

"High Frequency Ceramic Solutions"

2.5GHz Chip Antenna with No GND clearance required

P/N 2500AT43A0100

Detail Specification: 10/28/2013

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General Specifications

Part Number	2500AT43A0100	Input Power	2W max. (CW)
Frequency Range	2450 - 2550	Operating Temperature	-40 to +85°C
Peak Gain	0.6 dBi typ. (YZ-total)	Recommended Storage Conditions	+5~+35°C, Humidity 45~75%RH
Average Gain	-2.1 dBi typ. (XZ-total)		
VSWR	3.0 max.	Reel Quantity	500pcs
Impedance	50 Ω		

Mechanical Dimensions

	In	mm	
L	0.276 ± 0.008	7.00 ± 0.20	
W	0.079 ± 0.008	2.00 ± 0.20	
T	0.157 ± 0.008	4.00 ± 0.20	
a1	0.033 ± 0.008	0.85 ± 0.20	
a2	0.039 ± 0.008	1.00 ± 0.20	
b1	0.020 ± 0.008	0.50 ± 0.20	
b2	0.039 ± 0.008	1.00 ± 0.20	

Terminal Configuration

No.	Function
1	Feeding Point
2	GND
3	GND
4	NC
5	NC
6	GND
7	GND
8	GND

Mounting Considerations

RF Via "stitch" around antenna clearance and feed trace for best radiation

50 Ω Feed line

0.5pF

4.7nH

Ground

Antenna

0.4 1.6 Not Connecte 1.3^d to GND

0.4 1.3 0.4 1.3 0.3

0.3 0.4 1.6 3.6

Units in mm

Note: It is recommended that the designer leave available slots for a "pi" (or shunt-series-shunt) network. The antenna matching network values here are used when antenna is mounted on Johanson's evaluation board. The matching values on client's PCB will be different, go to: johansontechnology.com/tuning and see how to obtain the new values. If you need further help, contact our RF Applications Eng Team at: www.johansontechnology.com/en/ask-a-technical-question.html

* Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness

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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ver 2.0

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"High Frequency Ceramic Solutions"

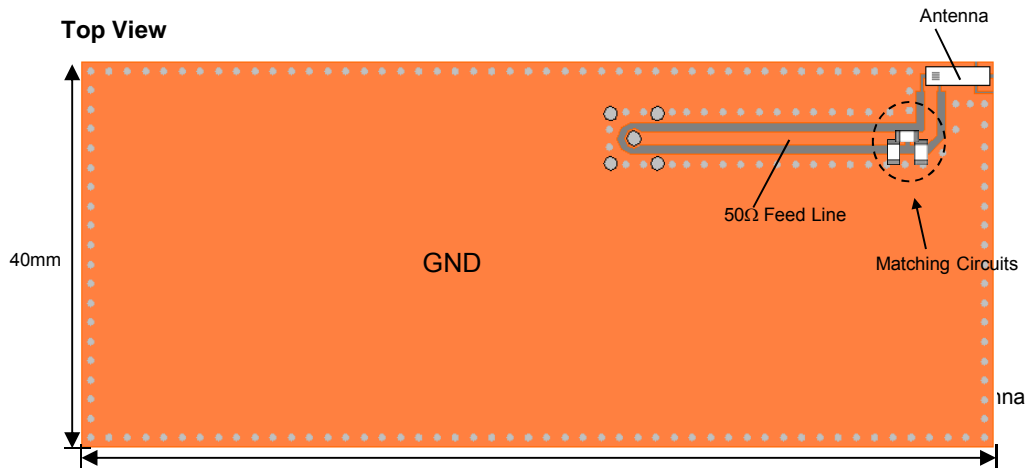
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Johanson Evaluation Board (orderable item)



Test Board:

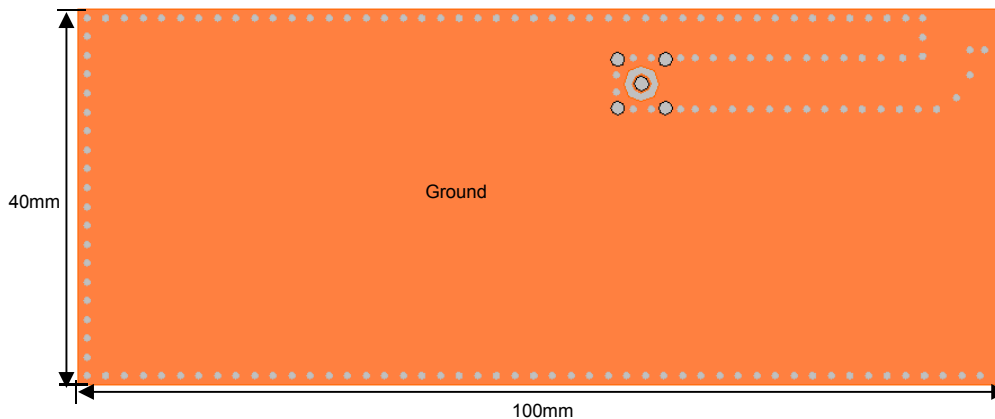
P/N: 2500AT43A0100-EB1SMA
(orderable item)

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

Bottom View



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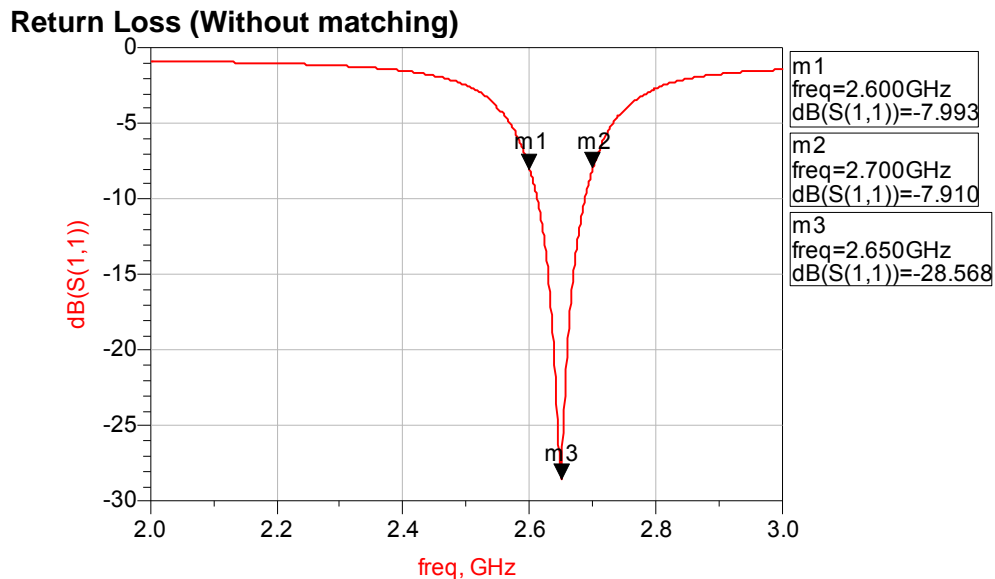
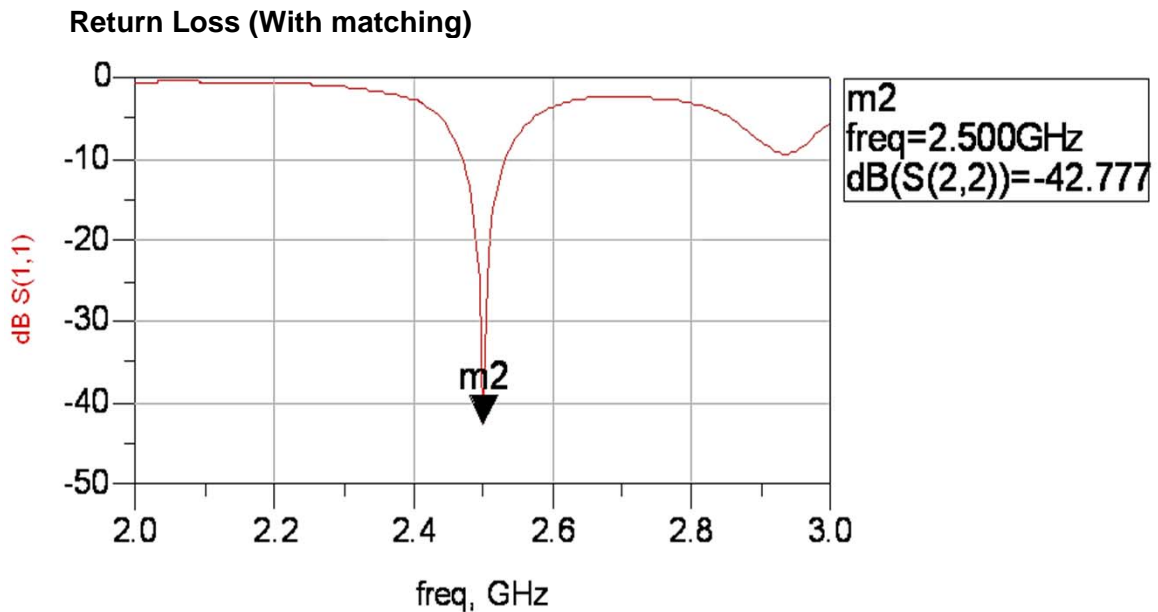
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Typical Electrical Characteristics (T=25oC)



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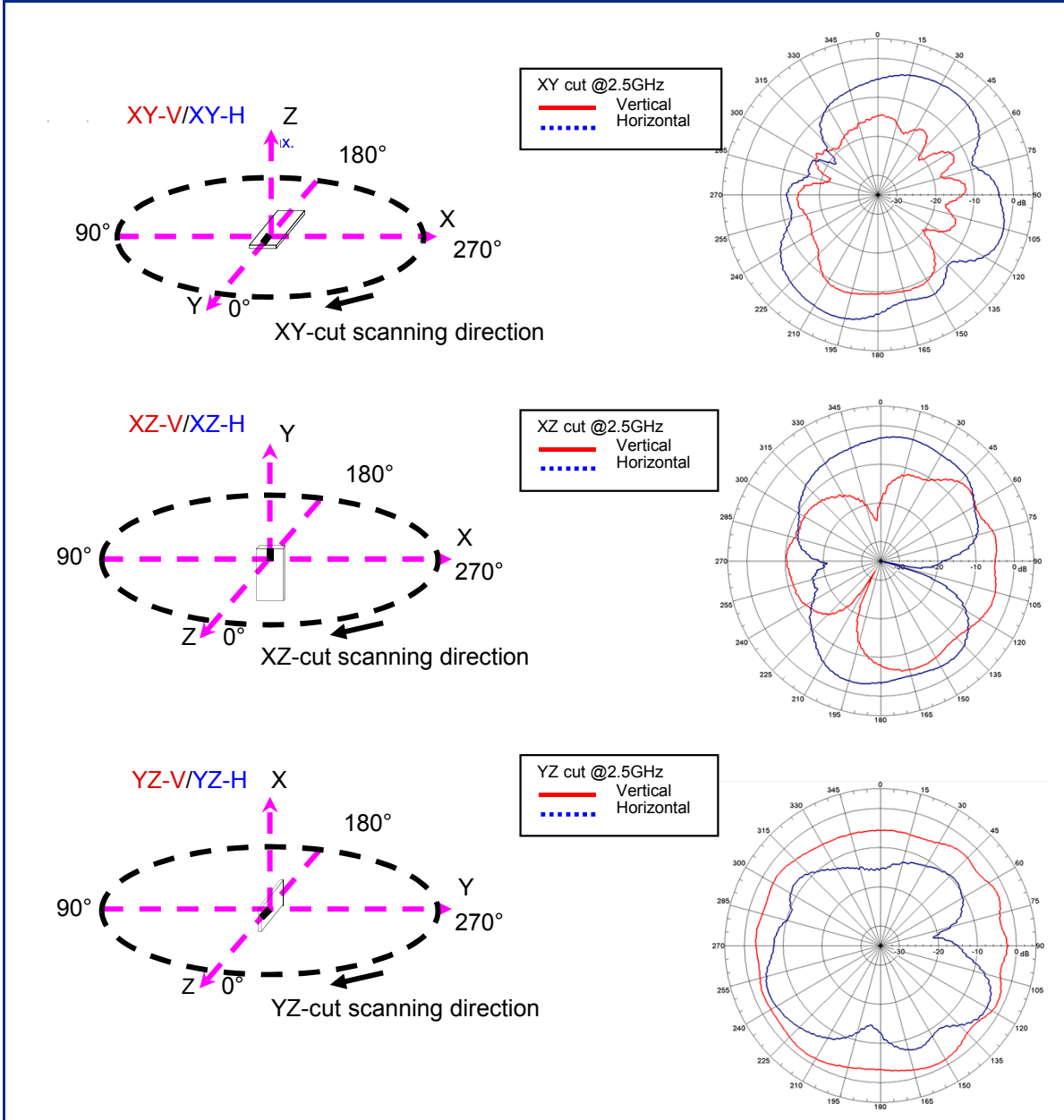
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Typical Radiation Patterns



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Part Number Explanation

P/N Suffix	Packing Style	Bulk (loose pieces)	Suffix = S	eg.2500AT43A0100S
		T & R	Suffix = E	eg. 2500AT43A0100E
		T & R (Reverse)	Suffix = R	eg. 2500AT43A0100R (MOQ Applies)
		100% Tin	Suffix = None	eg. 2500AT43A0100(S, E, R)
	Eval Board (1-port SMA antenna test boards)	2500AT43A0100-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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