

# "High Frequency Ceramic Solutions"

## 1.575 GHz Multilayer GPS Chip Antenna

P/N 1575AT54A0010

Detail Specification: 10/30/08

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### General Specifications

Part Number	1575AT54A0010
Frequency Range	1570 - 1580 Mhz
Peak Gain	1.3 dBi typ. (YZ-Total)
Average Gain	-0.7 dBi typ. (YZ-Total)
Return Loss	9.5 dB min.

Input Power	2W max.
Impedance	50 Ω
Reel Quantity	500
Operating Temperature	-40 to +85°C
Storage Temperature	+5 to +35°C, Humidity: 45-75%RH, 12 mos. Max

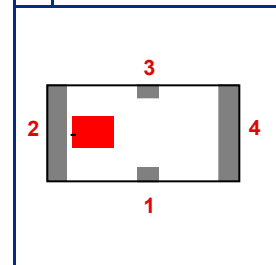
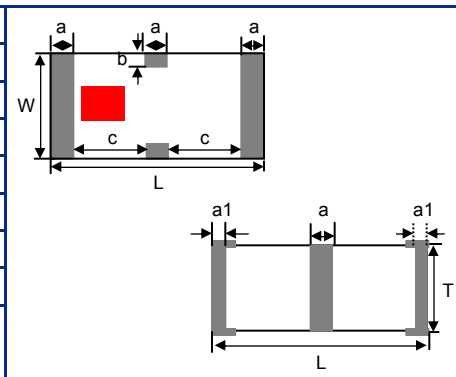
P/N Suffix	Packaging Style	Bulk	Suffix = S	Eg. 1575AT54A0010S
		T & R	Suffix = E	Eg. 1575AT54A0010E
	Termination Style	100% Tin	Suffix = None	Eg. 1575AT54A0010(E or S)
		Tin / Lead	Please consult Factory	

### Terminal Configuration

No.	Function
1	Feed Point
2	GND
3	NC
4	GND

### Mechanical Dimensions

	In	mm
L	0.591 ± 0.008	15.00 ± 0.20
W	0.157 ± 0.008	4.00 ± 0.20
T	0.126 ± 0.008	3.20 ± 0.20
a	0.039 ± 0.008	1.00 ± 0.20
a1	0.020 ± 0.008	0.50 ± 0.20
b	0.020 ± 0.008	0.50 ± 0.20
c	0.236 ± 0.008	6.00 ± 0.20



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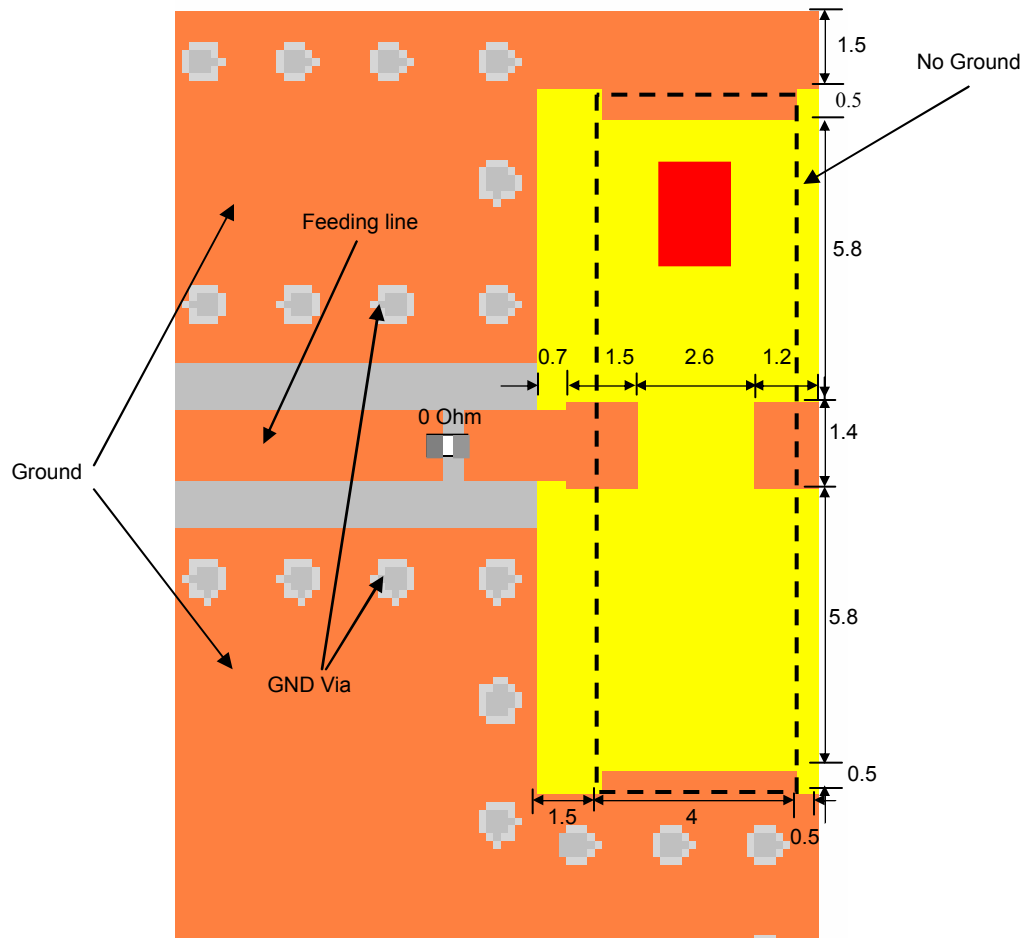
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## Mounting Considerations

Matching circuit and component values will be different, depending on PCB layout

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

### a) Without Matching Circuits



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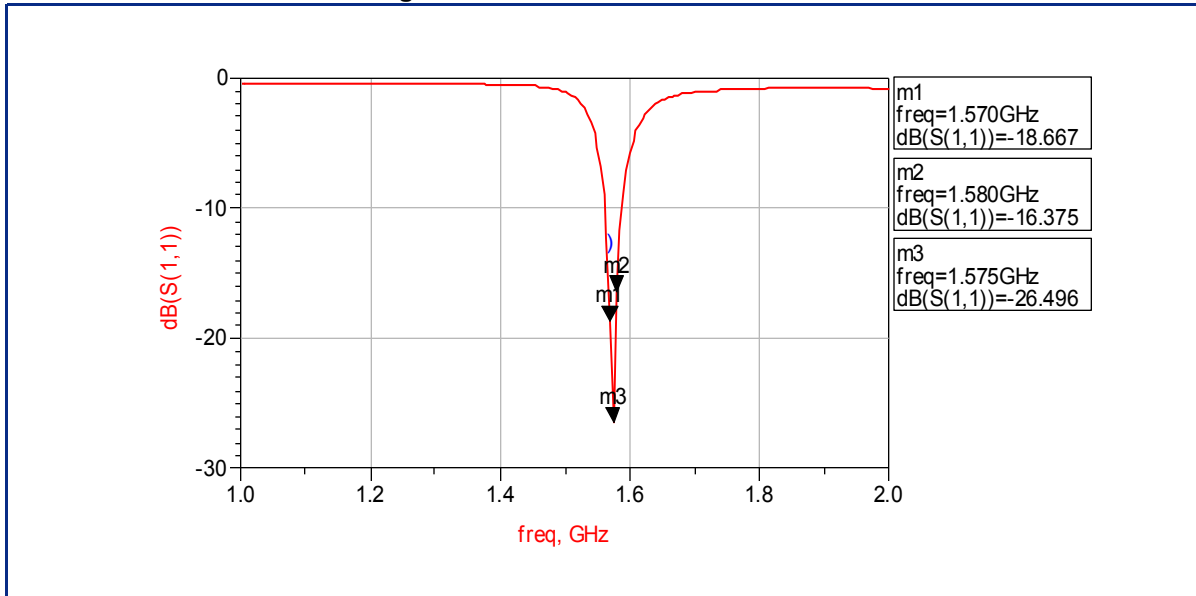
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## Return Loss - Without Matching Circuits



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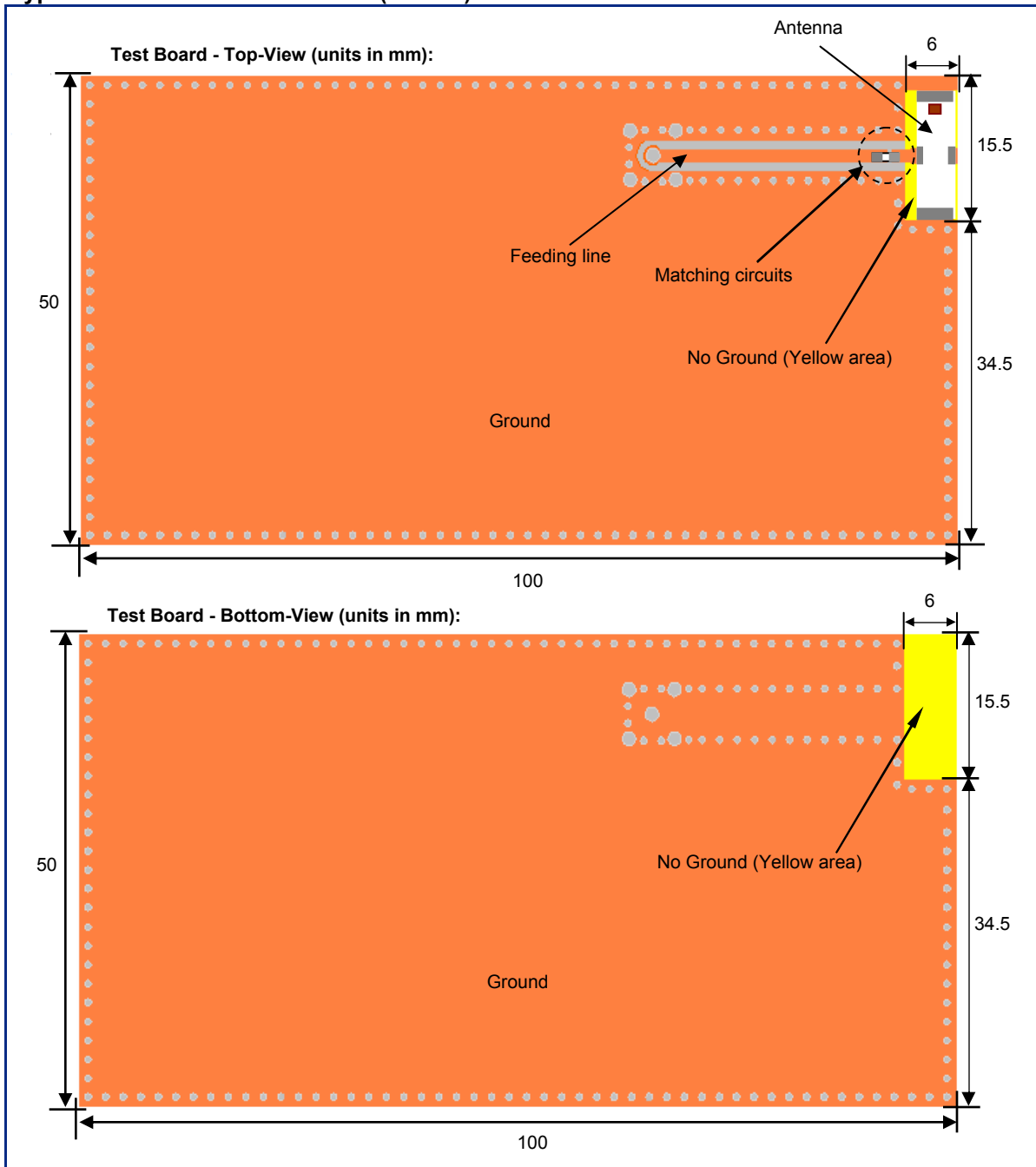
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## Typical Electrical Characteristics (T=25°C)



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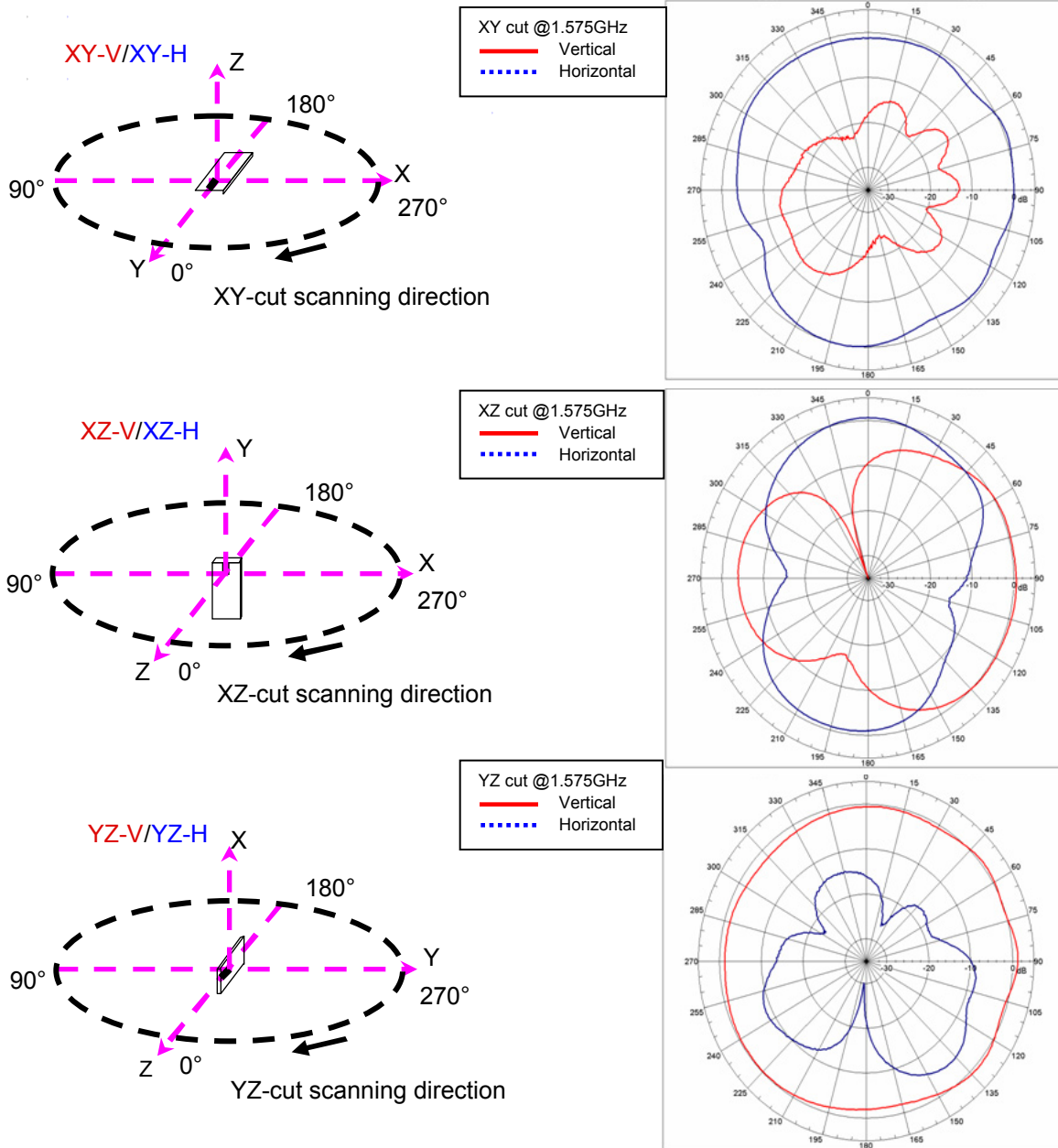
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## Typical Radiation Patterns



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