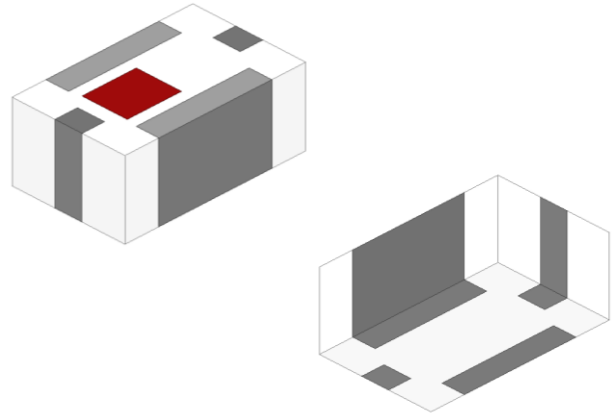


7.0 GHz UWB Band Pass Filter

- 6200 - 7800 MHz passband
- Fit for wireless communication systems
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 0805
- RoHS compliant
- AEC-Q200 Qualified available



General Specifications^{1 2}

Insertion Loss (dB)	6200 – 7800 MHz	1.75 Typ.	2.0 Max.
Return Loss (dB)	6200 – 7800 MHz	12 Typ.	10 Min.
Group Delay (ns)	6200 – 7800 MHz	0.7 Typ.	1.0 Max.
Attenuation (dB)	3000 – 3400 MHz	39 Typ.	30 Min.
	3400 – 3800 MHz	39 Typ.	35 Min.
	3800 – 5600 MHz	35 Typ.	30 Min.
	4900 – 5850 MHz	5 Typ.	3 Min.
	8500 – 16000 MHz	30 Typ.	25 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 18 Months Max.

ESD Susceptibility Ratings

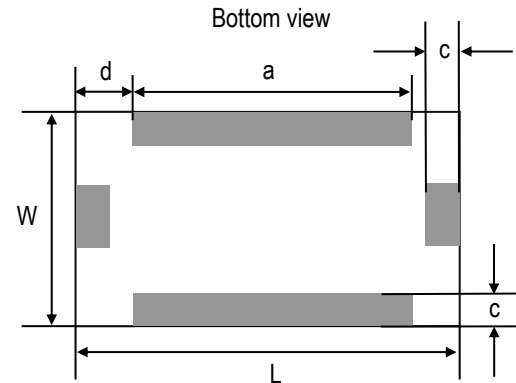
HBM (V)	2000 Min
CDM (V)	500 Min.

¹ Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.

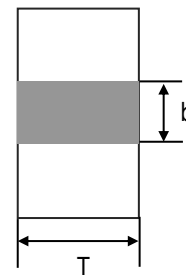
² General specifications measured on Johanson's evaluation board P/N 7000BP15A1600001CE1.

Mechanical Dimensions

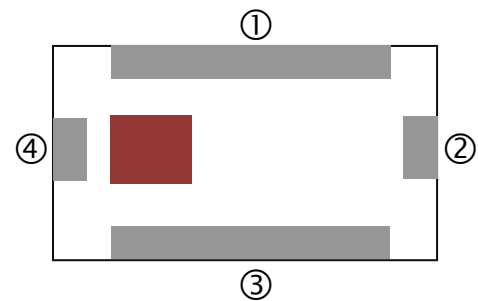
	Inches			Millimeters		
L	0.079	±	0.006	2.00	±	0.15
W	0.049	±	0.004	1.25	±	0.10
T	0.037	±	0.004	0.95	±	0.10
a	0.049	±	0.006	1.25	±	0.15
b	0.012	±	0.006	0.30	±	0.15
c	0.010	±	0.006	0.25	±	0.15
d	0.014	±	0.006	0.35	±	0.15



Side view



Top view



Terminal Configuration³

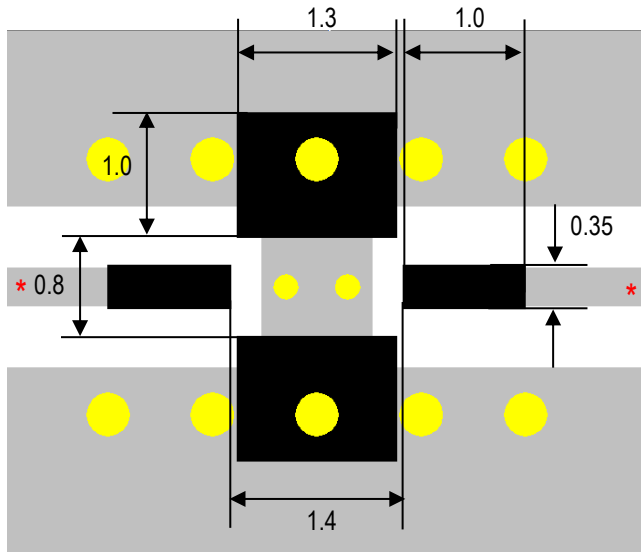
Pin Number	Function
1	GND
2	INPUT/OUTPUT
3	GND
4	INPUT/OUTPUT

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



Recommended PCB Layout

Note: Mount device with colored mark facing up.



Units in mm

Solder Resist

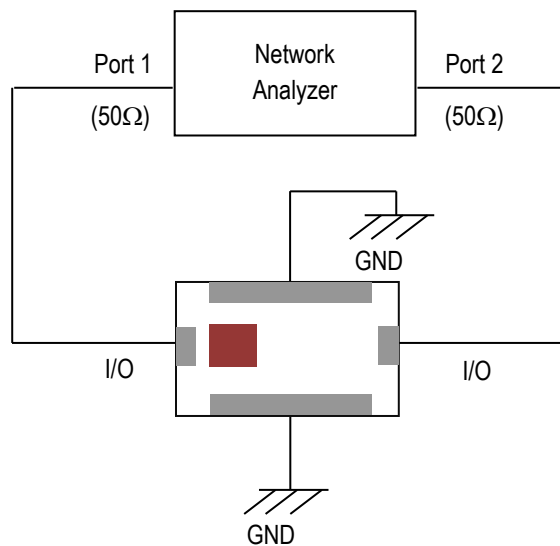
Land

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

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

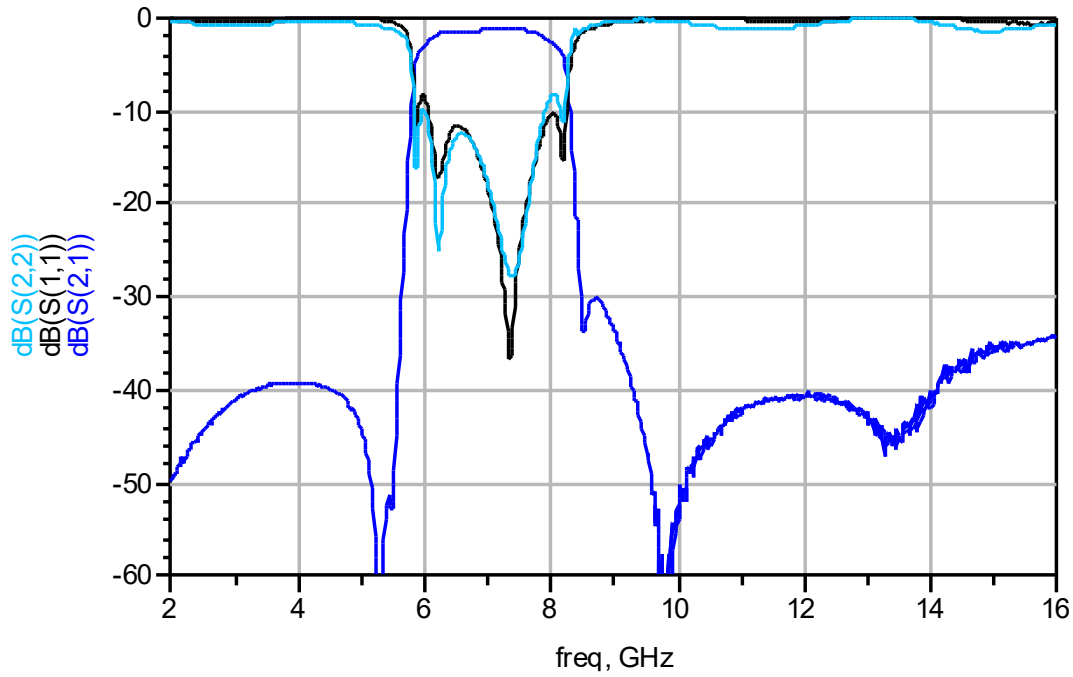
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram

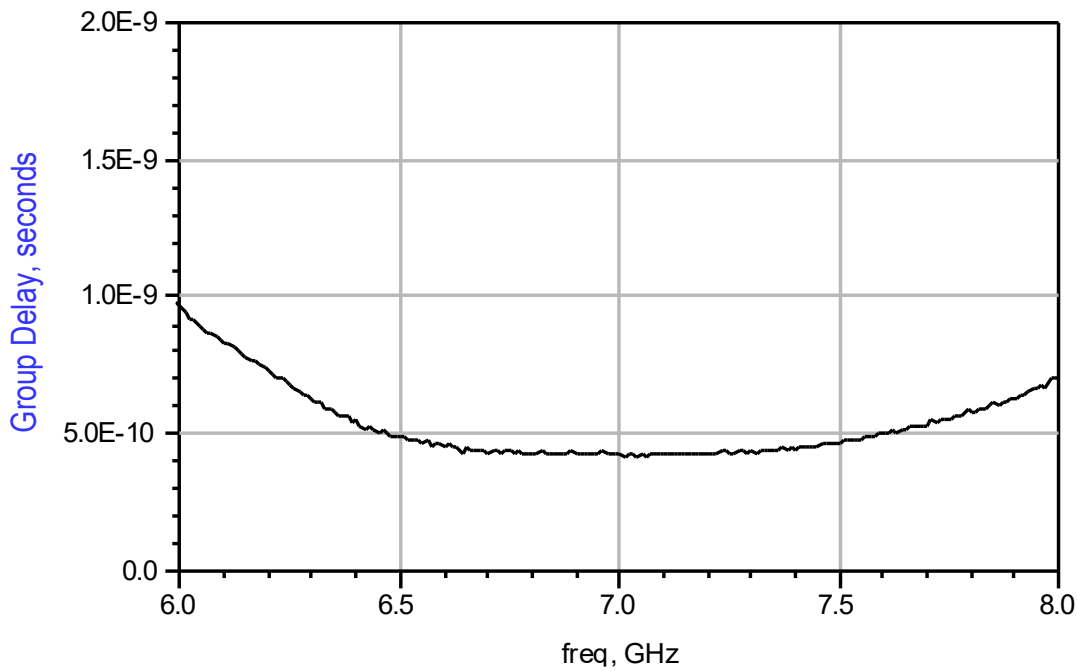


RF Measurement (T = 25°C)

Insertion Loss, Return Loss and Attenuation



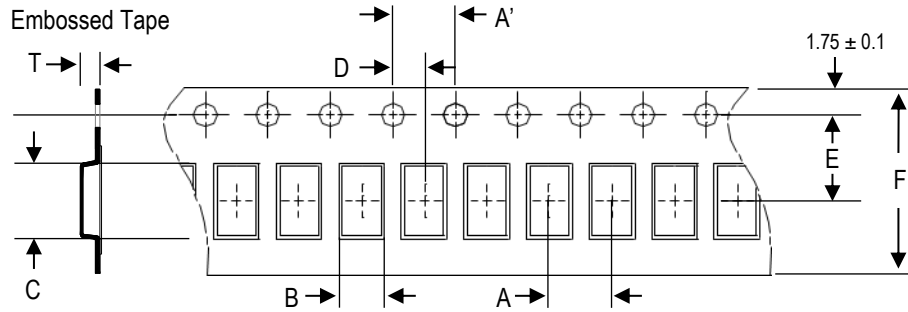
Group Delay



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

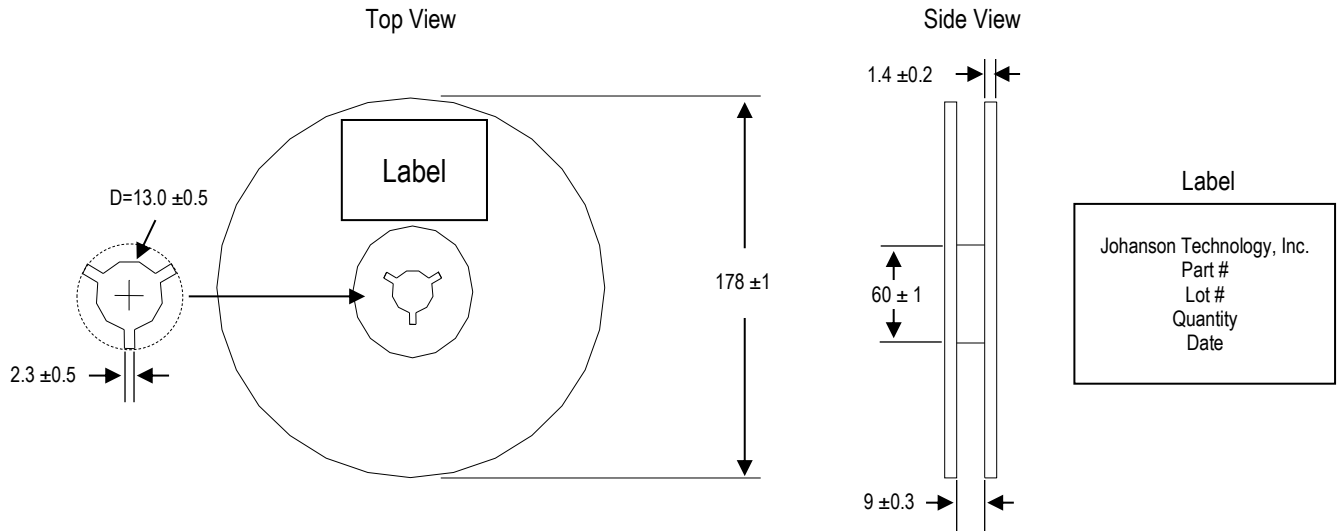
Tape and Reel Specification (Units in mm)

Tape Dimensions

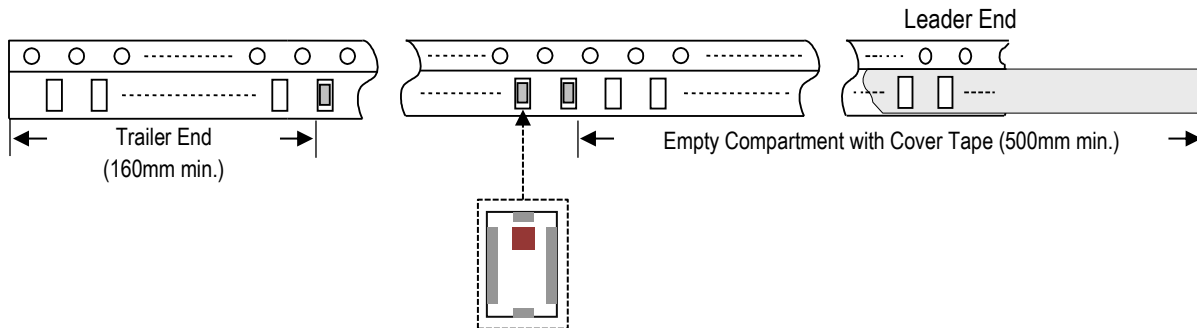


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.35 ±0.05	2.15 ±0.05	2.0 ±0.05	3.5 ±0.1	8.0 ±0.1	1.08 ±0.05	4,000pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	7000BP15A1600001B	Nickel Tin
T & R (7" Reel Embossed Tape)	7000BP15A1600001E (Qty: 4,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	7000BP15A1600001CE1	

Important Links

[7000BP15A1600001E 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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