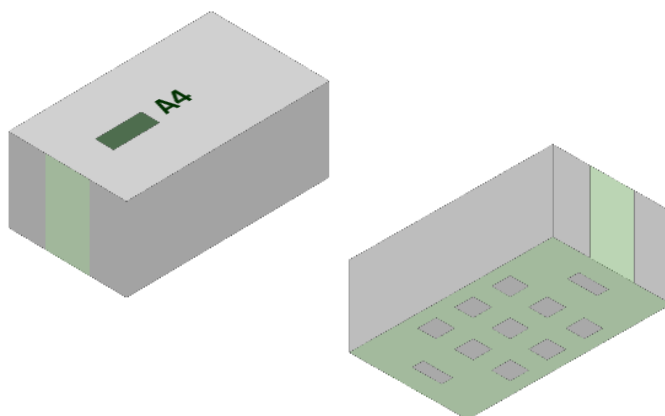


## 5.5 GHz WiFi 6E/7 Coexistence Ceramic Filter

- 5170 - 5825 MHz passband
- Low insertion loss
- High attenuation of adjacent U-NII bands
- Single-ended in/out ports
- 3W power rating
- -40°C to +85°C operating temperature range
- Small case size 5.5mm x 3.2mm x 2.2mm
- RoHS compliant



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

Insertion Loss <sup>2, 3, 4</sup> (dB) – Wi-Fi 6E/7	5170 – 5815 MHz	2.6 typ. <sup>2</sup>	3.1 max. <sup>2</sup>
	5815 – 5835 MHz	2.9 typ. <sup>2</sup>	3.6 max. <sup>2</sup>
	5170 – 5835 MHz	2.1 typ. <sup>3</sup>	2.6 max. <sup>3</sup>
	5170 – 5835 MHz	1.5 typ. <sup>4</sup>	2.0 max. <sup>4</sup>
Insertion Loss (dB) – [Over temp, absolute]	5170 – 5800 MHz	2.7 typ.	3.0 max.
	5800 – 5825 MHz	3.1 typ.	3.5 max.
Amplitude Ripple (dB)	5170 – 5800 MHz	1.5 typ.	2.0 max.
	5800 – 5825 MHz	0.5 typ.	1.0 max.
Return Loss (dB)	5170 – 5825 MHz	15.5 typ.	10 min.
	5945 – 7065 MHz	48 typ. <sup>2</sup>	40 min. <sup>2</sup>
	7065 – 7125 MHz	70 typ. <sup>2</sup>	55 min. <sup>2</sup>
	5945 – 7065 MHz	50 typ. <sup>3</sup>	45 min. <sup>3</sup>
	7045 – 7125 MHz	70 typ. <sup>3</sup>	55 min. <sup>3</sup>
	5945 – 7065 MHz	52 typ. <sup>4</sup>	45 min. <sup>4</sup>
	6965 – 7125 MHz	70 typ. <sup>4</sup>	55 min. <sup>4</sup>
Attenuation <sup>1</sup> (dB) – [Over temp, absolute]	450 – 1900 MHz	60 typ.	45 min.
	1900 – 2400 MHz	60 typ.	40 min.
	2400 – 2690 MHz	58 typ.	40 min.
	3300 – 4200 MHz	40 typ.	30 min.
	4200 – 4400 MHz	38 typ.	30 min.
	4400 – 4985 MHz	12 typ.	6 min.
	4985 – 5000 MHz	10.8 typ.	5 min.
	5945 – 5985 MHz	46 typ.	30 min.
	5985 – 7125 MHz	47 typ.	40 min.
	7125 – 8500 MHz	70 typ.	50 min.
	10340 – 11650 MHz	60 typ.	50 min.
15510 – 17475 MHz	55 typ.	33 min.	

<sup>1</sup> Typical values measured at 25°C. Min/Max values measured over specified operating temperature range.

<sup>2</sup> Average over specified frequency range with bandwidth of 20MHz

<sup>3</sup> Average over specified frequency range with bandwidth of 80MHz

<sup>4</sup> Average over specified frequency range with bandwidth of 160MHz

**Maximum Ratings**

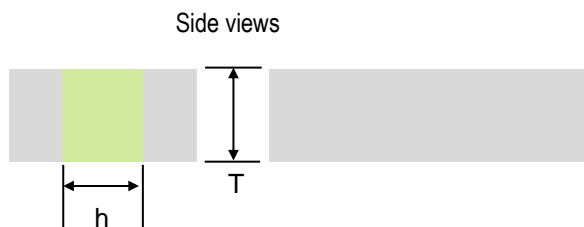
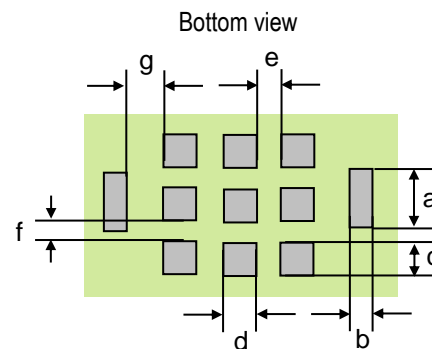
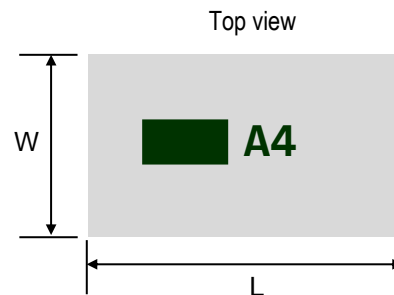
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Power Capacity (W)	3 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product*	45% - 75% RH +5 to +35 °C 18 Months Max.

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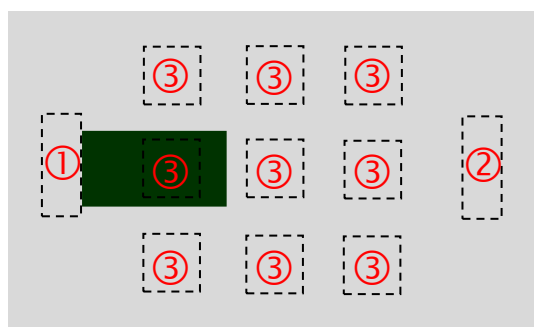
**Mechanical Dimensions**

	Inches			Millimeters		
<b>L</b>	0.217	±	0.008	5.50	±	0.20
<b>W</b>	0.126	±	0.008	3.20	±	0.20
<b>T</b>	0.087		Max.	2.20		Max.
<b>a</b>	0.031	±	0.008	0.80	±	0.20
<b>b</b>	0.012	±	0.008	0.30	±	0.20
<b>c</b>	0.020	±	0.008	0.50	±	0.20
<b>d</b>	0.020	±	0.008	0.50	±	0.20
<b>e</b>	0.020	±	0.008	0.50	±	0.20
<b>f</b>	0.020	±	0.008	0.50	±	0.20
<b>g</b>	0.028	±	0.008	0.70	±	0.20
<b>h</b>	0.047	±	0.008	1.20	±	0.20



**Terminal Configuration**

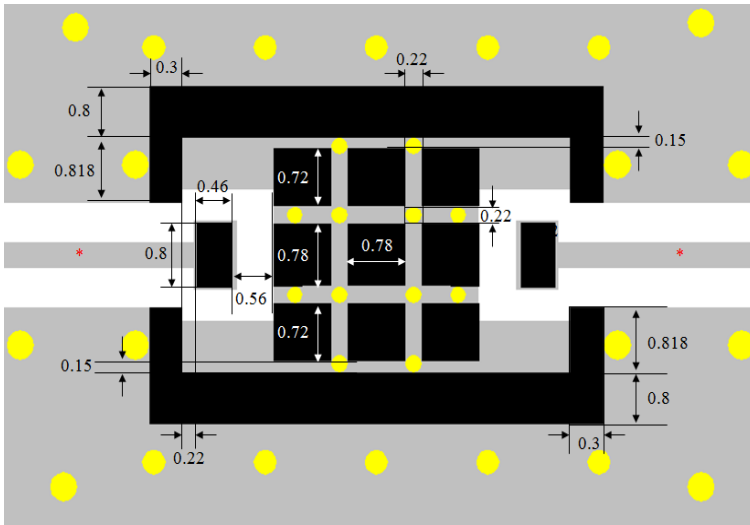
Pin Number	Function
1	INPUT/OUTPUT
2	INPUT/OUTPUT
3	GND






**PCB Layout**

Mount device with colored mark facing up.

Units in mm

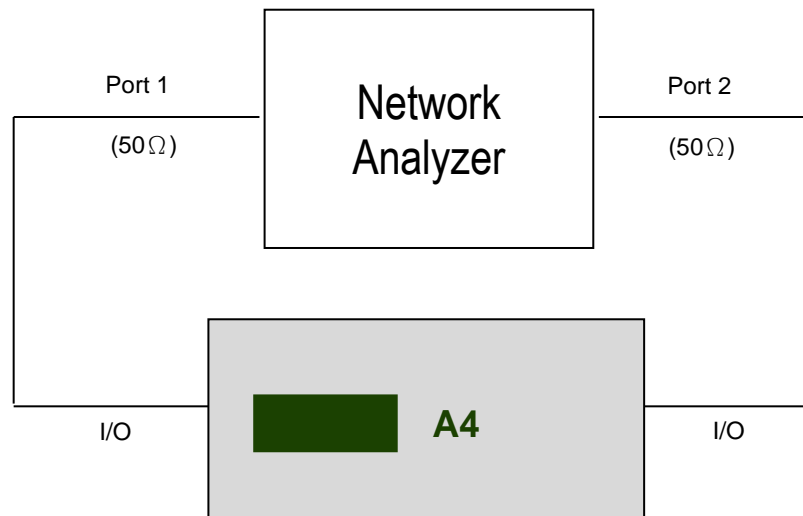


-  Solder Resist
-  Land
-  Through-hole ( $\phi 0.2/\phi 0.35$ )

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

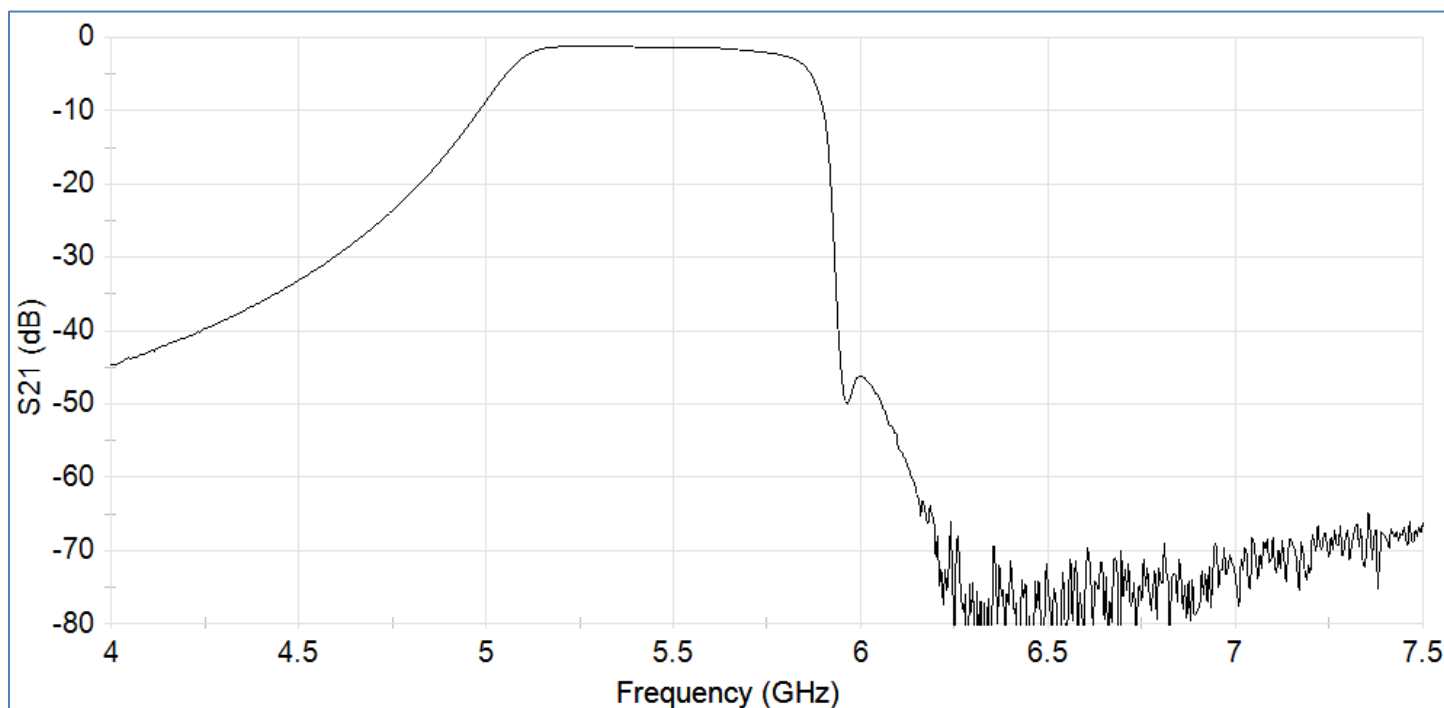
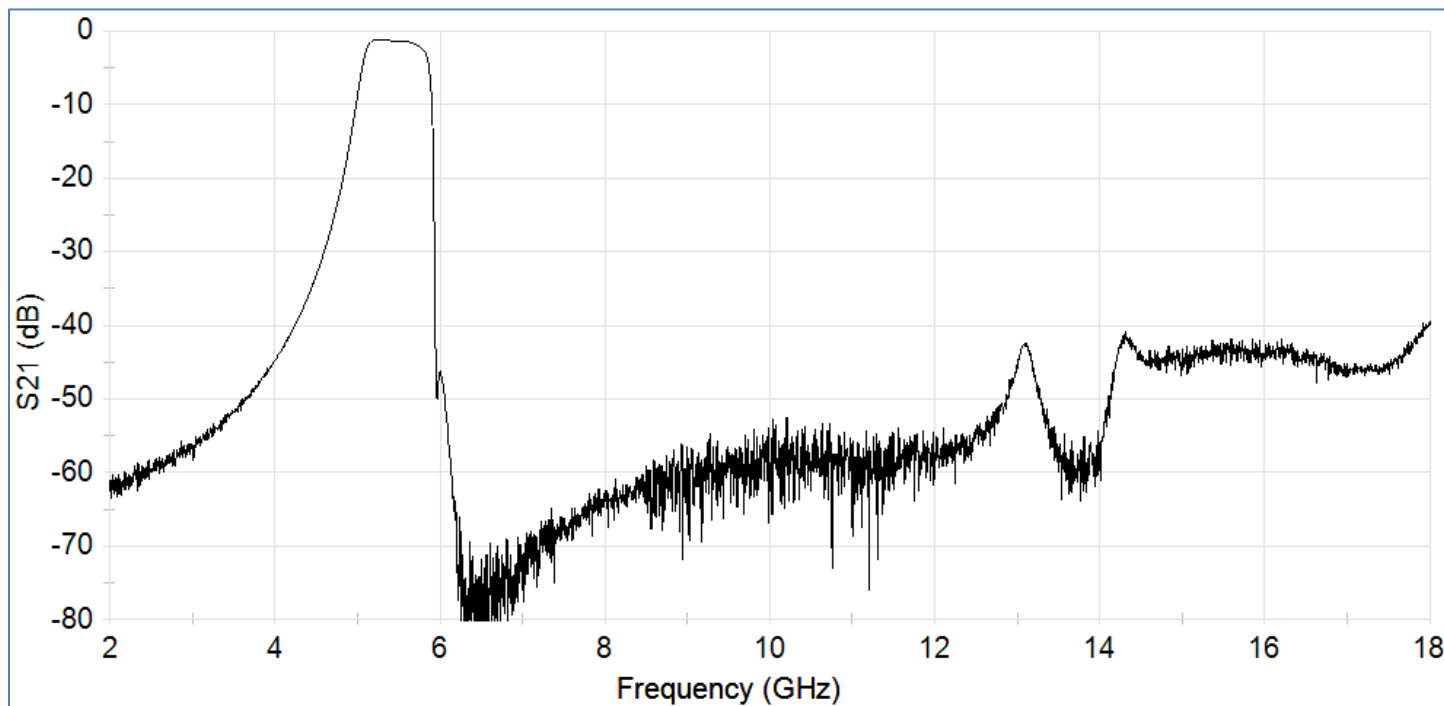
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

**Measuring Diagram**



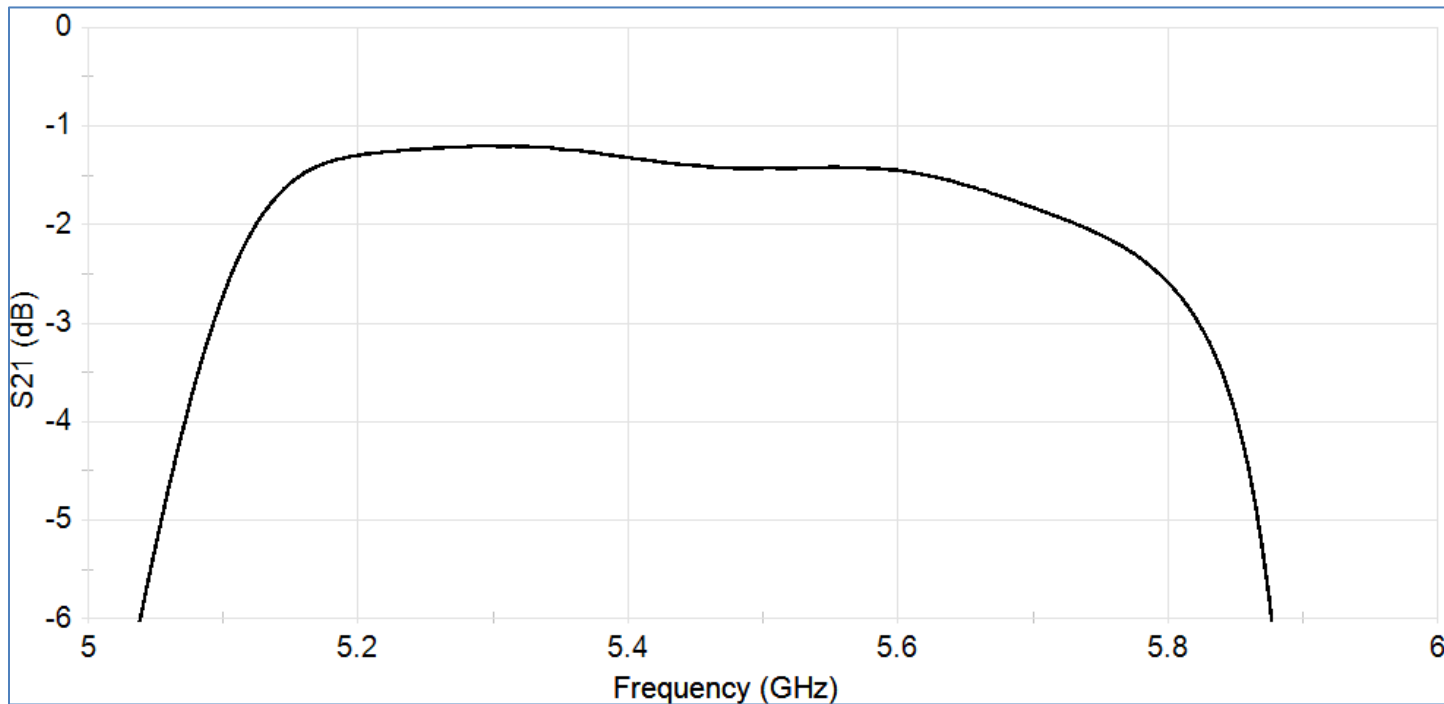
**RF Measurements (T = 25°C)**

Insertion Loss, Attenuation

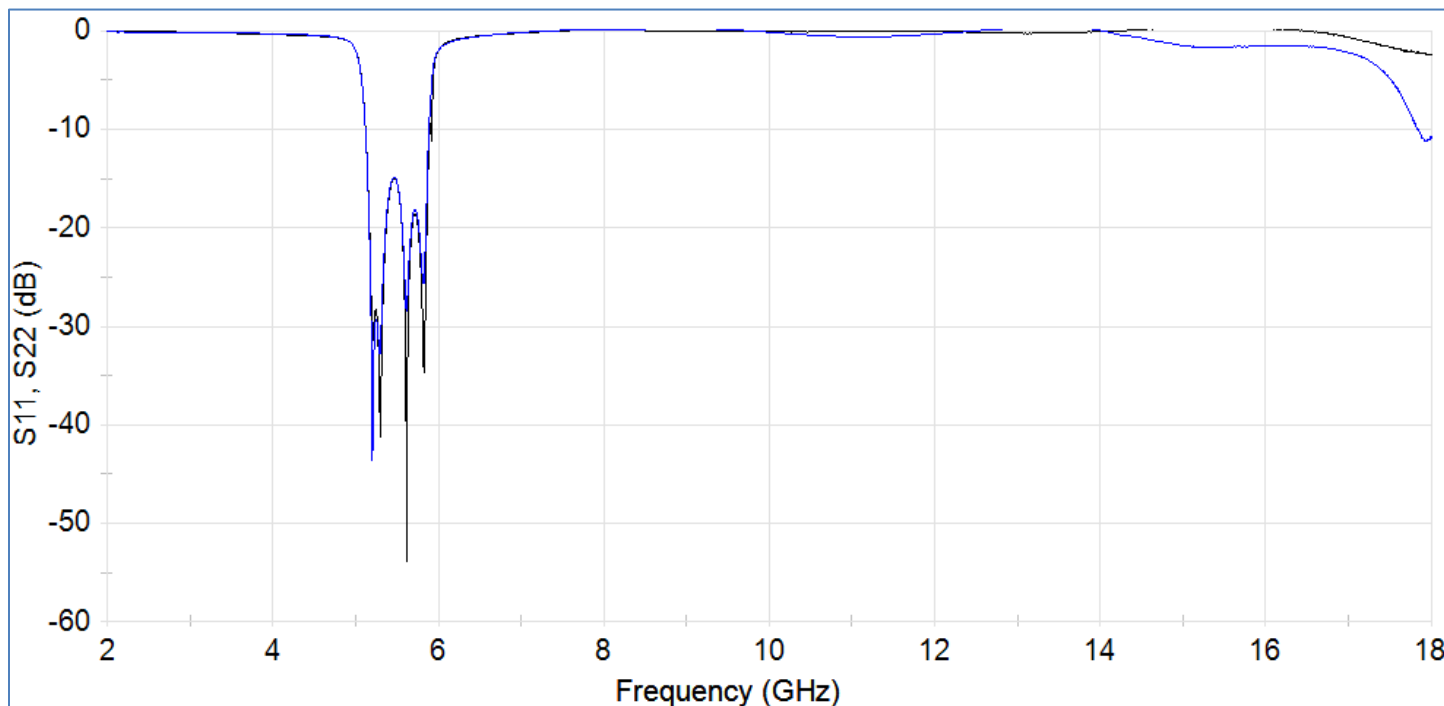


**RF Measurements (T = 25°C)**

Insertion Loss



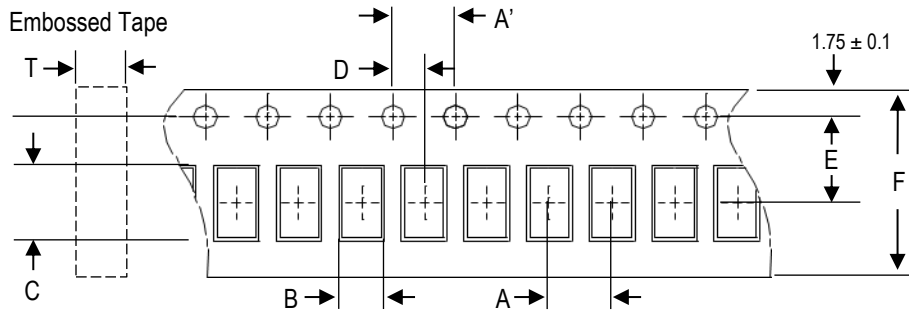
Return Loss



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

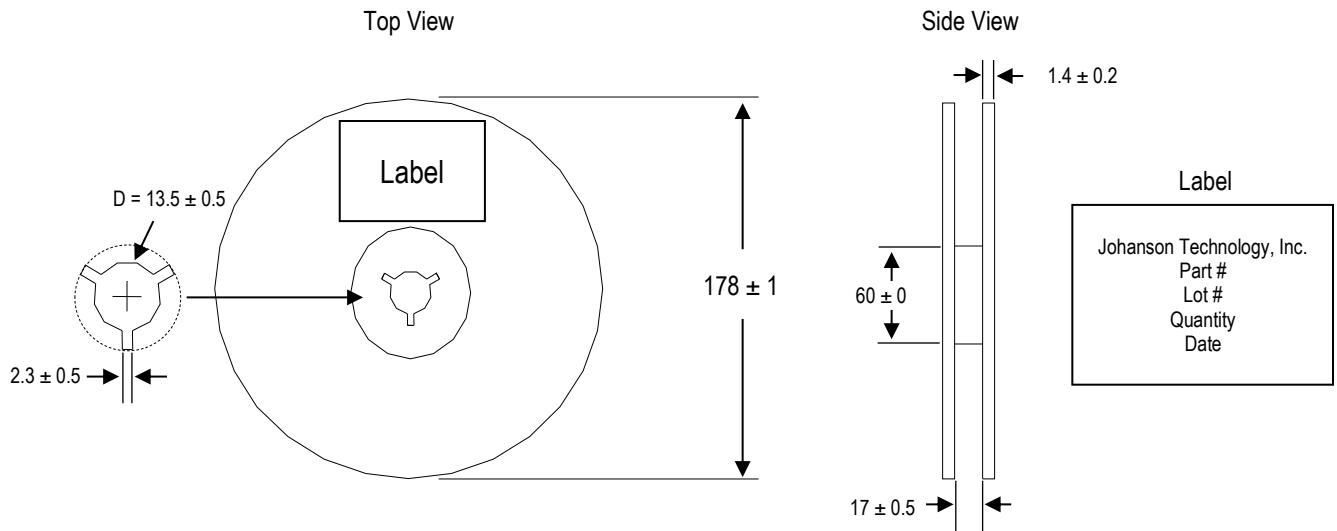
**Tape and Reel Specifications (Units in mm)**

**Tape Dimensions**

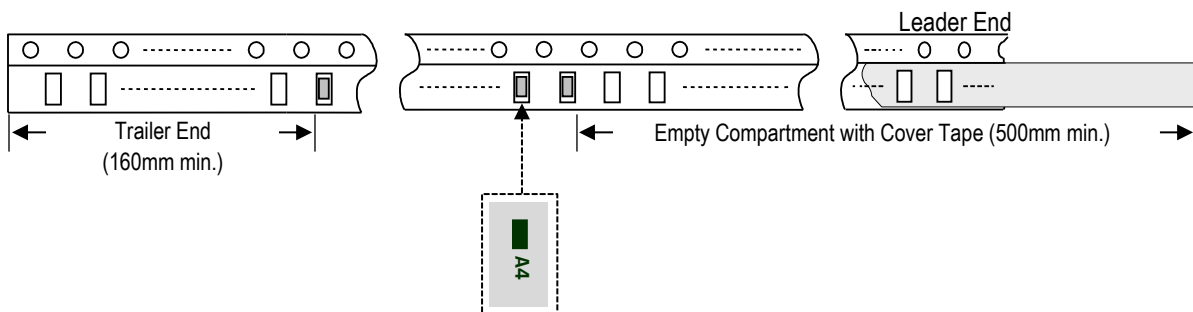


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
8.0 ± 0.1	0.4 ± 0.1	3.5 ± 0.1	5.8 ± 0.1	0.2 ± 0.1	5.5 ± 0.1	12.0 ± 0.1	2.2 ± 0.1	1000	Plastic (Embossed)

**Reel Dimensions**



**Leader and Trailer Dimensions**



**Orderable Part Numbers**

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	5497BP46A0655001B	Nickel Tin
T & R (7" Reel Embossed Tape)	5497BP46A0655001E (Qty: 1,000 pcs./reel)	
Evaluation Board with 1 Connector (50Ω SMA)	5497BP46A0655001CE1	

**Important Links**

[Band Pass Filters](#)

[Ceramic Chip Antennas](#)

[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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