

"High Frequency Ceramic Solutions"

Preliminary

1.6 GHz Antenna

P/N 1600AT45A0040

Detail Specification: 11/18/08

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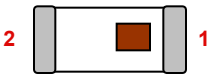
General Specifications

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

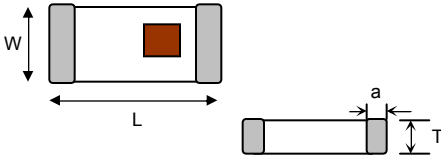
Terminal Configuration	
No.	Function
1	Feeding Point
2	NC



The diagram shows a rectangular component with two terminals. Terminal 1 is on the right side, and Terminal 2 is on the left side. A brown square is located in the center of the component.

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 $\pm$ 0.004/-0.008	1.20 $\pm$ 0.1/-0.2
a	0.020 $\pm$ 0.012	0.50 $\pm$ 0.30

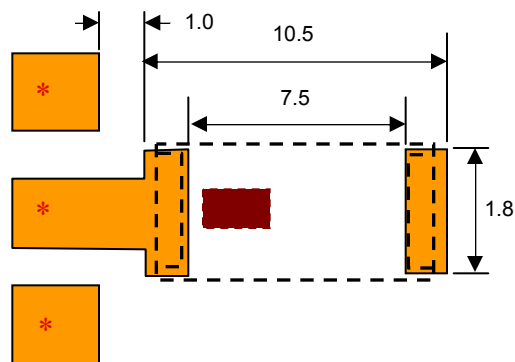


The diagram shows two views of the component. The top view is a rectangle with dimensions L (length) and W (width). The bottom view is a side view showing the thickness T and the distance a from the edge to the center of the component.

Mounting Considerations

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

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



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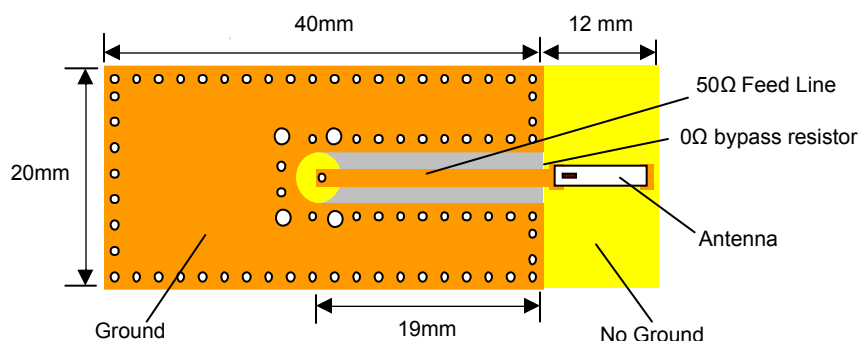
P/N 1600AT45A0040

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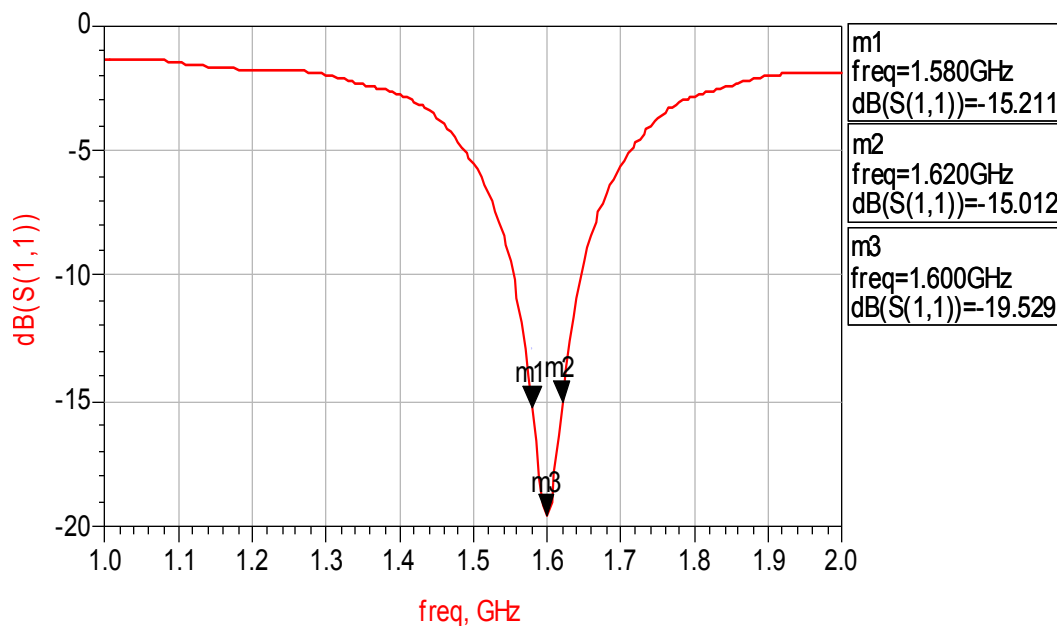
Typical Electrical Characteristics (T=25°C)

Test Board



Return Loss

a) Without Matching Circuits



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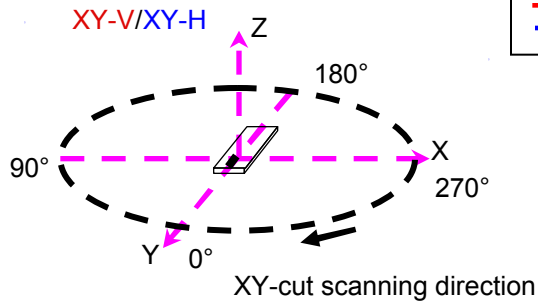
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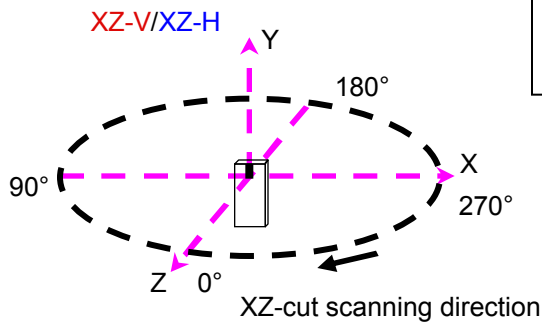
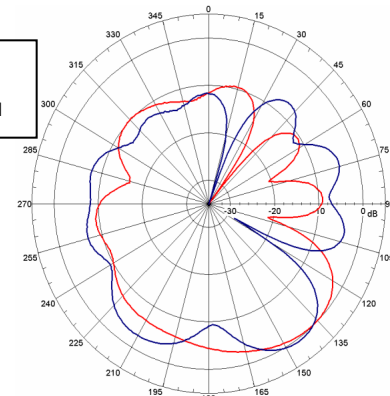
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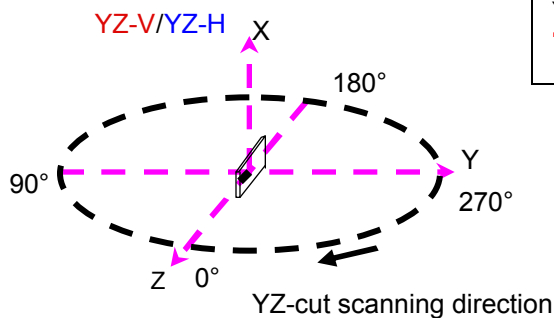
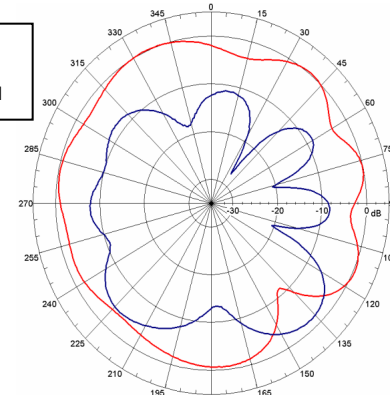
Typical Radiation Patterns



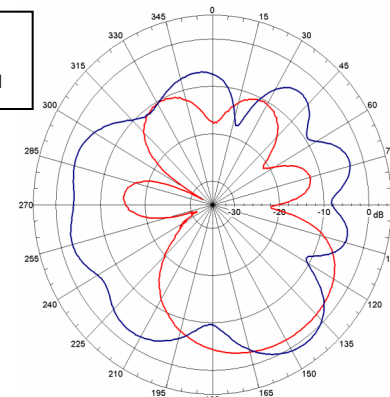
XY cut @ 1.60GHz
— Vertical
... Horizontal



XZ cut @ 1.60GHz
— Vertical
... Horizontal



YZ cut @ 1.60GHz
— Vertical
... Horizontal



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