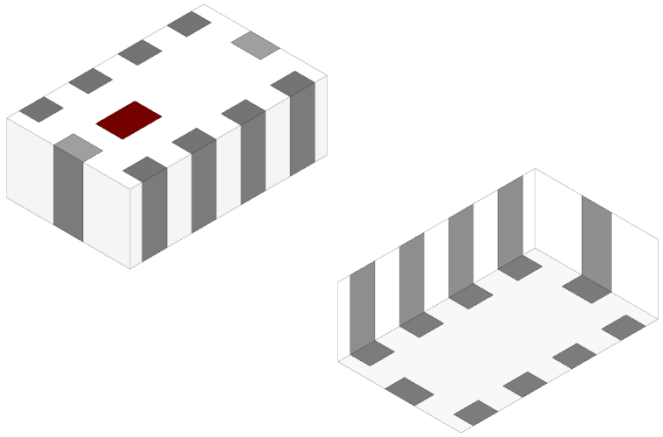
400 MHz Low Pass Filter

- 312 - 434 MHz passband
- For Lightning, Remote Control, Smart Home, Automotive Key Fobs, Location Services, AMR
- SMD, EIA 0805
- RoHS complaint
- AEQ-Q200 Qualified available



General Specifications[1] [2]

Insertion Loss (dB)	312 - 434 MHz	0.9 Typ.		1.3 Max.
Return Loss (dB)	312 - 434 MHz	15 Typ.	9.5 Min.	
Attenuation (dB)	624 - 630 MHz	28 Typ.	20 Min.	
	800 - 900 MHz	30 Typ.	25 Min.	
	900 - 950 MHz	35 Typ.	30 Min.	
	1575 MHz	38 Typ.	35 Min.	
	1700 - 2100 MHz	34 Typ.	28 Min.	
	2195 - 2205 MHz	38 Typ.	35 Min.	
	2400 - 2600 MHz	30 Typ.	25 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% - 60% RH +5 to +35 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 0400LP15A0122001CE1.

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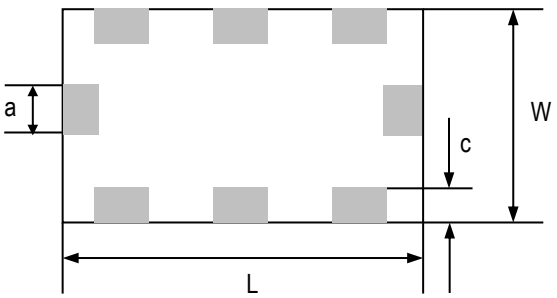
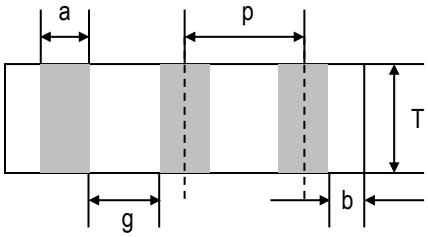
Mechanical Dimensions

	Inches			Millimeters		
L	0.079	±	0.004	2.00	±	0.10
W	0.049	±	0.004	1.25	±	0.10
T	0.037	±	0.004	0.95	±	0.10
a	0.012	±	0.004	0.30	±	0.10
b	0.008	±	0.004	0.20	±	0.10
c	0.012	+.004/-.008		0.30	+.10/-.20	
g	0.014	±	0.004	0.35	±	0.10
p	0.026	±	0.002	0.65	±	0.05

Bottom view



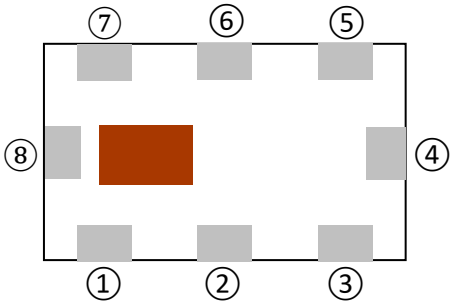
Side view



Terminal Configuration[3]

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

Top view



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

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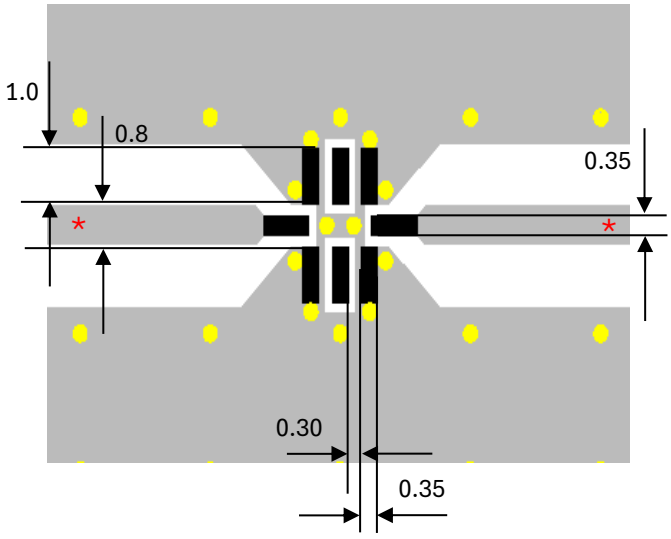
Recommended PCB Layout

Note: Mount device with colored mark facing up.



Units in mm

Solder Resist

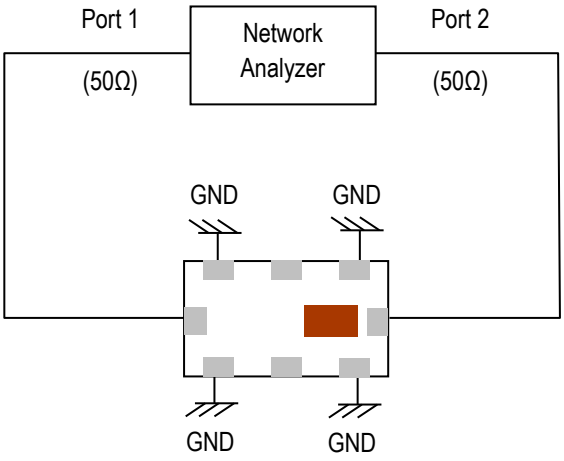
Land

Through-hole (ϕ 0.30)

* 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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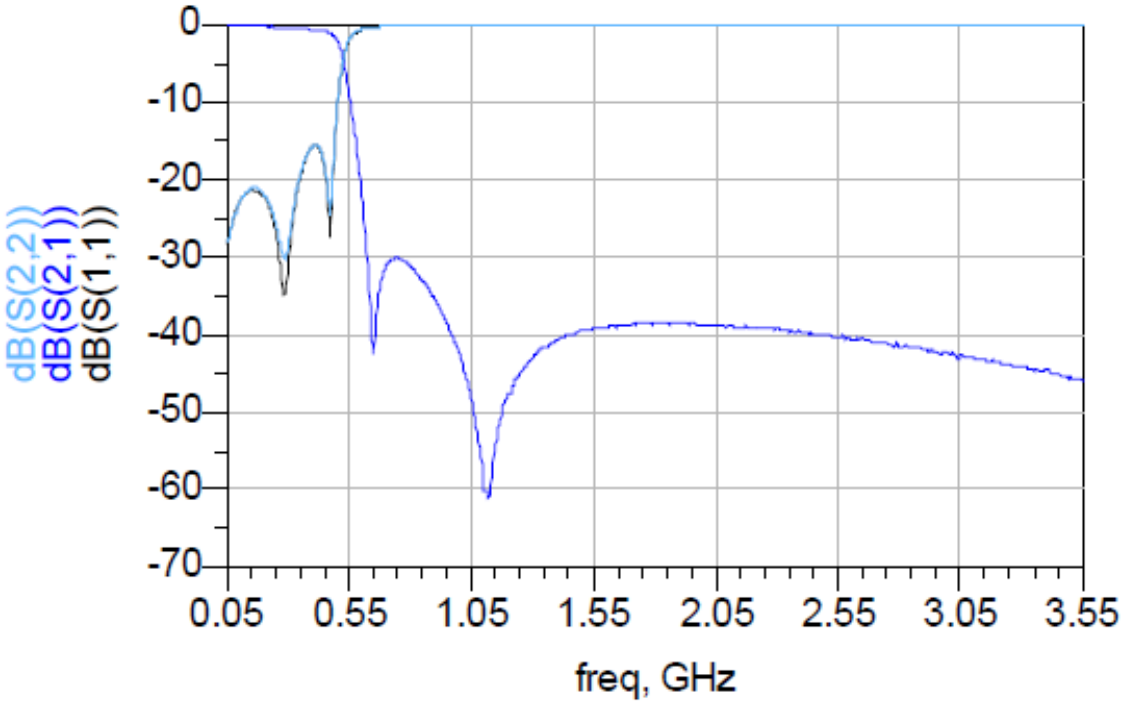
RF Measurement (T = 25°C)

Insertion Loss, Return Loss, Attenuation



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

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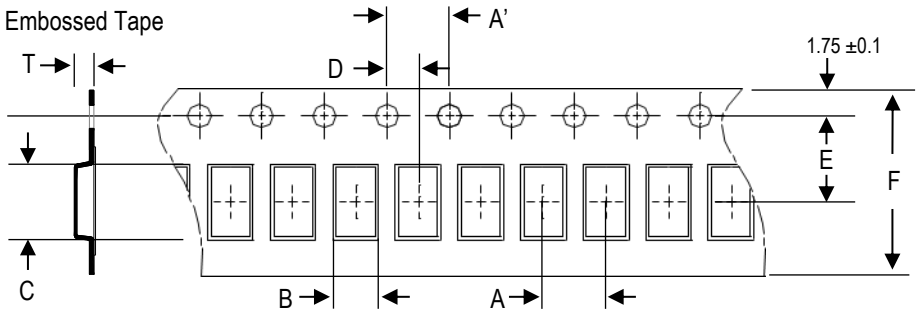
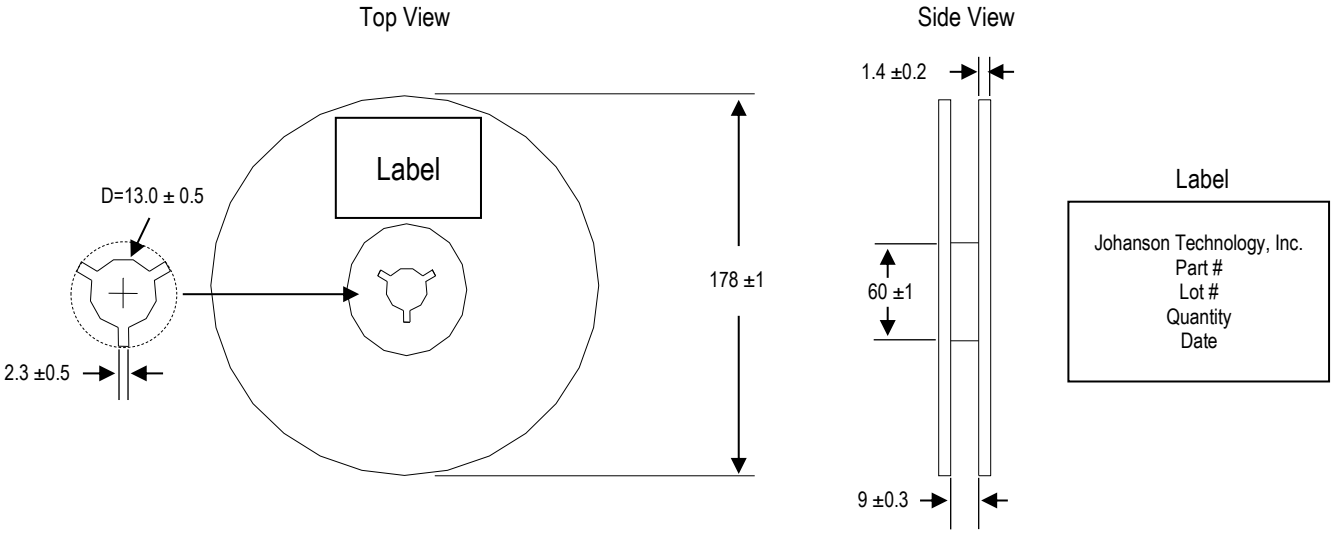
Tape and Reel Specification (Units in mm)

Tape Dimensions

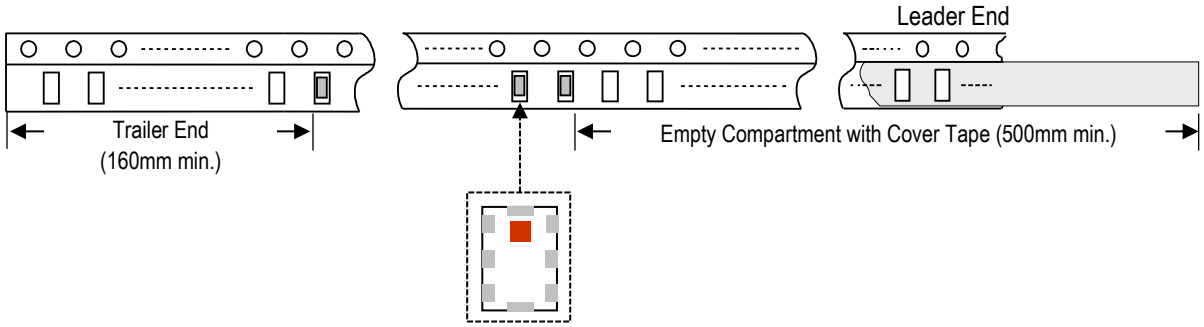


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.35 ±0.05	2.15 ±0.05	2.0 ±0.05	3.5 ±0.1	8.0 ±0.1	1.08 ±0.05	4,000pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



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Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	0400LP15A0122001B	Nickel Tin
T & R (7" Reel Embossed Tape)	0400LP15A0122001E (Qty: 4,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	0400LP15A0122001CE1	

Important Links

0400LP15A0122001E 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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