

# "High Frequency Ceramic Solutions"

Preliminary

## 1.6 GHz Antenna

P/N 1600AT45A0040

Detail Specification: 11/18/08

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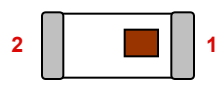
### General Specifications

Part Number	1600AT45A0040
Frequency Range	1580 - 1620 Mhz
Peak Gain	0.0 dBi typ. (XZ-Total)
Average Gain	-1.0 dBi typ. (XZ-Total)
Return Loss	9.5 dB min.

Input Power	2W max.
Impedance	50 $\Omega$
Reel Quantity	1,000
Operating Temperature	-40 to +85°C
Storage Temperature	+5 to +35°C, Humidity: 45-75%RH, 12 mos. Max

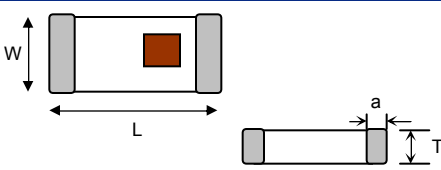
P/N Suffix	Packaging Style	Bulk	Suffix = S	Eg. 1600AT45A0040S
		T & R	Suffix = E	Eg. 1600AT45A0040E
	Termination Style	100% Tin	Suffix = None	Eg. 1600AT45A0040(E or S)
		Tin / Lead	Please consult Factory	

Terminal Configuration	
No.	Function
1	Feeding Point
2	NC



### Mechanical Dimensions

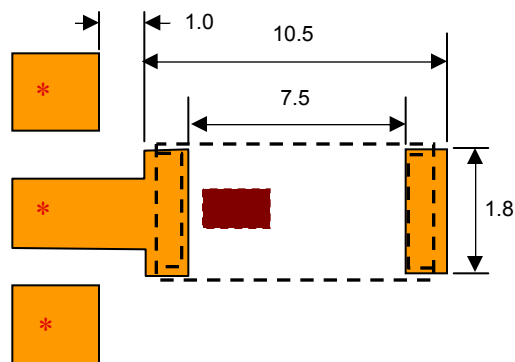
	In	mm
L	0.374 $\pm$ 0.008	9.50 $\pm$ 0.20
W	0.079 $\pm$ 0.008	2.00 $\pm$ 0.20
T	0.047 +.004/-.008	1.20 +0.1/-0.2
a	0.020 $\pm$ 0.012	0.50 $\pm$ 0.30



### Mounting Considerations

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

\* Line width should be designed to provide 50 $\Omega$  impedance, depending on PCB material and thickness.



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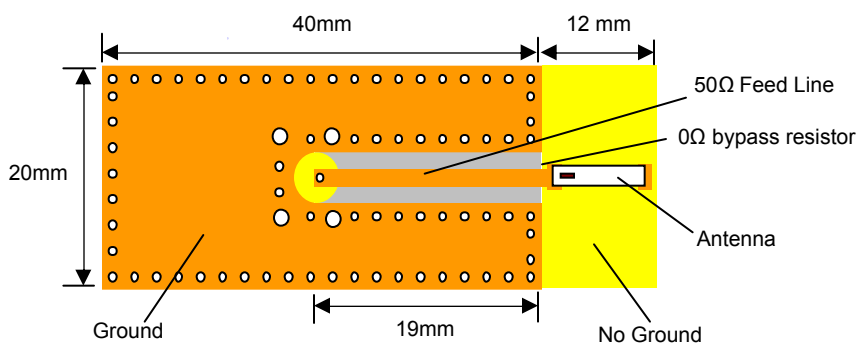
P/N 1600AT45A0040

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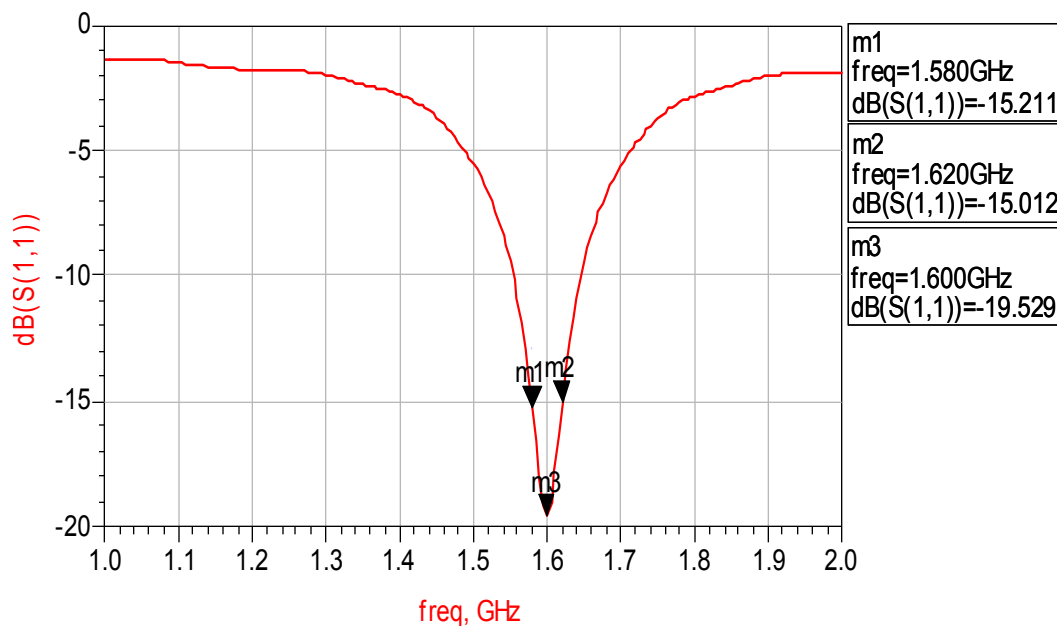
### Typical Electrical Characteristics (T=25°C)

#### Test Board



#### Return Loss

a) Without Matching Circuits



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

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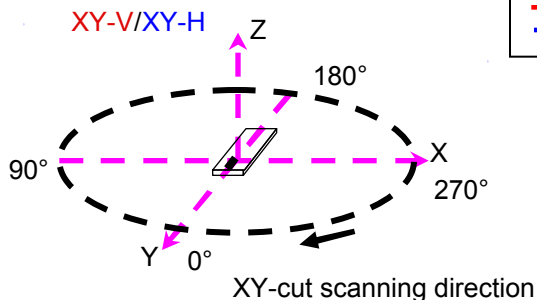
1.6 GHz Antenna

P/N 1600AT45A0040

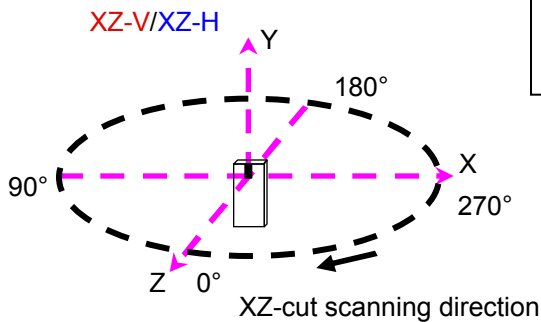
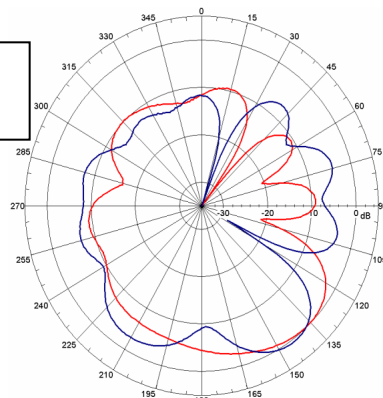
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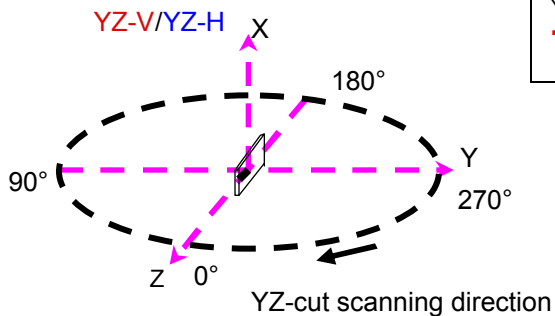
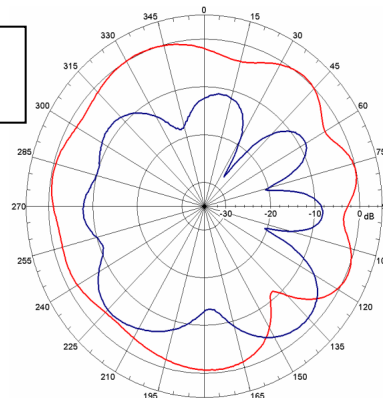
## Typical Radiation Patterns



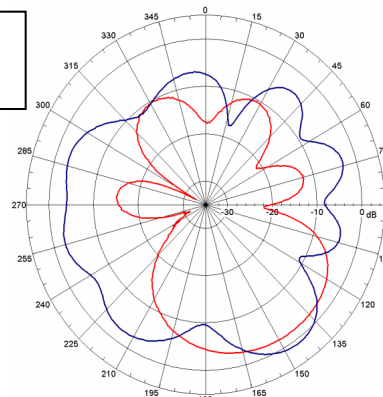
XY cut @ 1.60GHz  
 — Vertical  
 ..... Horizontal



XZ cut @ 1.60GHz  
 — Vertical  
 ..... Horizontal



YZ cut @ 1.60GHz  
 — Vertical  
 ..... Horizontal



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