

High Frequency Ceramic Solutions

AEC-Q200 Qualification Available

**2.45 GHz SMD Antenna, EIA 1206, Detuning resilient,
Edge Mount Design**

**New Global P/N 2450AT18D0100001
Legacy P/N 2450AT18D0100**

Detail Specification: 8/24/2022

Page 1 of 7

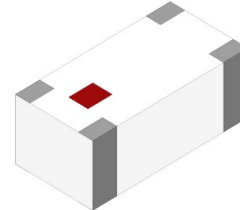
Let us help you with the antenna design, optimization, and tuning!

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

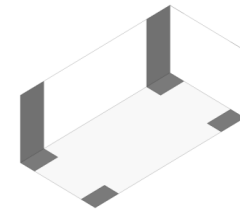
General Specifications	
New Global Part Number	2450AT18D0100001
Frequency (GHz)	2.4 - 2.5
Peak Gain (dBi)	1.5 typ. (XZ-total)
Average Gain (dBi)	-1.0 typ. (XZ-total)
Radiated Efficiency ¹	72%
Return Loss (dB)	10 min.
Impedance (Ω)	50
Input Power (W)	3 max. (CW)
Operating Temperature	-40 to +125°C
Recommended Storage Conditions and Period for unused Product on T&R	+5 to +35°C Humidity 45 - 75% RH 18 months max.
Reel Quantity (pcs./reel)	3,000

¹Efficiency measured on Johanson's evaluation board PN 2450AT18D0100001CE1

Top



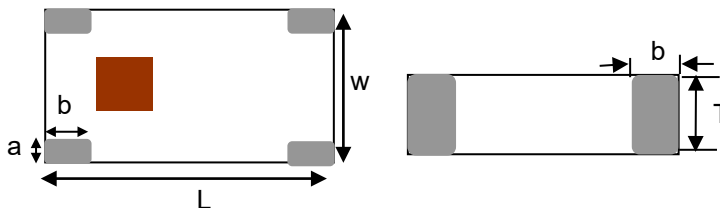
Bottom



Part Number Explanation (See last page for more info on new and legacy part numbers)				
P/N Suffix	Packing Style	Bulk (loose pcs.)	Suffix = B	e.g. 2450AT18D0100001B
		T & R	Suffix = E	e.g. 2450AT18D0100001E
		100% Tin	Suffix = None	e.g. 2450AT18D0100001(B or S)
	Evaluation Board	2450AT18D0100001CE1		

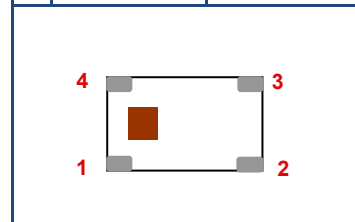
Mechanical Dimensions

	In	mm
L	0.126 $\pm$ 0.008	3.20 $\pm$ 0.2
W	0.063 $\pm$ 0.008	1.60 $\pm$ 0.2
T	0.047 $\pm$ 0.004	1.20 $\pm$ 0.1
a	0.012 +0.004 / -0.008	0.30 +0.1 / -0.2
b	0.020 $\pm$ 0.008	0.50 $\pm$ 0.2



Terminal Configuration

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



Function 1: Antenna fed from left

Function 2: Antenna fed from right

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

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



<https://www.johansontechnology.com>

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

Ver. 4.4

2021 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

2.45 GHz SMD Antenna, EIA 1206, Detuning resilient,
Edge Mount Design

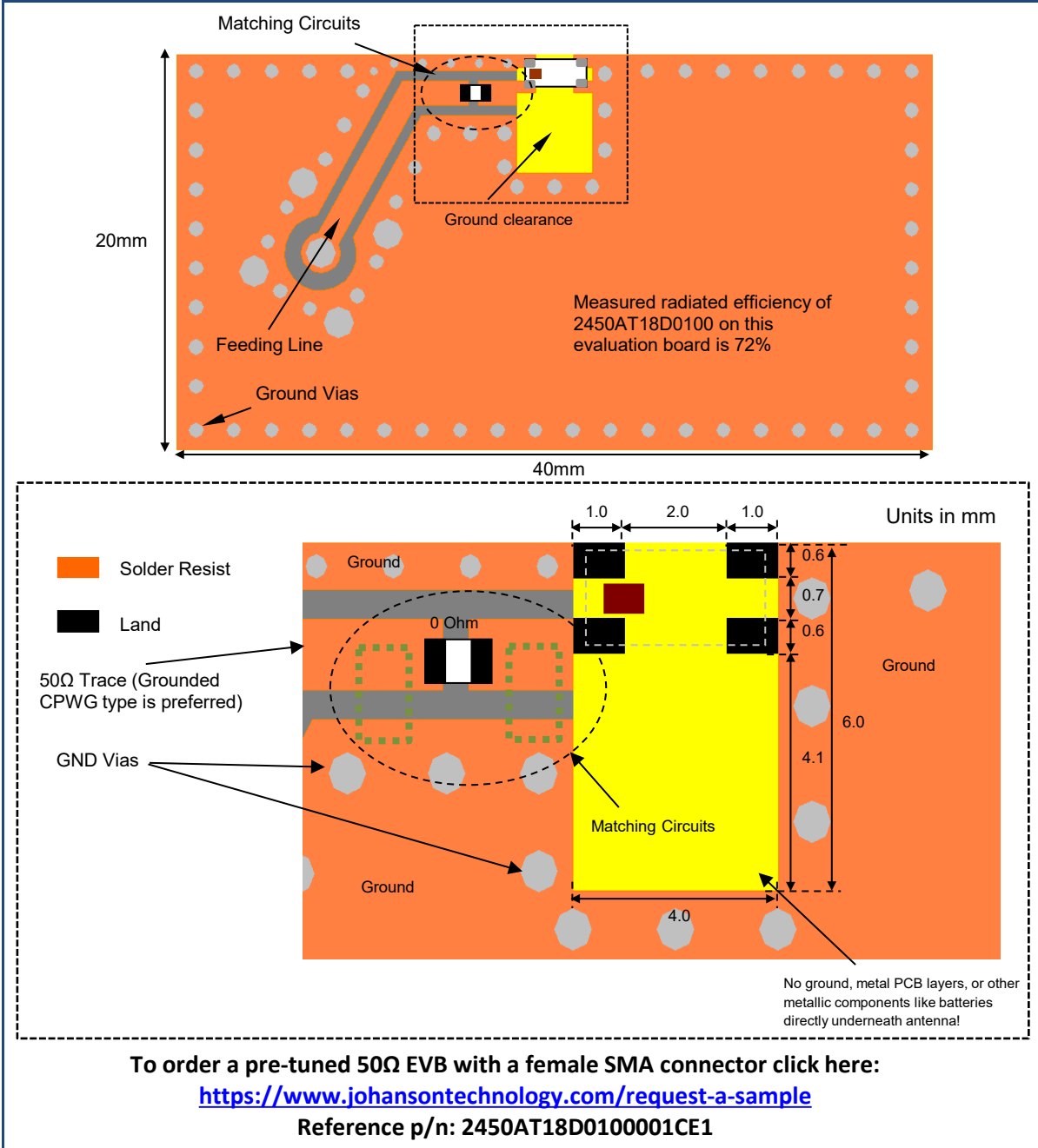
New Global P/N 2450AT18D0100001

Legacy P/N 2450AT18D0100

Detail Specification: 8/24/2022

Page 2 of 7

Mounting Considerations 1: Evaluation Board (Standard Layout)



Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.



Ver. 4.4

<https://www.johansontechnology.com>

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

2021 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

**2.45 GHz SMD Antenna, EIA 1206, Detuning resilient,
Edge Mount Design**

New Global P/N 2450AT18D0100001

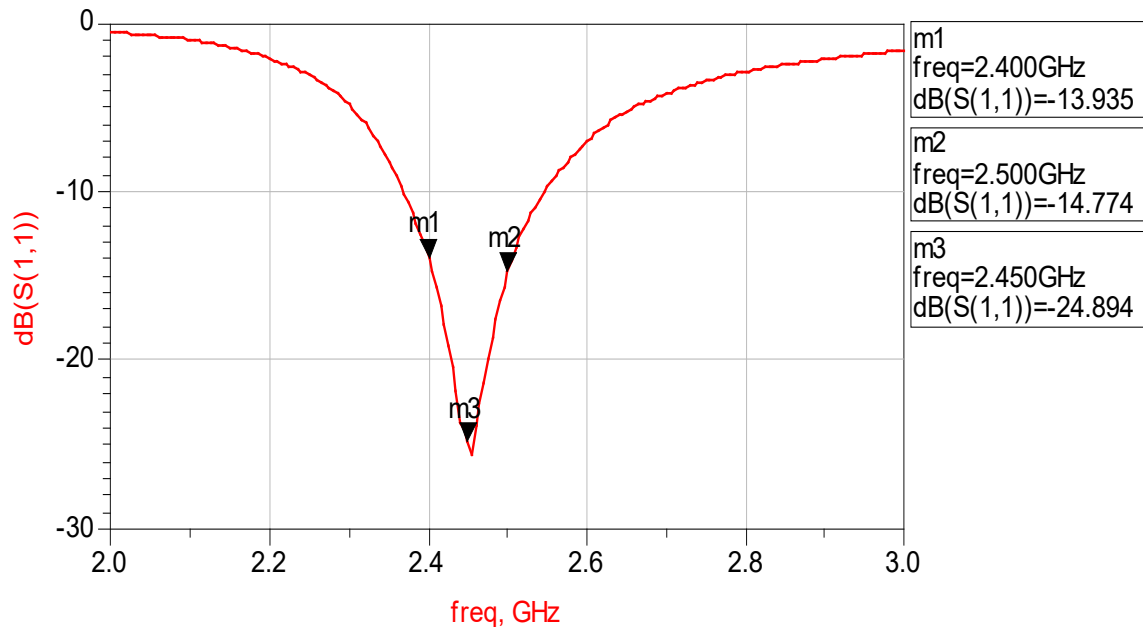
Legacy P/N 2450AT18D0100

Detail Specification: 8/24/2022

Page 3 of 7

Mounting Considerations 1: Electrical Performance @25°C

Measured Return Loss



Would you like the antenna layout? 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.



Ver. 4.4

<https://www.johansontechnology.com>

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

2021 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

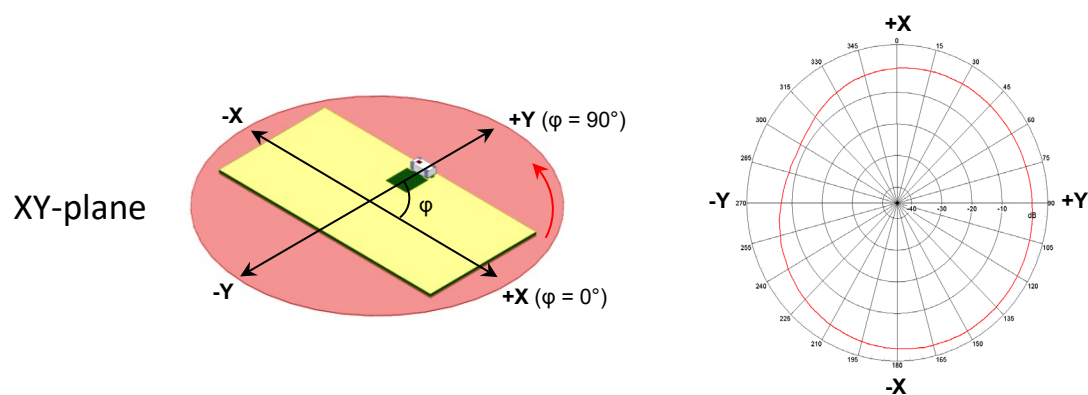
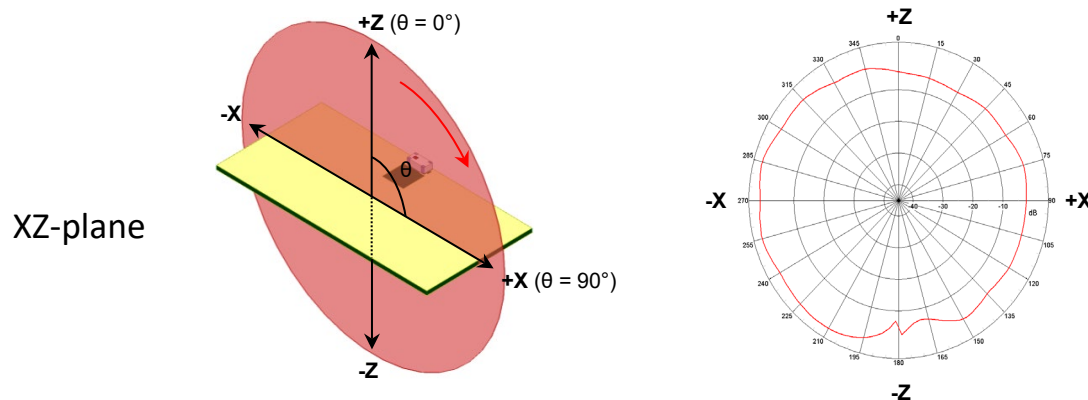
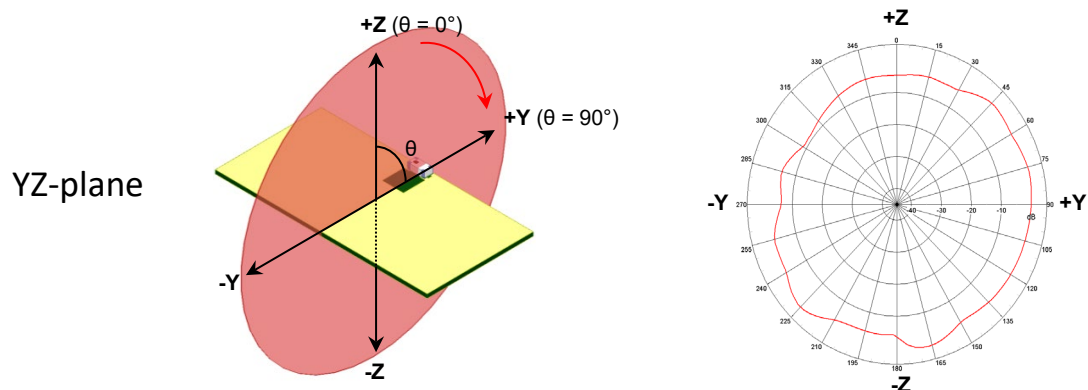
2.45 GHz SMD Antenna, EIA 1206, Detuning resilient,
Edge Mount Design

New Global P/N 2450AT18D0100001
Legacy P/N 2450AT18D0100

Detail Specification: 8/24/2022

Page 4 of 7

Mounting Considerations 1: Typical 2D radiation patterns @ 2.44GHz



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

**2.45 GHz SMD Antenna, EIA 1206, Detuning resilient,
Edge Mount Design**

New Global P/N 2450AT18D0100001

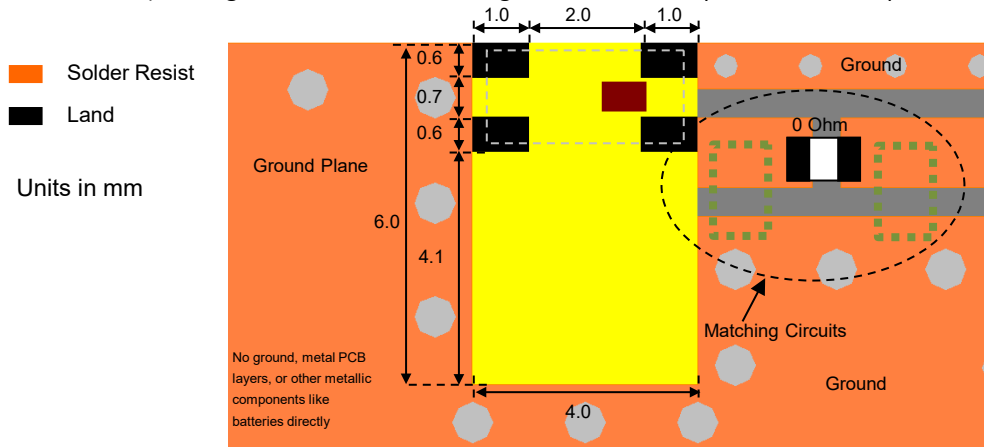
Legacy P/N 2450AT18D0100

Detail Specification: 8/24/2022

Page 6 of 7

Mounting Considerations 4: Fed from Right Side*

(Feeding the antenna from the right will have no impact on antenna performance)



*Evaluation board not available

Would you like the layout file of the above? 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.



Ver. 4.4

<https://www.johansontechnology.com>

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

2021 Johanson Technology, Inc. All Rights Reserved

High Frequency Ceramic Solutions

**2.45 GHz SMD Antenna, EIA 1206, Detuning resilient,
Edge Mount Design**

**New Global P/N 2450AT18D0100001
Legacy P/N 2450AT18D0100**

Detail Specification: 8/24/2022

Page 7 of 7

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>

Recommended Storage Condition and Max Shelf Life

<https://www.johansontechnology.com/recommended-storage-conditions>

Johanson's New Global Part Number Schema

Johanson has instituted a new Global Part Numbering (GPN) system. **Only the part number is changing.** The parts are produced with the exact same materials, manufacturing processes, manufacturing controls, dimensions, physical attributes and testing as the parts supplied with the legacy part numbers.

A database for part number crosses can be accessed at:

<https://www.johansontechnology.com/pn-search>

Johanson Technology, Inc. reserves the right to make design changes without notice.
All sales are subject to Johanson Technology, Inc. terms and conditions.



<https://www.johansontechnology.com>
4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821
Ver. 4.4 2021 Johanson Technology, Inc. All Rights Reserved