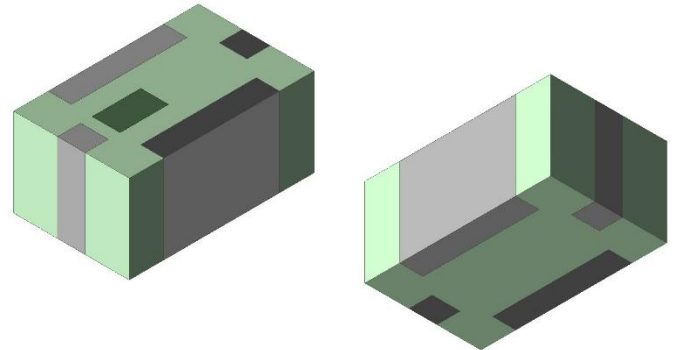


7.24 GHz Band Pass Filter, UWB

- 6240 - 8240 MHz passband
- High attenuation for bands outside passband
- Low loss and high out-of-band selectivity
- SMD, EIA 0805
- RoHS compliant



General Specifications^{1 2}

Impedance (Ω)	6240 - 8240 MHz		50
Insertion Loss (dB)	6240 - 8240 MHz	1.8 Typ.	2.5 Max.
Return Loss (dB)	6240 - 8240 MHz	11 Typ.	10 Min.
Group Delay (ns)	6240 - 8240 MHz	0.8 Typ.	3.0 Max.
Group Delay Ripple (ns)	6240 - 8240 MHz	0.5 Typ.	1.0 Max.
Attenuation (dB)	DC - 5200 MHz	38 Typ.	35 Min.
	2400 - 2500 MHz	43 Typ.	35 Min.
	5200 - 5860 MHz	19 Typ.	15 Min.
	9000 - 9500 MHz	28 Typ.	10 Min.
	9500 - 18000 MHz	32 Typ.	30 Min.

Maximum Ratings

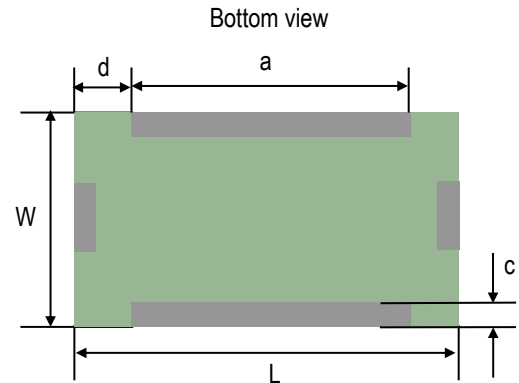
Power Capacity (W)	3 Max. (CW)
Operating Temperature ($^{\circ}\text{C}$)	-40 to +105
Recommended Storage Conditions post-installation ($^{\circ}\text{C}$)	-40 to +105
Recommended Storage Conditions and Period for Unused T&R Product	45% - 60% RH +5 to +35 18 Months Max.

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

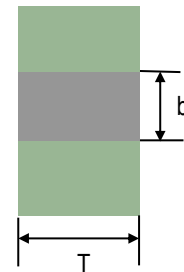
² General specifications measured on Johanson's evaluation board P/N 7240BP15B2000001CE1.

Mechanical Dimensions

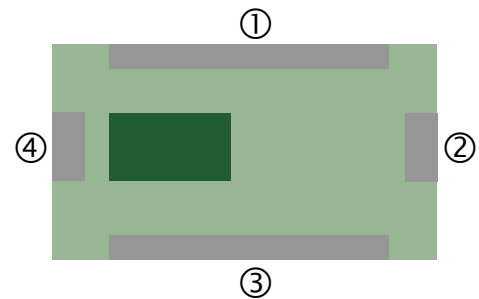
	Inches			Millimeters		
L	0.079	±	0.006	2.00	±	0.15
W	0.049	±	0.004	1.25	±	0.10
T	0.037	±	0.004	0.95	±	0.10
a	0.049	±	0.006	1.25	±	0.15
b	0.012	±	0.006	0.30	±	0.15
c	0.010	±	0.006	0.25	±	0.15
d	0.014	±	0.006	0.35	±	0.15



Side view



Top view



Terminal Configuration³

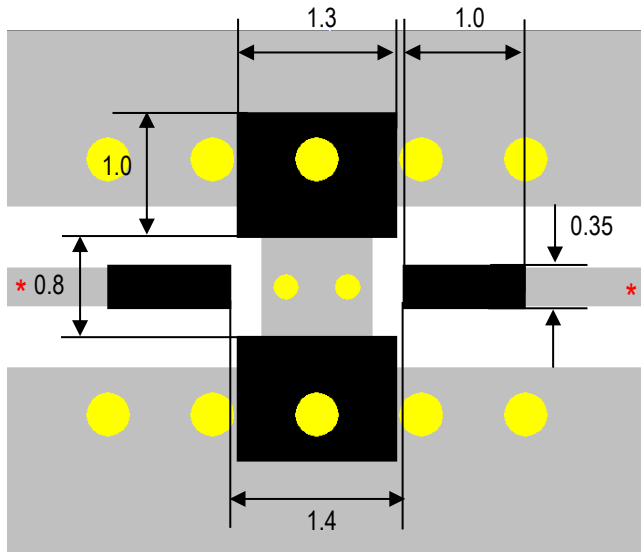
Pin Number	Function
1	GND
2	INPUT/OUTPUT
3	GND
4	INPUT/OUTPUT

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

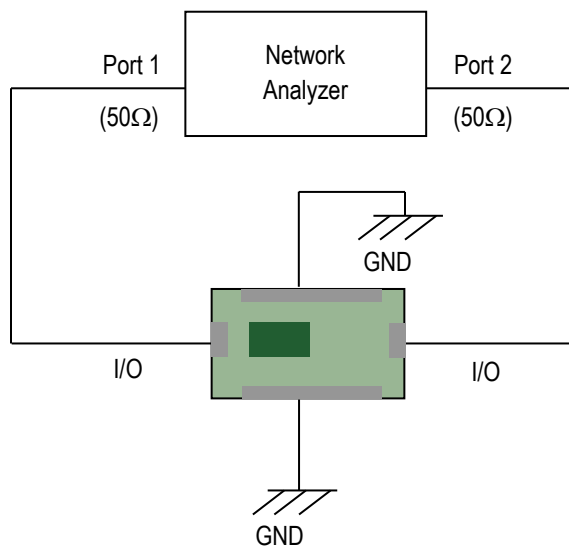
Land

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.

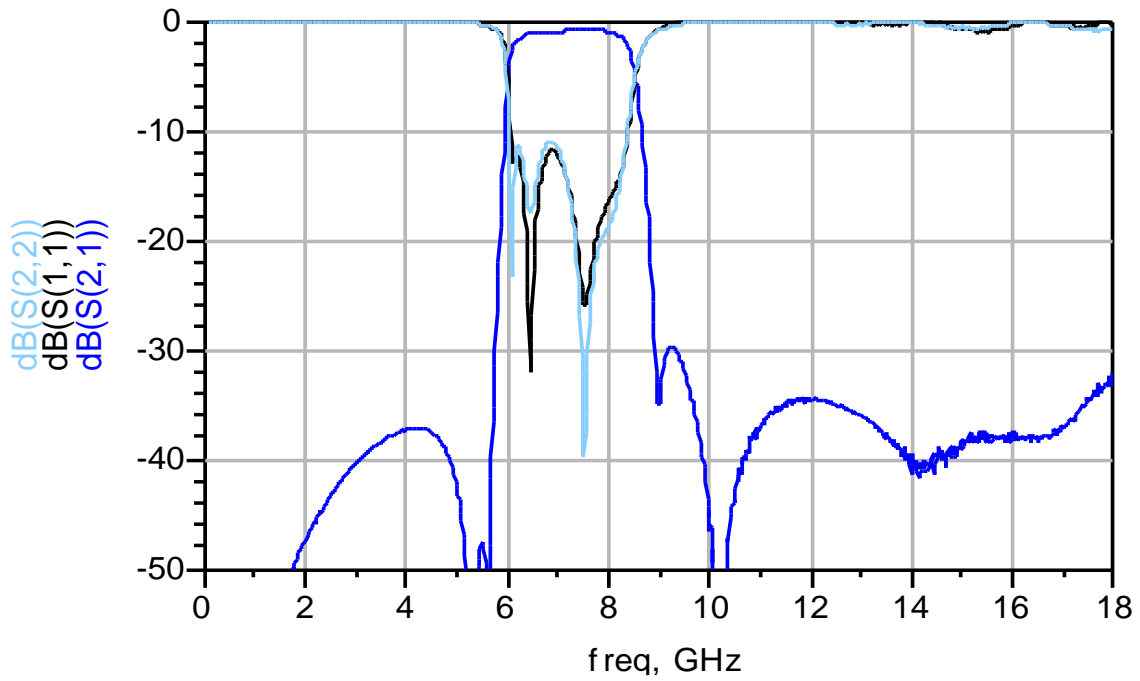
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram

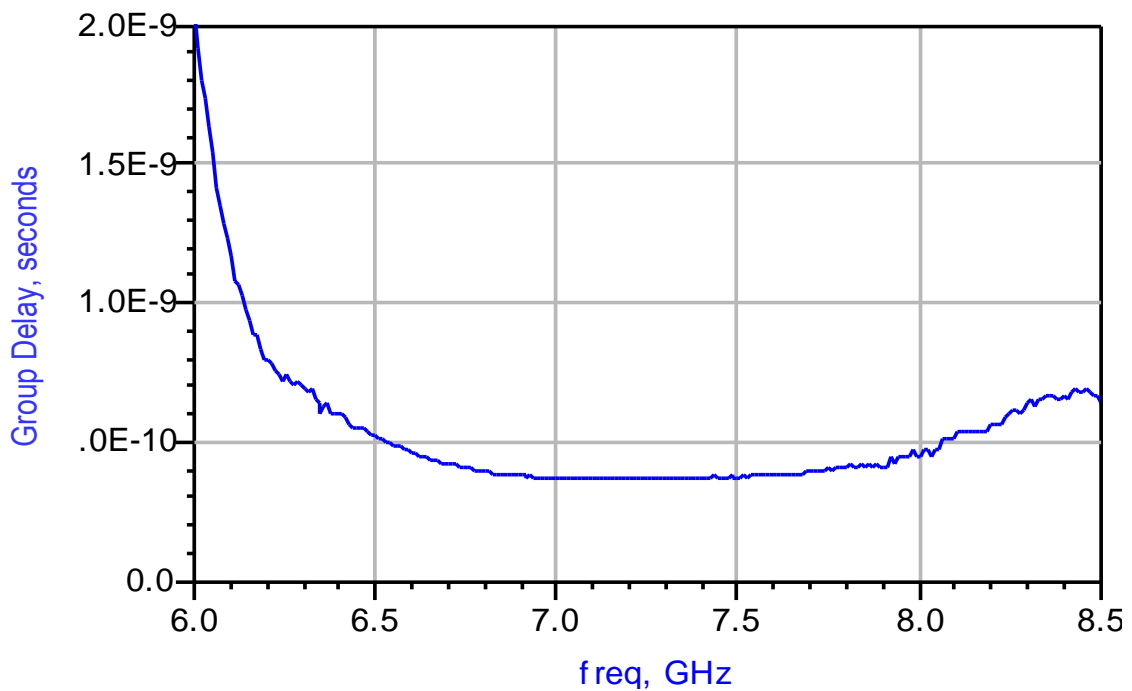


RF Measurement (T = 25°C)

Insertion Loss, Return Loss, Attenuation



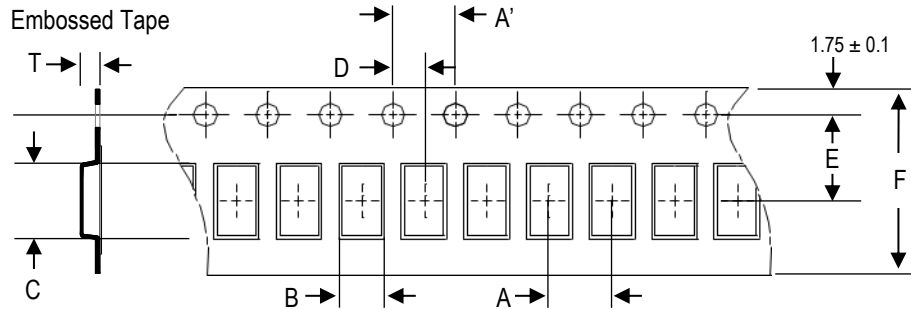
Group Delay



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

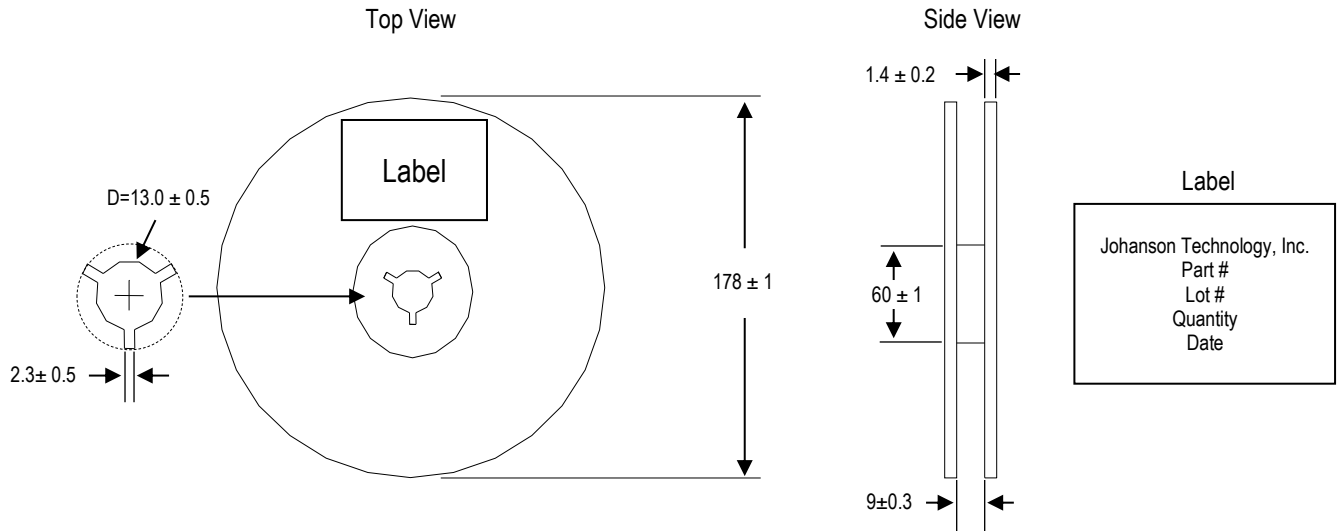
Tape and Reel Specification (Units in mm)

Tape Dimensions

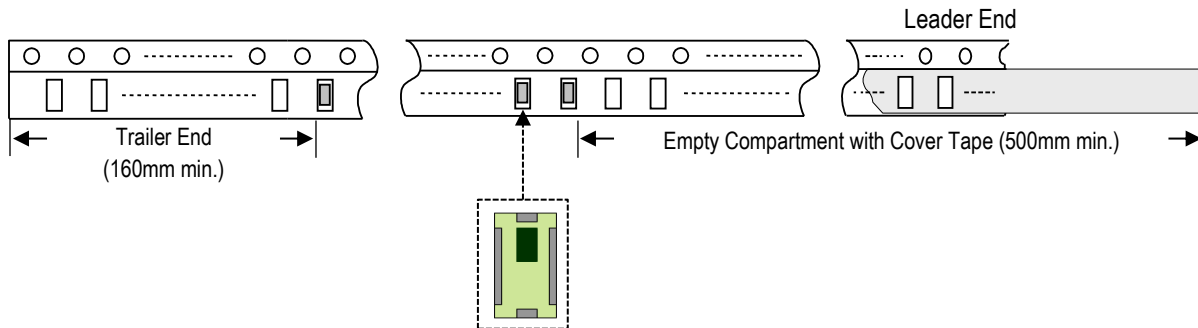


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0±0.1	4.0±0.1	1.35±0.05	2.15±0.05	2.0±0.05	3.5±0.1	8.0±0.1	1.08±0.05	4,000pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	7240BP15B2000001B	Nickel Tin
T & R (7" Reel Embossed Tape)	7240BP15B2000001E (Qty: 4,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	7240BP15B2000001CE1	

Important Links

[7240BP15B2000001E 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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