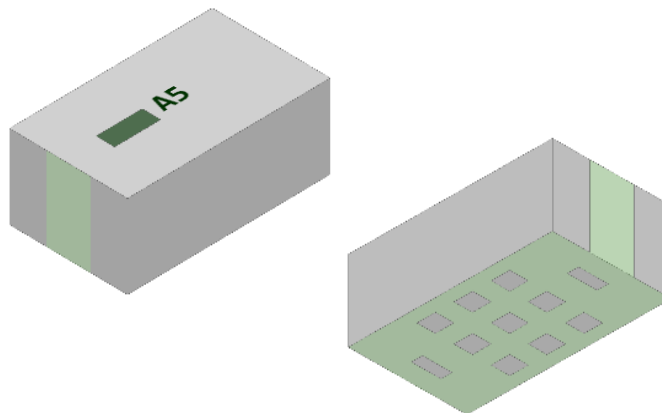


6.5 GHz WiFi 6E/7 Coexistence Ceramic Filter

- 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 Specifications¹

Insertion Loss ^{2, 3, 4} (dB) – WiFi 6E/7	5945 – 7125 MHz	2.9 typ. ²	3.6 max. ²
	5945 – 7125 MHz	2.8 typ. ³	3.0 max. ³
	5945 – 7125 MHz	1.9 typ. ⁴	2.8 max. ⁴
Insertion Loss ¹ (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 ^{2, 3, 4} (dB) – WiFi 6E/7	5725 – 5835 MHz	40 typ. ²	35 min. ²
	5170 – 5825 MHz	50 typ. ³	45 min. ³
	5170 – 5825 MHz	64 typ. ⁴	45 min. ⁴
Attenuation ¹ (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.	

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

² Average over specified frequency range with bandwidth of 20MHz

³ Average over specified frequency range with bandwidth of 80MHz

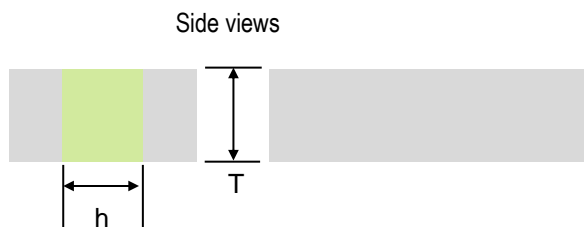
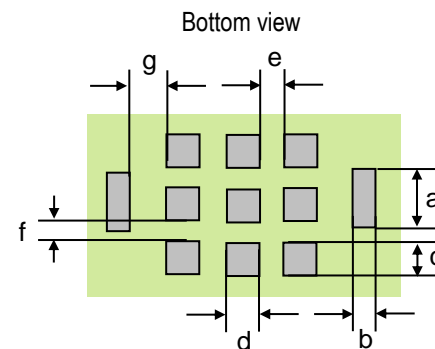
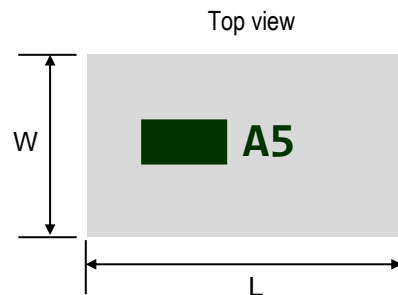
⁴ Average over specified frequency range with bandwidth of 160MHz

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.

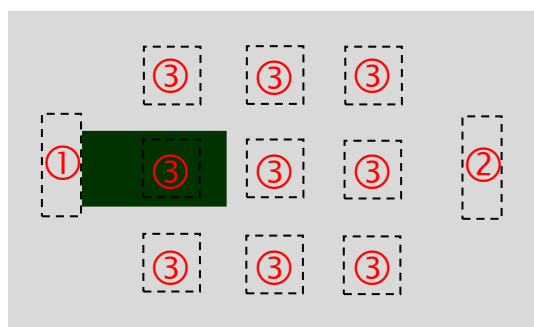
Mechanical Dimensions

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



Terminal Configuration

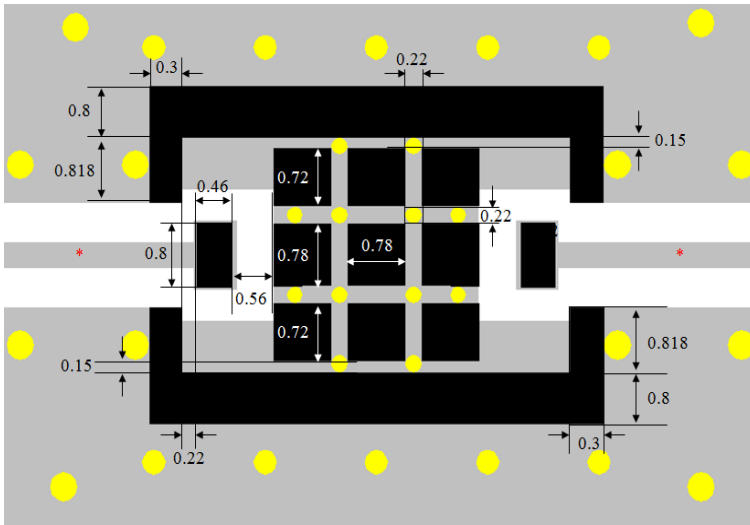
Pin Number	Function
1	INPUT/OUTPUT
2	INPUT/OUTPUT
3	GND






PCB Layout

Mount device with colored mark facing up.

Units in mm

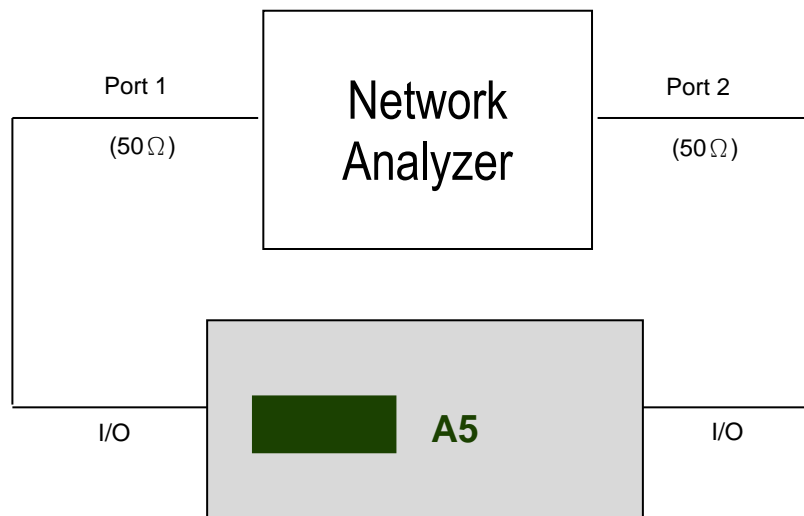


-  Solder Resist
-  Land
-  Through-hole ($\phi 0.2/\phi 0.35$)

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

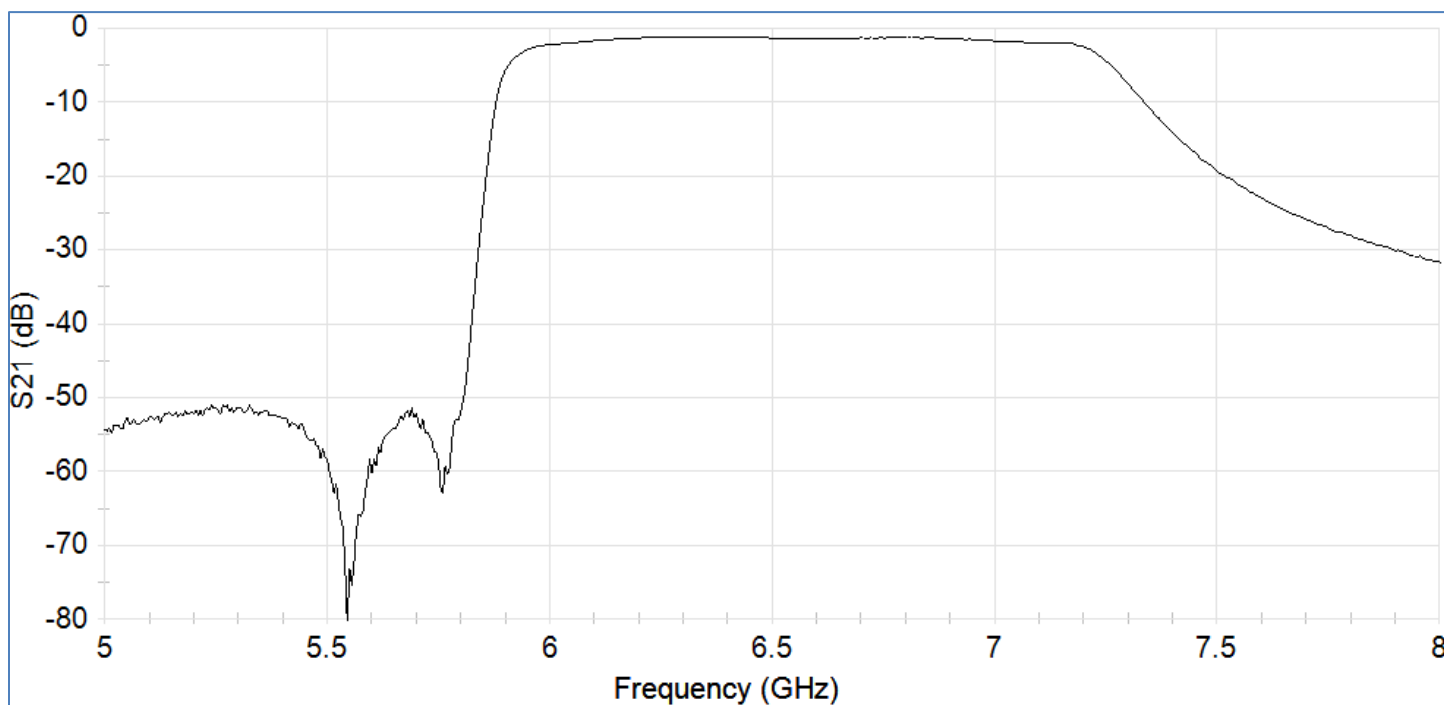
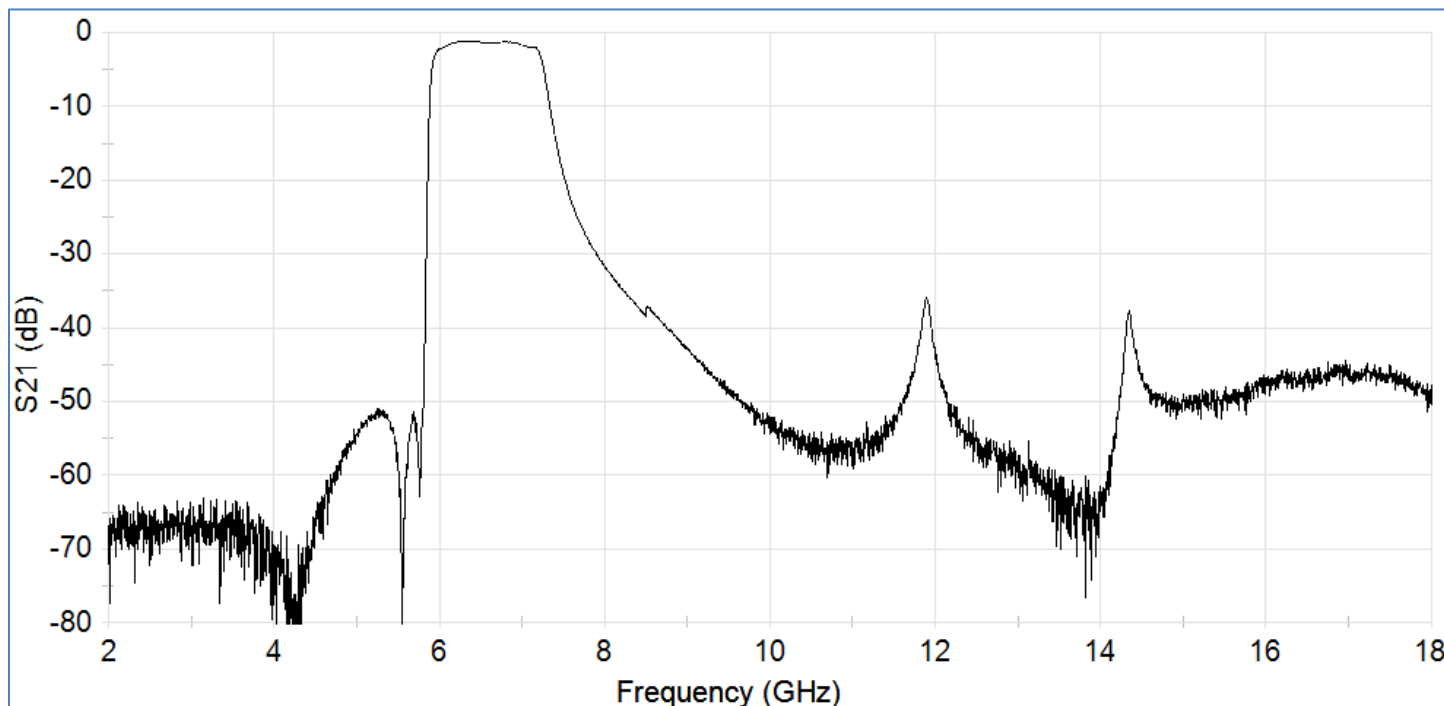
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram



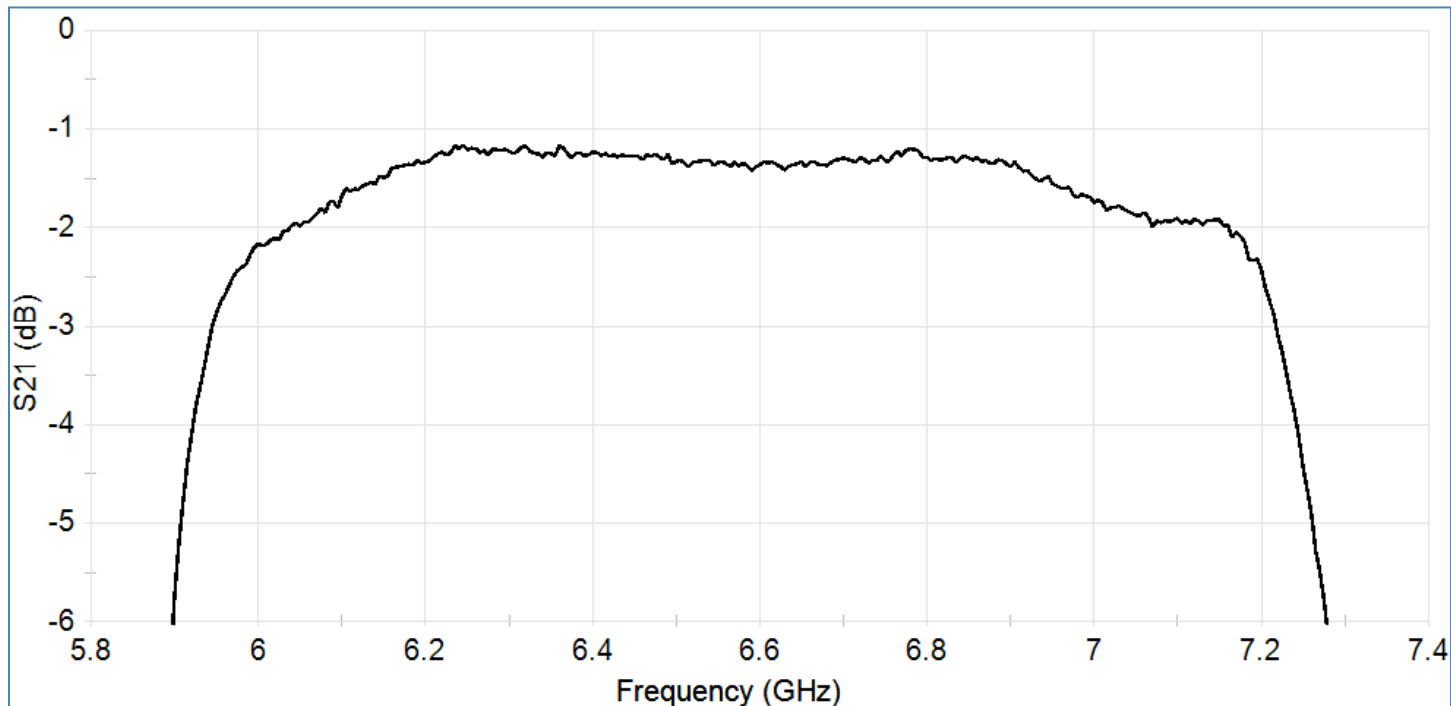
RF Measurements (T = 25°C)

Insertion Loss, Attenuation

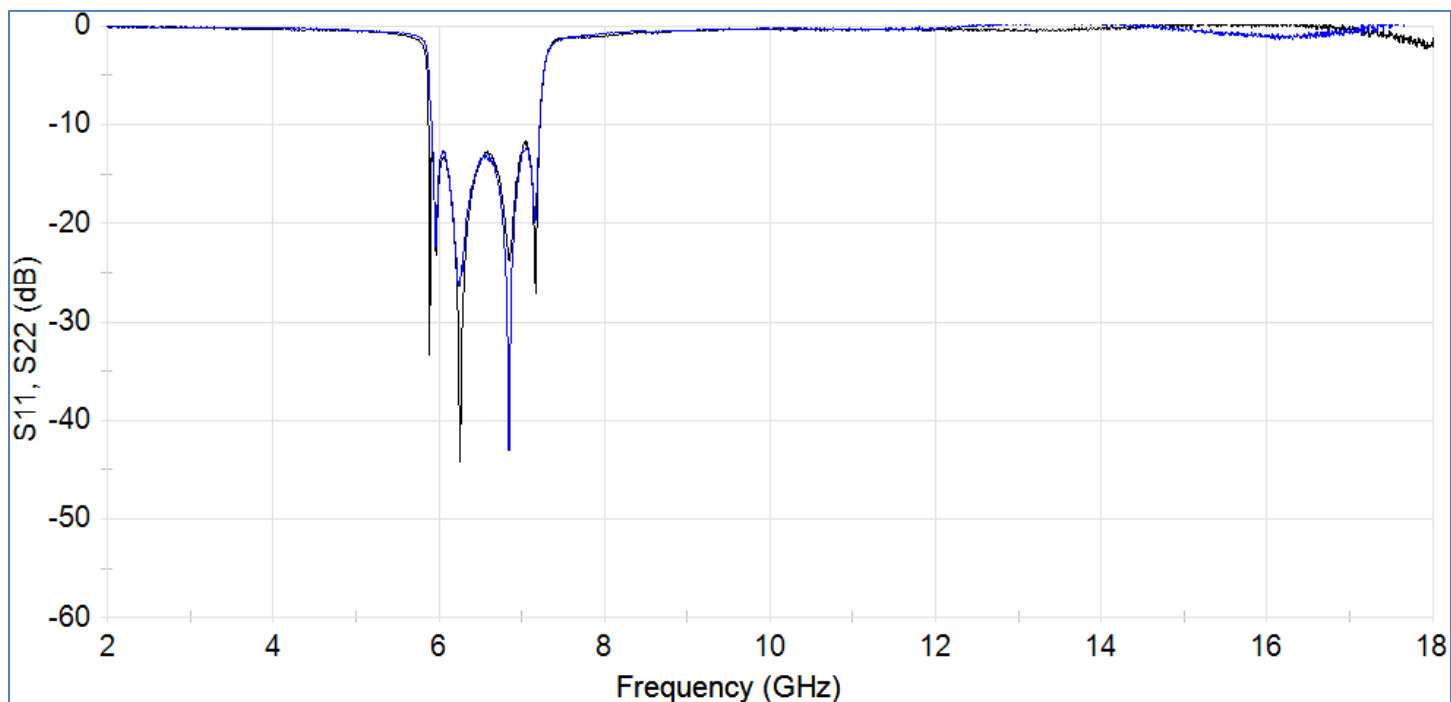


RF Measurements (T = 25°C)

Insertion Loss



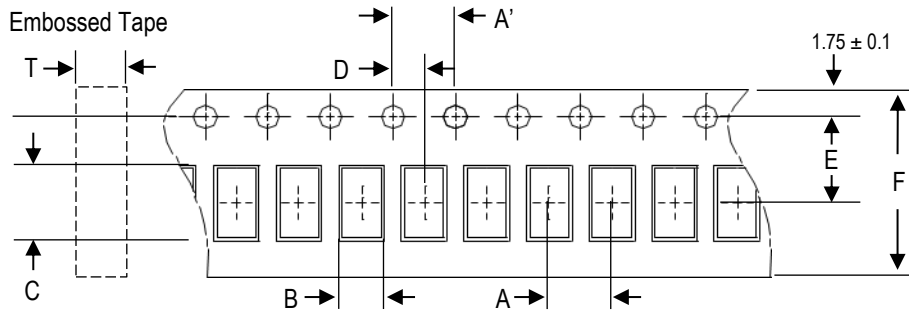
Return Loss



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

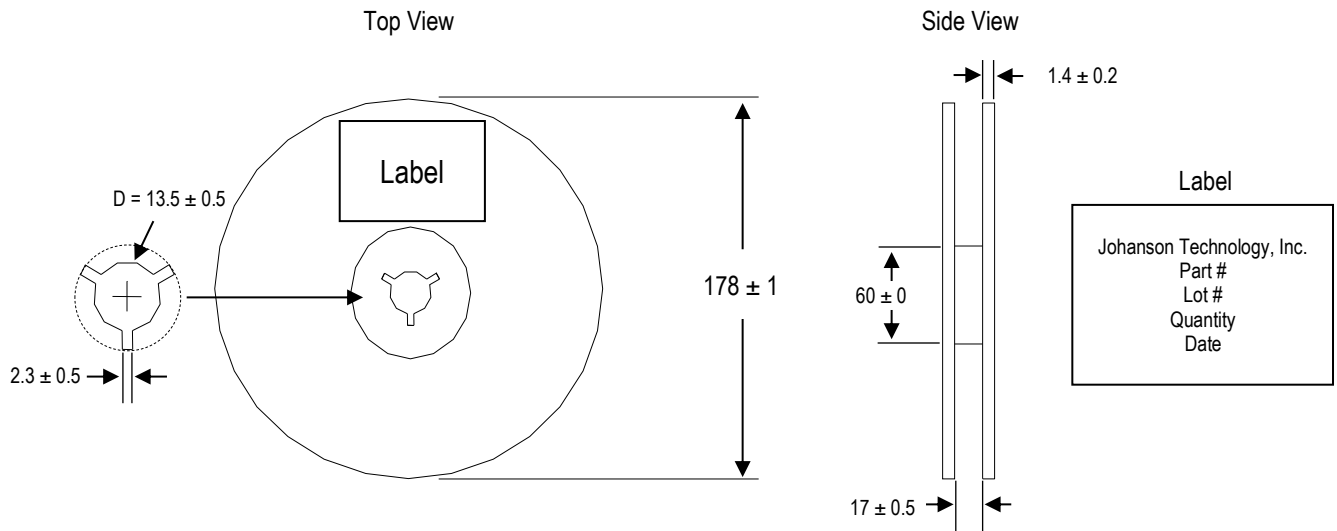
Tape and Reel Specifications (Units in mm)

Tape Dimensions

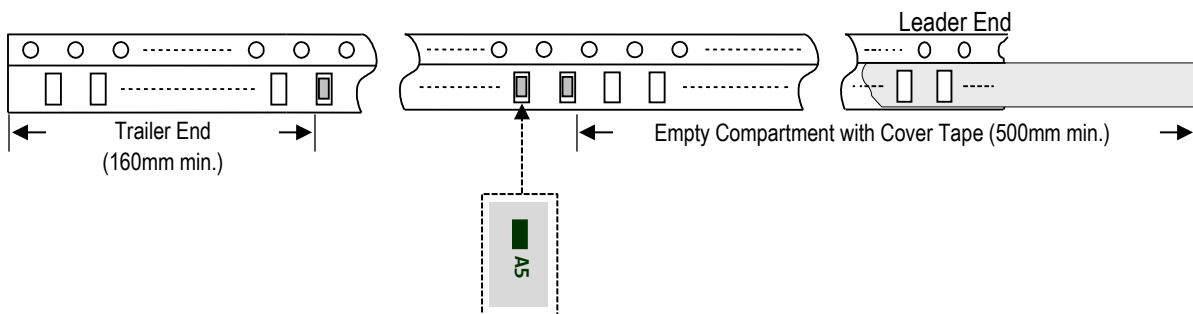


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
8.0 ± 0.1	0.4 ± 0.1	3.5 ± 0.1	5.8 ± 0.1	0.2 ± 0.1	5.5 ± 0.1	12.0 ± 0.1	2.2 ± 0.1	1000	Plastic (Embossed)

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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