

"High Frequency Ceramic Solutions"

2450 MHz Antenna

P/N 2450AT42B100

Ground Clearance Requirements Minimized

Detail Specification: 11/20/2008

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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.

Input Power	3W max.
Impedance	50 Ω
Operating Temperature	-40 to +85°C
Reel Quantity	2,000

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	

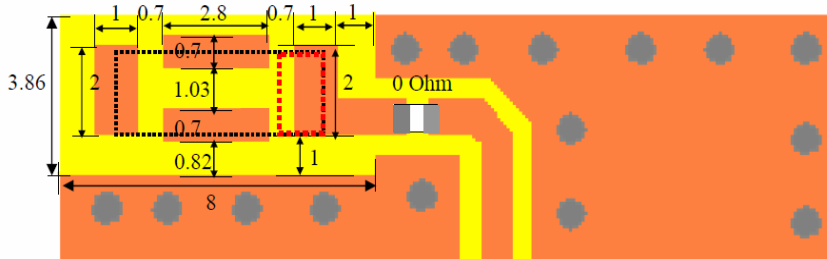
No.	Function
1	Feed Point
2	Anchoring Pin-NC
3	* Anchoring Pin-NC
4	* Anchoring Pin-NC

Mounting Considerations

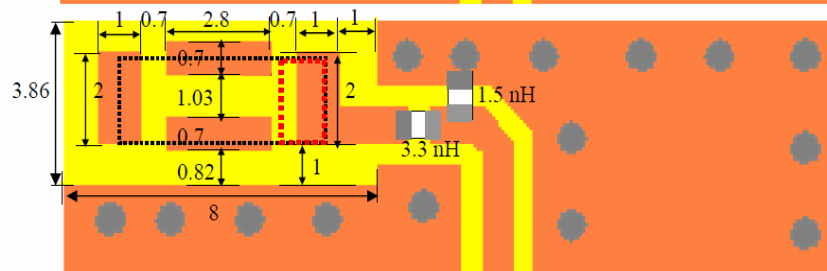
Mount these devices with brown mark facing up. Units: mm

Line width should be designed to provide 50 Ω impedance matching characteristics.

* Note: Pins 3 & 4, although "No Connect", must be soldered to its PCB pads for proper electrical operation



a) Without Matching Circuit



b) With Matching Circuit

JTI P/N for Matching Circuit:
 Inductor (1.5nH): L-07C1N5SV6T
 Inductor (3.3nH): L-07C3N3SV6T

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

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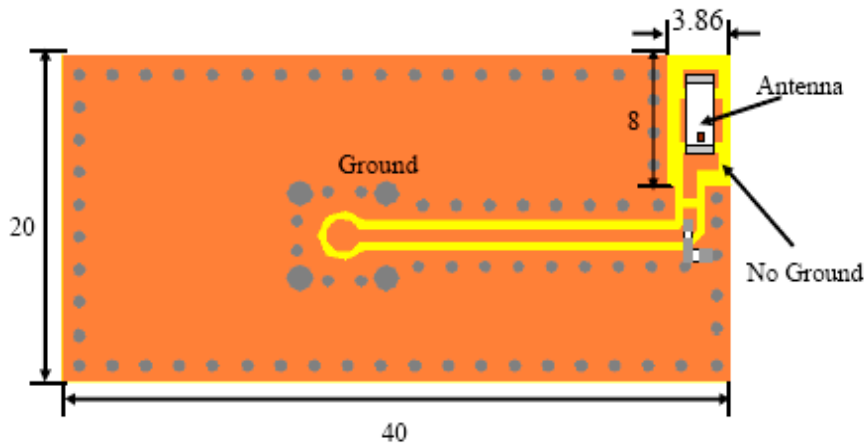
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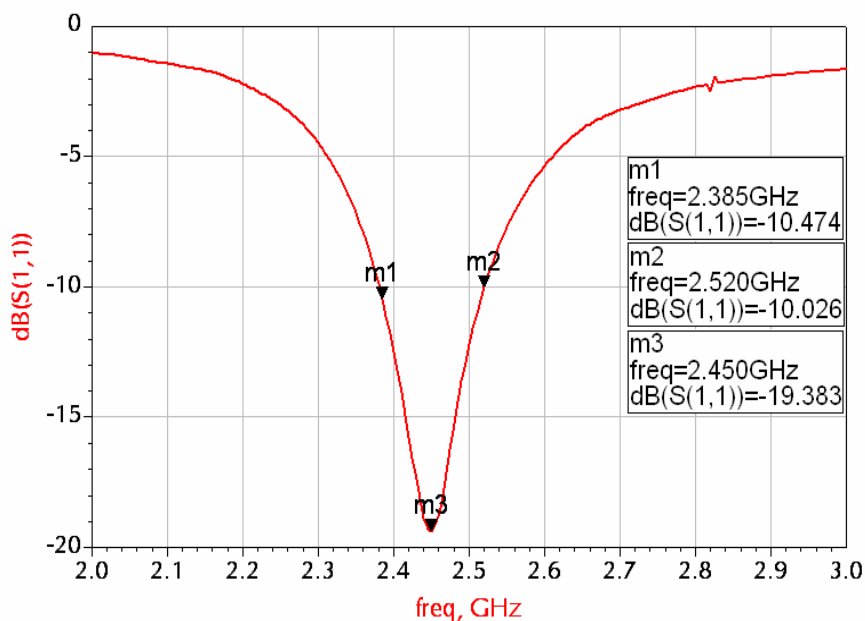
Typical Electrical Characteristics (T=25°C)

Test Board:



Return Loss

a) With Matching Circuit



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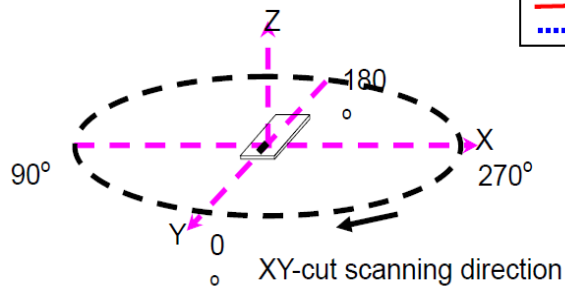
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Typical Radiation Patterns

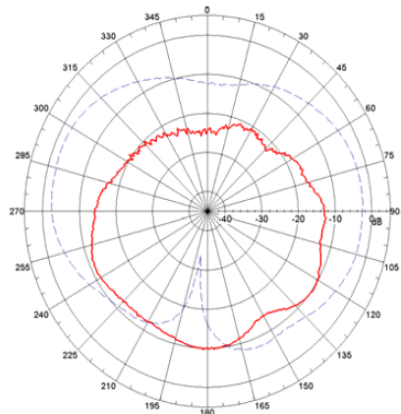
XY-V/XY-H



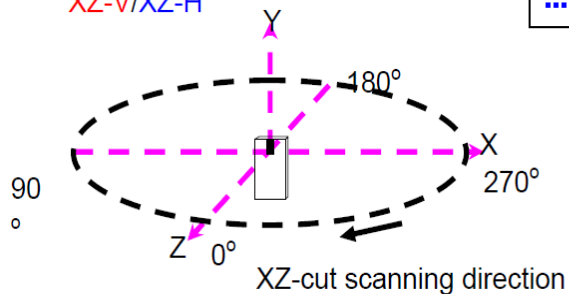
XY cut @2.45GHz

— Vertical

..... Horizontal



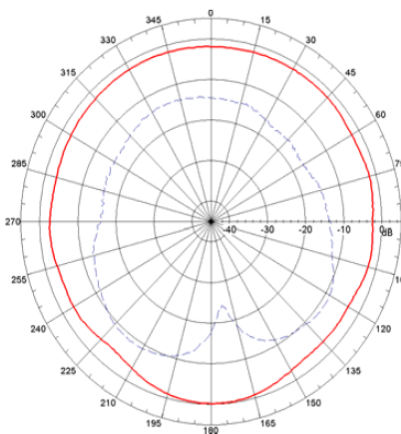
XZ-V/XZ-H



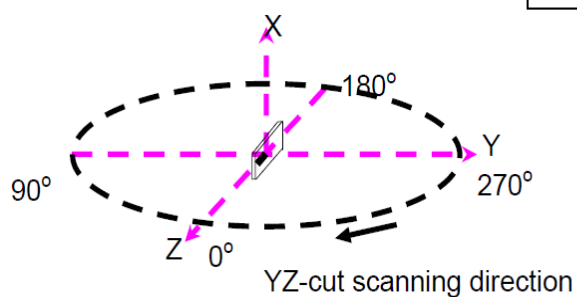
XZ cut @2.45GHz

— Vertical

..... Horizontal



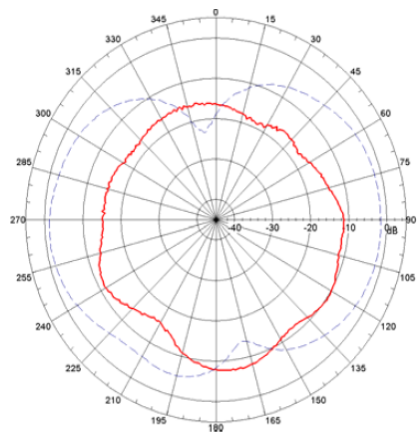
YZ-V/YZ-H



YZ cut @2.45GHz

— Vertical

..... Horizontal



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