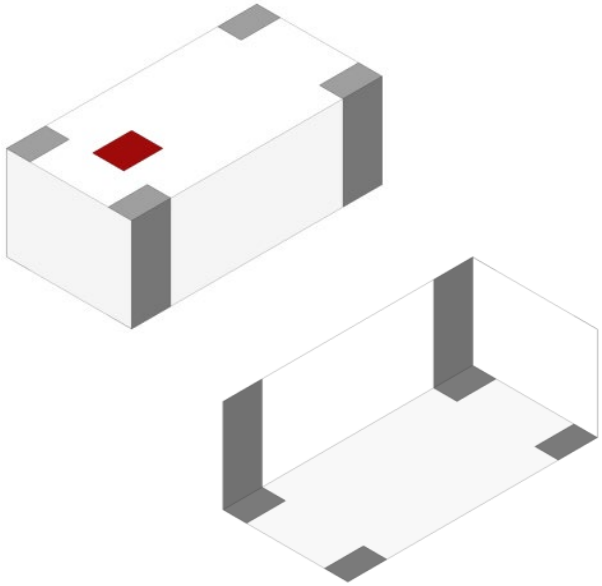
2.4GHz, EIA 1206, Bluetooth/WiFi/Zigbee

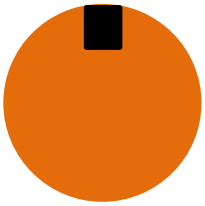
Johanson Technology, Inc. (JTI) miniature RF ceramic chip antennas are made using Low Temperature Co-fired Ceramic (LTCC) technology which has the ability to embed low and high dielectric constants inside our antenna. This enables our components to have high detuning resilience and stability over extreme temperatures (~2ppm).



Recommended mounting locations for this antenna

Center-edge

Circular



General Specifications[1,2]

Passband Frequency (MHz)	**2400 - 2480**
Peak Gain (dBi)	1.5
Average Gain (dBi)	-1.0
Radiated Efficiency	72%
Return Loss (dB)	10 min.
Impedance (Ω)	50

Maximum Ratings

Power Capacity (W)	2 max. (CW)
Operating Temperature	-40 to +125°C
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 from -40°C to +85°C
[2] General specifications measured on Johanson's evaluation board PN 2450AT18D0100001CE1

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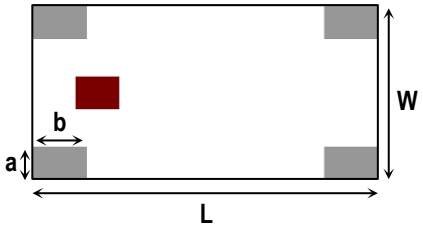
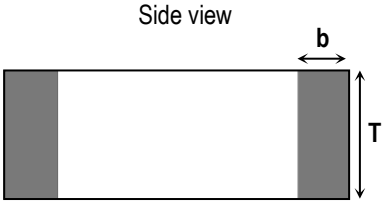
Mechanical Dimensions

	Inches			Millimeters		
L	0.126	±	0.008	3.20	±	0.2
W	0.063	±	0.008	1.60	±	0.2
T	0.047	±	0.004	1.20	±	0.1
a	0.012	+0.004 / -0.008		0.30	+0.1 / -0.2	
b	0.020	±	0.008	0.50	±	0.2

Top view



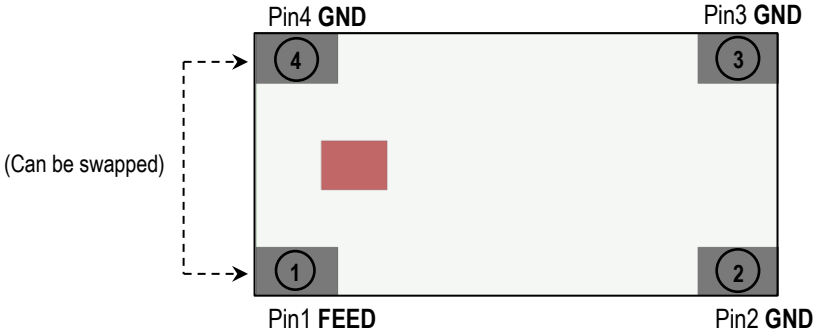
Side view



Terminal Configuration

Pin Number	Function	(Alternate) Function
Pin1	**FEED**	**GND**
Pin2	**GND**	**GND**
Pin3	**GND**	**GND**
Pin4	**GND**	**FEED**

Bottom view



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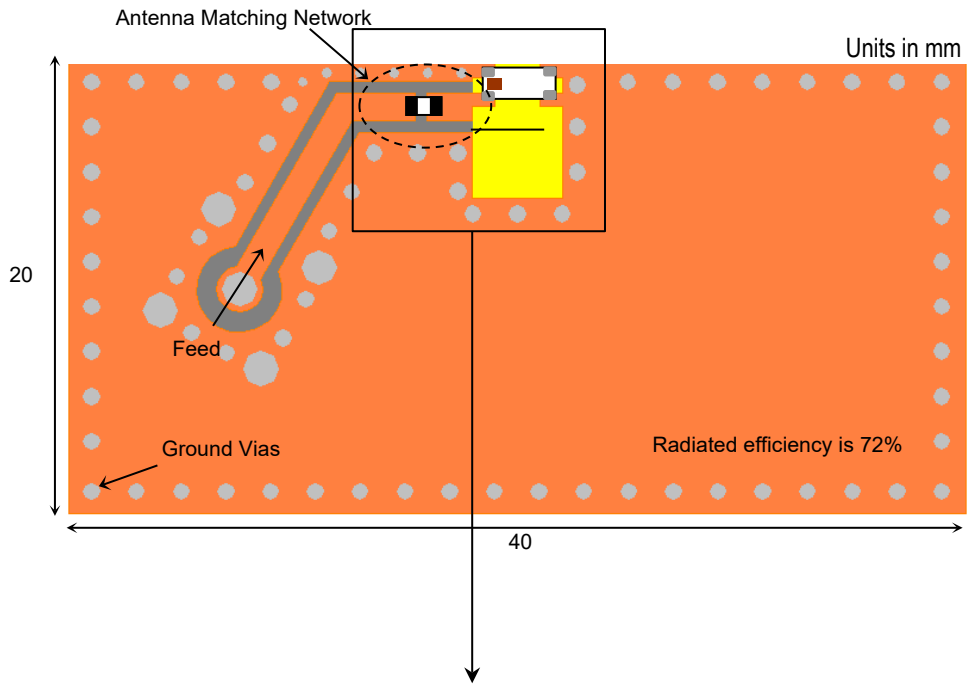
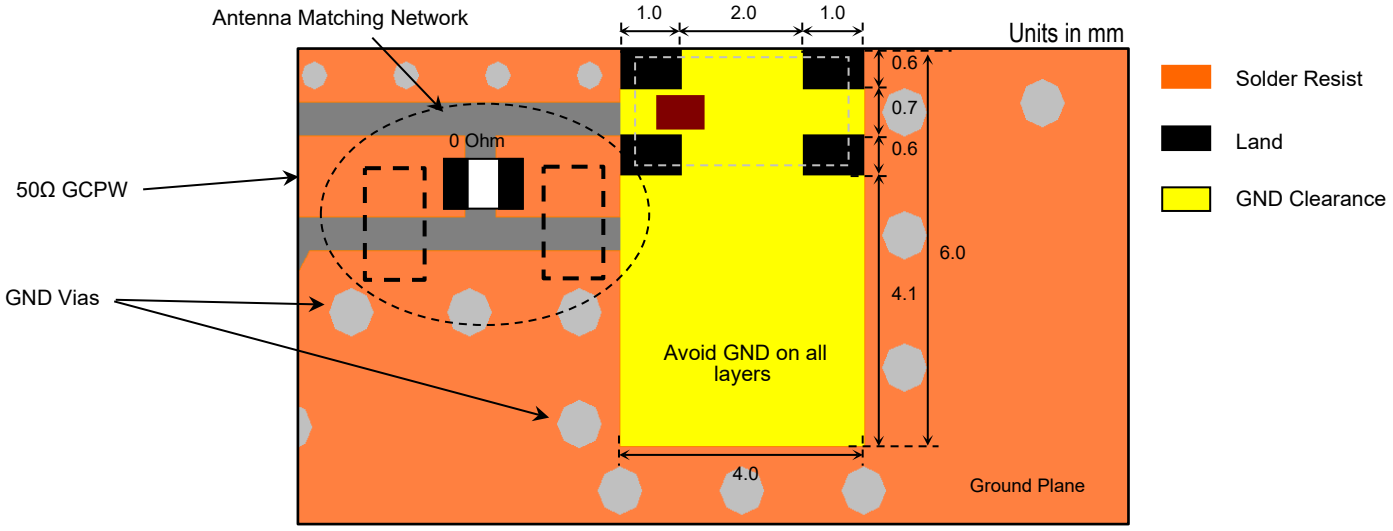
Evaluation Board and Mounting Configuration (PN 2450AT18D0100001CE1)





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

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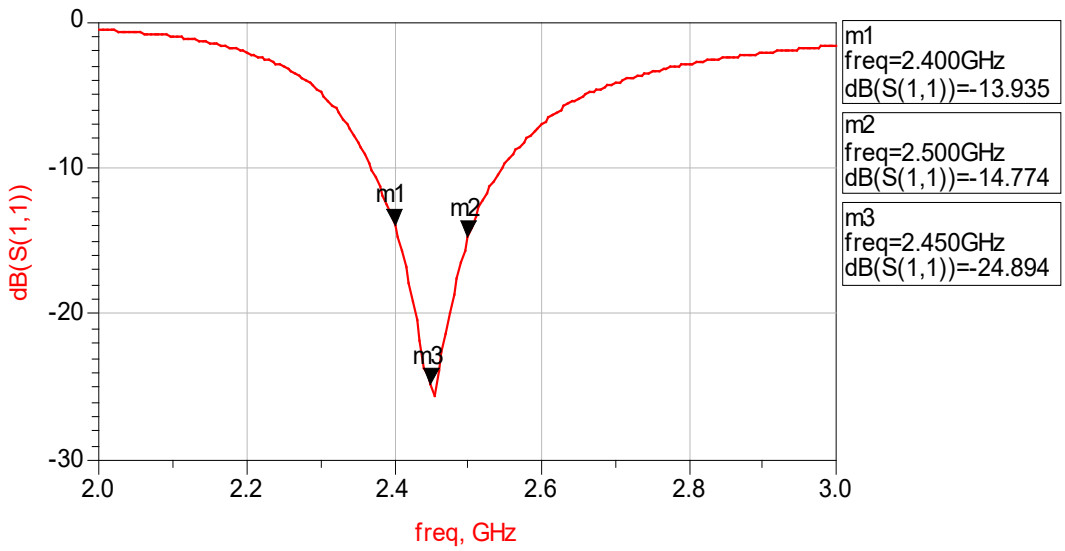
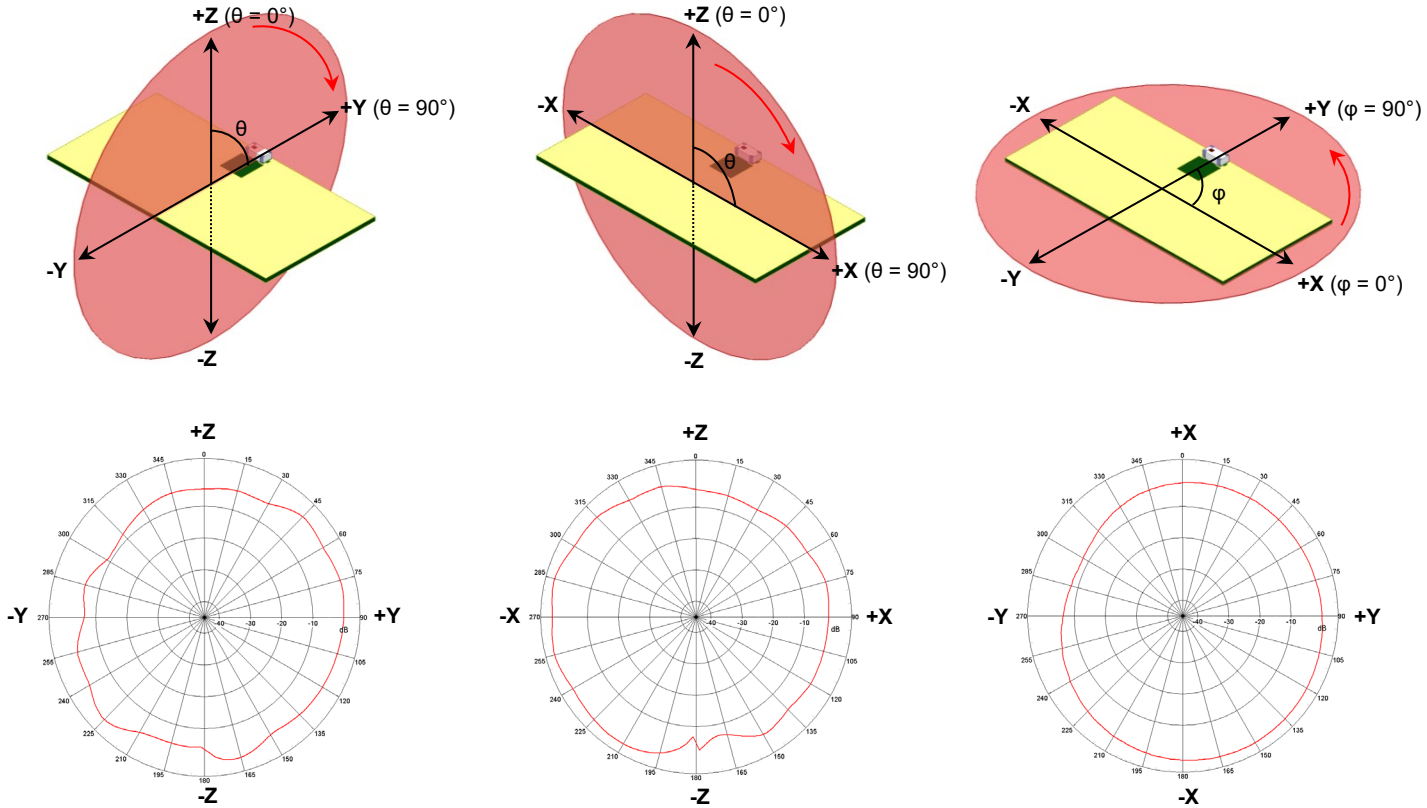
Evaluation Board Return Loss Measurement



Evaluation Board 2D Radiation Patterns



If you would like to connect with a Johanson Technology RF engineer to go over the layout or suggest an antenna to go with your design, see our Ask-a-question page.

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Orderable Part Number

Part Number Explanation		
Packaging Style	Bulk (loose pcs.)	P/N. 2450AT18D0100001B
	T & R (7" Reel Embossed Tape)	P/N. 2450AT18D0100001E (Qty: 1,000 pcs./reel)
Evaluation Board	Assembled PCB (50Ω SMA)	P/N. 2450AT18D0100001CE1

Important Links

2450AT18D0100001E Downloads

More Antennas

Antenna Tuning, Optimization, and Validation Services

Soldering Information

MSL Information

Packaging Information

RoHS Compliance

Contact our application engineers for a PCB layout review!

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