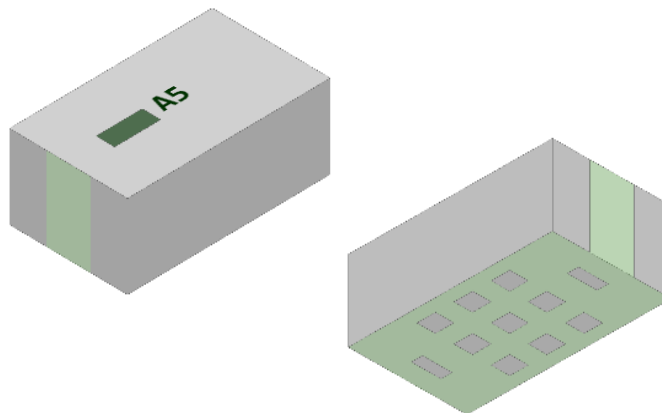


## 6.5 GHz WiFi 6E/7 Coexistence Ceramic Filter

- 5945 - 7125 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) – WiFi 6E/7	5945 – 7125 MHz	2.9 typ. <sup>2</sup>	3.6 max. <sup>2</sup>
	5945 – 7125 MHz	2.8 typ. <sup>3</sup>	3.0 max. <sup>3</sup>
	5945 – 7125 MHz	1.9 typ. <sup>4</sup>	2.8 max. <sup>4</sup>
Insertion Loss <sup>1</sup> (dB) – [Over temp, absolute]	5945 – 6105 MHz	3.4 typ.	4.0 max.
	6105 – 7125 MHz	1.6 typ.	2.3 max.
Amplitude Ripple (dB)	5945 – 6105 MHz	1.5 typ.	2.5 max.
	6105 – 7125 MHz	0.6 typ.	1.2 max.
Return Loss (dB)	5945 – 7125 MHz	10 typ.	9.5 min.
Attenuation <sup>2, 3, 4</sup> (dB) – WiFi 6E/7	5725 – 5835 MHz	40 typ. <sup>2</sup>	35 min. <sup>2</sup>
	5170 – 5825 MHz	50 typ. <sup>3</sup>	45 min. <sup>3</sup>
	5170 – 5825 MHz	64 typ. <sup>4</sup>	45 min. <sup>4</sup>
Attenuation <sup>1</sup> (dB) [Over temp, absolute]	10 – 2000 MHz	68 typ.	58 min.
	2000 – 2100 MHz	60 typ.	55 min.
	2100 – 2400 MHz	60 typ.	55 min.
	2400 – 2570 MHz	60 typ.	55 min.
	2570 – 3400 MHz	60 typ.	50 min.
	3400 – 3870 MHz	60 typ.	50 min.
	3870 – 4400 MHz	60 typ.	55 min.
	4400 – 5170 MHz	50 typ.	48 min.
	5170 – 5725 MHz	50 typ.	40 min.
	5725 – 5825 MHz	40 typ.	35 min.
11890 – 14250 MHz	-	20 min.	
17835 – 21375 MHz	-	10 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**

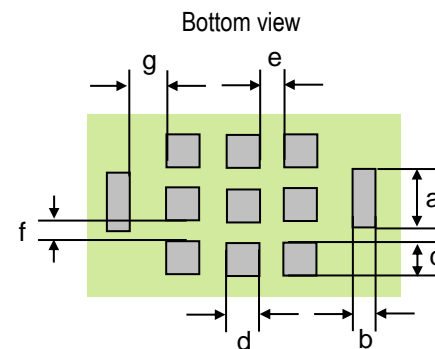
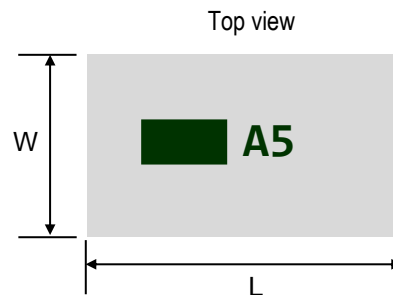
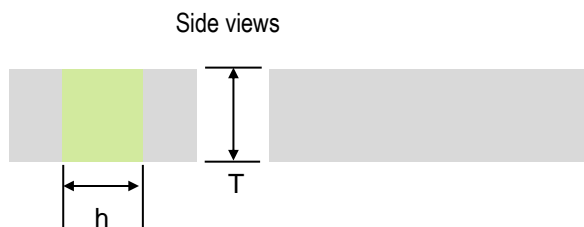
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Power Capacity (W)	3 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product*	45% - 75% RH
	+5 to +35 °C
	18 Months Max.

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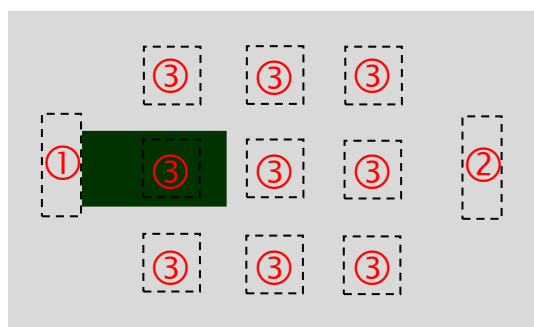
**Mechanical Dimensions**

	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**

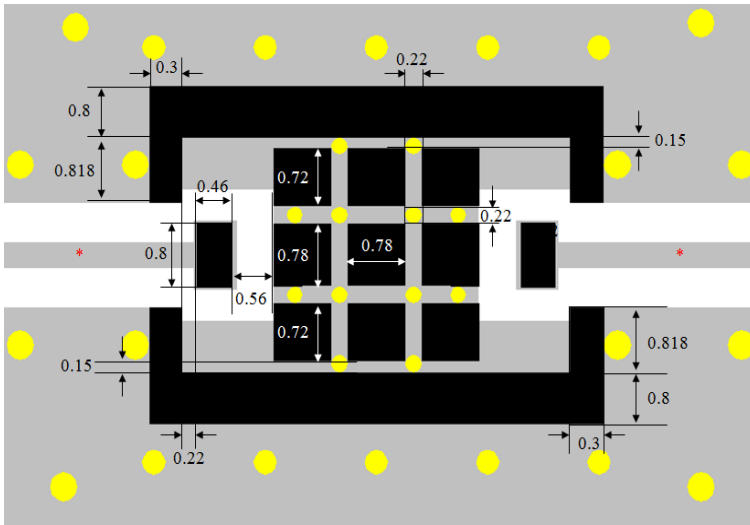
Pin Number	Function
1	INPUT/OUTPUT
2	INPUT/OUTPUT
3	GND






**PCB Layout**

Mount device with colored mark facing up.

Units in mm

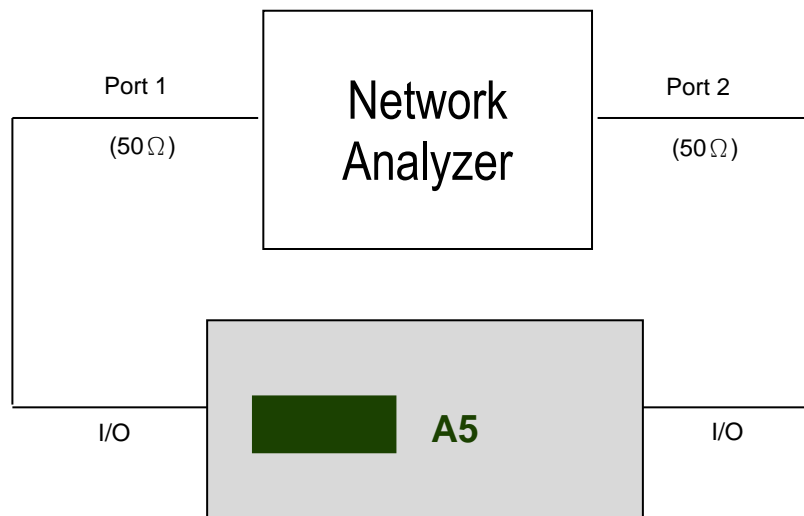


-  Solder Resist
-  Land
-  Through-hole ( $\phi 0.2/\phi 0.35$ )

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

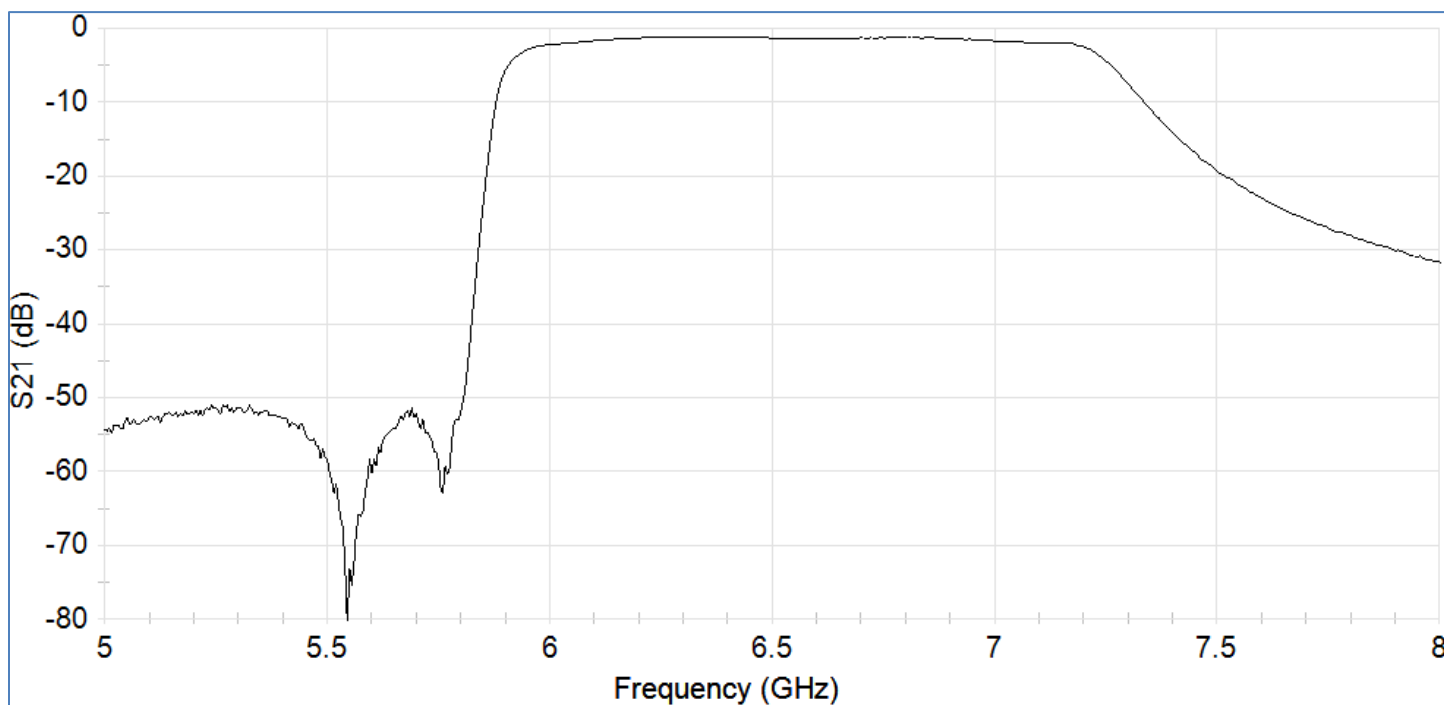
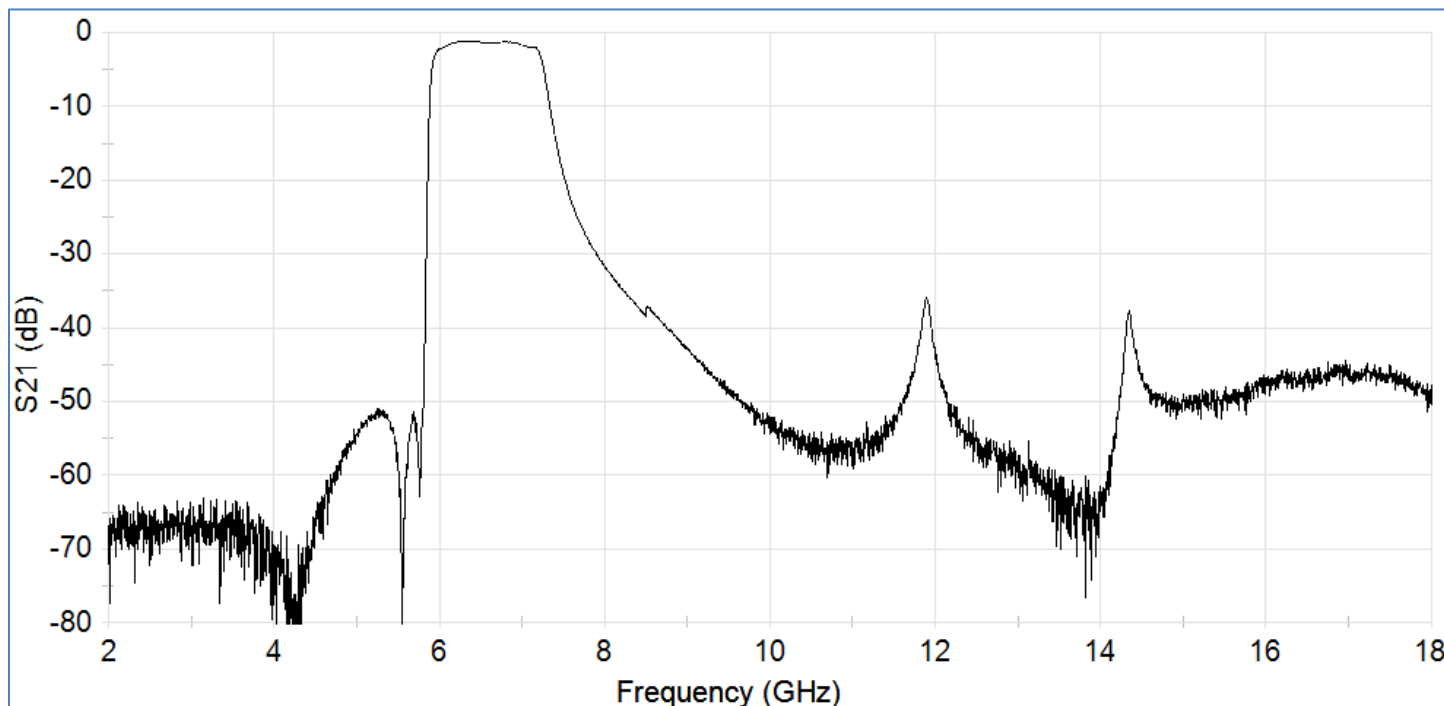
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

**Measuring Diagram**



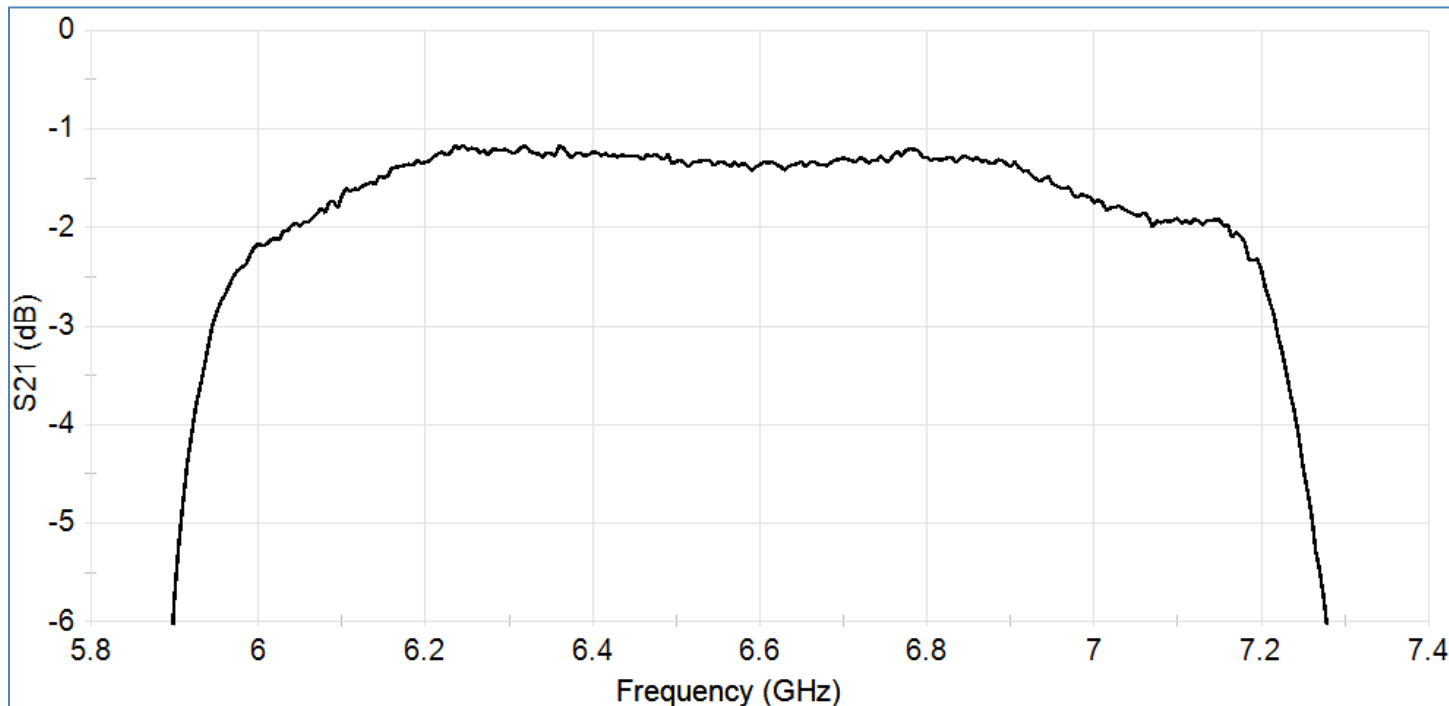
**RF Measurements (T = 25°C)**

Insertion Loss, Attenuation

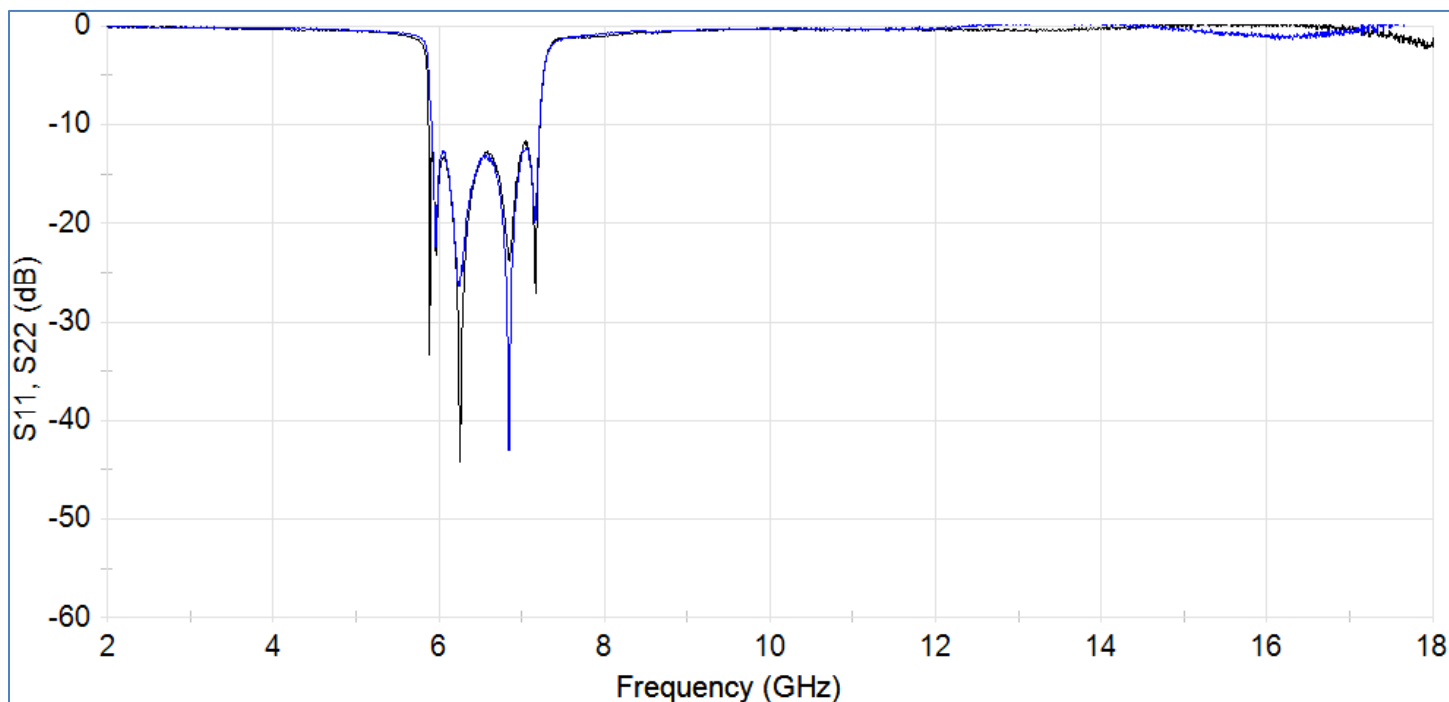


**RF Measurements (T = 25°C)**

Insertion Loss



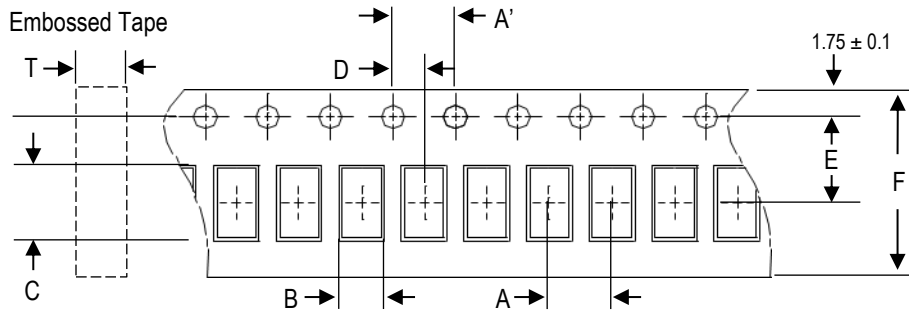
Return Loss



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

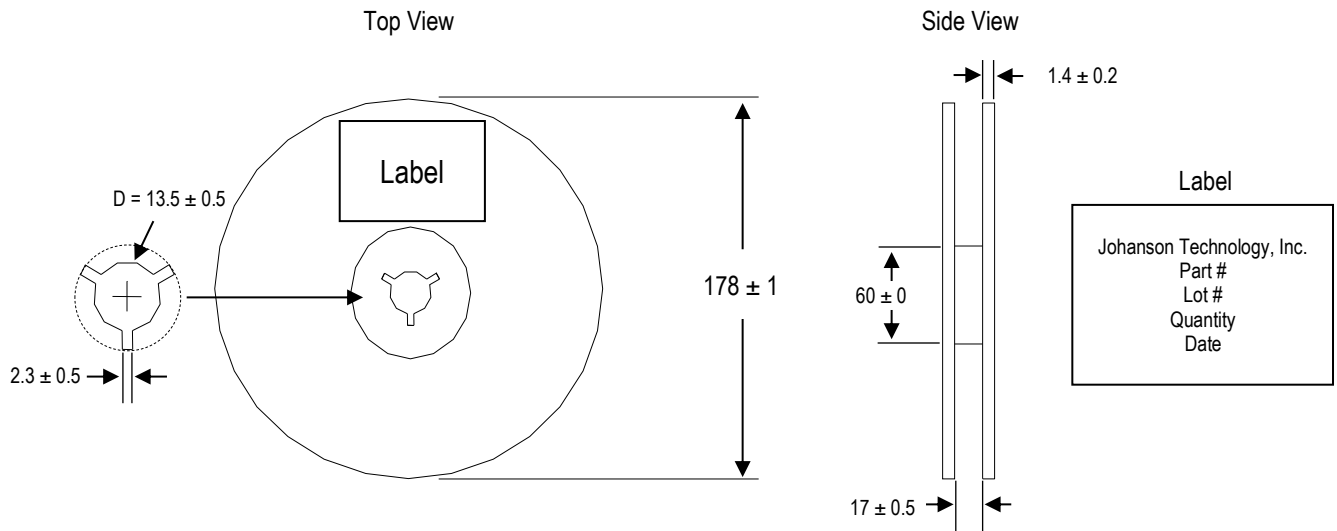
**Tape and Reel Specifications (Units in mm)**

**Tape Dimensions**

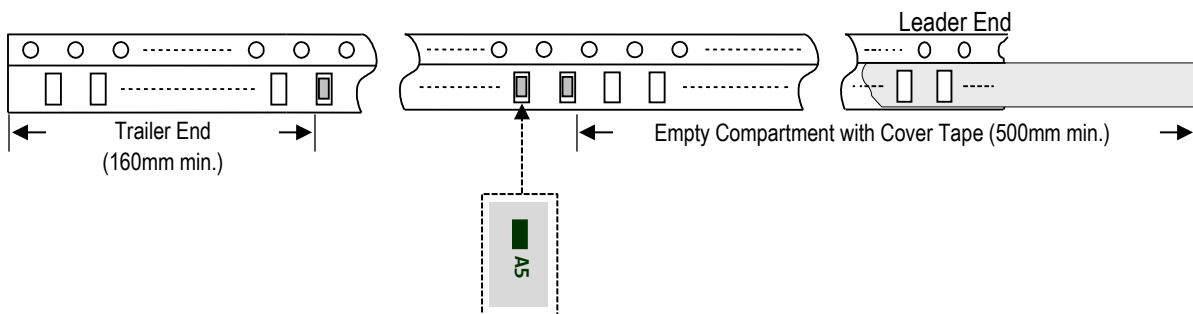


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
8.0 ± 0.1	0.4 ± 0.1	3.5 ± 0.1	5.8 ± 0.1	0.2 ± 0.1	5.5 ± 0.1	12.0 ± 0.1	2.2 ± 0.1	1000	Plastic (Embossed)

**Reel Dimensions**



**Leader and Trailer Dimensions**



**Orderable Part Numbers**

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	6535BP46A1180001B	Nickel Tin
T & R (7" Reel Embossed Tape)	6535BP46A1180001E (Qty: 1,000 pcs./reel)	
Evaluation Board with 1 Connector (50Ω SMA)	6535BP46A1180001CE1	

**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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