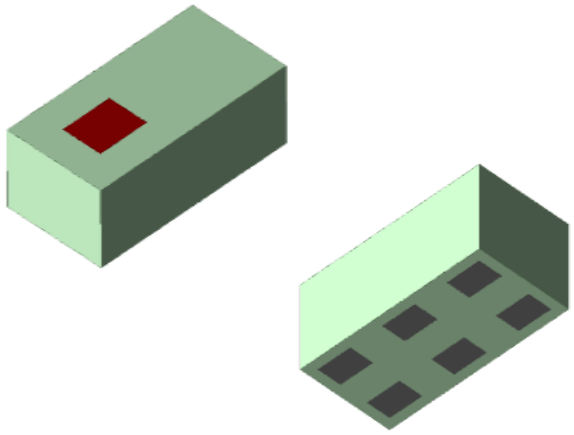
4.7 GHz Band Pass Filter

- 4400 - 5000 MHz passband
- Fit for mobile communication systems
- Low insertion loss
- High out-of-band rejection
- Ultra small SMD, EIA 0402
- RoHS complaint



General Specifications[1] [2]

Insertion Loss (dB)	4400 - 5000 MHz		1.5 Max.
Return Loss (dB)	4400 - 5000 MHz	10 Min.	
Attenuation (dB)	600 - 960 MHz	35 Min.	
	1164 - 1300 MHz	35 Min.	
	1476 - 1511 MHz	35 Min.	
	1559 - 1610 MHz	35 Min.	
	1805 - 2200 MHz	35 Min.	
	2300 - 2690 MHz	25 Min.	
	3055 - 3490 MHz	20 Min.	
	8800 - 10000 MHz	15 Min.	
	13200 - 15000 MHz	25 Min.	
	17600 - 20000 MHz	20 Min.	

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.

[1] Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.
[2] General specifications measured on Johanson's evaluation board P/N 4700BP07B0600001CE1.

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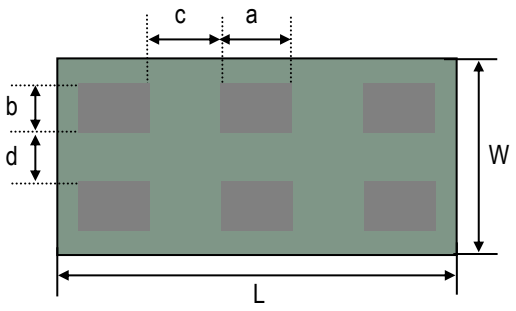
Mechanical Dimensions

	Inches			Millimeters		
L	0.039	±	0.002	1.00	±	0.05
W	0.020	±	0.002	0.50	±	0.05
T	0.014		Max.	0.35		Max.
a	0.007	±	0.002	0.18	±	0.05
b	0.005	±	0.002	0.125	±	0.05
c	0.007	±	0.002	0.18	±	0.05
d	0.006	±	0.002	0.15	±	0.05

Bottom view

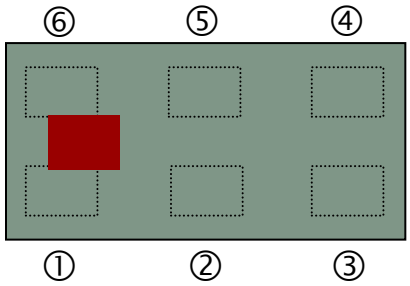


Side view

Terminal Configuration[3]

Pin Number	Function
1	INPUT/OUTPUT
2	GND
3	INPUT/OUTPUT
4	NC
5	GND
6	NC

Top view



[3] The termination type is Nickel Tin. Go to https://www.johansontechnology.com/ipcsoldering-profile for Typical Soldering Profile.

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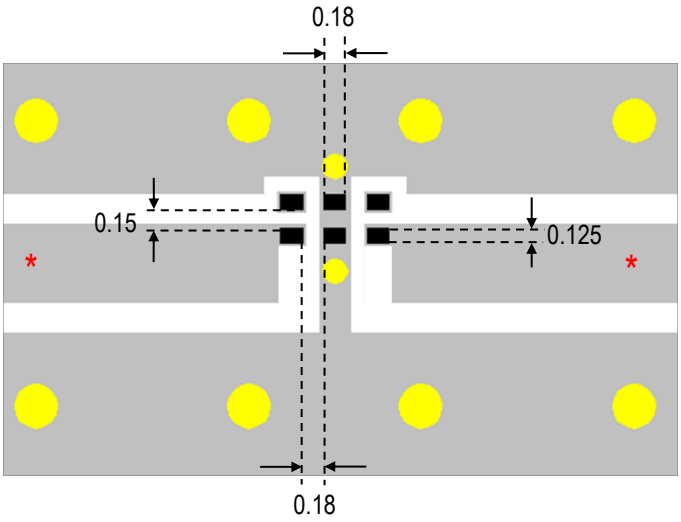
Recommended PCB Layout

Note: Mount device with colored mark facing up.



Units in mm

Solder Resist

Land

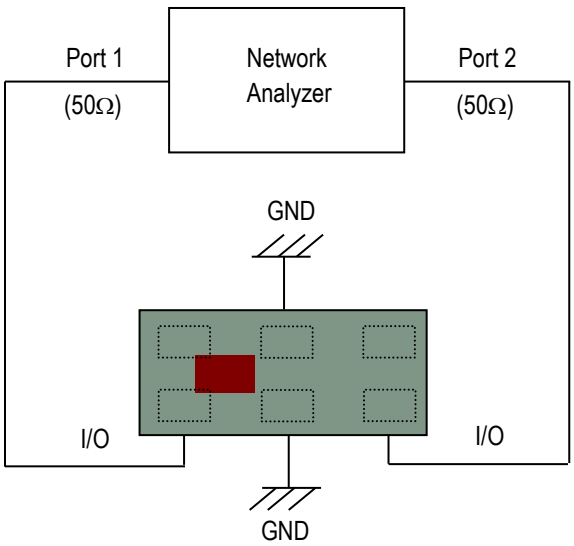
Through-hole (ϕ0.35)

Through-hole (ϕ0.20)

* 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



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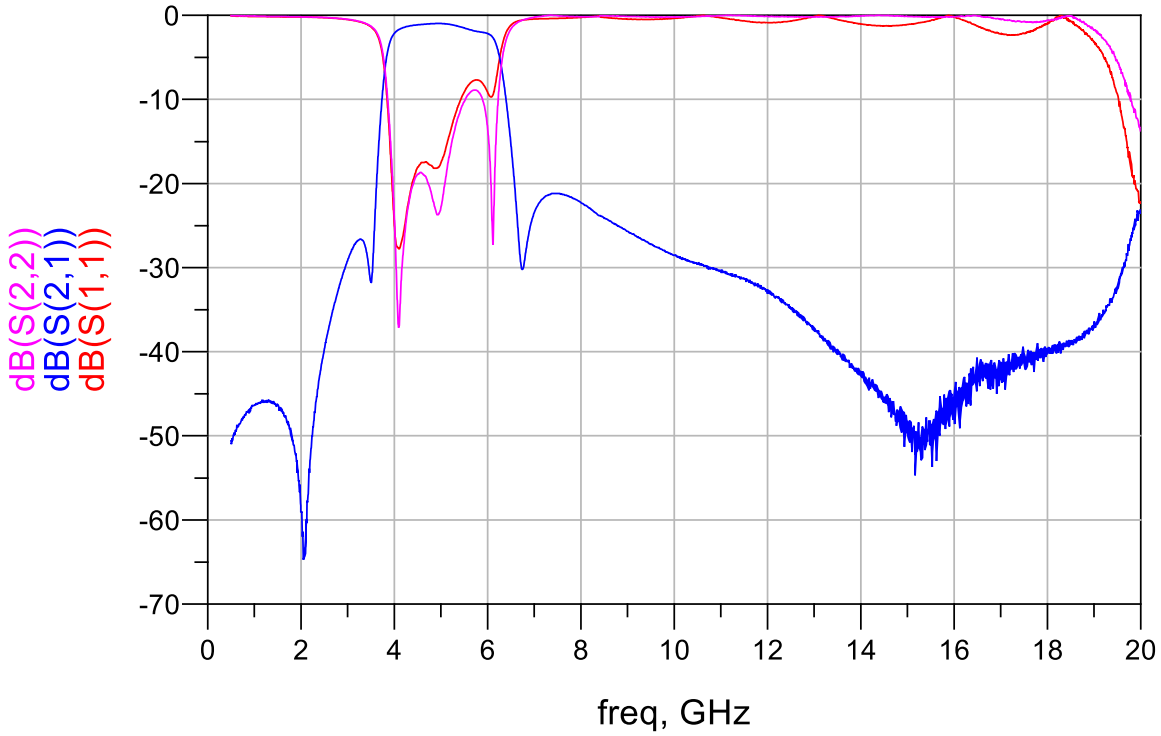
RF Measurement (T = 25°C)

Insertion Loss, Return Loss and Attenuation



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

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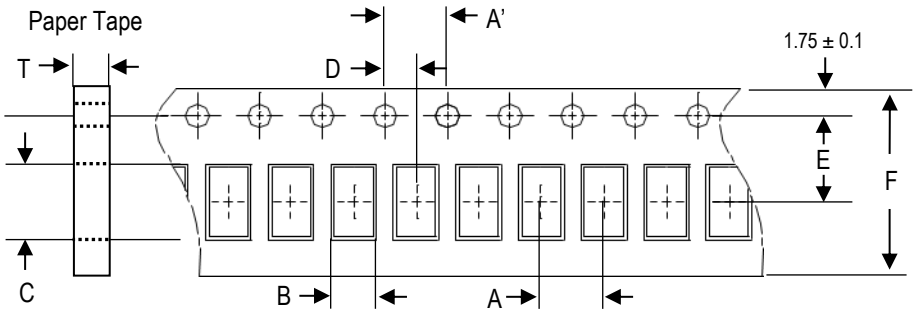
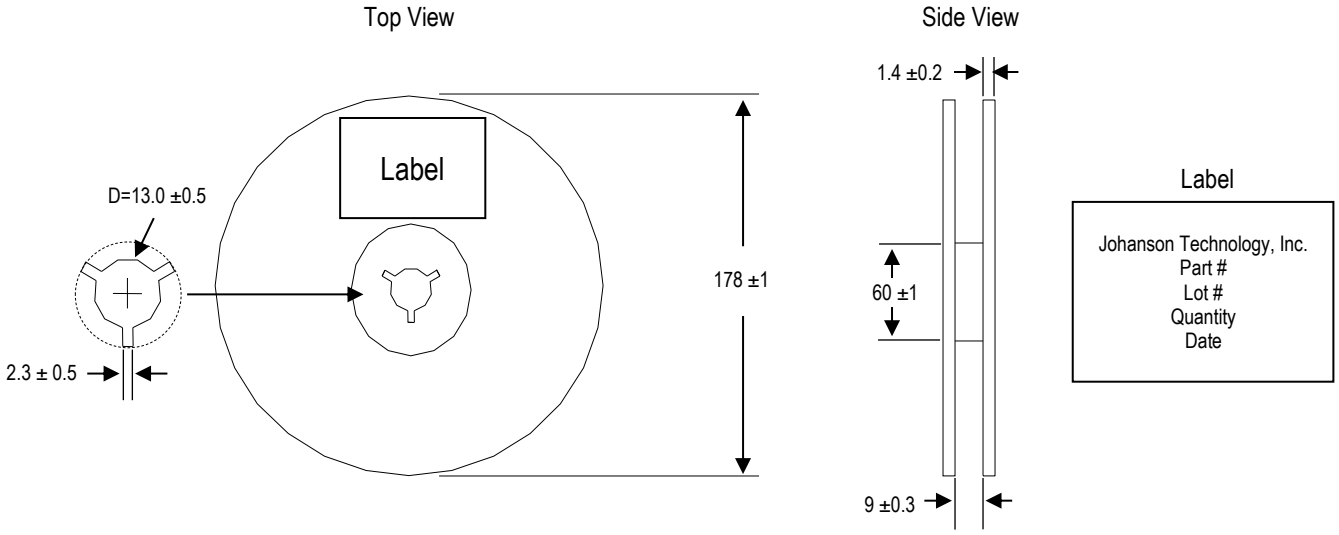
Tape and Reel Specification (Units in mm)

Tape Dimensions

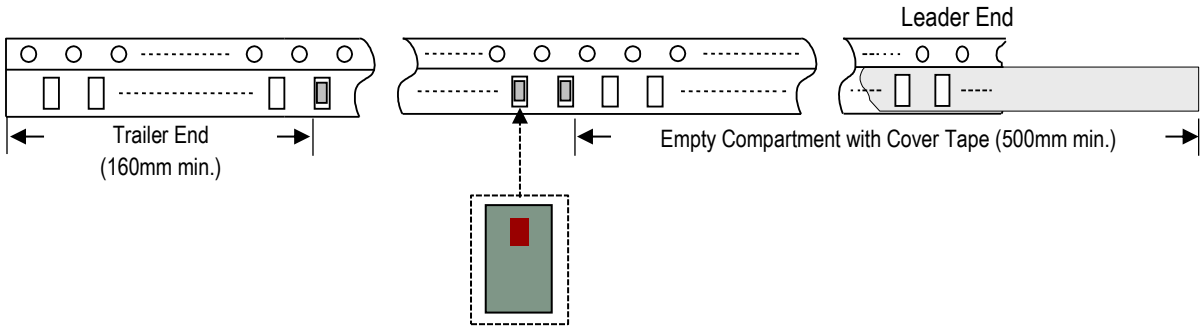


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
2.0 ±0.05	4.0 ±0.1	0.62 ±0.03	1.12 ±0.03	2.0 ±0.05	3.5 ±0.05	8.0 ±0.1	0.43 ±0.03	10,000 pcs.	Paper

Reel Dimensions



Leader and Trailer Dimensions



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Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	4700BP07B0600001B	Nickel Tin
T & R (7" Reel Paper Tape)	4700BP07B0600001T (Qty: 10,000 pcs./reel)	
Evaluation Board with 2 SMA Connectors	4700BP07B0600001CE1	

Important Links

4700BP07B0600001T 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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