

# High Frequency Ceramic Solutions

AEC-Q200 Qualification Available

## 2.4GHz Chip Antenna, SMD

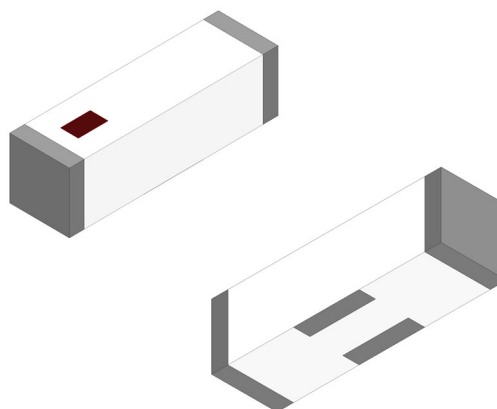
P/N 2450AT43B100

Detail Specification: 6/29/2021

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Let us help you with the antenna design, optimization, and tuning!

General Specifications	
Part Number	2450AT43B100
Frequency (GHz)	2.4 - 2.5
Peak Gain (dBi)	1.3 typ.
Average Gain (dBi)	-0.5 typ.
Return Loss (dB)	9.5 min.
Impedance ( $\Omega$ )	50
Input Power (W)	2 max. (CW)
Operating Temperature	-40 to +85°C
Recommended Storage Conditions and Period for unused T&R Product	+5 to +35°C Humidity 45 - 75% RH 18 months max.
Reel Quantity (pcs/reel)	1000

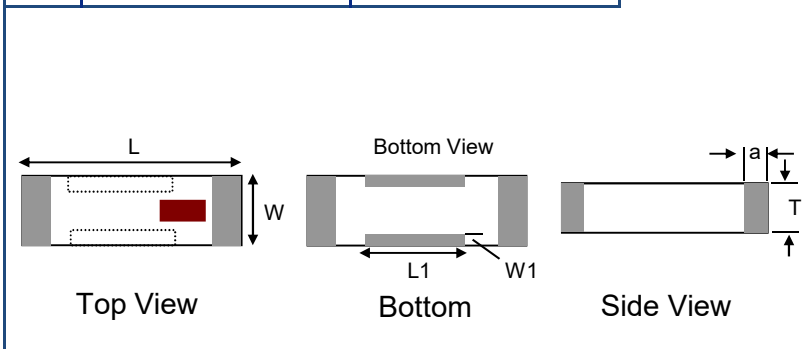


## Part Number Explanation

P/N Suffix	Packing Style	Bulk (loose)	Suffix = S	e.g. 2450AT43B100S
		T&R	Suffix = E	e.g. 2450AT43B100E
		100% Tin	Suffix = E or S	e.g. 2450AT43B100(E or S)
	Evaluation Board	2450AT43B100-EB1SMA		

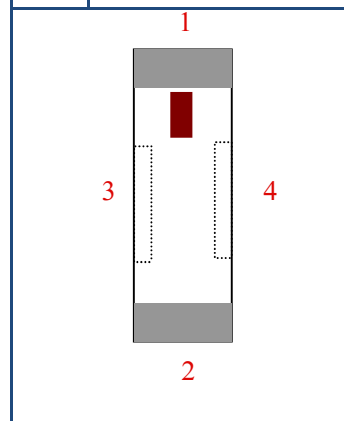
## Mechanical Dimensions

	In	mm
L	0.276 ± 0.008	7.00 ± 0.2
W	0.079 ± 0.008	2.00 ± 0.2
L1	0.102 ± 0.008	2.60 ± 0.2
W1	0.020 ± 0.008	0.50 ± 0.2
T	0.079 +0.004 / -0.008	2.00 +0.1 / -0.2
a	0.020 ± 0.012	0.50 ± 0.3



## Terminal Configuration

No.	Function
1	FEED 1
2	FEED 2
3	NC
4	NC



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Ver. 1.2

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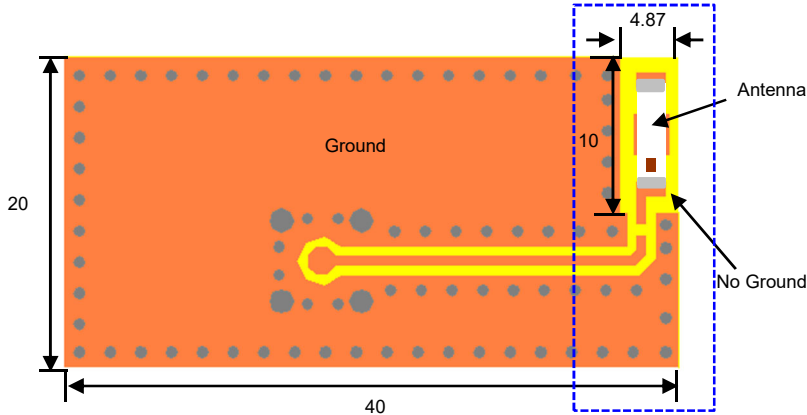
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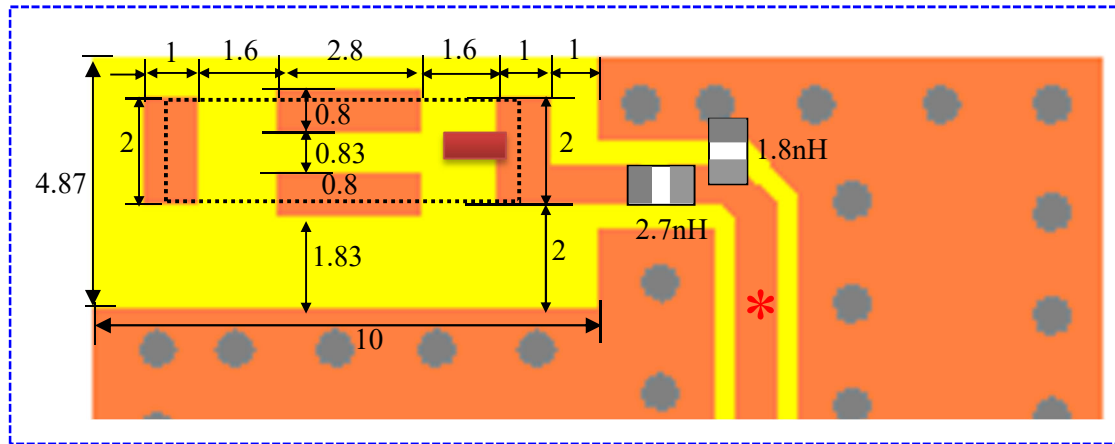
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## Mounting Considerations 1: Evaluation Board



Note 1: Pins 2, 3 & 4, although "NC", must be soldered to their corresponding PCB pads for proper electrical operation



\* 50Ω GCPW transmission line recommended

Units in mm

Would you like the layout file?

Contact our engineers at: <https://www.johansontechnology.com/ask-a-question>

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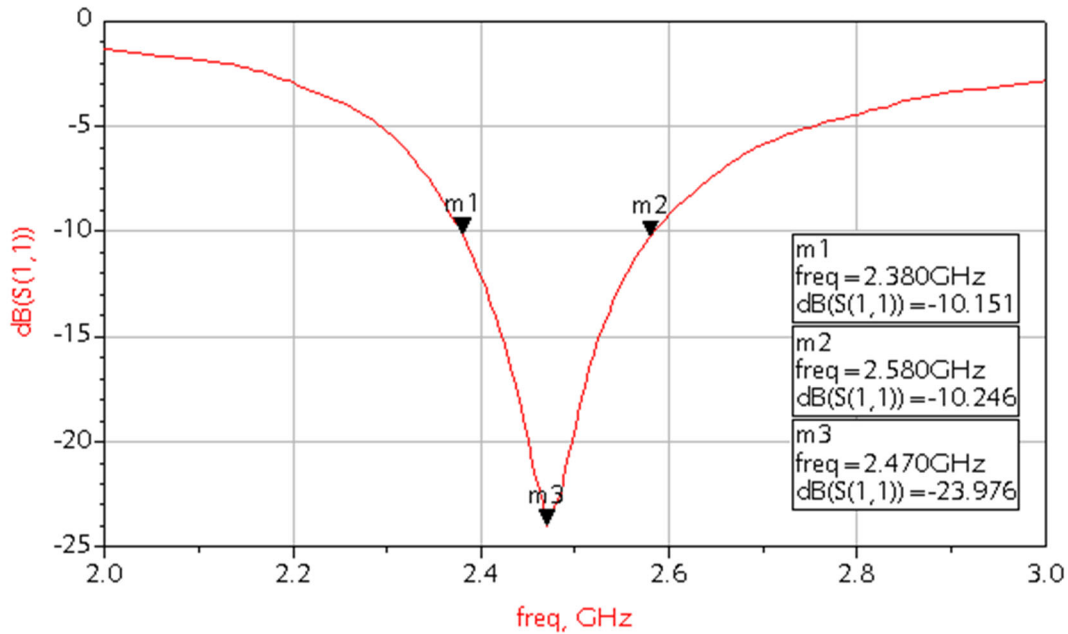
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## Mounting Considerations 1: Electrical Performance @25°C

Measured Return Loss



Have antenna tuning issues?

Please contact us if you have any questions regarding the implementation of this antenna in your PCB's layout. We'll be happy to guide you to maximize the antenna's performance

Contact our applications engineers at:

<https://www.johansontechnology.com/ask-a-question>

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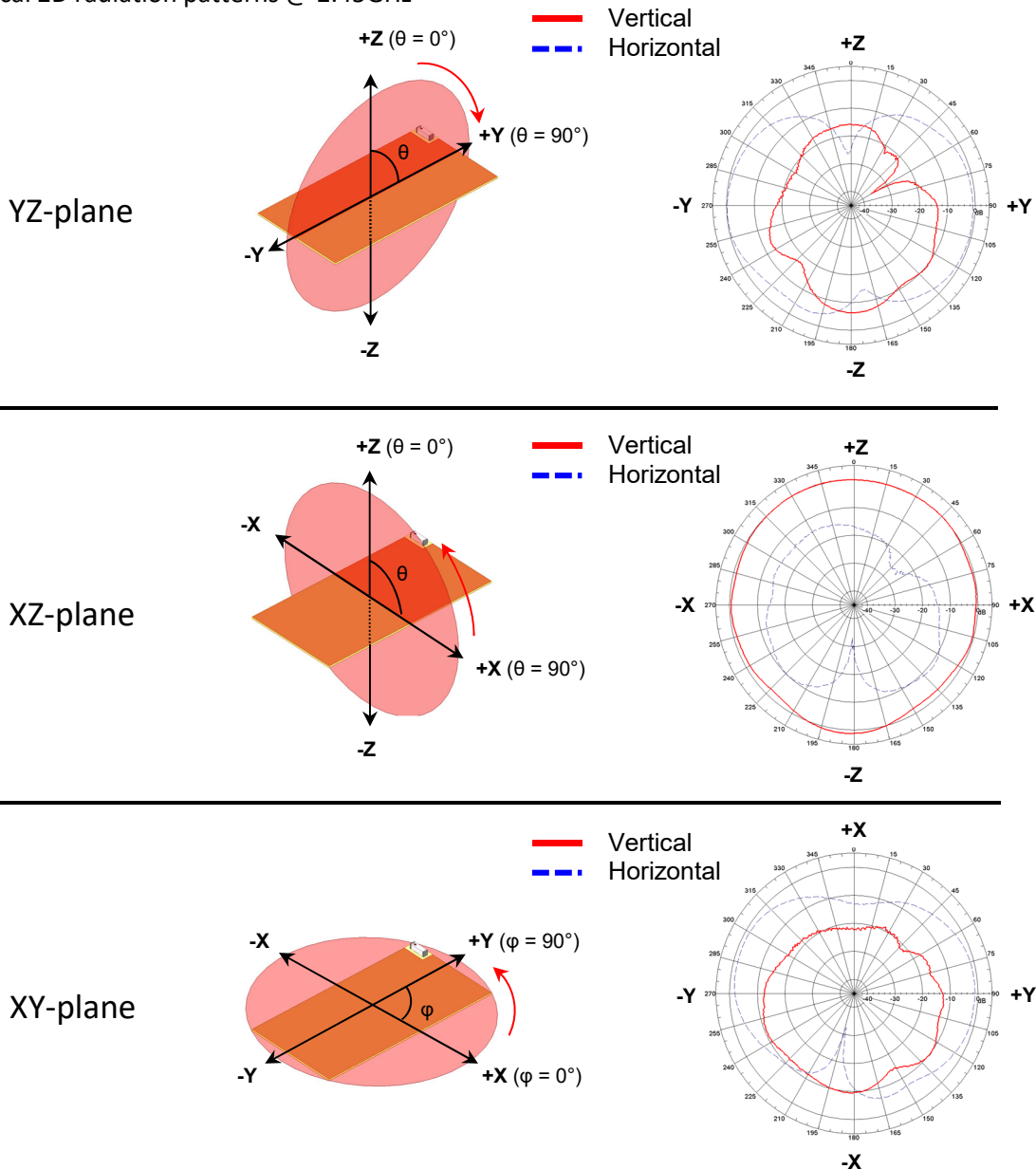
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## Mounting Considerations 1: Antenna Performance

Typical 2D radiation patterns @ 2.45GHz



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