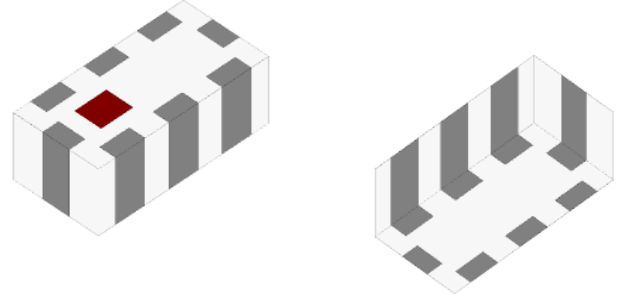


## 868 MHz Low Pass Filter

- 858 – 878 MHz pass band
- Low insertion loss
- SMD, EIA 0805 (2.0 x 1.25 x 0.95 mm)
- 2W Max. power rating
- RoHS compliant



### General Specifications<sup>1 2</sup>

Insertion Loss (dB)	858 – 878 MHz	0.5 Max.
Return Loss (dB)	858 – 878 MHz	14 Min.
Attenuation (dB)	1716 – 1756 MHz	30 Min.
	2574 – 2634 MHz	40 Min.

### Maximum Ratings

Power Capacity (W)	2 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.

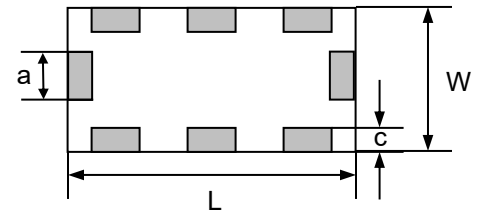
<sup>1</sup> Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.

<sup>2</sup> General specifications measured on Johanson's evaluation board PN 0868LP15A0020001CE1.

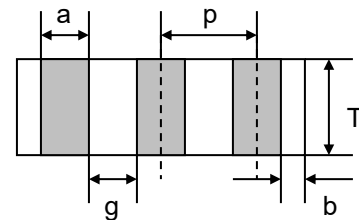
**Mechanical Dimensions**

	Inches			Millimeters		
<b>L</b>	0.079	±	0.004	2.0	±	0.1
<b>W</b>	0.049	±	0.004	1.25	±	0.1
<b>T</b>	0.037	±	0.004	0.95	±	0.1
<b>a</b>	0.012	±	0.004	0.3	±	0.1
<b>b</b>	0.008	±	0.004	0.2	±	0.1
<b>c</b>	0.012	+0.004/-0.008		0.3	+0.10/-0.20	
<b>g</b>	0.014	±	0.004	0.35	±	0.1
<b>p</b>	0.026	±	0.002	0.65	±	0.05

Bottom view



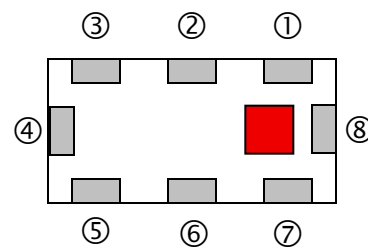
Side view



**Terminal Configuration<sup>3</sup>**

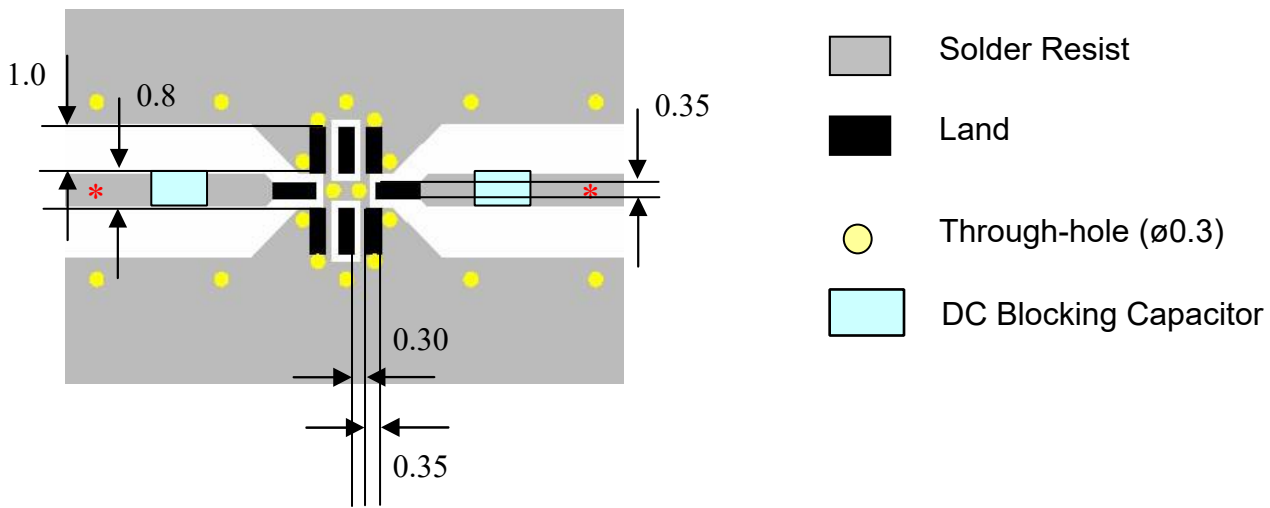
Pin Number	Function
1	GND
2	NC
3	GND
4	INPUT / OUTPUT
5	GND
6	NC
7	GND
8	INPUT / OUTPUT

Top view



<sup>3</sup> The termination type is Nickel Tin. Go to: <https://www.johansontechnology.com/tech-notes/typical-soldering-profile-ipc/> for Typical Soldering Profile.

**Recommended PCB Layout**

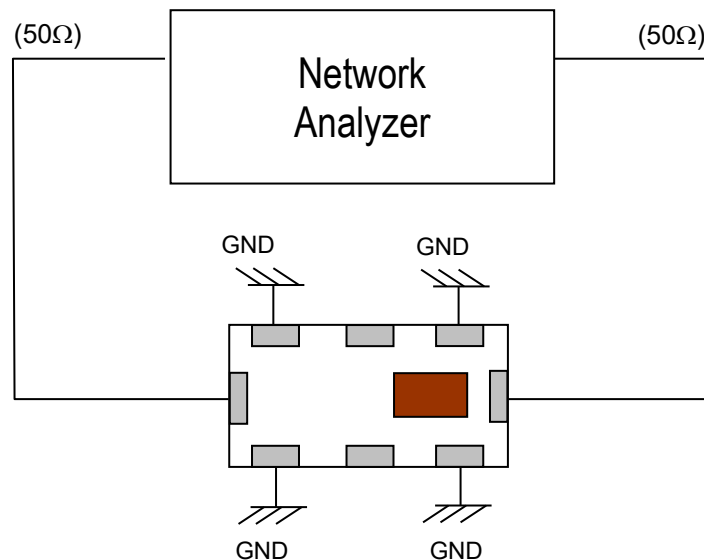


\* Transmission line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

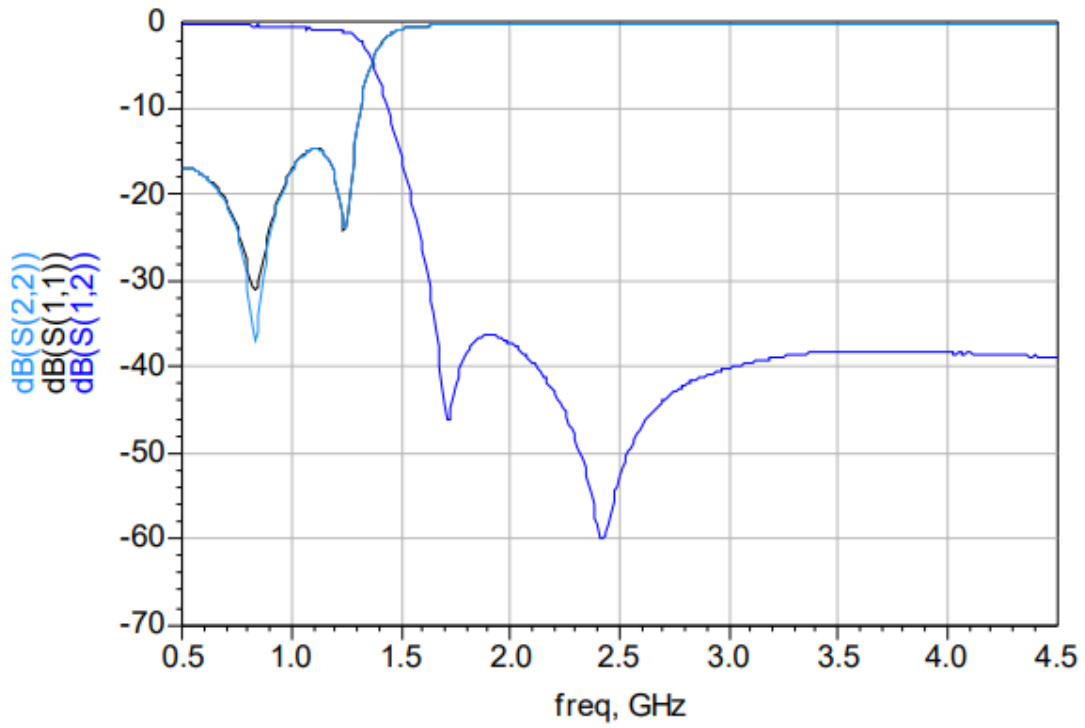
\* DC Blocking capacitor is connected in series at each In/Out Port.

If you would like the full reference design package or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

**Measuring Diagram**



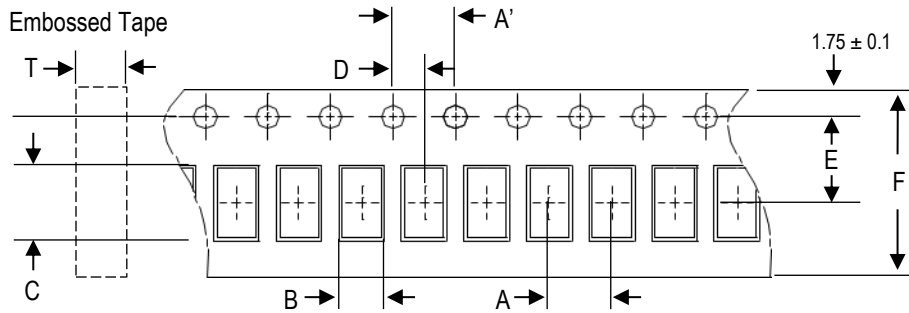
RF Measurement



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

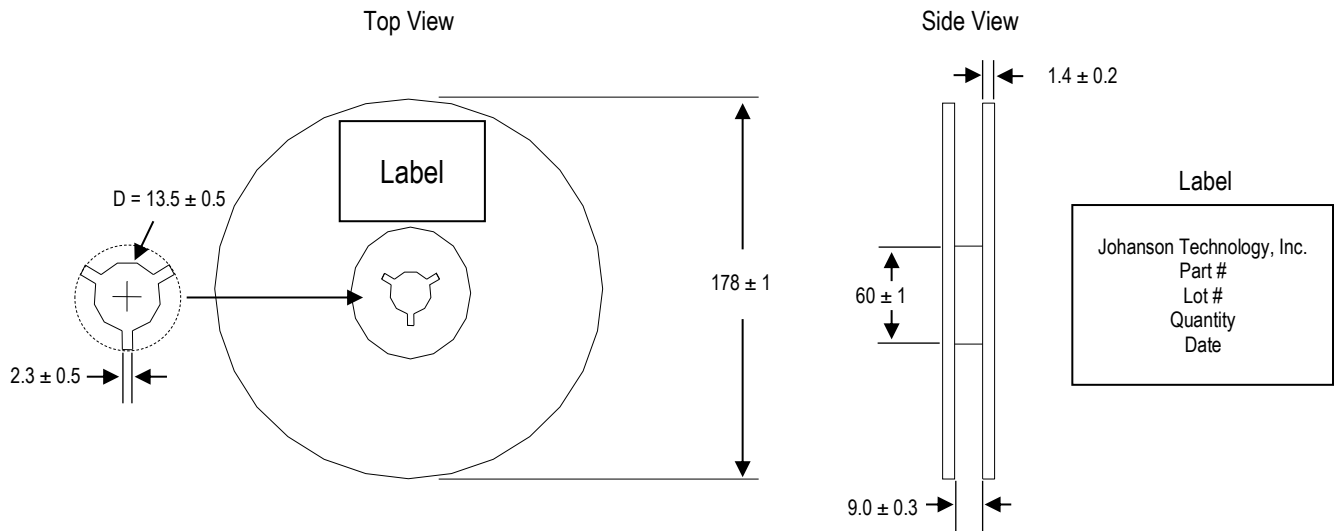
**Tape and Reel Specifications (Units in mm)**

**Tape Dimensions**

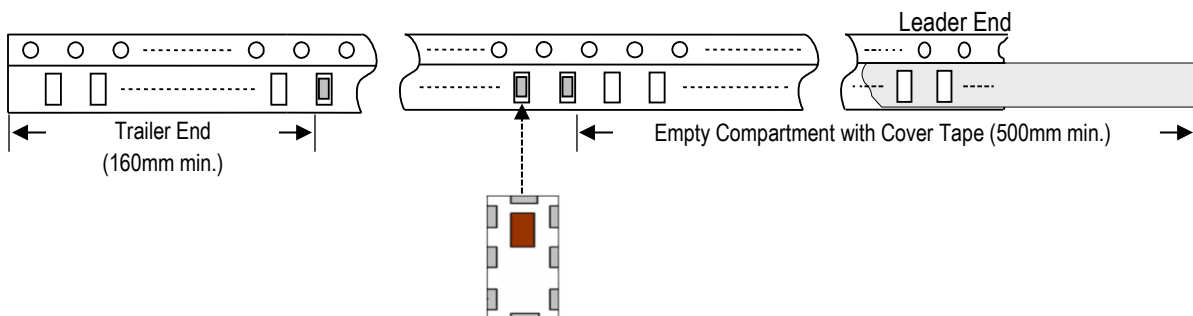


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ± 0.1	4.0 ± 0.1	1.35 ± 0.05	2.15 ± 0.05	2.0 ± 0.05	3.5 ± 0.1	8.0 ± 0.1	1.08 ± 0.05	4,000 pcs	Plastic (Embossed)

**Reel Dimensions**



**Leader and Trailer Dimensions**



**Orderable Part Numbers**

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	0868LP15A0020001B	Nickel Tin
T & R (7" Reel Embossed Tape)	0868LP15A0020001E (Qty: 4,000 pcs./reel)	
Evaluation Board with 2 SMA Connector	0868LP15A0020001CE1	

**Important Links**

[0868LP15A0020001E Product Page](#)

[More Low Pass Filters](#)

[Antenna Tuning, Optimization, and Validation Services](#)

[Soldering Information](#)

[MSL Information](#)

[Packaging Information](#)

[Recommended Storage Condition and Max Shelf Life](#)

[RoHS Compliance](#)

*Contact our application engineers for a PCB layout review.*

**Johanson Technology, Inc. reserves the right to make design changes without notice.**

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