

"High Frequency Ceramic Solutions"

2450 MHz Small SMD Chip Antenna

P/N 2450AT42B100

Ground Clearance Requirements Minimized. This antenna was designed for corner or end-mounting

Detail Specification: 10/08/13

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General Specifications	
Part Number	2450AT42B100
Frequency Range	2400 - 2500 Mhz
Peak Gain	0 dBi typ. (XZ-V)
Average Gain	-1.5 dBi typ. (XZ-V)
Return Loss	9.5 dB min.
Impedance	50 Ω
Reel Quantity	2,000
Operating Temperature	-40 to +85°C
Recommended Storage Condition	+5 ~ +35 °C, Humidity 45~75%RH



Storage Period	-40 to +85°C
Power Capacity	2W max. (CW)

Mechanical Dimensions

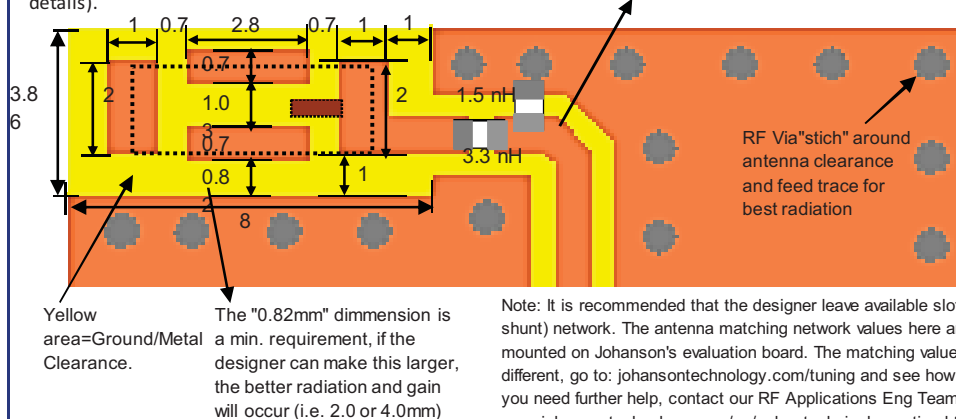
	In	mm	
L	0.197 $\pm$ 0.008	5.00 $\pm$ 0.20	
W	0.079 $\pm$ 0.008	2.00 $\pm$ 0.20	
L1	0.102 $\pm$ 0.008	2.60 $\pm$ 0.20	
W1	0.020 $\pm$ 0.008	0.50 $\pm$ 0.20	
T	0.079 +0.004/-0.008	2.00 +0.1/-0.2	
a	0.020 $\pm$ 0.012	0.50 $\pm$ 0.30	

Terminal Configuration

No.	Function
1	Feeding Point
2	NC
3	NC
4	NC

Mounting Considerations

Line width should be designed to match 50 Ω characteristic impedance (Grounded Co-Planar Waveguide), depending on PCB material and thickness. (The matching circuit and component values will be different on clients PCB layout, see notes below and go to page 2 for details).



We perform layout review as well as antenna tuning and characterization services. Go to page 2 for details.

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

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



www.johansontechnology.com

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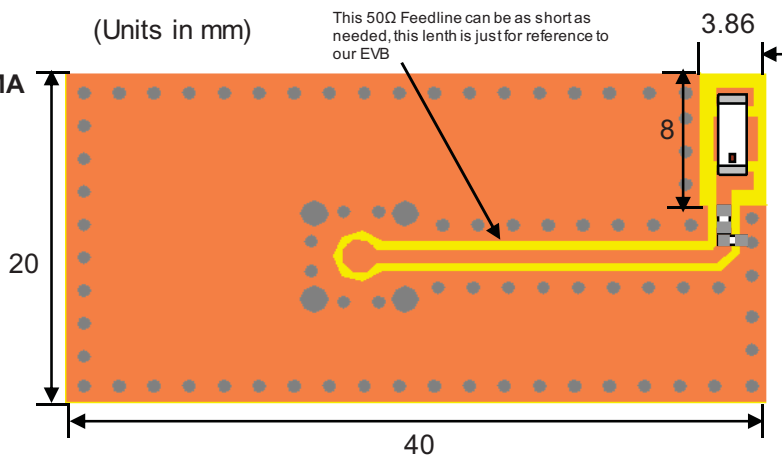
Johanson Evaluation Board (orderable item)

Test Board:

P/N: 2450AT42B100-EB1SMA
(orderable item)

To order, go to:

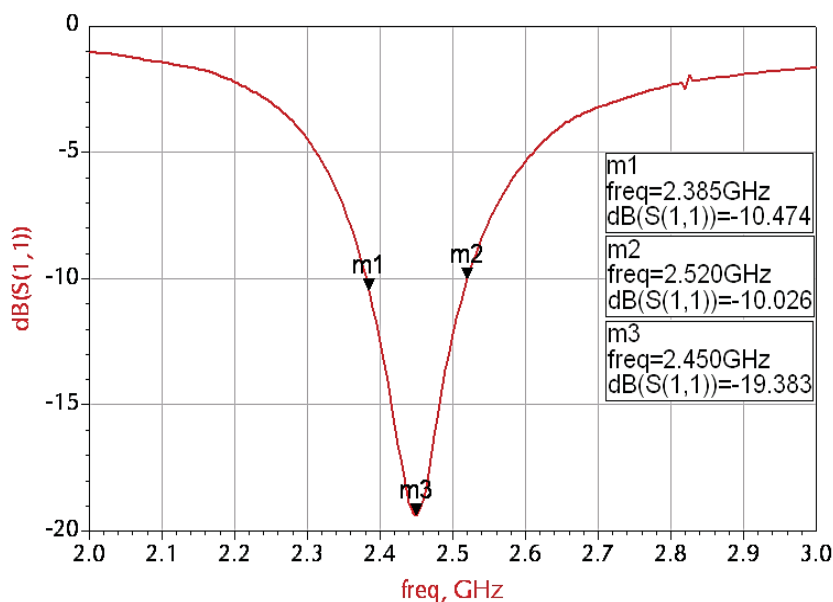
www.johansontechnology.com/samplerrequest



We offer antenna layout review, tuning, and characterization services, go to:
www.johansontechnology.com/ipcantennaservices for details and instructions

Typical Electrical Characteristics (T=25°C)

Return Loss (with matching)



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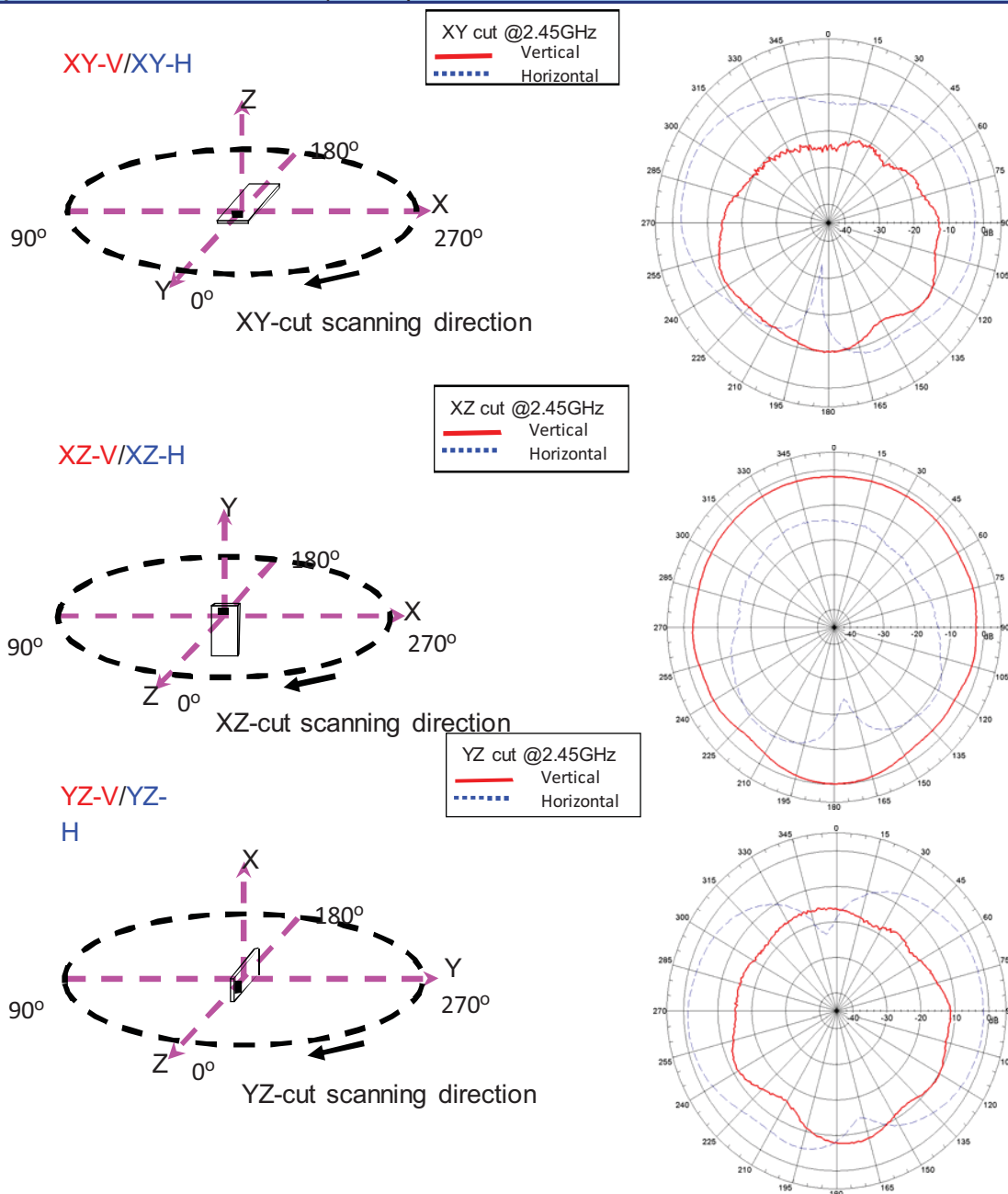
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Typical Electrical Characteristics (T=25°C) Radiation Patterns



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Part Number Explanation

P/N Suffix	Packing Style	Bulk (loose pieces)	Suffix = S	eg.2450AT42B100S
		T & R	Suffix = E	eg. 2450AT42B100E
		T & R (Reverse)	Suffix = R	eg. 2450AT42B100R (MOQ Applies)
		100% Tin	Suffix = None	eg. 2450AT42B100(S, E, R)
	Eval Board (1-port SMA antenna test boards)	2450AT42B100-EB1SMA (Page 2)		
	More Details	www.johansontechnology.com/ipc-pn-explained		

Storage Conditions and Shelf Life (On T&R or Bulk)

Temperature:	+5C to +35°C	Shelf Life:	18 months max.
Relative Humidity:	45 to 75%		

Packaging information

www.johansontechnology.com/ipcpackaging.html

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

Antenna layout and tuning techniques

www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services

www.johansontechnology.com/ipcantennaservices

RoHS Compliance

www.johansontechnology.com/technical-notes/rohs-compliance.html

MSL Info

www.johansontechnology.com/technical-notes/msl-rating.html

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