

# High Frequency Ceramic Solutions

## 2.45 GHz SMD Chip Antenna

P/N 2450AT43A100

Detail Specification: 1/11/2013

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### General Specifications - Vertical Mounting

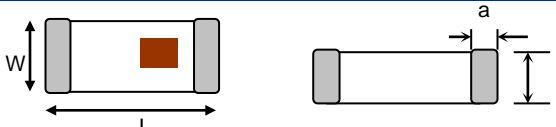
Part Number	2450AT43A100	Input Power	2W max.
Frequency Range	2400 - 2500 Mhz	Impedance	50 Ω
Peak Gain	2.0 dBi typ. (XZ-V)	Operating Temperature	-40 to +85°C
Average Gain	0.5 dBi typ. (XZ-V)	Reel Quantity	1,000
Return Loss	9.5 dB min.		

### Part Number Explanation

P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 2450AT43A100S
		T & R	Suffix = E	eg. 2450AT43A100E
	Termination style	100% Tin	Suffix = None	eg. 2450AT43A100 (E or S)
		Tin / Lead	Please Consult Factory	

### Mechanical Dimensions

	In	mm
L	0.276 ± 0.008	7.00 ± 0.20
W	0.079 ± 0.008	2.00 ± 0.20
T	0.047 + .004/-0.008	1.20 + 0.1/-0.2
a	0.020 ± 0.012	0.50 ± 0.30



### Terminal Configuration

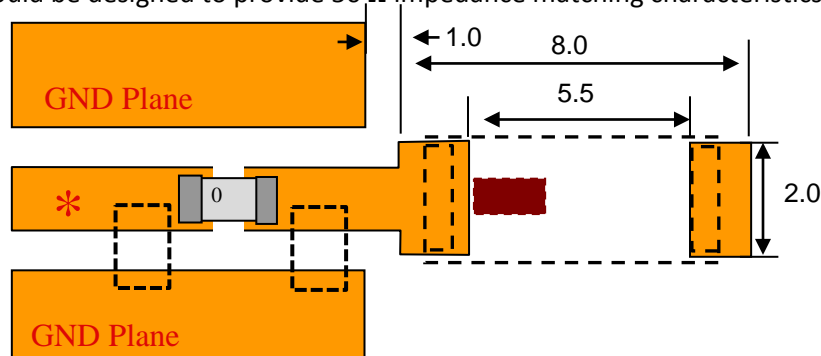
No.	Function
1	Signal Feed Terminal
2	NC (To be used as Anchoring to PCB)



### Mounting Considerations - Vertical Mounting

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

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



**Note:** Matching components may be needed when designing into a PCB so, make sure to leave a shunt-series-shunt or "pi" network available space/footprint when laying out. More info: <http://johansontechnology.com/tuning>

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

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

Ver 1.1

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**2.45 GHz SMD Chip Antenna**

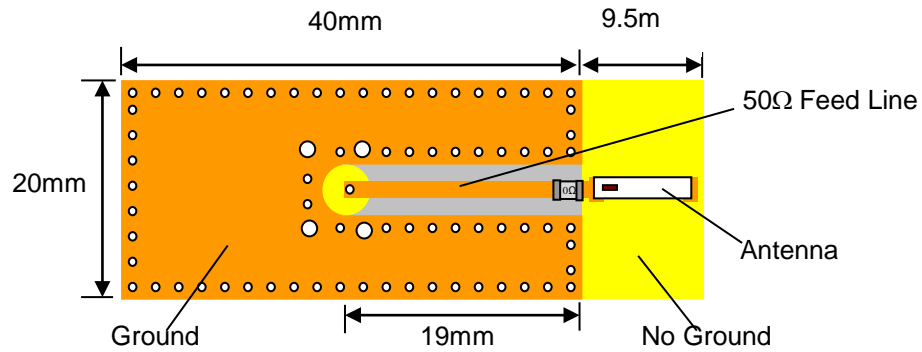
**P/N 2450AT43A100**

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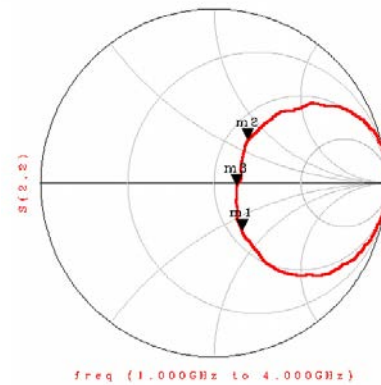
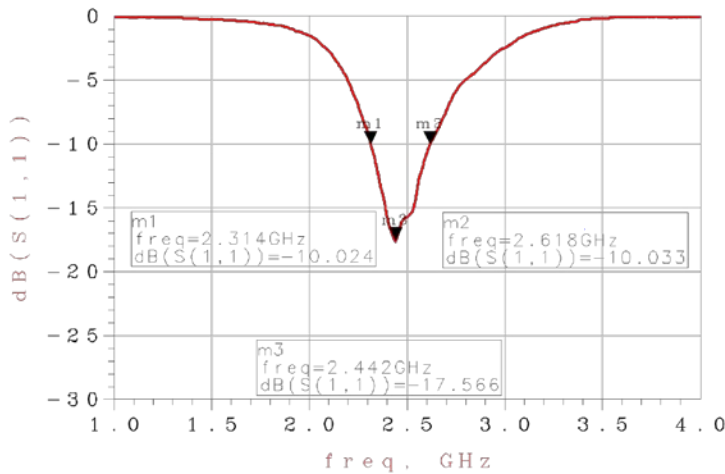
## Typical Electrical Characteristics (T=25°C)

### Test Board of Vertical Mounting style, p/n: 2450AT43A100-EB1SMA



\* This 50ohm trace to the antenna can be shorten (considerably) to suit your PCB space constraints

### Return Loss



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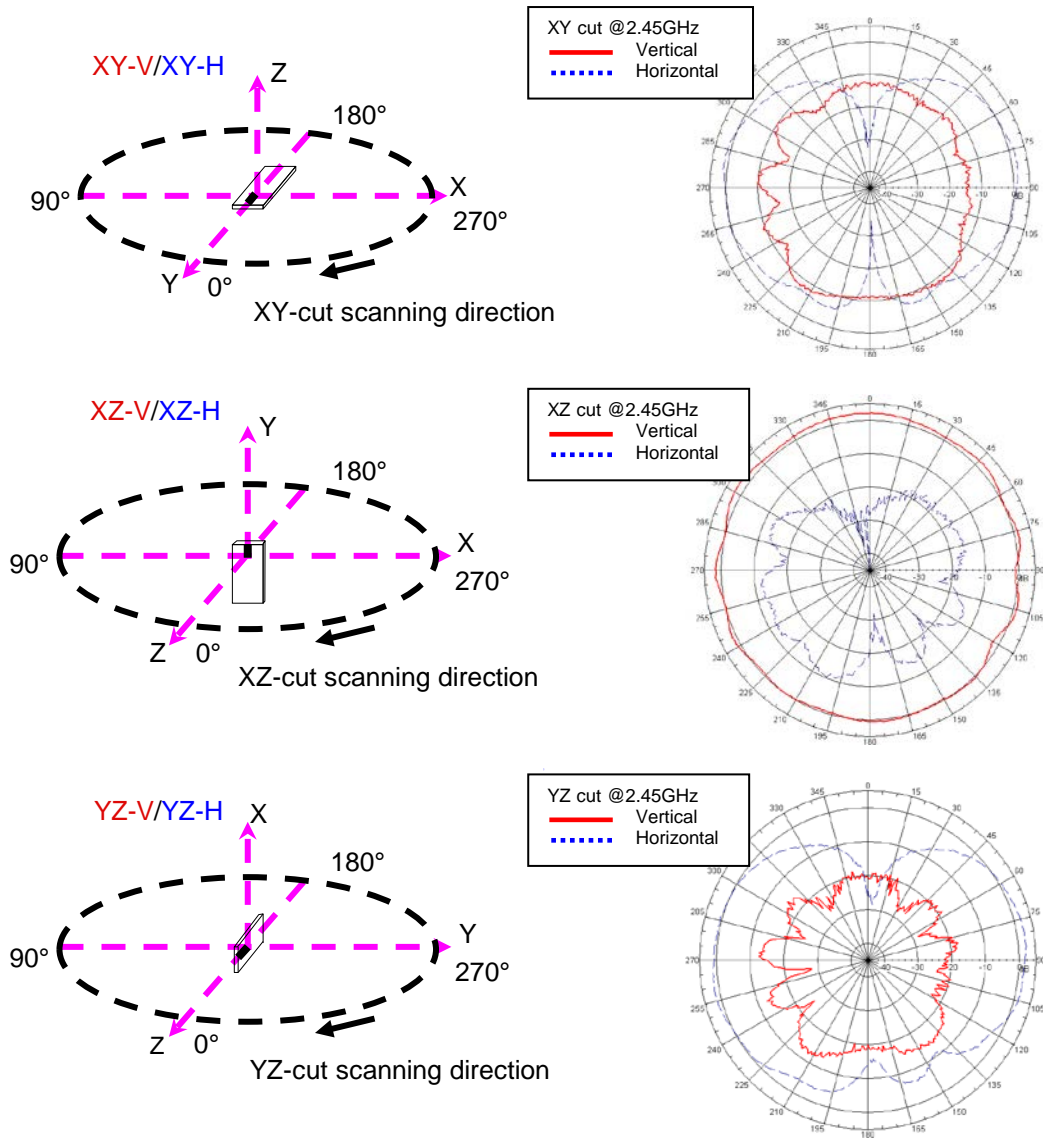
P/N 2450AT43A100

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## Typical Electrical Characteristics (T=25°C)

Typical Radiation Patterns on Test Board of Vertical Mounting p/n: 2450AT43A100-EB1SMA



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## 2.45 GHz SMD Chip Antenna

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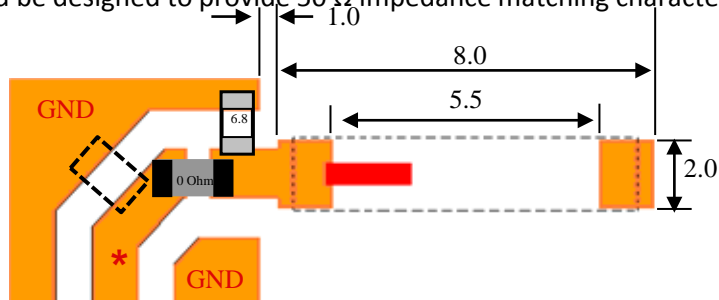
### General Specifications - Horizontal Mounting

Part Number	2450AT43A100	Input Power	2W max.
Frequency Range	2400 - 2500 Mhz	Impedance	50 $\Omega$
Peak Gain	2.0 dBi typ. (XZ-V)	Operating Temperature	-40 to +85°C
Average Gain	1.0 dBi typ. (XZ-V)	Reel Quantity	1,000
Return Loss	9.5 dB min.		

### Mounting Considerations - Horizontal Mounting

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

\* Line width should be designed to provide 50  $\Omega$  impedance matching characteristics.



**Note:** Matching components might be needed when design into a PCB so, make sure to leave a shunt-series-shunt or "pi" network available space/footprint when laying out. More info: <http://johansontechnology.com/tuning>



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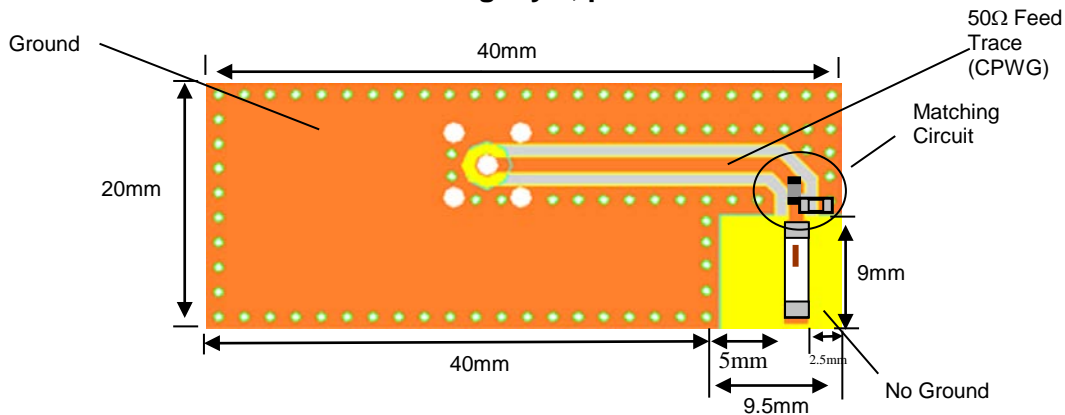
P/N 2450AT43A100

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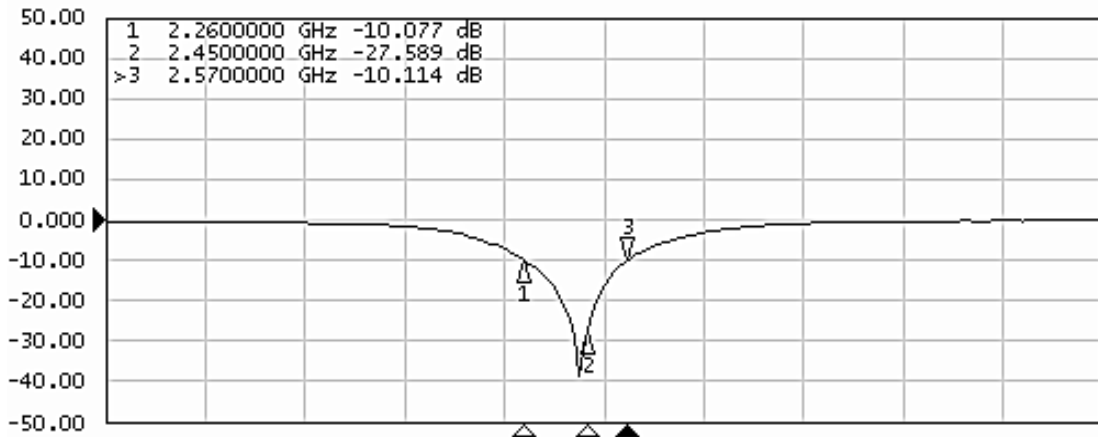
## Typical Electrical Characteristics (T=25°C)

### Test Board of Horizontal Mounting style, p/n: 2450AT43A100-EB2SMA



\* This 50ohm trace to the antenna can be shorten (considerably) to suit your PCB space constraints

### Return Loss



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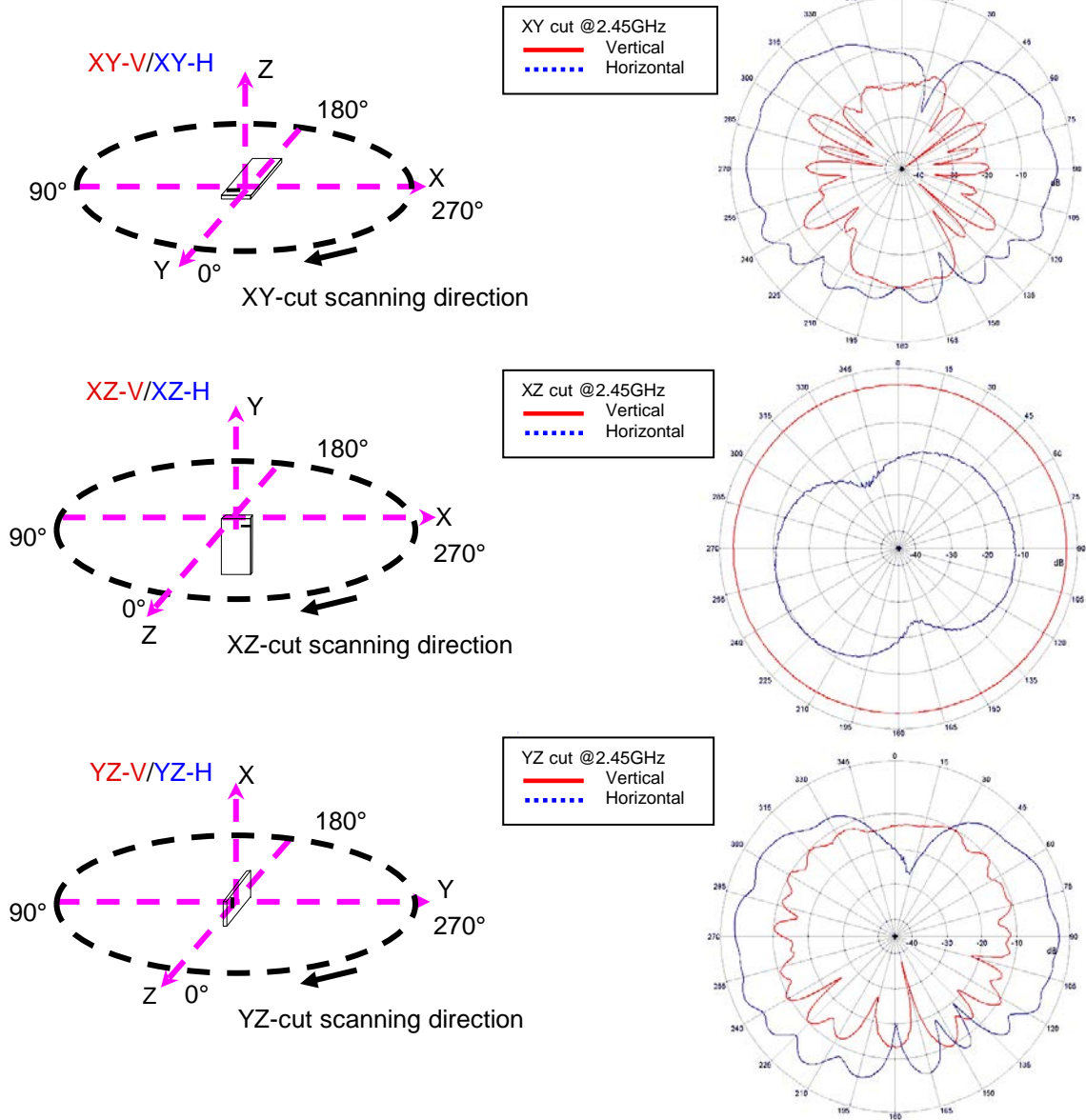
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## Typical Electrical Characteristics (T=25°C)

Typical Radiation Patterns on Test Board of Vertical Mounting p/n: 2450AT43A100-EB2SMA



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