

# "High Frequency Ceramic Solutions"

**2.45 GHz wide band, small form factor SMD chip antenna**

**P/N 2450AT43F0100**

Detail Specification: 4/22/2016

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## General Specifications

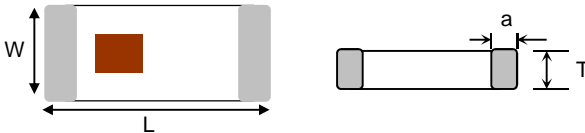
Part Number	2450AT43F0100	Reel Quantity	2,000 pcs
Operating Frequency (MHz)	2400 - 2500 Mhz	Operating Temperature	-40 to +85°C
Peak Gain (XZ-total)	2.1 dBi typ.	Recommended Storage Conditions	+5 ~ +35 °C, Humidity 45~75%RH 12 months
Average Gain (XZ-total)	1.0 dBi typ.	Power Capacity	2W max. (CW)
Impedance	50 Ω		

## Part Number Explanation

P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 2450AT43F0100S
		T & R	Suffix = E	eg. 2450AT43F0100E
		100% Tin	Suffix = E or S	eg. 2450AT43F0100 (E or S)
	Evaluation Board	Bulk	2450AT43F0100-EB1SMA (with female SMA connector)	

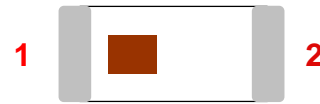
## Mechanical Dimensions

	In	mm
L	0.236 ± 0.008	6.00 ± 0.20
W	0.079 ± 0.008	2.00 ± 0.20
T	0.047 0.2 +.004 / -.008	1.20 + 0.1 / -0.2
a	0.020 ± 0.012	0.50 ± 0.30



## Terminal Configuration

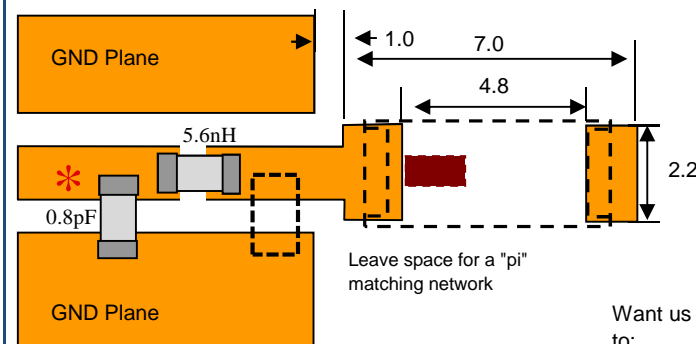
No.	Function
1	Feeding Point
2	NC



## Mounting Considerations

Mount these devices with brown mark facing up. Units: mm

\*Line width should be designed to provide 50 Ω impedance matching characteristics.



It is recommended that the designer leave available slots for a "pi" (or shunt-series-shunt) network. The antenna matching network values above are used when antenna is mounted on Johanson's evaluation board. The matching values on client's PCB will be different. Go to: [www.johansontechnology.com/tuning.html](http://www.johansontechnology.com/tuning.html) and see how to obtain the new values.

Want the layout file of the above? Send us a message at: [www.johansontechnology.com/ask-a-question](http://www.johansontechnology.com/ask-a-question)

Want us to do the tuning and characterization for you? Go to: [www.johansontechnology.com/ipc-antenna-services](http://www.johansontechnology.com/ipc-antenna-services)



[www.johansontechnology.com](http://www.johansontechnology.com)

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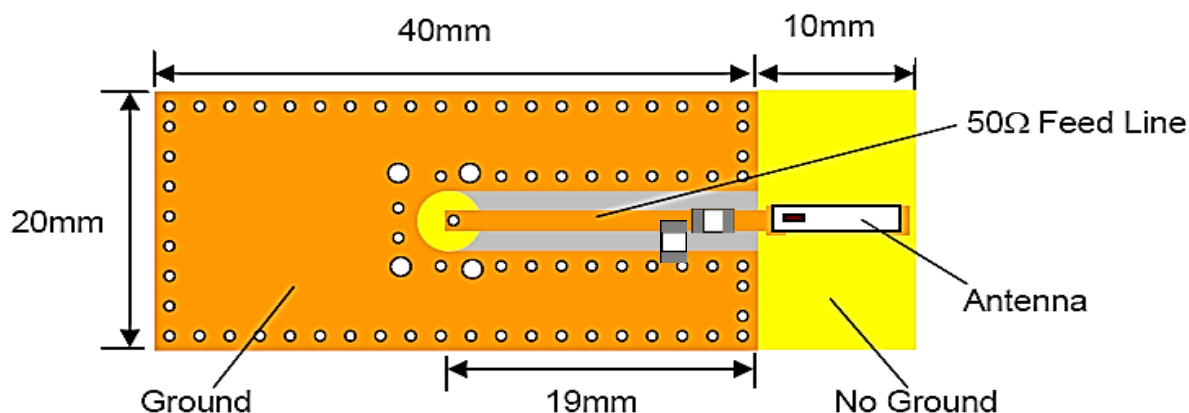
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## Mounting Considerations

Mount these devices with brown mark facing up. Units: mm

\*Line width should be designed to provide 50  $\Omega$  impedance matching characteristics.

### With Matching Circuit



Want the layout file of the above? Send us a message at:  
[www.johansontechnology.com/ask-a-question](http://www.johansontechnology.com/ask-a-question)

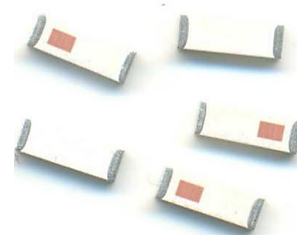
To order the EVB above for preliminary testing free (pre-tuned 50 $\Omega$  EVB with a female SMA connector) Click here:

[www.johansontechnology.com/request-a-sample](http://www.johansontechnology.com/request-a-sample)

Reference p/n: 2450AT43F0100-EB1SMA

We offer 2 free layout reviews as well as antenna tuning and characterization services (lab fee may apply). Go to:

[www.johansontechnology.com/ipc-antenna-services](http://www.johansontechnology.com/ipc-antenna-services)



Johanson Technology, Inc. reserves the right to make design changes without notice. Please confirm the specifications and delivery conditions when placing your order. All sales are subject to Johanson Technology, Inc. terms and conditions.



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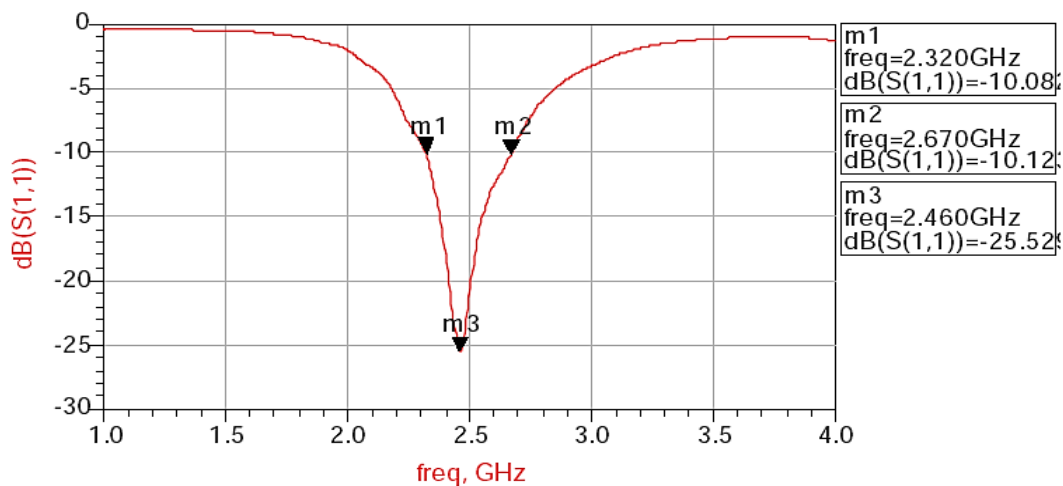
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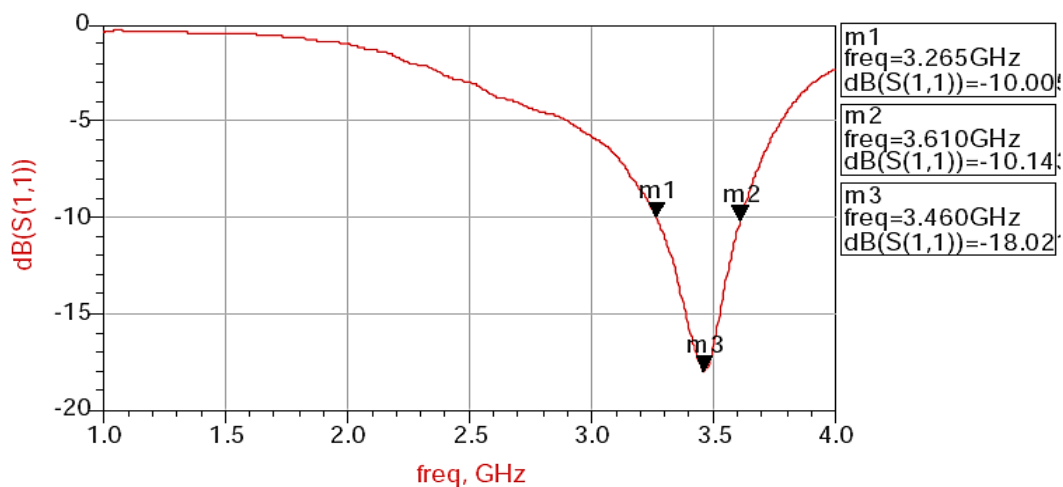
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## Mounting Considerations

(a) With Matching Circuits



(b) Without Matching Circuits



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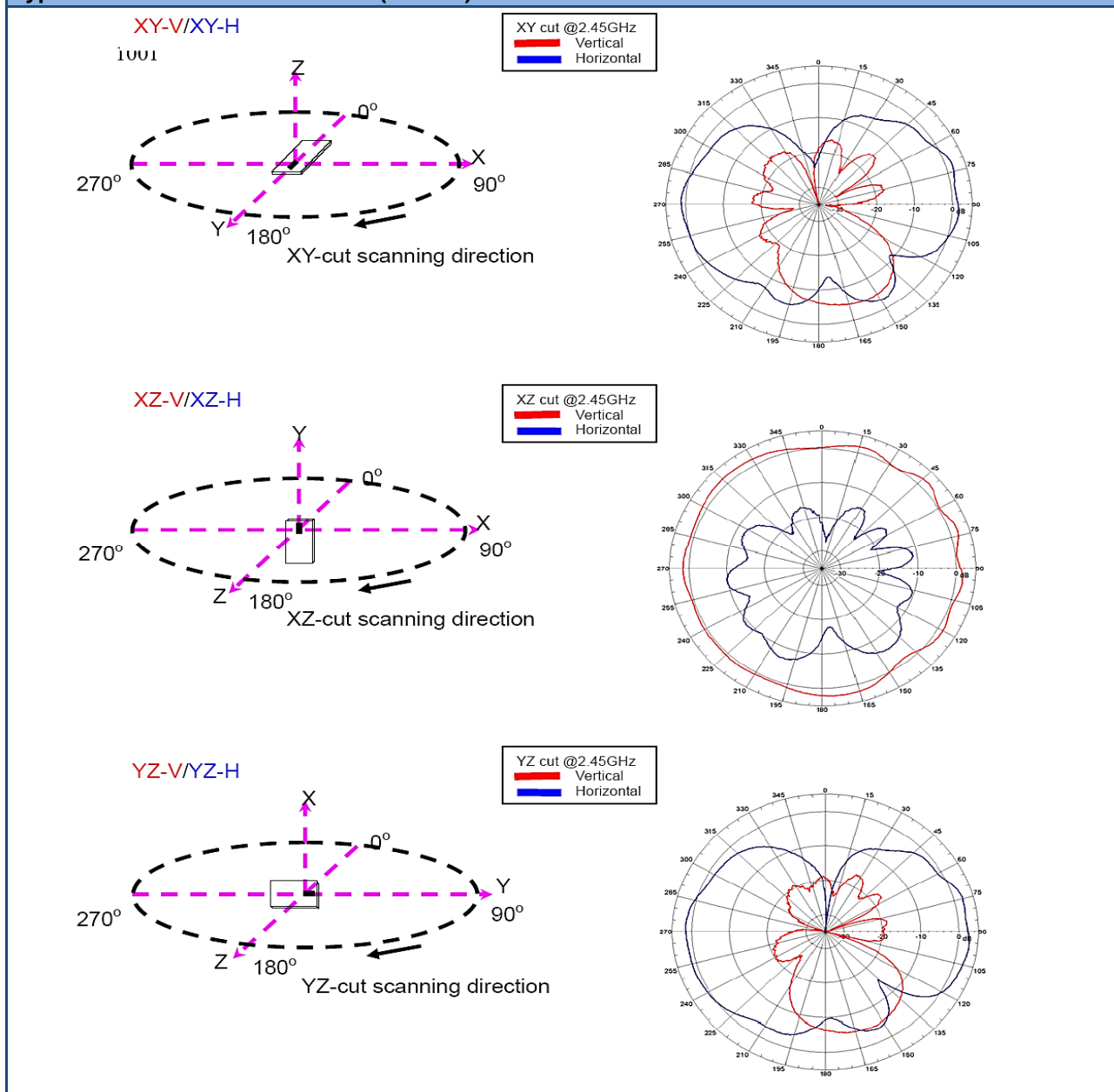
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## Typical Electrical Characteristics (T=25°C)



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## More SMD Chip Antennas at:

[www.johansontechnology.com/antennas](http://www.johansontechnology.com/antennas)

## Packaging information

[www.johansontechnology.com/tape-reel-packaging](http://www.johansontechnology.com/tape-reel-packaging)

## Soldering Information

[www.johansontechnology.com/ipcsoldering-profile](http://www.johansontechnology.com/ipcsoldering-profile)

## Antenna layout and tuning techniques (How to obtain the new antenna matching values)

[www.johansontechnology.com/tuning.html](http://www.johansontechnology.com/tuning.html)

## Antenna layout review, tuning, and characterization services

<http://www.johansontechnology.com/ipc-antenna-services>

## RoHS Compliance

[www.johansontechnology.com/rohs-compliance](http://www.johansontechnology.com/rohs-compliance)

## MSL Info

<http://www.johansontechnology.com/msl-rating>

## P/N Explanation and Breakdown

[www.johansontechnology.com/ipc-pn-explained](http://www.johansontechnology.com/ipc-pn-explained)

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