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# "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		

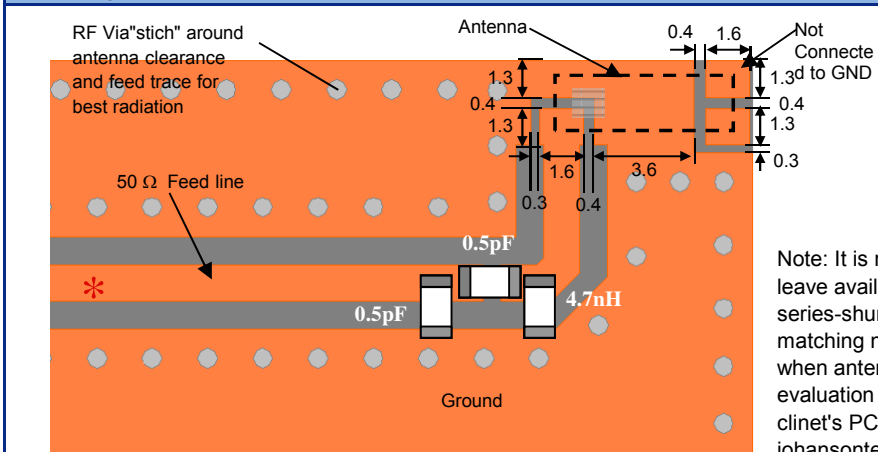
### Mechanical Dimensions

	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

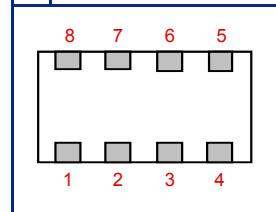
No.	Function
1	Feeding Point
2	GND
3	GND
4	NC
5	NC
6	GND
7	GND
8	GND

### Mounting Considerations



\* 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.



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](http://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](http://www.johansontechnology.com/en/ask-a-technical-question.html)

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](http://www.johansontechnology.com)

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# "High Frequency Ceramic Solutions"

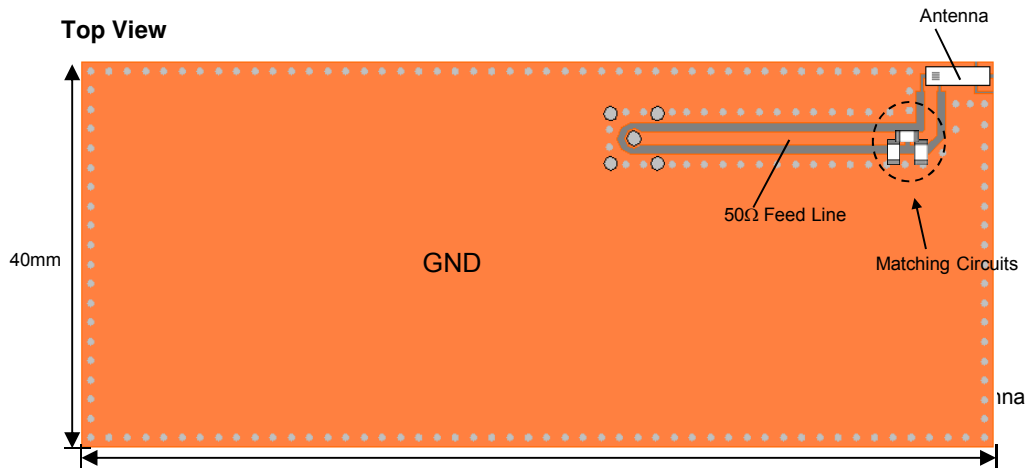
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## Johanson Evaluation Board (orderable item)



Test Board:

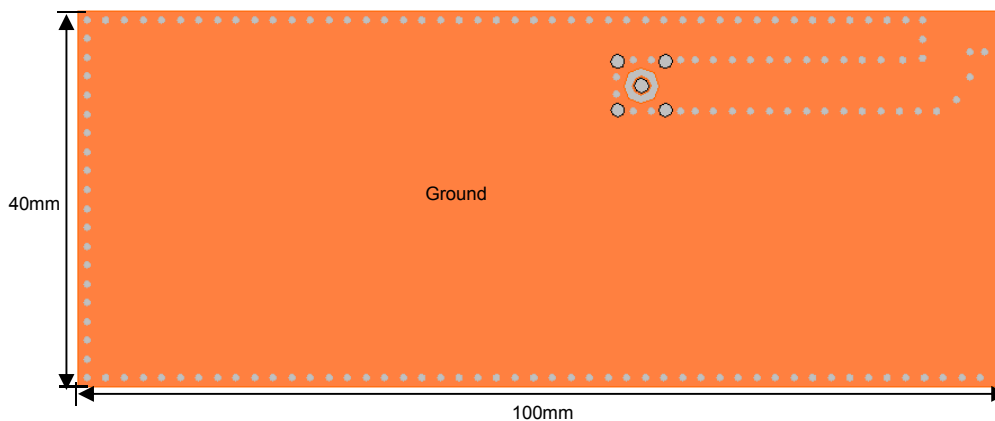
P/N: 2500AT43A0100-EB1SMA  
(orderable item)

100mm  
To order, go to:

[www.johansontechnology.com/samplerrequest](http://www.johansontechnology.com/samplerrequest)

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

## Bottom View



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# "High Frequency Ceramic Solutions"

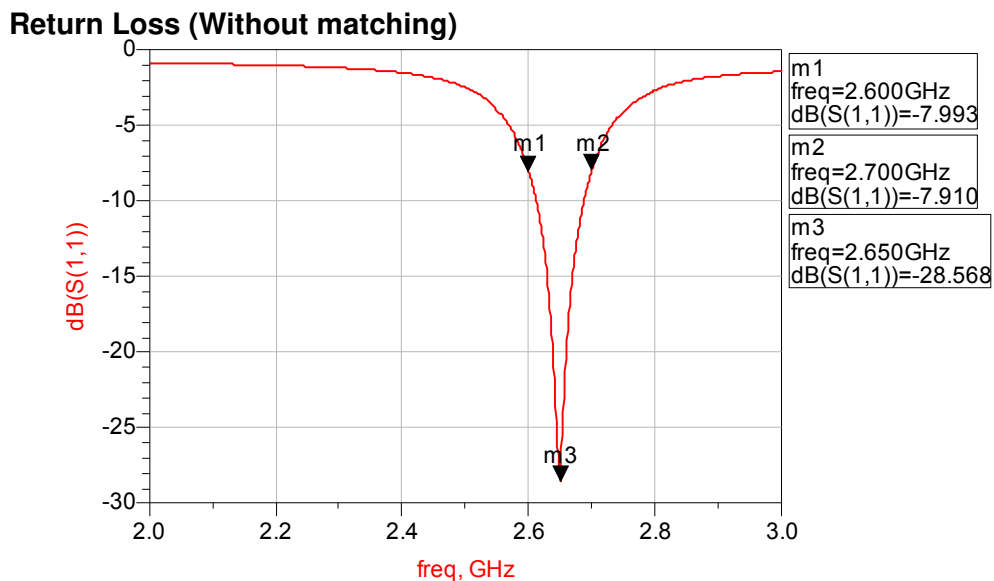
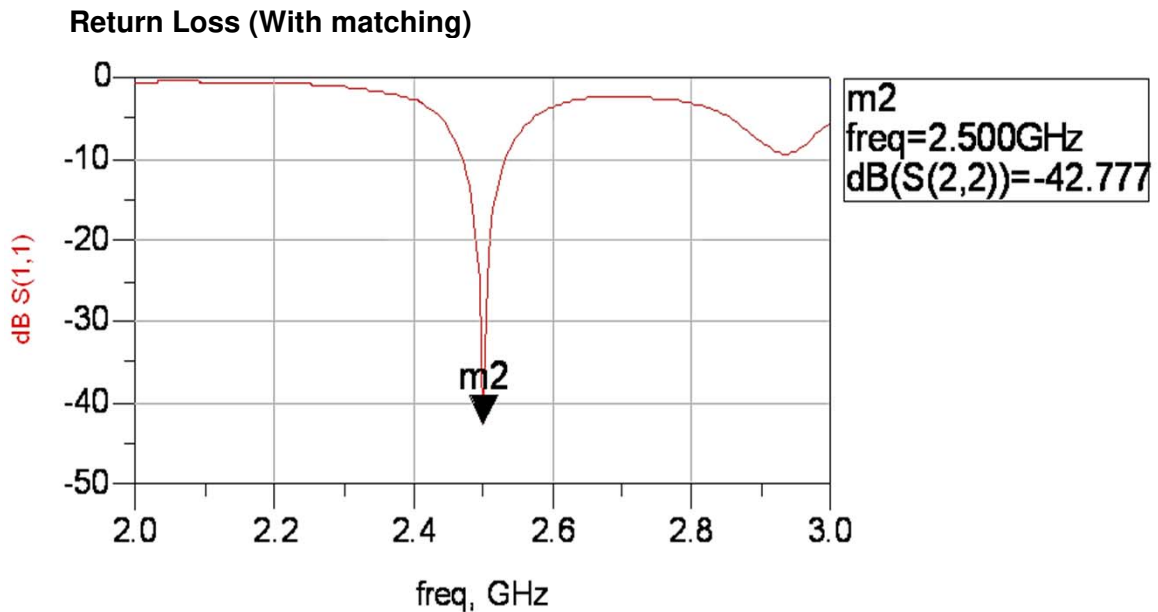
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## Typical Electrical Characteristics (T=25oC)



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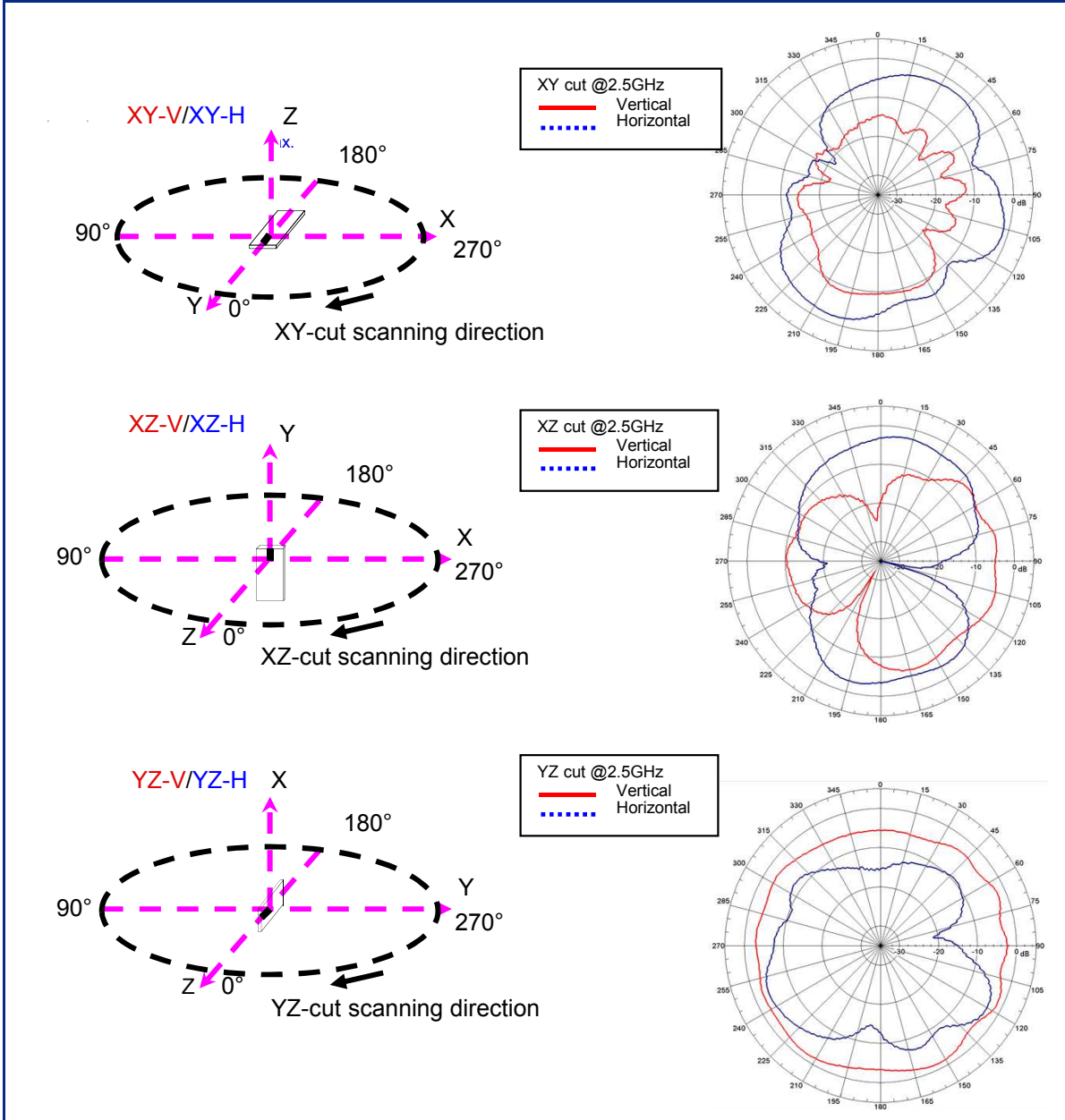
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## Typical Radiation Patterns



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**2.5GHz Chip Antenna with No GND clearance required**

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## Part Number Explanation

<b>P/N Suffix</b>	<b>Packing Style</b>	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)		
<b>More Details</b>	<a href="http://www.johansontechnology.com/ipc-pn-explained">www.johansontechnology.com/ipc-pn-explained</a>			

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

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

## Packaging information

[www.johansontechnology.com/ipcpackaging.html](http://www.johansontechnology.com/ipcpackaging.html)

## Soldering Information

[www.johansontechnology.com/ipcsoldering-profile](http://www.johansontechnology.com/ipcsoldering-profile)

## Antenna layout and tuning techniques

[www.johansontechnology.com/tuning](http://www.johansontechnology.com/tuning)

## Antenna layout review, tuning, and characterization services

[www.johansontechnology.com/ipcantennaservices](http://www.johansontechnology.com/ipcantennaservices)

## RoHS Compliance

[www.johansontechnology.com/technical-notes/rohs-compliance.html](http://www.johansontechnology.com/technical-notes/rohs-compliance.html)

## MSL Info

[www.johansontechnology.com/technical-notes/msl-rating.html](http://www.johansontechnology.com/technical-notes/msl-rating.html)

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