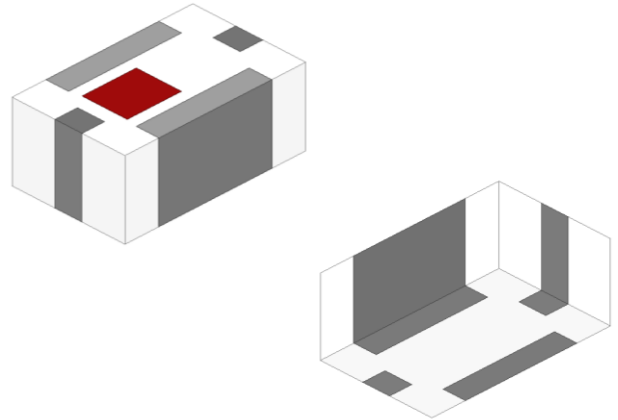


## 5.5 GHz Band Pass Filter

- 4900 - 5920 MHz passband
- Fit for wireless communication systems
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 0805
- RoHS compliant



### General Specifications<sup>1 2</sup>

Insertion Loss (dB)	4900 - 5920 MHz	1.5 Max.
Return Loss (dB)	4900 - 5920 MHz	9.5 Min.
Attenuation (dB)	3500 MHz	30 Min.
	9800 - 11840 MHz	25 Min.
	14700 - 17760 MHz	5 Min.

### Maximum Ratings

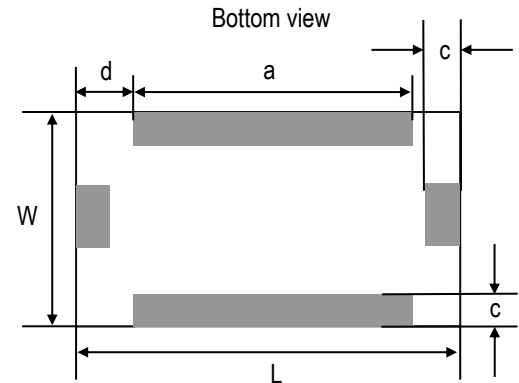
Power Capacity (W)	2 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH
	+5 to +35
	18 Months Max.

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

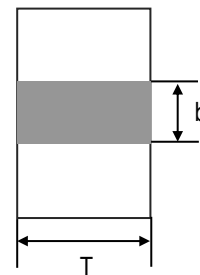
<sup>2</sup> General specifications measured on Johanson's evaluation board P/N 5515BP15B0975001CE1.

**Mechanical Dimensions**

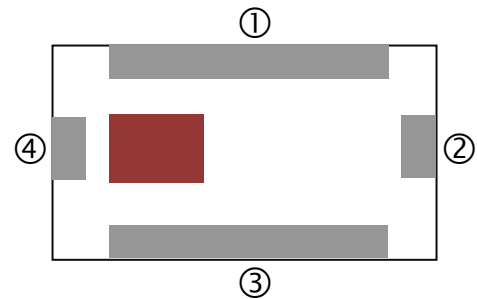
	Inches			Millimeters		
<b>L</b>	0.079	±	0.006	2.00	±	0.15
<b>W</b>	0.049	±	0.004	1.25	±	0.10
<b>T</b>	0.037	±	0.004	0.95	±	0.10
<b>a</b>	0.051	±	0.006	1.30	±	0.15
<b>b</b>	0.012	±	0.006	0.30	±	0.15
<b>c</b>	0.010	±	0.006	0.25	±	0.15
<b>d</b>	0.014	±	0.006	0.35	±	0.15



Side view



Top view



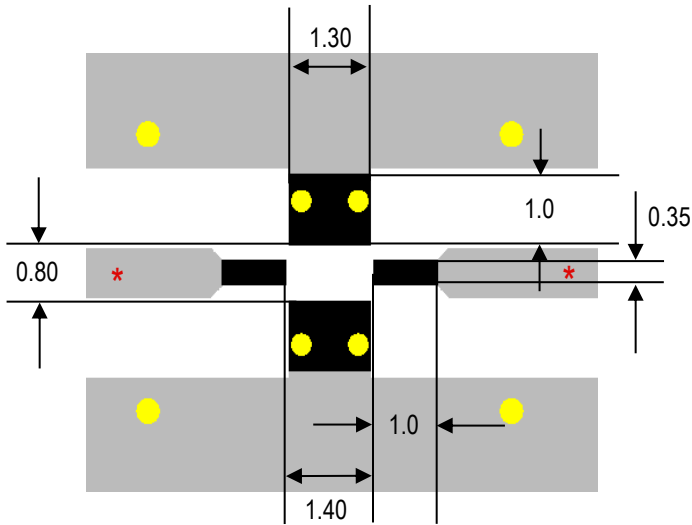
**Terminal Configuration<sup>3</sup>**

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




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

**Recommended PCB Layout**

Note: Mount device with colored mark facing up.



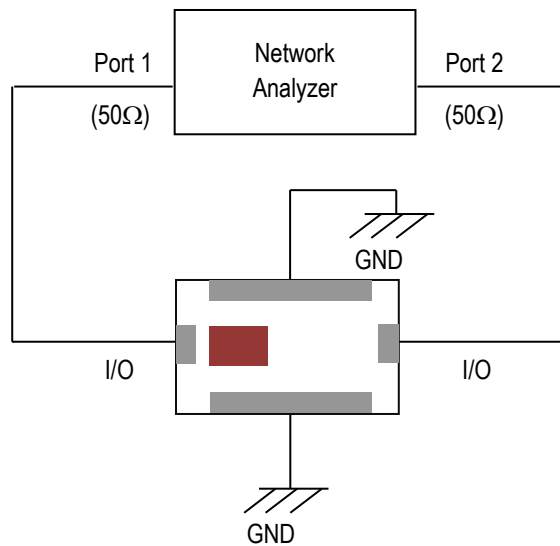
Units in mm

-  Solder Resist
-  Land
-  Through-hole ( $\phi$  0.35)

\* Transmission line width should be designed to match 50 $\Omega$  characteristic impedance, depending on PCB material and thickness.

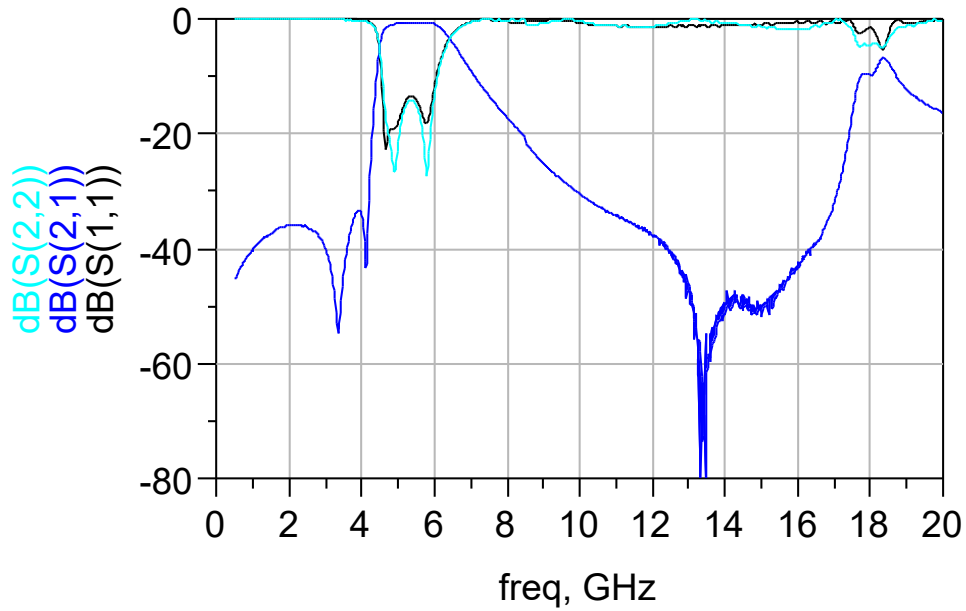
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

**Measuring Diagram**



RF Measurement (T = 25°C)

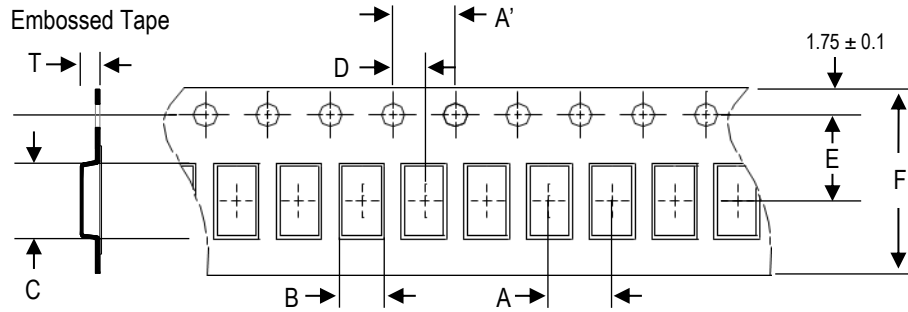
Insertion Loss, Return Loss and Attenuation



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

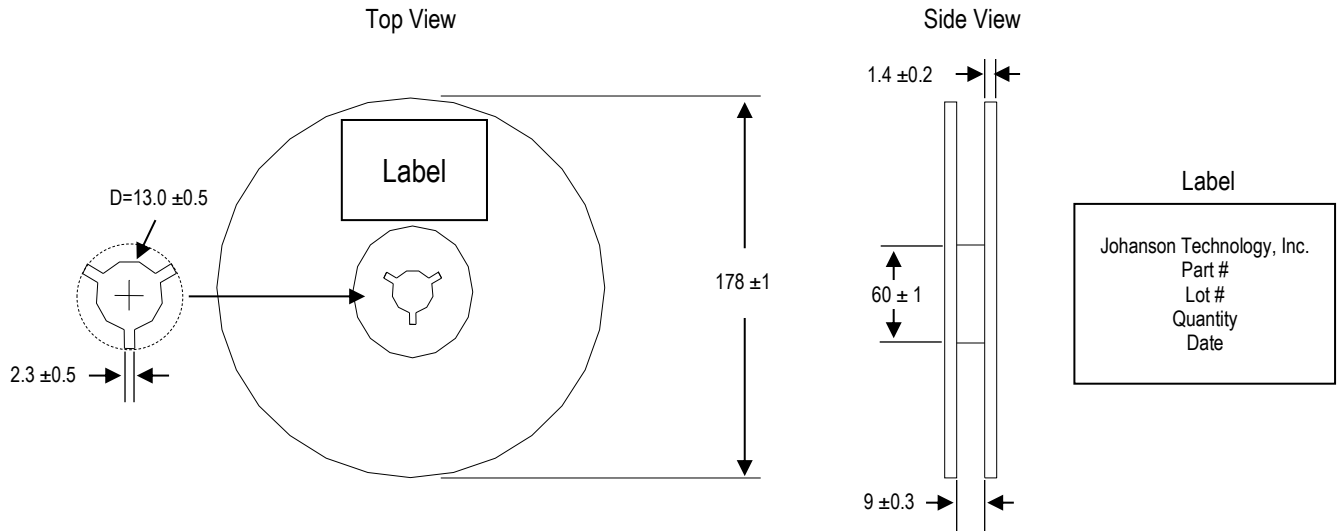
**Tape and Reel Specification (Units in mm)**

**Tape Dimensions**

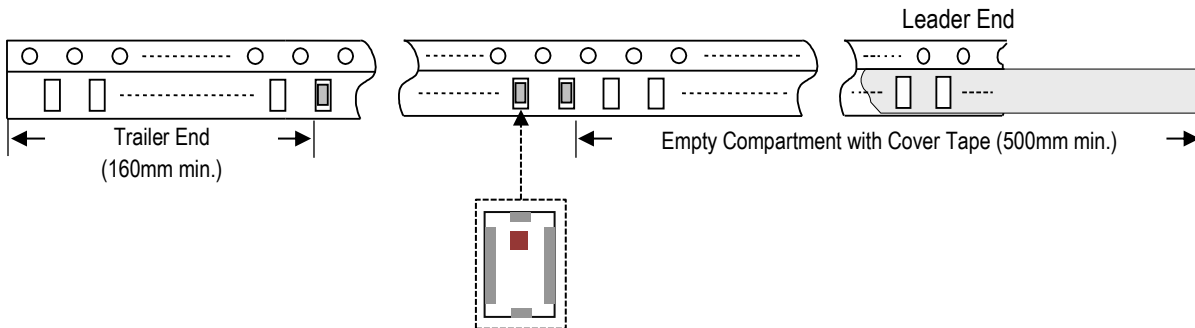


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.35 ±0.05	2.15 ±0.05	2.0 ±0.05	3.5 ±0.1	8.0 ±0.1	1.08 ±0.05	4,000pcs.	Plastic (Embossed)

**Reel Dimensions**



**Leader and Trailer Dimensions**



**Orderable Part Number**

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	5515BP15B0975001B	Nickel Tin
T & R (7" Reel Embossed Tape)	5515BP15B0975001E (Qty: 4,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	5515BP15B0975001CE1	

**Important Links**

[5515BP15B0975001E 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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