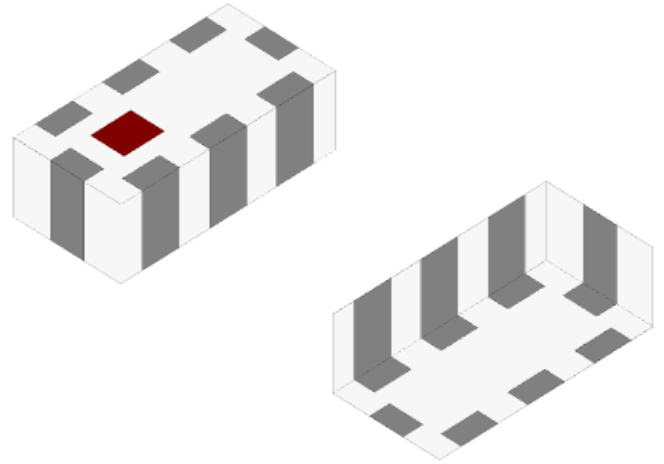


1 GHz Low Pass Filter

- 5 - 1002 MHz passband, 75Ω Impedance
- Fit for wireless communication systems
- Low insertion loss, High rejection
- SMD, EIA 1210 (3.2 x 2.5 x 1.5mm)
- RoHS Compliant



General Specifications^{1 2}

Impedance (Ohms)	5 - 1002 MHz	75	
Insertion Loss (dB)	5 - 1002 MHz	2.4 Typ.	2.6 Max.
Return Loss (dB)	5 - 1002 MHz	10.1 Min.	
Attenuation (dB)	1125 – 1675 MHz	28 Min.	

Maximum Ratings

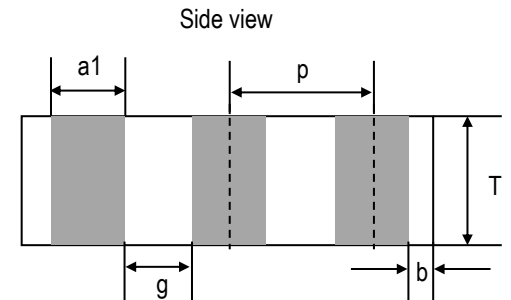
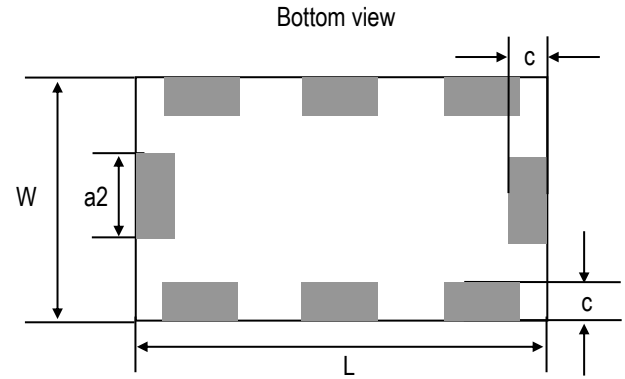
Power Capacity (W)	3 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH +5 to +35 °C 18 Months Max.

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 1000LP41B1000001CE1.

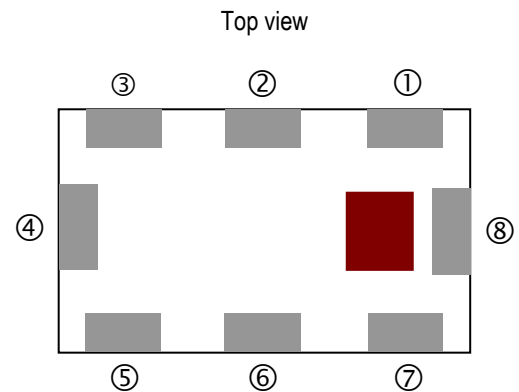
Mechanical Dimensions

	Inches			Millimeters		
L	0.126	±	0.008	3.20	±	0.20
W	0.098	±	0.008	2.50	±	0.20
T	0.059	±	0.006	1.50	±	0.15
a1	0.022	±	0.006	0.55	±	0.15
a2	0.028	±	0.008	0.70	±	0.20
b	0.039 Min.			0.10 Min.		
c	0.012	±	0.008	0.30	±	0.20
g	0.018	±	0.006	0.45	±	0.15
p	0.039	±	0.008	1.00	±	0.20



Terminal Configuration³

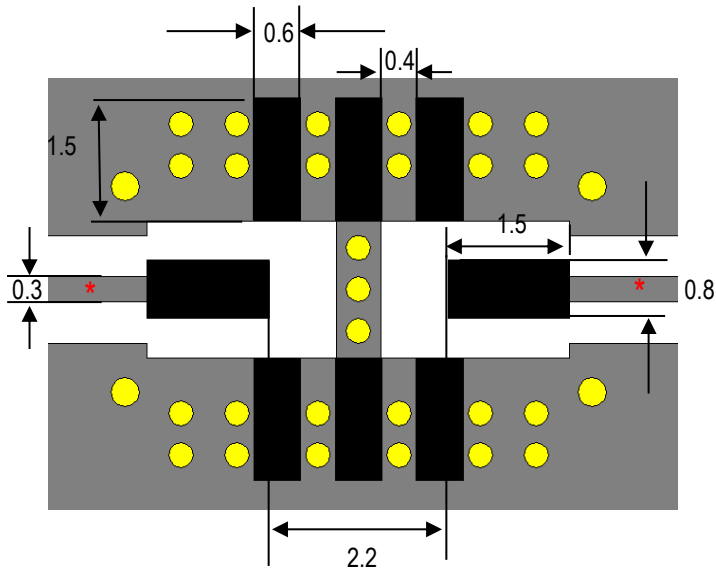
Pin Number	Function
1	GND
2	GND
3	GND
4	INPUT / OUTPUT
5	GND
6	GND
7	GND
8	INPUT / OUTPUT






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

Recommended PCB Configuration

Note: Mount device with colored mark facing up.



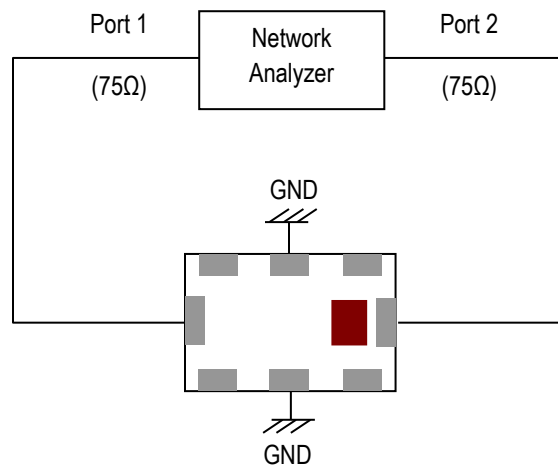
Units in mm

-  Solder Resist
-  Land
-  Through-hole ($\phi 0.3/\phi 0.355$)

* Transmission line width should be designed to match 75Ω characteristic impedance, depending on PCB material and thickness.

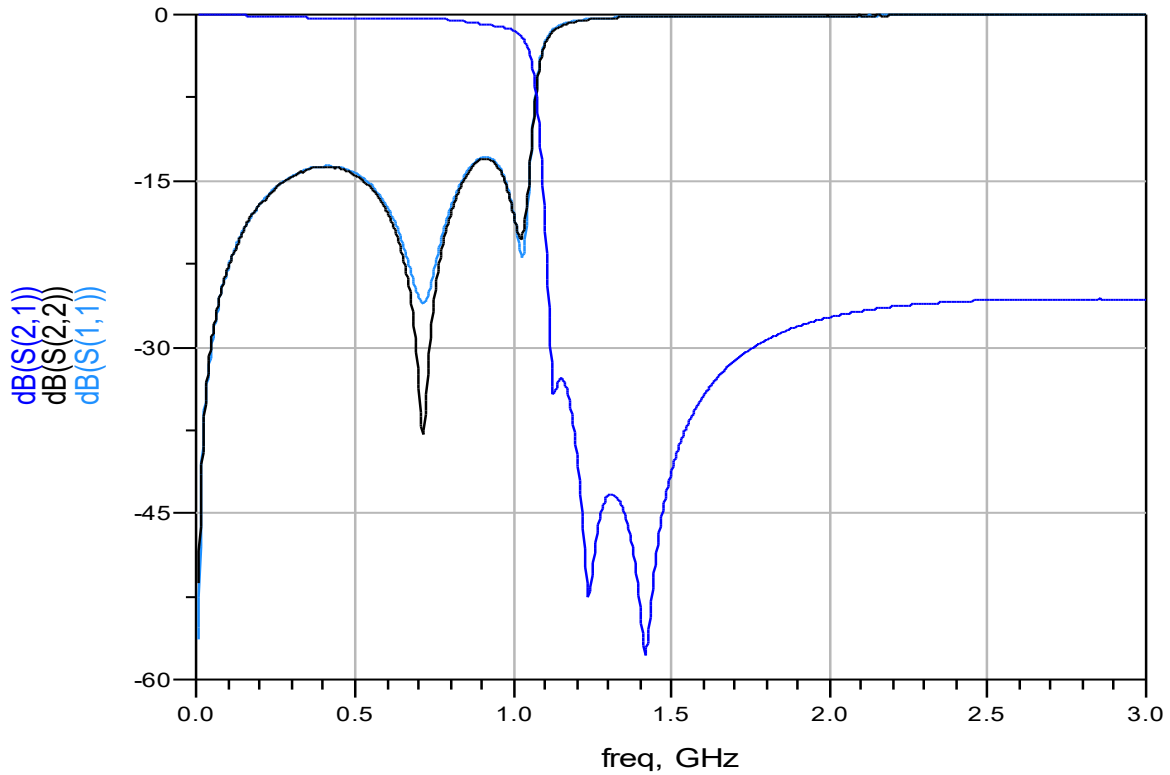
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram



RF Measurement (T = 25°C)

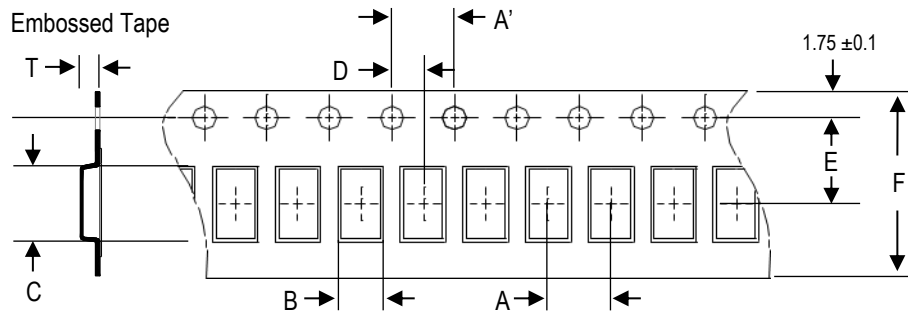
Insertion Loss, Return Loss



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

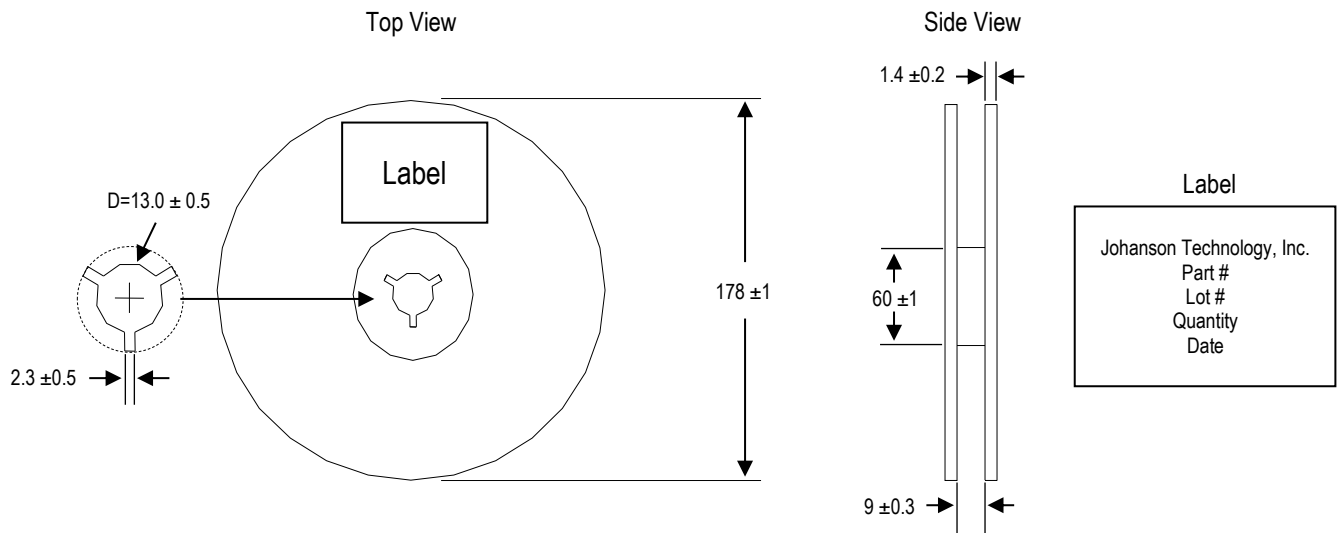
Tape and Reel Specification (Units in mm)

Tape Dimensions

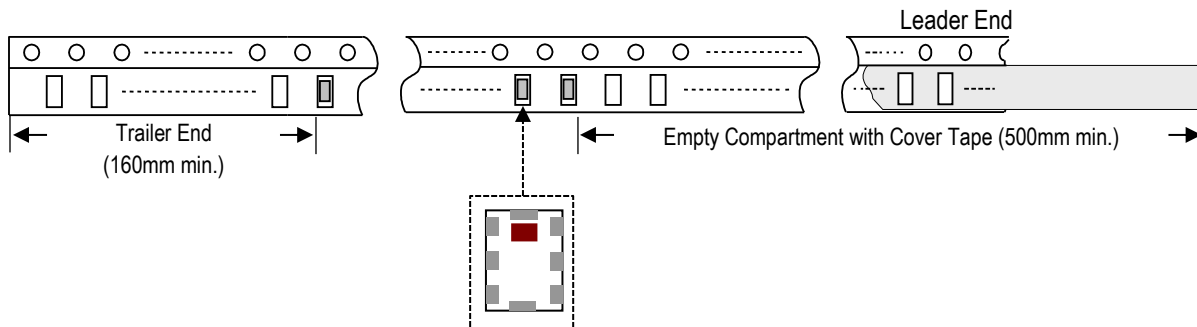


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	2.75 ±0.1	3.45 ±0.1	2.0 ±0.1	3.5 ±0.1	8.0 ±0.1	1.7 ±0.1	2,000pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Numbers

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	1000LP41B1000001B	Nickel Tin
T & R (7" Reel Embossed Tape)	1000LP41B1000001E (Qty: 2,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	1000LP41B1000001CE1	

Important Links

[1000LP41B1000001E 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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