

High Frequency Ceramic Solutions

AEC-Q200 Qualification Available

2.4GHz Chip Antenna, SMD

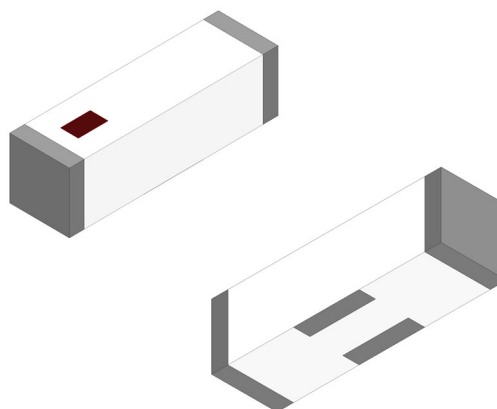
P/N 2450AT43B100

Detail Specification: 6/29/2021

Page 1 of 5

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 (Ω)	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

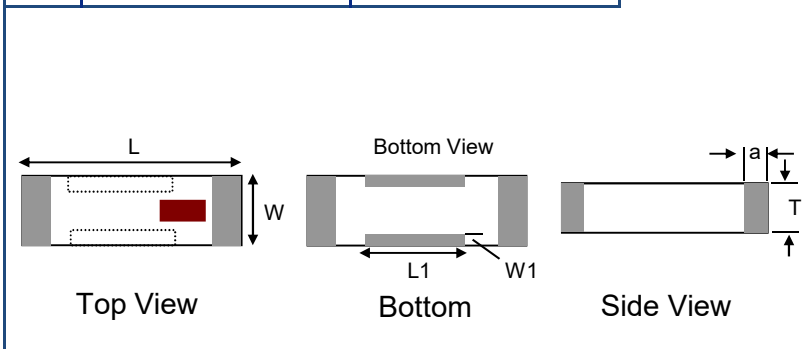


Part Number Explanation

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		

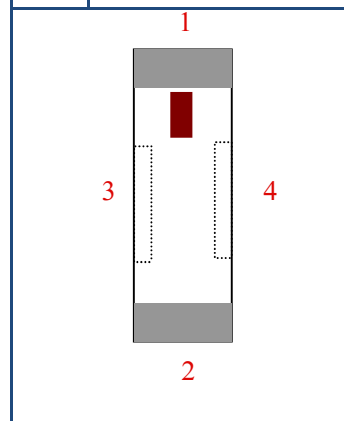
Mechanical Dimensions

	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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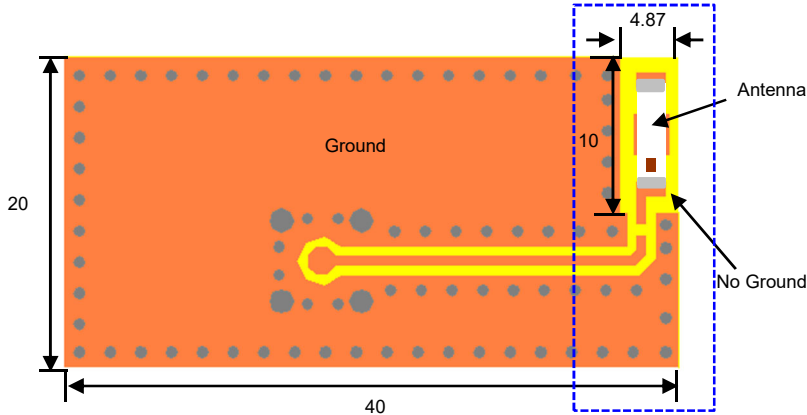
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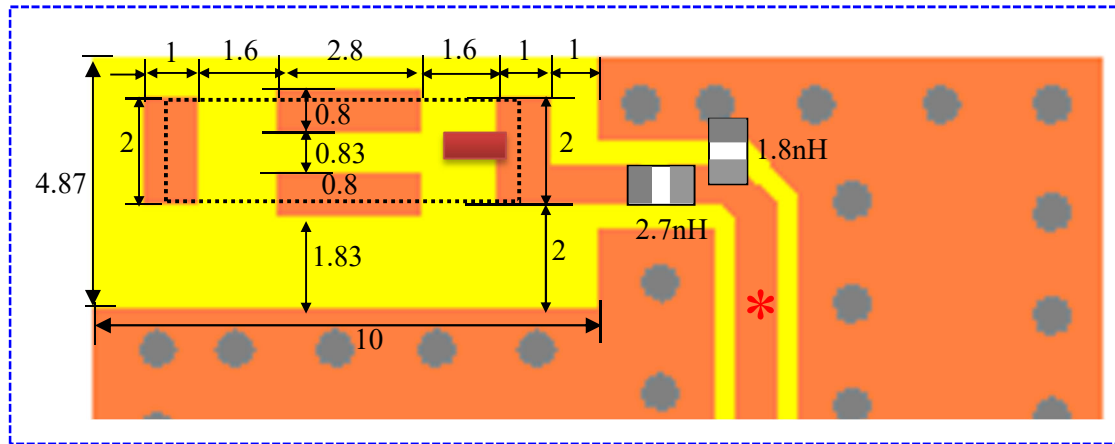
Detail Specification: 6/29/2021

Page 2 of 5

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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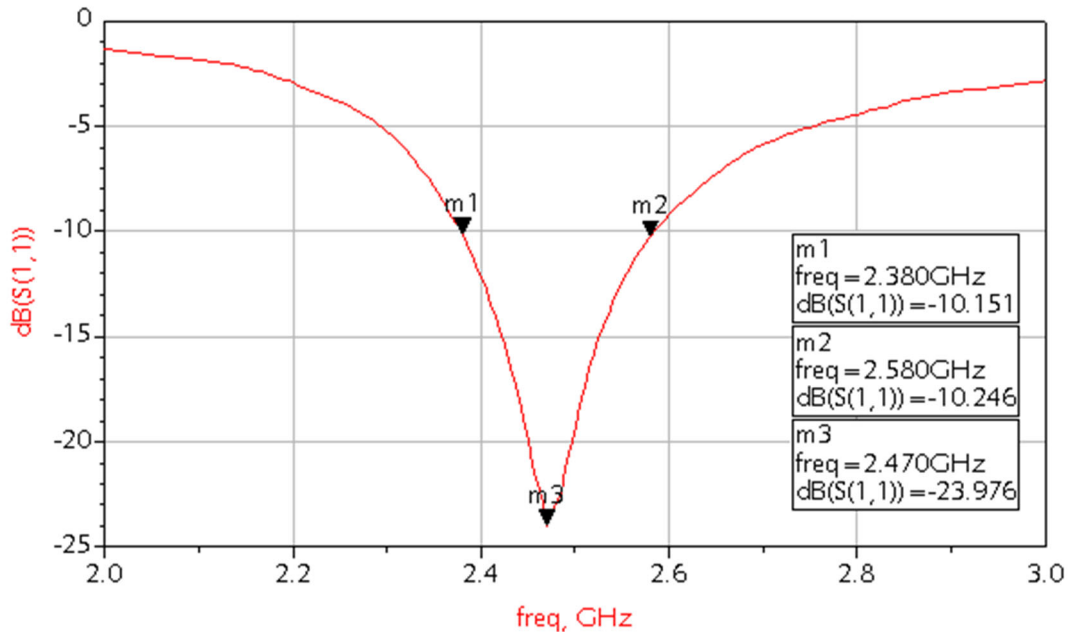
P/N 2450AT43B100

Detail Specification: 6/29/2021

Page 3 of 5

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:

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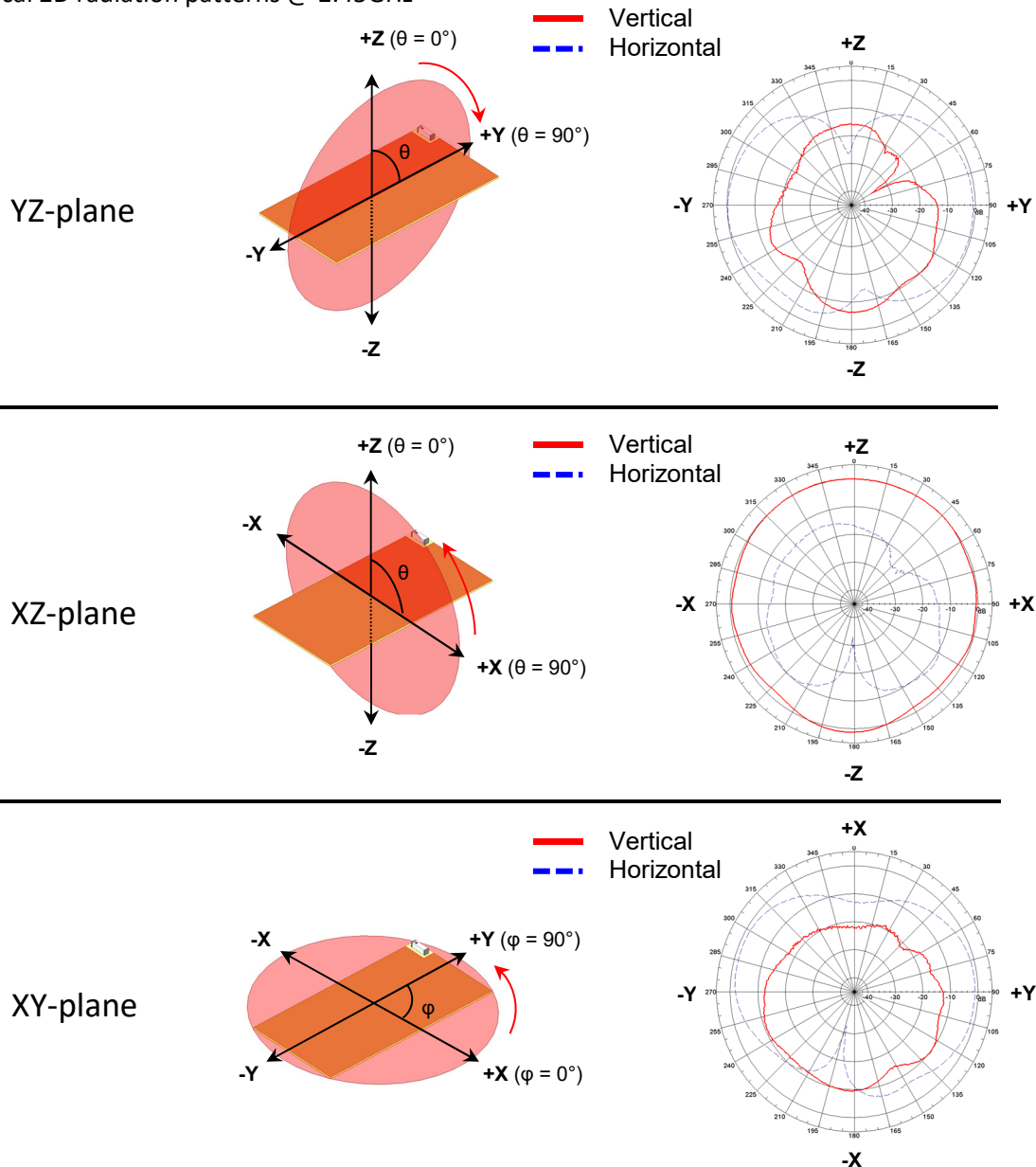
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Detail Specification: 6/29/2021

P/N 2450AT43B100
Page 4 of 5

Mounting Considerations 1: Antenna Performance

Typical 2D radiation patterns @ 2.45GHz



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Page 5 of 5

Antenna tuning, optimization, and validation services:

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

For more antennas and to download measured S-parameters, go to:

<https://www.johansontechnology.com/antennas>

Soldering Information

<https://www.johansontechnology.com/ipcsoldering-profile>

MSL Info

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

Packaging Information

<https://www.johansontechnology.com/tape-reel-packaging>

For layout review contact our applications team at:

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

RoHS Compliance

<https://www.johansontechnology.com/rohs-compliance>

Need help designing the antenna in? Use our antenna design services!

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

We provide 2 free layout reviews and if you need us to tune and characterize the antenna on your product (inside anechoic chamber) we can do that too. Small lab fee may apply for the latter.

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