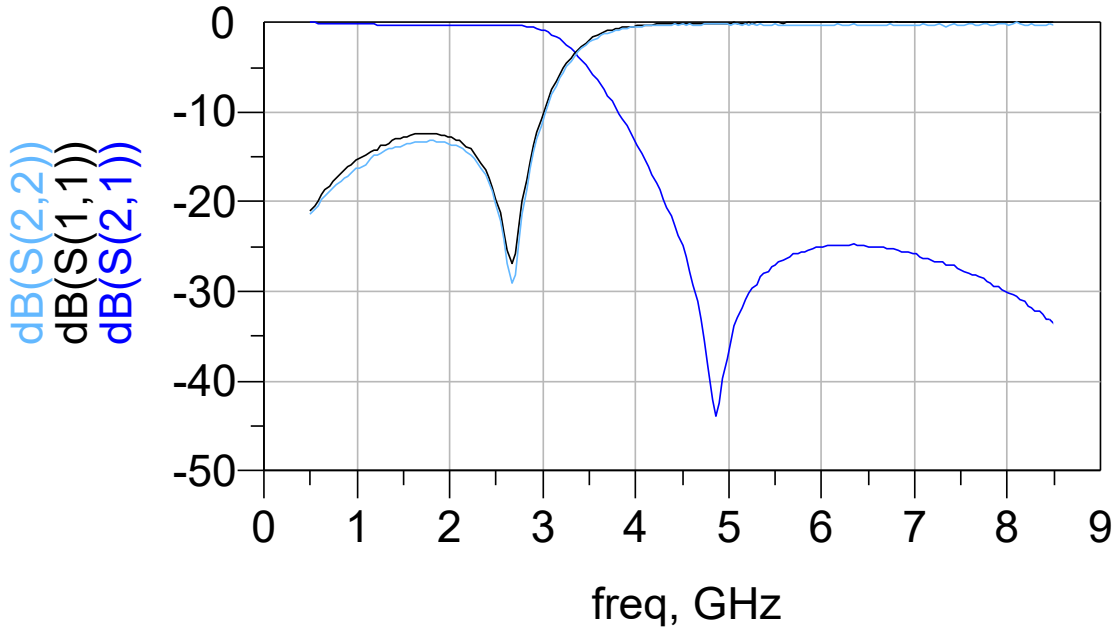
RF Measurement (T = 25°C)

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

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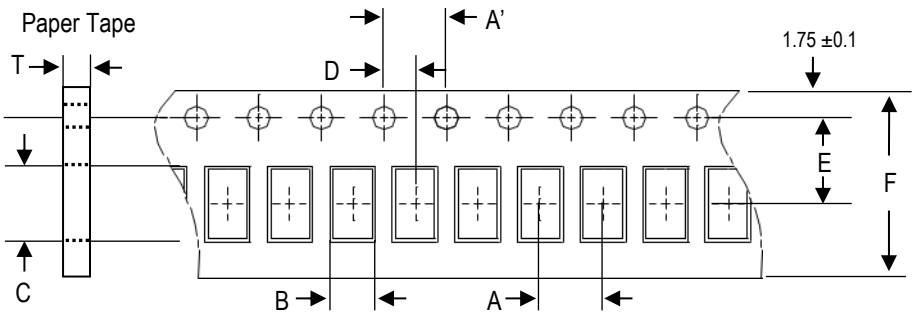
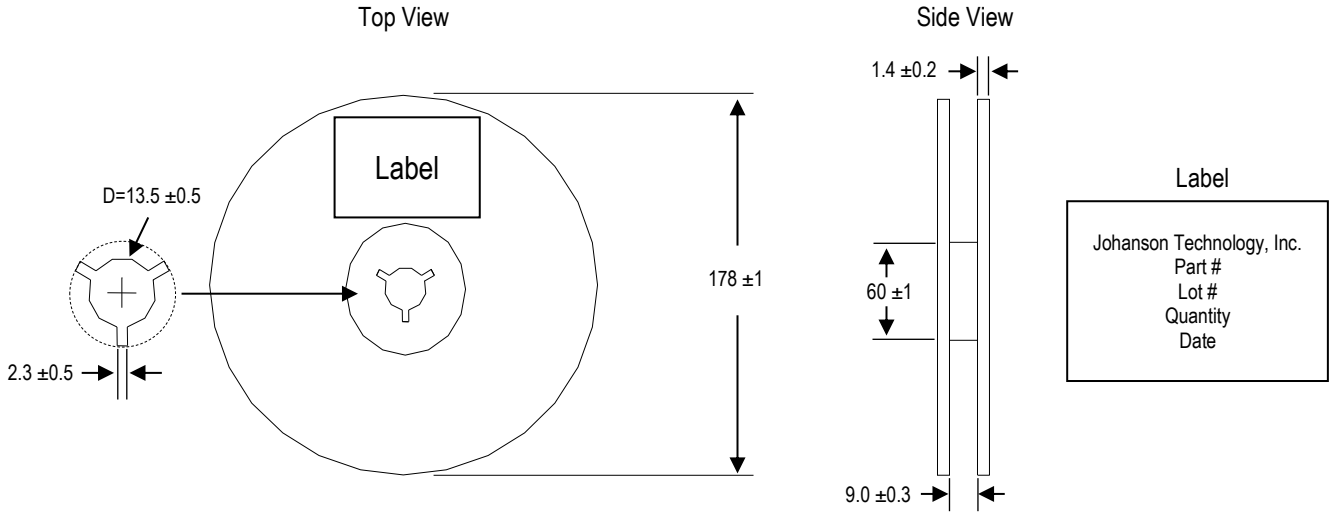
Tape and Reel Specifications (Units in mm)

Tape Dimensions

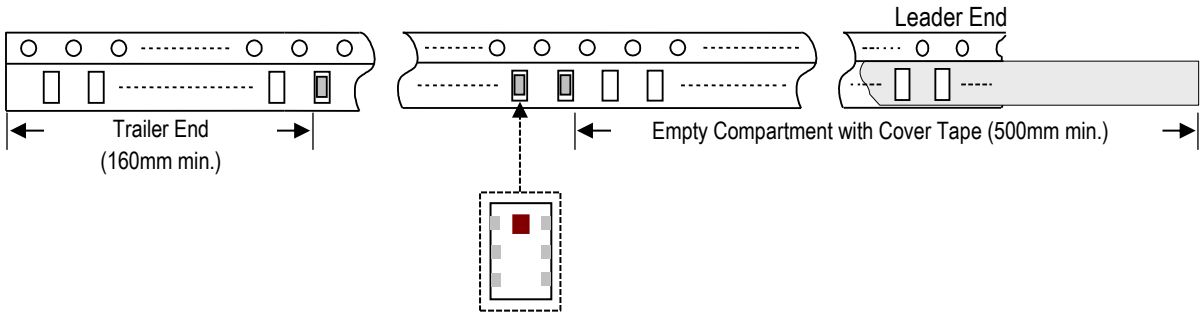


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.1 ±0.1	1.92 ±0.1	2.0 ±0.1	3.5 ±0.1	8.0 ±0.1	0.75 ±0.05	4,000 pcs.	Paper

Reel Dimensions



Leader and Trailer Dimensions



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Orderable Part Numbers

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450LP14A0100001B	Nickel Tin
T & R (7" Reel Paper Tape)	2450LP14A0100001T (Qty: 4,000 pcs./reel)	
Evaluation Board with 2 SMA Connector	2450LP14A0100001CE1	

Important Links

2450LP14A0100001T Product Page

More Low 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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