

# High Frequency Ceramic Solutions

AEC-Q200 Qualification Available

## 2.4GHz Chip Antenna, SMD

Detail Specification: 6/29/2021

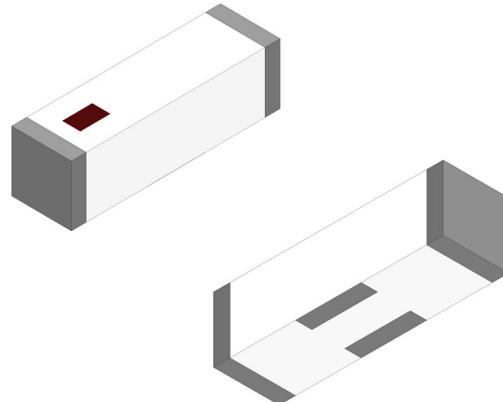
P/N 2450AT43B100

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 ( $\Omega$ )	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

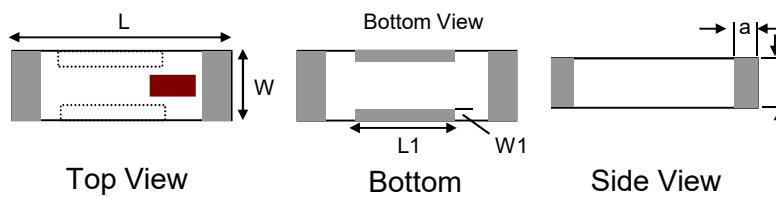


### Part Number Explanation

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	

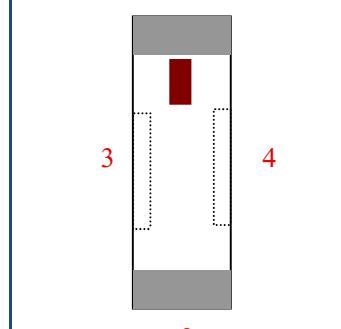
### Mechanical Dimensions

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



### Terminal Configuration

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



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

All sales are subject to Johanson Technology, Inc. terms and conditions.

# "High Frequency Ceramic Solutions"

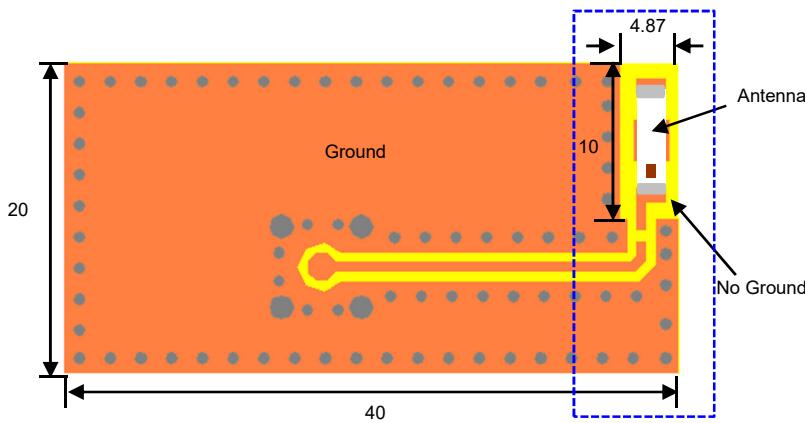
2.4GHz Chip Antenna, SMD

Detail Specification: 6/29/2021

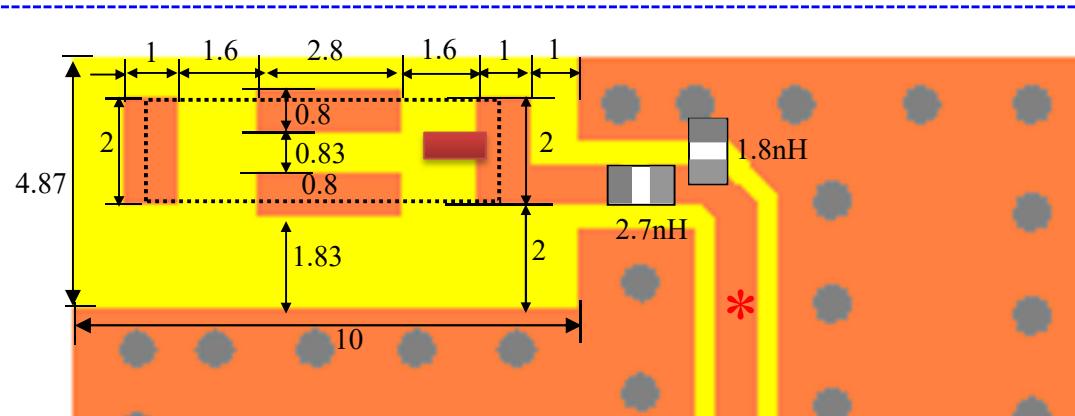
P/N 2450AT43B100

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>

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

All sales are subject to Johanson Technology, Inc. terms and conditions.

**JOHANSON**  
**TECHNOLOGY**

Ver. 1.2

<https://www.johansontechnology.com>

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

2019 Johanson Technology, Inc. All Rights Reserved

# "High Frequency Ceramic Solutions"

2.4GHz Chip Antenna, SMD

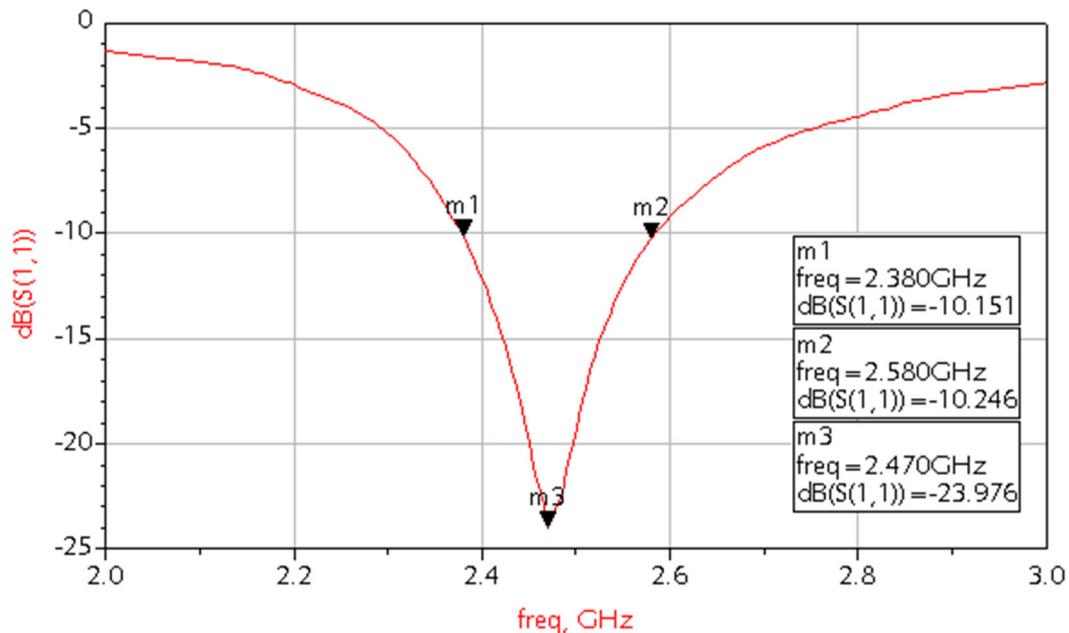
Detail Specification: 6/29/2021

P/N 2450AT43B100

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:

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

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

All sales are subject to Johanson Technology, Inc. terms and conditions.

**JOHANSON**  
**TECHNOLOGY**

Ver. 1.2

<https://www.johansontechnology.com>

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

2019 Johanson Technology, Inc. All Rights Reserved

# "High Frequency Ceramic Solutions"

2.4GHz Chip Antenna, SMD

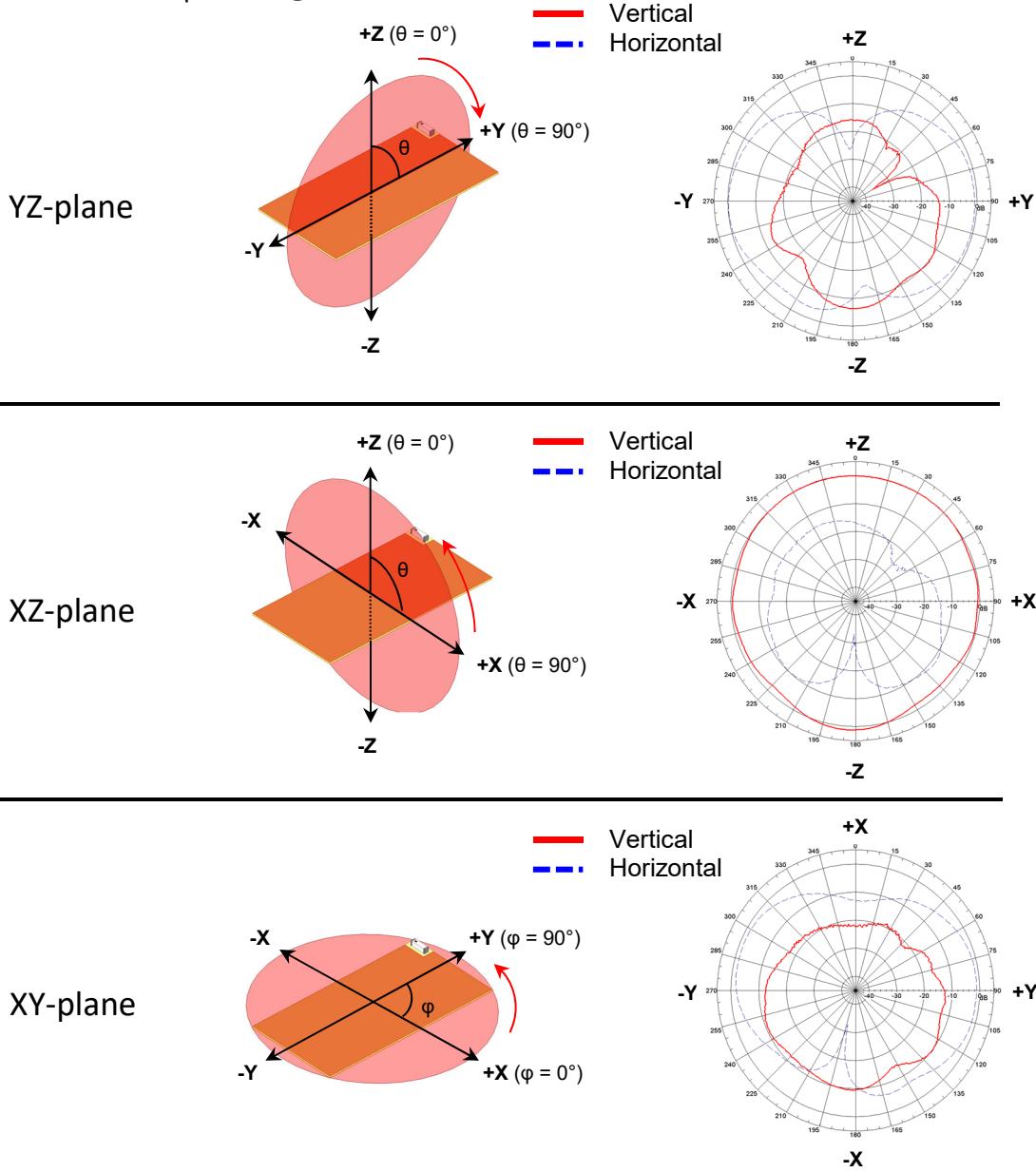
Detail Specification: 6/29/2021

P/N 2450AT43B100

Page 4 of 5

## Mounting Considerations 1: Antenna Performance

Typical 2D radiation patterns @ 2.45GHz



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

All sales are subject to Johanson Technology, Inc. terms and conditions.

**JOHANSON**  
**TECHNOLOGY**

<https://www.johansontechnology.com>

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 1.2

2019 Johanson Technology, Inc. All Rights Reserved

# "High Frequency Ceramic Solutions"

**2.4GHz Chip Antenna, SMD**

**P/N 2450AT43B100**

Detail Specification: 6/29/2021

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/pc-soldering-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.

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

All sales are subject to Johanson Technology, Inc. terms and conditions.

**JOHANSON  
TECHNOLOGY** 

<https://www.johansontechnology.com>

4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821

Ver. 1.2

2019 Johanson Technology, Inc. All Rights Reserved

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Johanson:](#)

[2450AT43B100E](#)