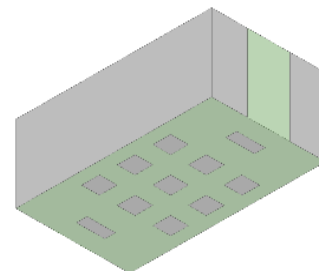
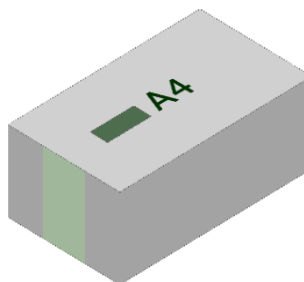




5.5 GHz WiFi 6E/7 Coexistence Ceramic Band Pass Filter

- 5170 - 5825 MHz passband
- Low insertion loss
- High attenuation of adjacent U-NII bands
- Single-ended in/out ports
- Small case size 5.5x3.2x2.2mm (LxWxT)
- RoHS compliant



General Specifications¹

Insertion Loss ^{2, 3, 4} (dB) – Wi-Fi 6E/7	5170 – 5815 MHz	2.6 Typ. ²	3.1 Max. ²
	5815 – 5835 MHz	2.9 Typ. ²	3.6 Max. ²
	5170 – 5835 MHz	2.1 Typ. ³	2.6 Max. ³
	5170 – 5835 MHz	1.5 Typ. ⁴	2.0 Max. ⁴
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.	9.5 Min.
Attenuation ^{2, 3, 4} (dB) – Wi-Fi 6E/7	5945 – 7065 MHz	48 Typ. ²	40 Min. ²
	7065 – 7125 MHz	70 Typ. ²	55 Min. ²
	5945 – 7065 MHz	50 Typ. ³	45 Min. ³
	7045 – 7125 MHz	70 Typ. ³	55 Min. ³
	5945 – 7065 MHz	52 Typ. ⁴	45 Min. ⁴
	6965 – 7125 MHz	70 Typ. ⁴	55 Min. ⁴
Attenuation ¹ (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.

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

² Average over specified frequency range with bandwidth of 20 MHz.

³ Average over specified frequency range with bandwidth of 80 MHz.

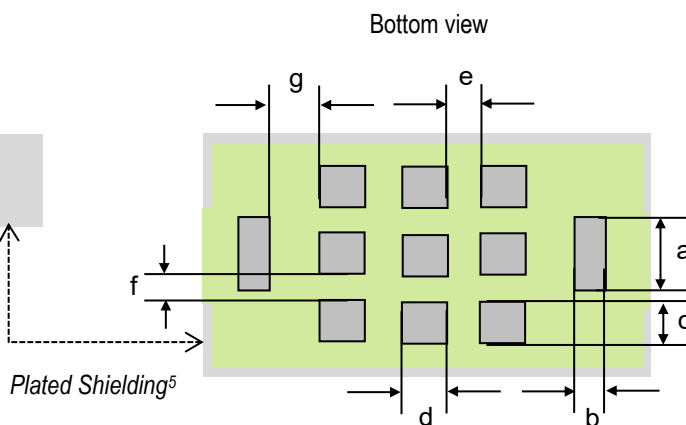
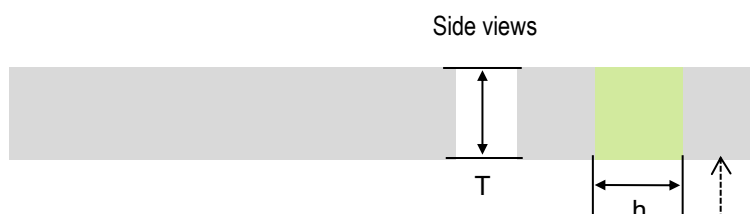
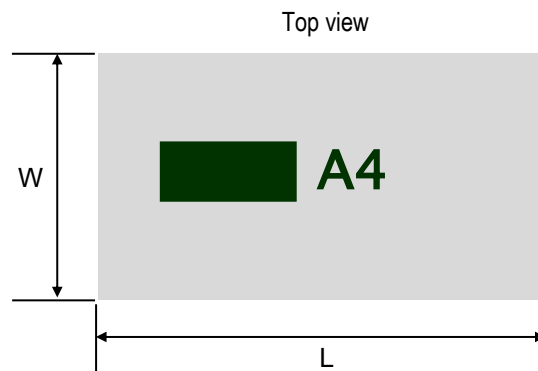
⁴ Average over specified frequency range with bandwidth of 160 MHz.

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.

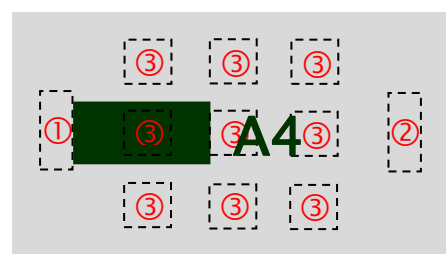
Mechanical Dimensions

	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 Configuration⁶

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

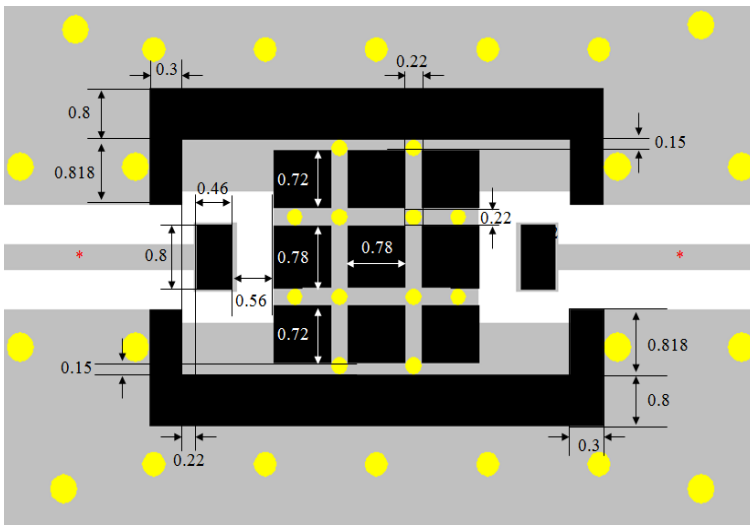


⁵ The gray shaded areas are "plated shielding (metal on component faces)", which require land areas for soldering as shown in the recommended PCB layout.

⁶ The termination type is Nickel Tin. Go to: <https://www.johansontechnology.com/ipcsoldering-profile> for Typical Soldering Profile.

Recommended PCB Layout

Mount device with colored mark facing up.



Units in mm



Solder Resist



Land

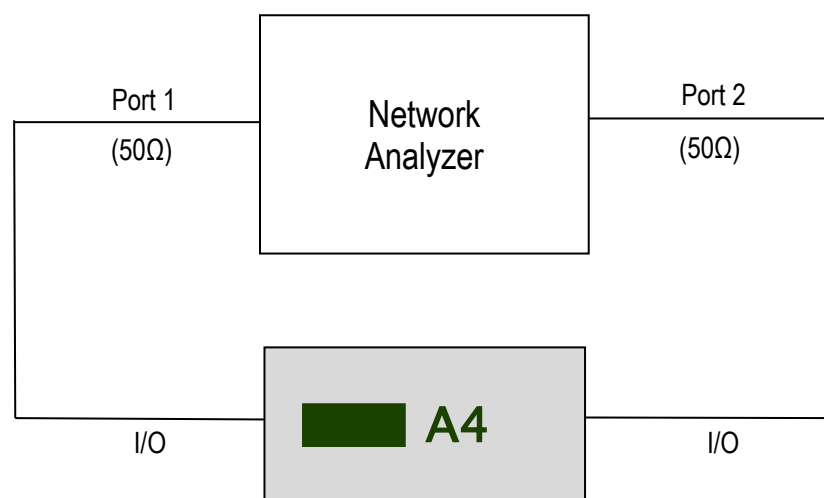


Through-hole ($\phi 0.2/\phi 0.35$)

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

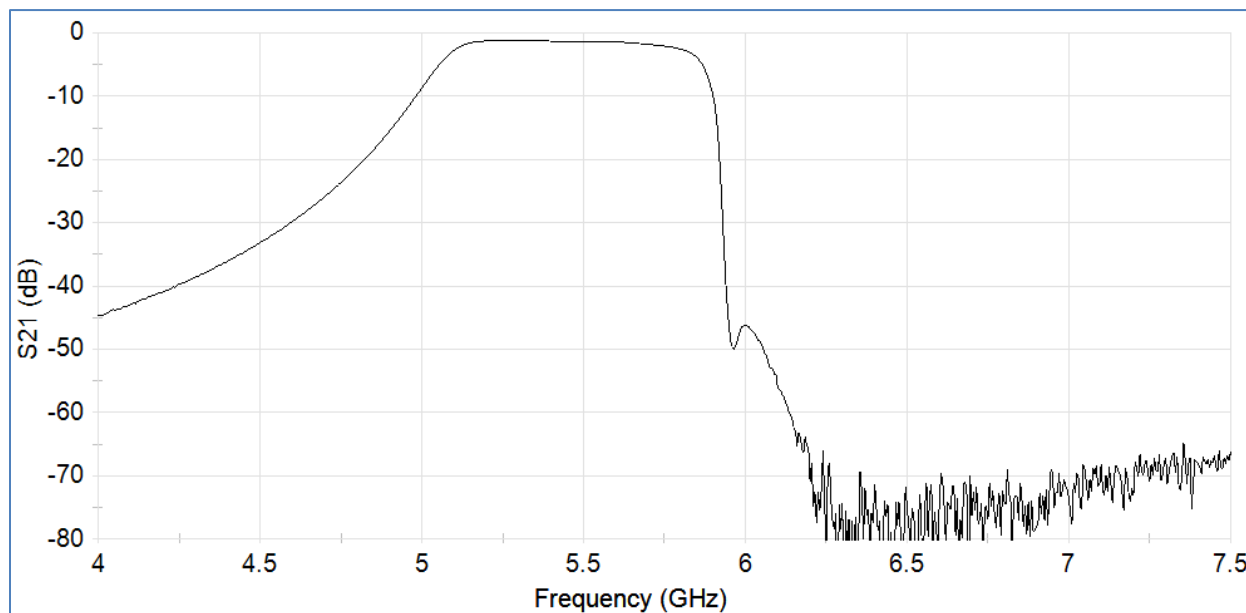
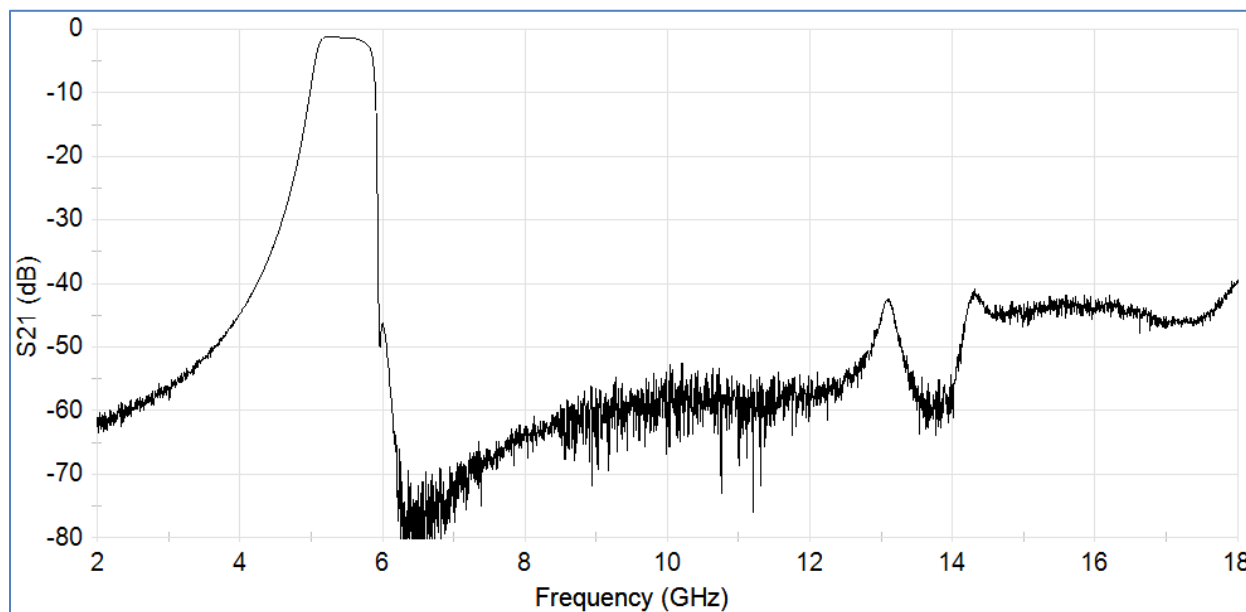
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram



RF Measurements (T = 25°C)

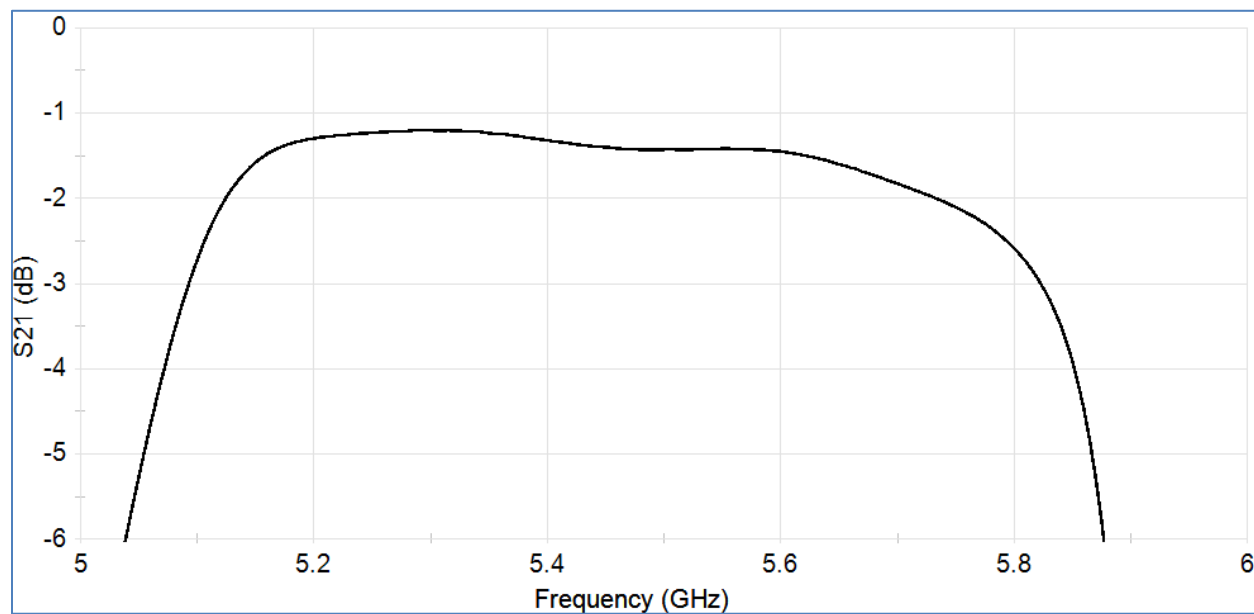
Insertion Loss, Attenuation



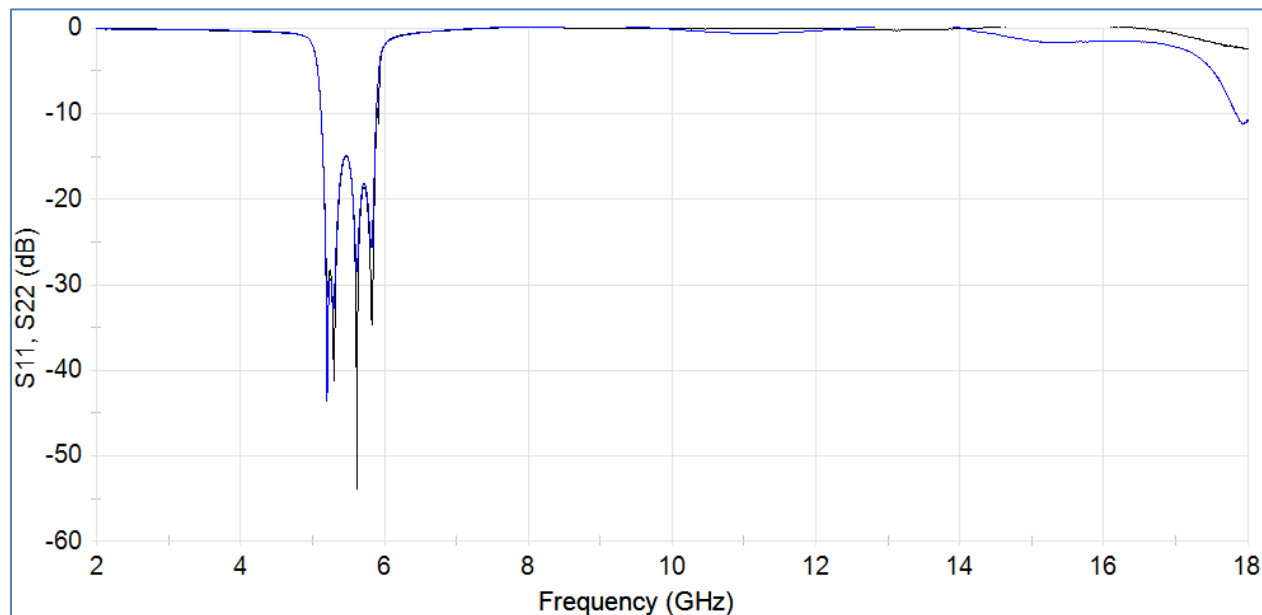


RF Measurements (T = 25°C)

Insertion Loss



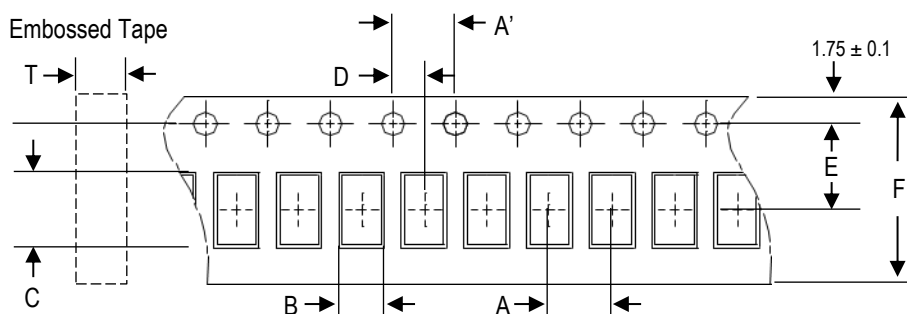
Return Loss



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

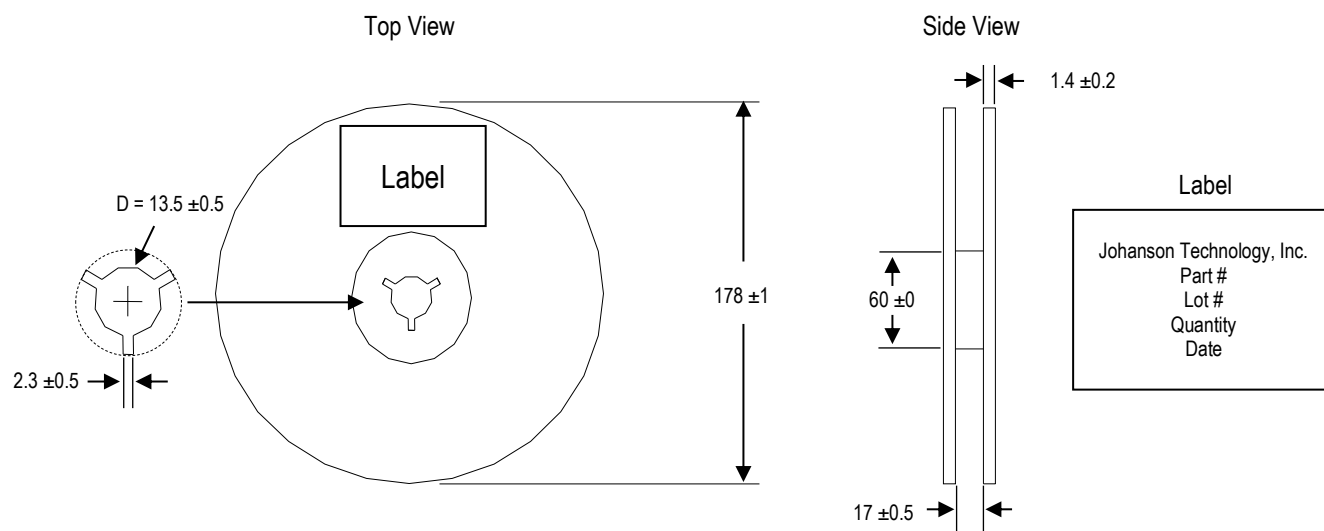
Tape and Reel Specifications (Units in mm)

Tape Dimensions

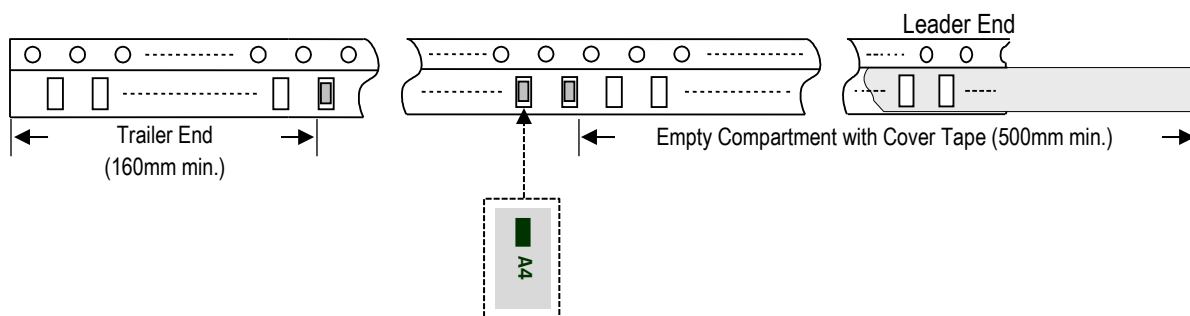


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
8.0 ± 0.1	0.4 ± 0.1	3.5 ± 0.1	5.8 ± 0.1	0.2 ± 0.1	5.5 ± 0.1	12.0 ± 0.1	2.2 ± 0.1	1,000	Plastic (Embossed)

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 2 SMA Connectors	5497BP46A0655001CE1	

Important Links

[5497BP46A0655001E 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](#)

Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.