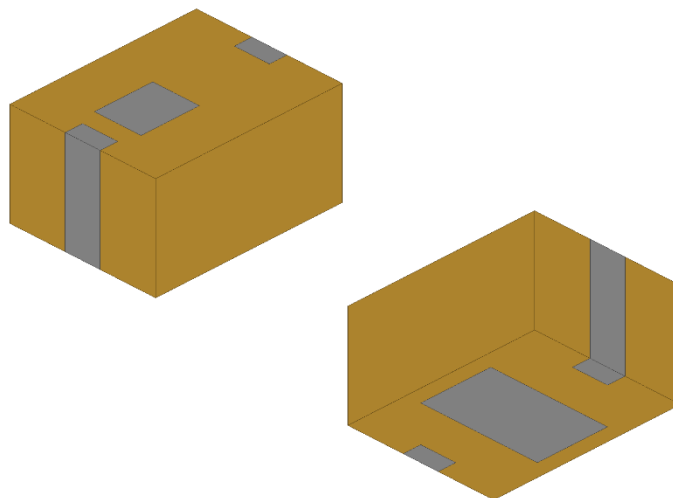




1.4 GHz Band Pass Filter

- 1125 - 1675 MHz passband
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 1210
- RoHS complaint



General Specifications^{1 2}

Impedance (Ω)	1125 - 1675 MHz	75	
Insertion Loss (dB)	1125 - 1675 MHz	1.8 Typ.	2.0 Max.
Return Loss (dB)	1125 - 1675 MHz	9.5 Min.	
Attenuation (dB)	5 - 864 MHz	30 Min.	
	865 - 1002 MHz	34 Min.	
	2300 - 3000 MHz	32 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.

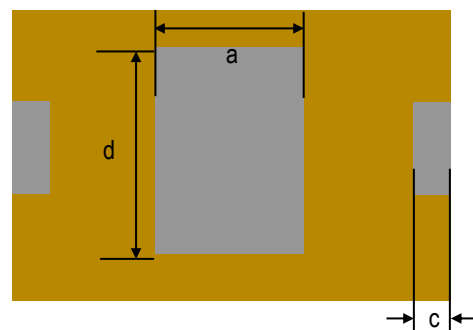
² General specifications measured on Johanson's evaluation board P/N 1400BP41A0550001CE1.

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>.

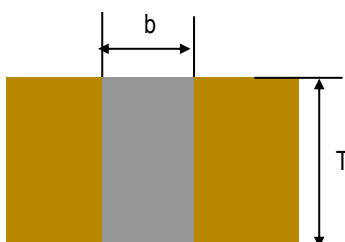
Mechanical Dimensions

	Inches			Millimeters		
L	0.126	±	0.008	3.20	±	0.20
W	0.098	±	0.008	2.50	±	0.20
T	0.079		Max.	2.00		Max.
a	0.047	±	0.006	1.20	±	0.15
b	0.024	±	0.008	0.60	±	0.20
c	0.012	±	0.006	0.30	±	0.15
d	0.079	±	0.006	2.00	±	0.15

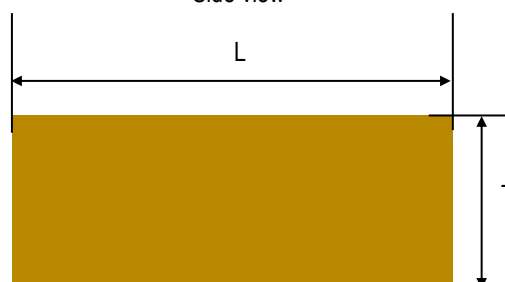
Bottom view



Side view



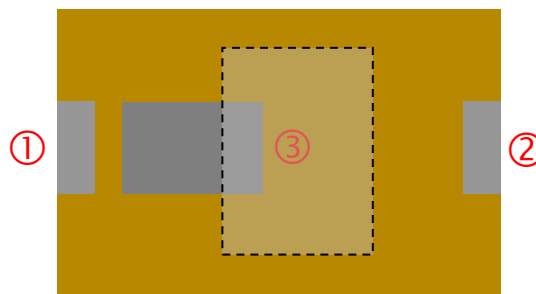
Side view



Terminal Configuration⁴

Pin Number	Function
1	IN
2	OUT
3	GND

Top view

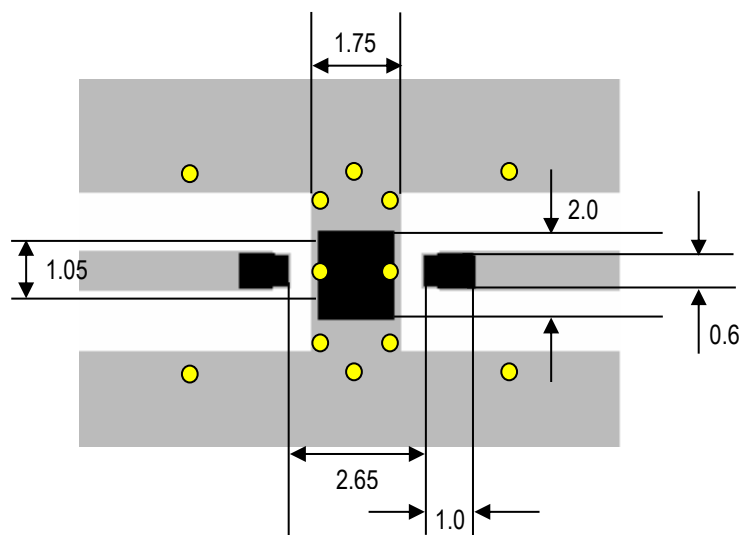


⁴ The termination type is Silver. Go to: <https://www.johansontechnology.com/ipcsoldering-profile> for Typical Soldering Profile. SAC 305 solder paste recommended.



Recommended PCB Layout

Note: Mount device with colored mark facing up.



Units in mm

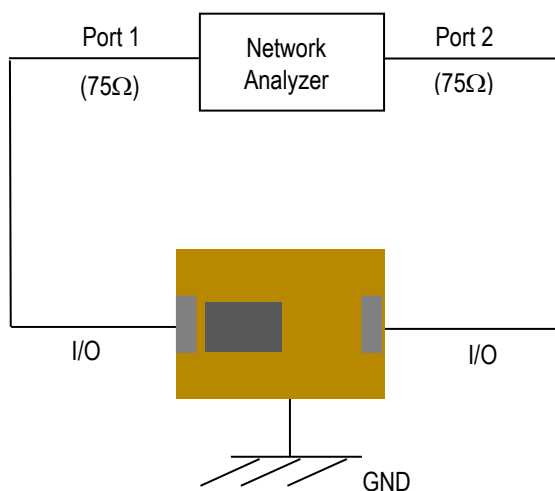
Solder Resist

Land

Through-hole ($\phi 0.35$)

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

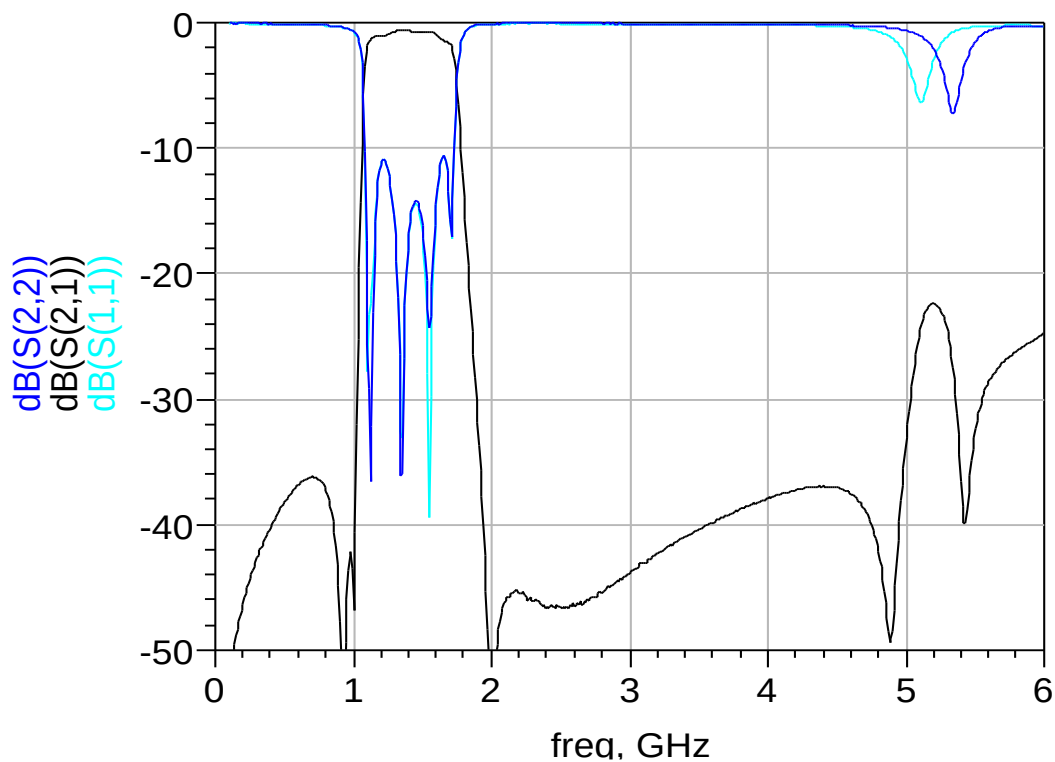
Measuring Diagram





RF Measurement (T = 25°C)

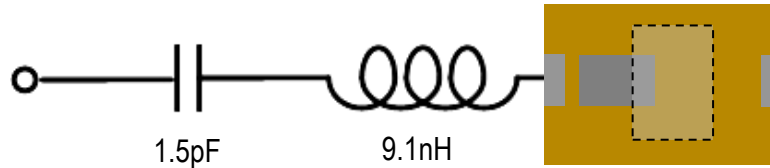
Insertion Loss, Return Loss, Attenuation



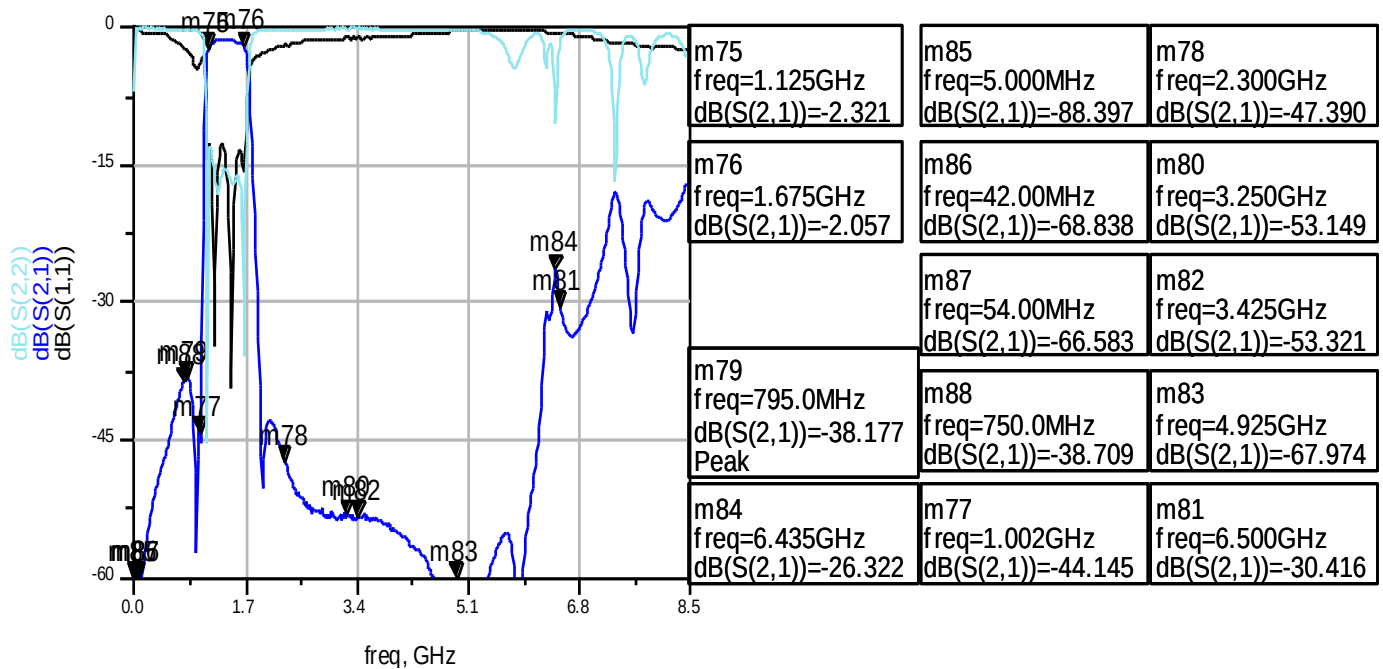
S-parameters, layout file, and complimentary design review available upon request. Contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Application note for MoCA D-Band

Matching might be needed for MoCA D-Band, see diagram below using a wire-wound inductor and HighQ capacitor.

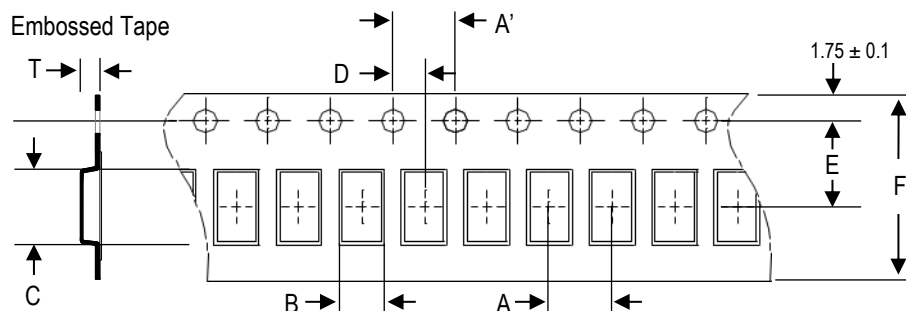


Electrical Characteristics (T=25°C) with L/C Series network



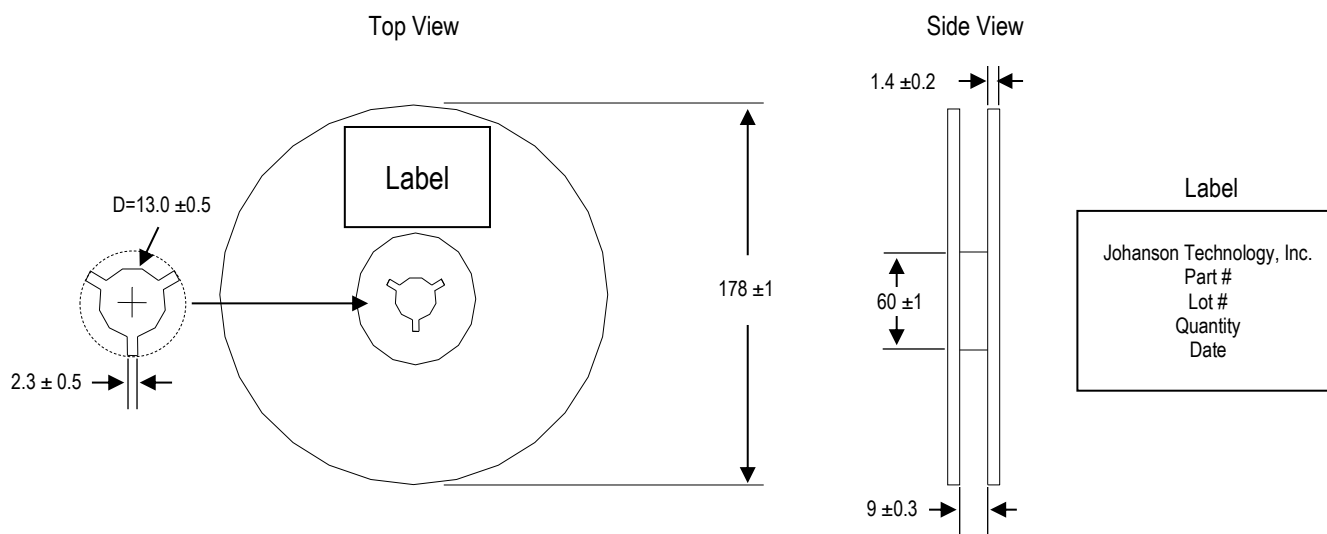
Tape and Reel Specification (Units in mm)

Tape Dimensions

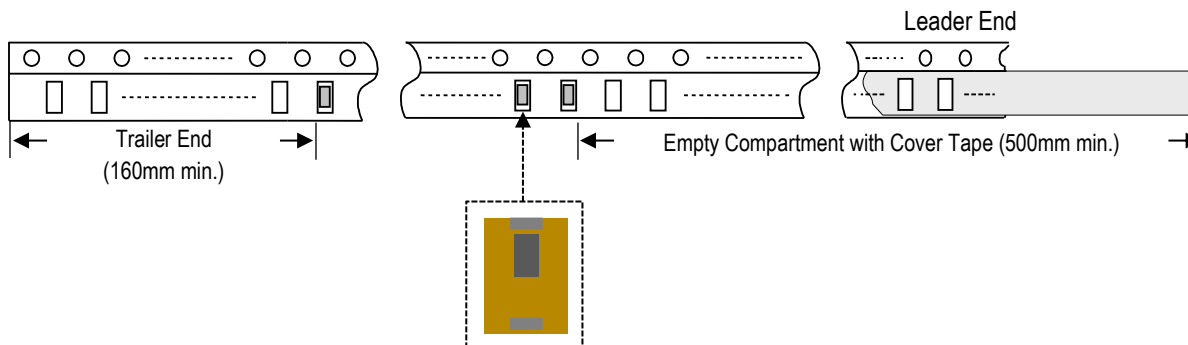


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ± 0.1	4.0 ± 0.1	2.75 ± 0.1	3.45 ± 0.1	2.0 ± 0.05	3.5 ± 0.1	8.0 ± 0.1	1.15 ± 0.05	2,000 pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	1400BP41A0550001B	Silver
T & R (7" Reel Embossed Tape)	1400BP41A0550001E (Qty: 2,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	1400BP41A0550001CE1	

Important Links

[1400BP41A0550001E 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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