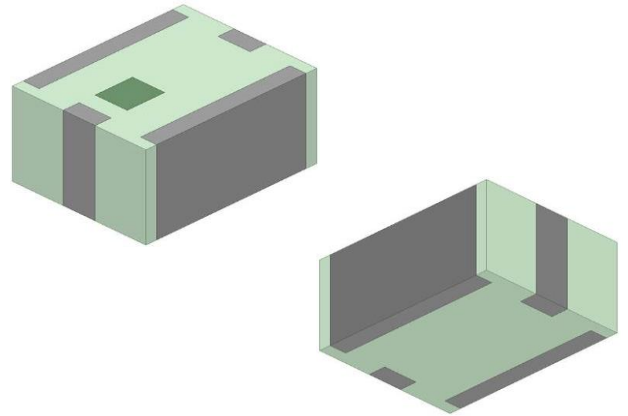


## 5.5 GHz Band Pass Filter

- 5170 – 5835 MHz passband
- WiFi 6E / WiFi 7 coexistence, UNII 1-3 WLAN
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 1210
- RoHS complaint



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

Insertion Loss (dB)	5170 – 5835 MHz	1.7 Typ.	2.5 Max.
Insertion Loss Ripple (dB)	5170 – 5835 MHz	0.9 Typ.	2.0 Max.
Return Loss (dB)	5170 – 5835 MHz	12.7 Typ.	9.5 Min.
Attenuation (dB)	2400 – 2500 MHz	34 Typ.	25 Min.
	6095 – 7125 MHz	32 Typ.	30 Min.
	10340 – 11670 MHz	35 Typ.	20 Min.

### Maximum Ratings

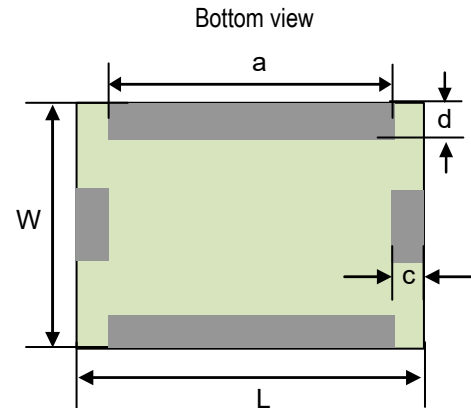
Power Capacity (W)	3 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH +5 to +35°C 18 Months Max.

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

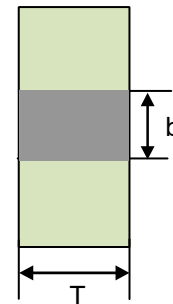
<sup>2</sup> General specifications measured on Johanson's evaluation board PN 5500BP41A0665001CE1.

**Mechanical Dimensions**

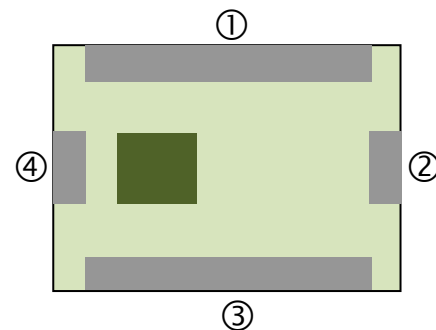
	Inches			Millimeters		
<b>L</b>	0.126	±	0.008	3.20	±	0.20
<b>W</b>	0.098	±	0.008	2.50	±	0.20
<b>T</b>	0.071		Max.	1.80		Max.
<b>a</b>	0.110	±	0.004	2.80	±	0.10
<b>b</b>	0.024	±	0.008	0.60	±	0.20
<b>c</b>	0.012	±	0.006	0.30	±	0.15
<b>d</b>	0.012	±	0.004	0.30	±	0.10



Side view



Top view

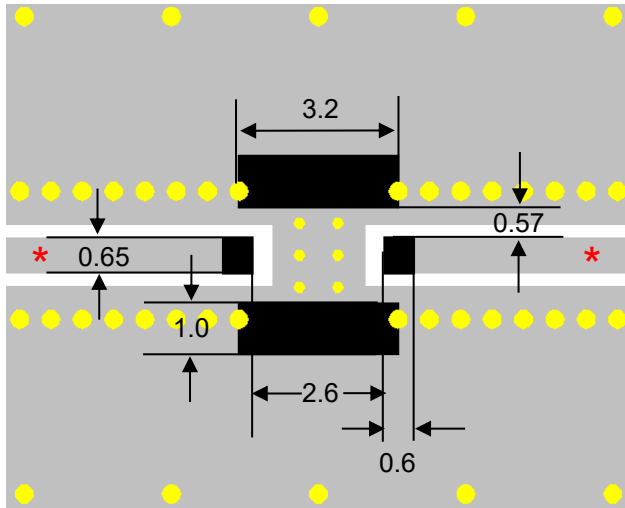


**Terminal Configuration<sup>3</sup>**




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/tech-notes/typical-soldering-profile-ipc>. Typical Soldering Profile.

**Recommended PCB Layout**



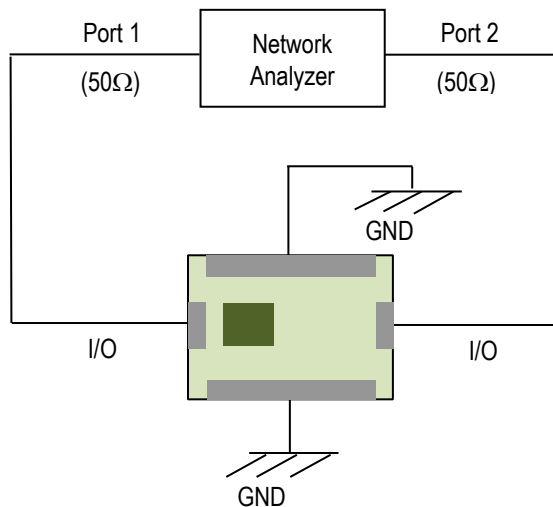
Units in mm

-  Solder Resist
-  Land
-  Through-hole ( $\phi 0.35 / \phi 0.2$ )

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

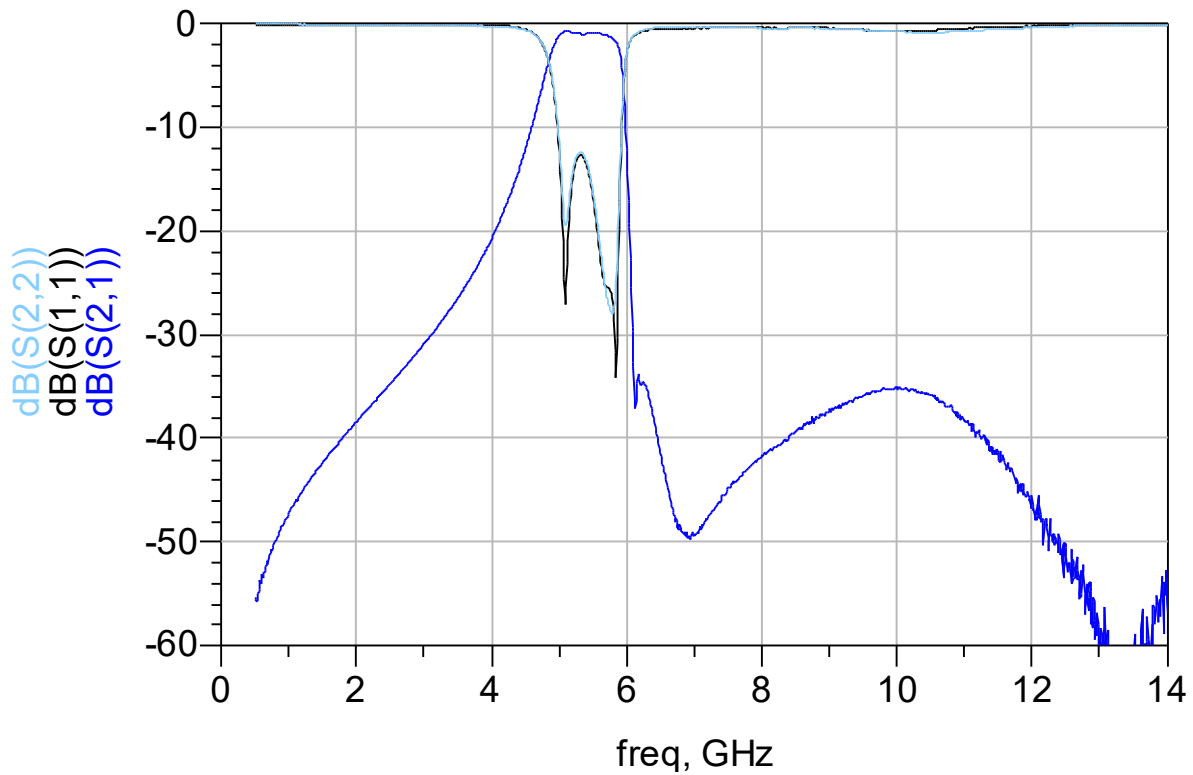
If you would like the full reference design package or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

**Measuring Diagram**



**RF Measurements (T = 25°C)**

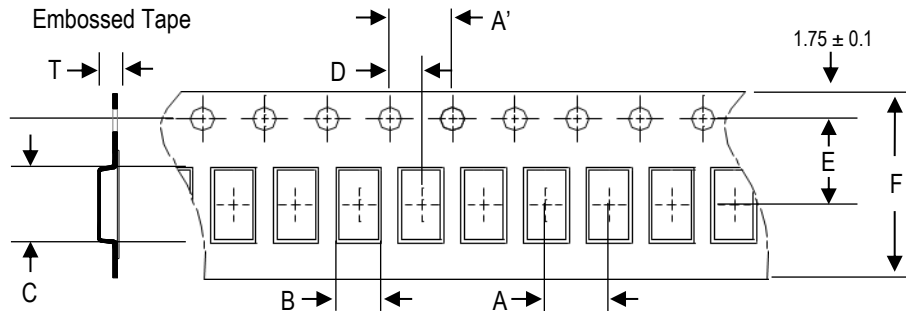
**Insertion Loss and Return Loss**



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

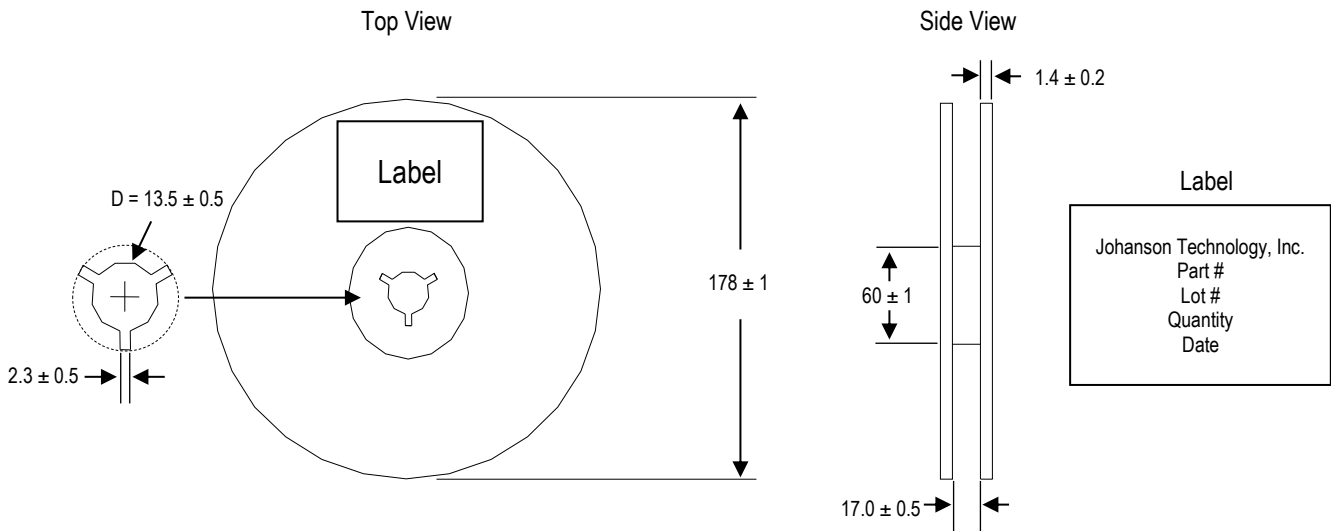
**Tape and Reel Specifications (Units in mm)**

**Tape Dimensions**

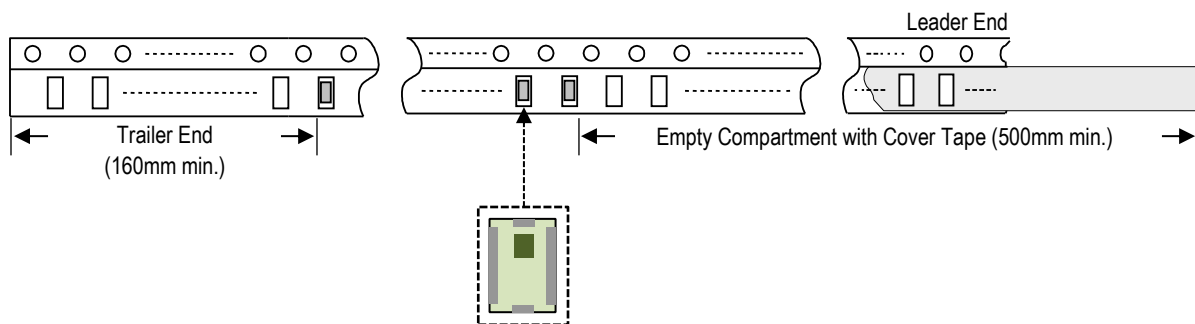


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ± 0.1	4.0 ± 0.1	2.75 ± 0.1	3.45 ± 0.1	2.0 ± 0.1	3.5 ± 0.1	8.0 ± 0.1	1.70 ± 0.1	2,000 pcs	Plastic (Embossed)

**Reel Dimensions**



**Leader and Trailer Dimensions**



**Orderable Part Numbers**

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	5500BP41A0665001B	Nickel Tin
T & R (7" Reel Embossed Tape)	5500BP41A0665001E (Qty: 2,000 pcs./reel)	
Evaluation Board with 2 SMA Connector	5500BP41A0665001CE1	

**Important Links**

[5500BP41A0665001E 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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