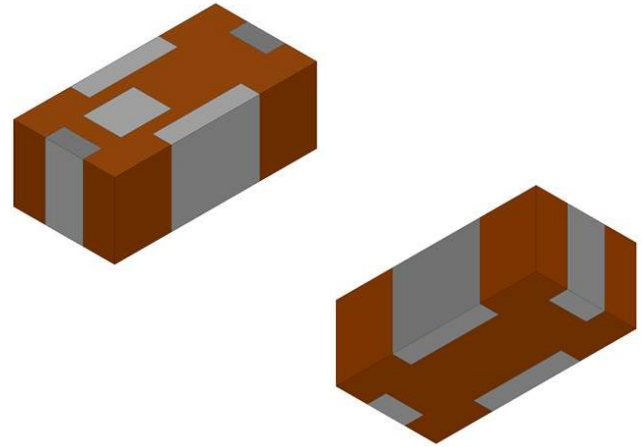


1.9 GHz Band Pass Filter

- 1880 - 1930 MHz passband
- Optimal for DECT NR+, DECT-2020 NR IoT, DECT 6.0, and DECT legacy
- Low insertion loss
- High out-of-band selectivity
- SMD, EIA 1206
- RoHS compliant



General Specifications^{1 2}

Impedance (Ω)	1880 - 1930 MHz	50
Insertion Loss (dB)	1880 - 1930 MHz	1.65 Max.
Return Loss (dB)	1880 - 1930 MHz	9.5 Min.
Attenuation (dB)	100 - 1500 MHz	20 Min.
	2300 - 6000 MHz	15 Min.
	1250 - 1290 MHz	25 Min.
	2400 - 2500 MHz	30 Min.
	2500 - 2570 MHz	25 Min.
	3760 - 3860 MHz	30 Min.
	5640 - 5790 MHz	30 Min.

Maximum Ratings

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

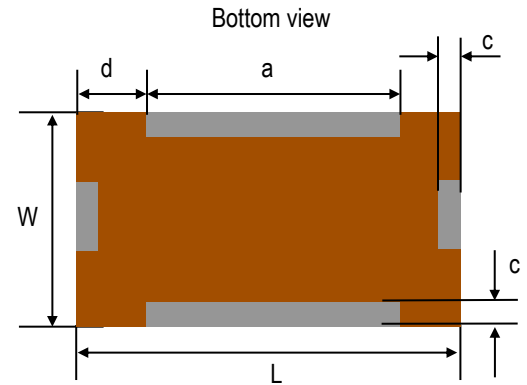
¹ Typical value represents average measurement at 25 $^{\circ}\text{C}$. Min./Max. values represent measurements over specified operating temperature.

² General specifications measured on Johanson's evaluation board P/N 1905BP18A0050001CE1.

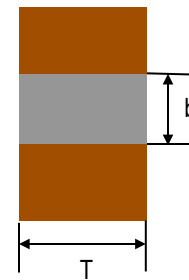
³ 18 months max. in vacuum sealed bag and 1 week after opened. Please keep unused parts in vacuum sealed bags. For more info go to <https://www.johansontechnology.com/tech-notes/silver-leaded-components-soldering-profile>.

Mechanical Dimensions

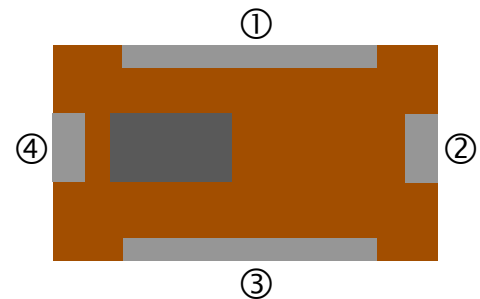
	Inches			Millimeters		
L	0.126	±	0.006	3.20	±	0.15
W	0.063	±	0.006	1.60	±	0.15
T	0.051	±	0.004	1.30	±	0.10
a	0.075	±	0.006	1.90	±	0.15
b	0.020	±	0.006	0.50	±	0.15
c	0.012	±	0.008	0.30	±	0.20
d	0.026	±	0.008	0.65	±	0.20



Side view



Top view



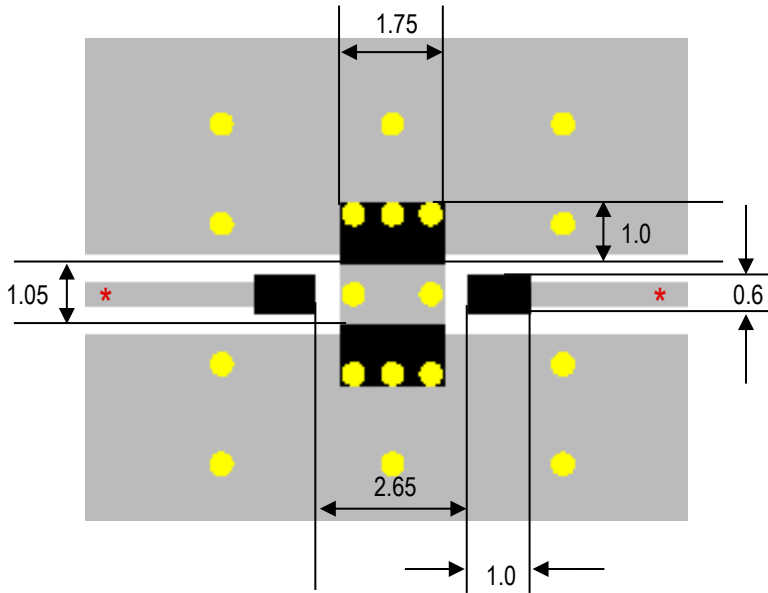
Terminal Configuration⁴

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

⁴ The termination type is Silver. Go to: <https://www.johansontechnology.com/tech-notes/silver-leaded-components-soldering-profile> for Typical Soldering Profile.

Recommended PCB Layout

Note: Mount device with colored mark facing up.



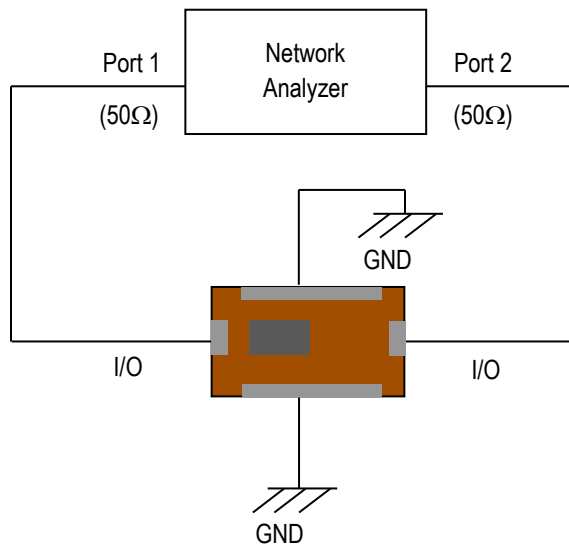
Units in mm

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

* 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>

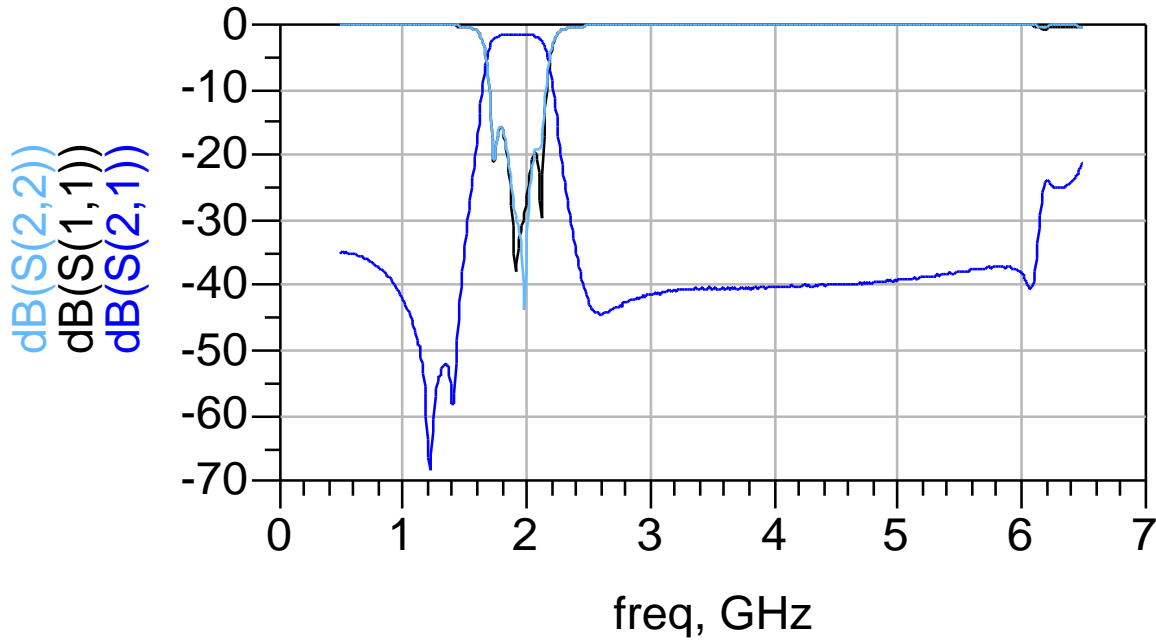
Measuring Diagram





RF Measurement (T = 25°C)

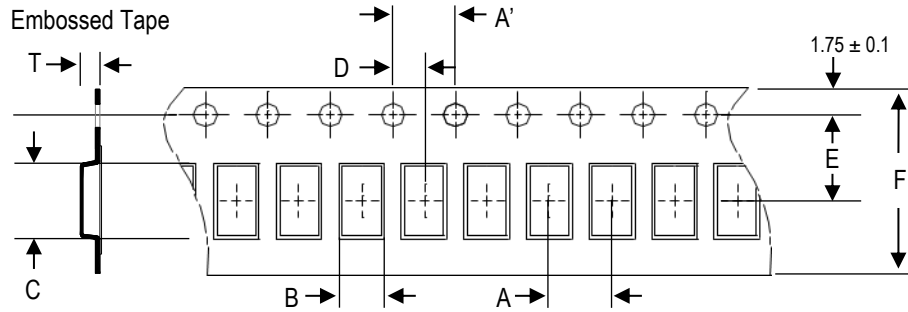
Insertion Loss, Return Loss, Attenuation



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

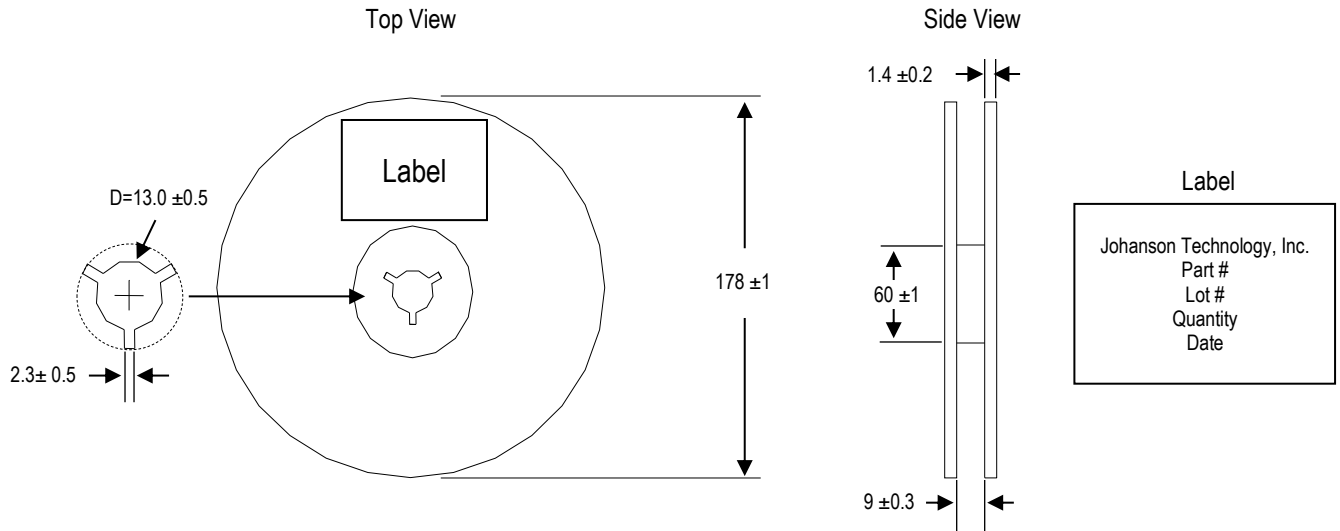
Tape and Reel Specification (Units in mm)

Tape Dimensions

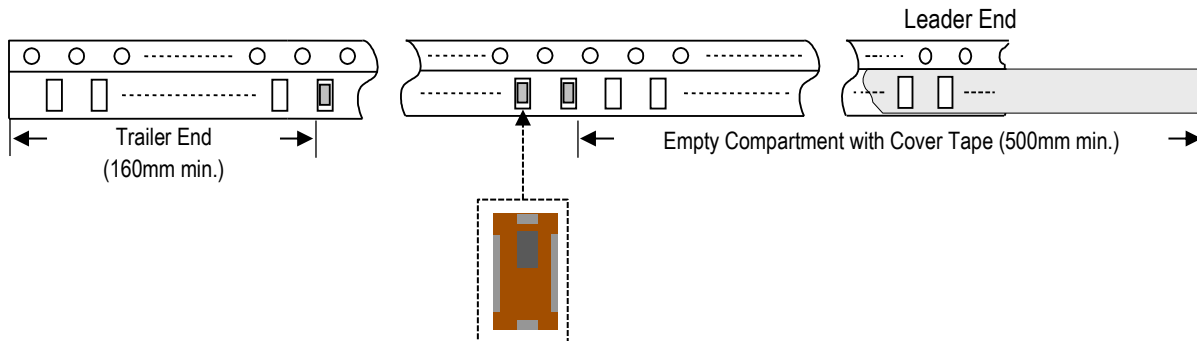


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.95 ±0.1	3.5 ±0.1	2.0 ±0.05	3.5 ±0.1	8.0 ±0.1	1.6 ±0.1	3,000pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	1905BP18A0050001B	Silver
T & R (7" Reel Embossed Tape)	1905BP18A0050001E (Qty: 3,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	1905BP18A0050001CE1	

Important Links

[1905BP18A0050001E 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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