

"High Frequency Ceramic Solutions"

1575MHz GPS Ultra-Compact Ceramic Chip Antenna

P/N 1575AT44A0010

Detail Specification: 9/24/2012

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General Specifications

Part Number	1575AT44A0010
Frequency Range	1570~1580 MHz
Peak Gain (XZ-total)	0.5 dBi typ.
Average Gain (XZ-total)	-2.0 dBi typ.
Return Loss	9.5 dB min.

Input Power	2W max.
Impedance	50 Ω
Reel Quantity	1000
Operating Temperature	-40 to +85°C
Storage Temperature	+5 to +35°C, Humidity: 45-75%RH, 18 mos. Max

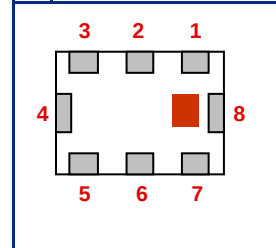
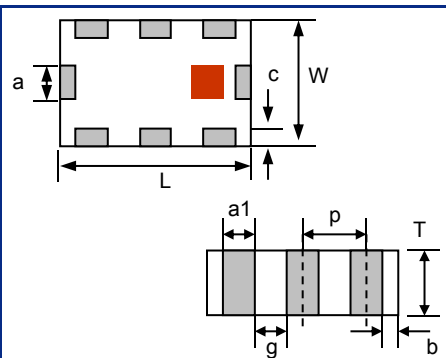
P/N Suffix	Packaging Style	Bulk	Suffix = S	Eg. 1575AT44A0010S
		T & R	Suffix = E	Eg. 1575AT44A0010E
	Termination Style	100% Tin	Suffix = None	Eg. 1575AT44A0010(E or S)
		Tin / Lead	Please consult Factory	
	EVb with SMA Connector		1575AT44A0010-EB1SMA	

Terminal Configuration

No.	Function
1	GND
2	NC
3	NC
4	GND
5	NC
6	NC
7	Feeding
8	GND

Mechanical Dimensions

	In	mm
L	0.177 $\pm$ 0.012	4.50 $\pm$ 0.30
W	0.122 $\pm$ 0.012	3.10 $\pm$ 0.30
T	0.059 $\pm$ 0.004	1.50 $\pm$ 0.10
a1	0.022 $\pm$ 0.008	0.55 $\pm$ 0.20
a2	0.079 $\pm$ 0.008	2.00 $\pm$ 0.20
b	0.004 min	0.1 min
c	0.012 $\pm$ 0.004/-0.008	0.30 $\pm$ 0.1/-0.2
g	0.043 $\pm$ 0.006	1.10 $\pm$ 0.15
p	0.065 $\pm$ 0.008	1.65 $\pm$ 0.20



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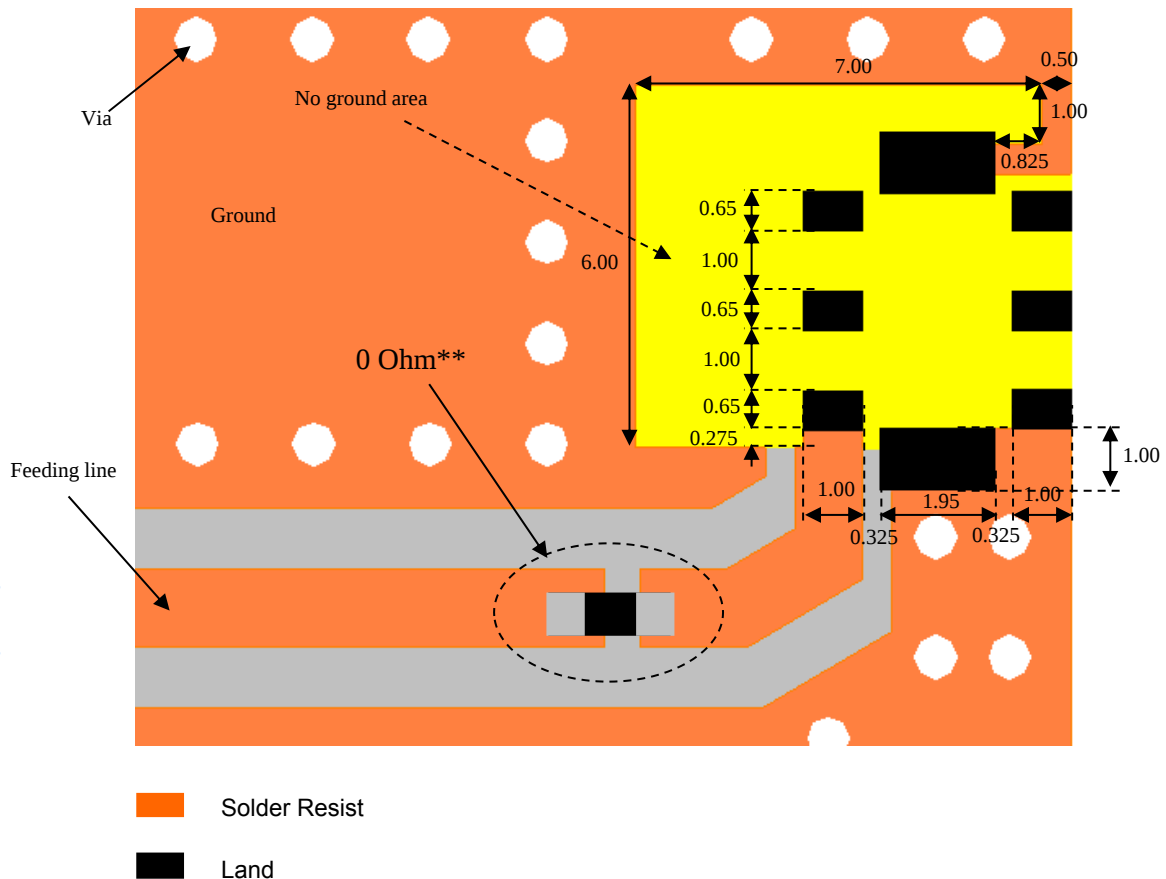
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Mounting Considerations

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

Without Matching Circuits - Units in mm



**When doing the layout of your PCB make sure you leave place holders for a "shunt-series-shunt" (Pi) matching network in your preferred case size. For any further questions, contact our engineering support team at:

<http://www.johansontechnology.com/en/ask-a-technical-question.html>

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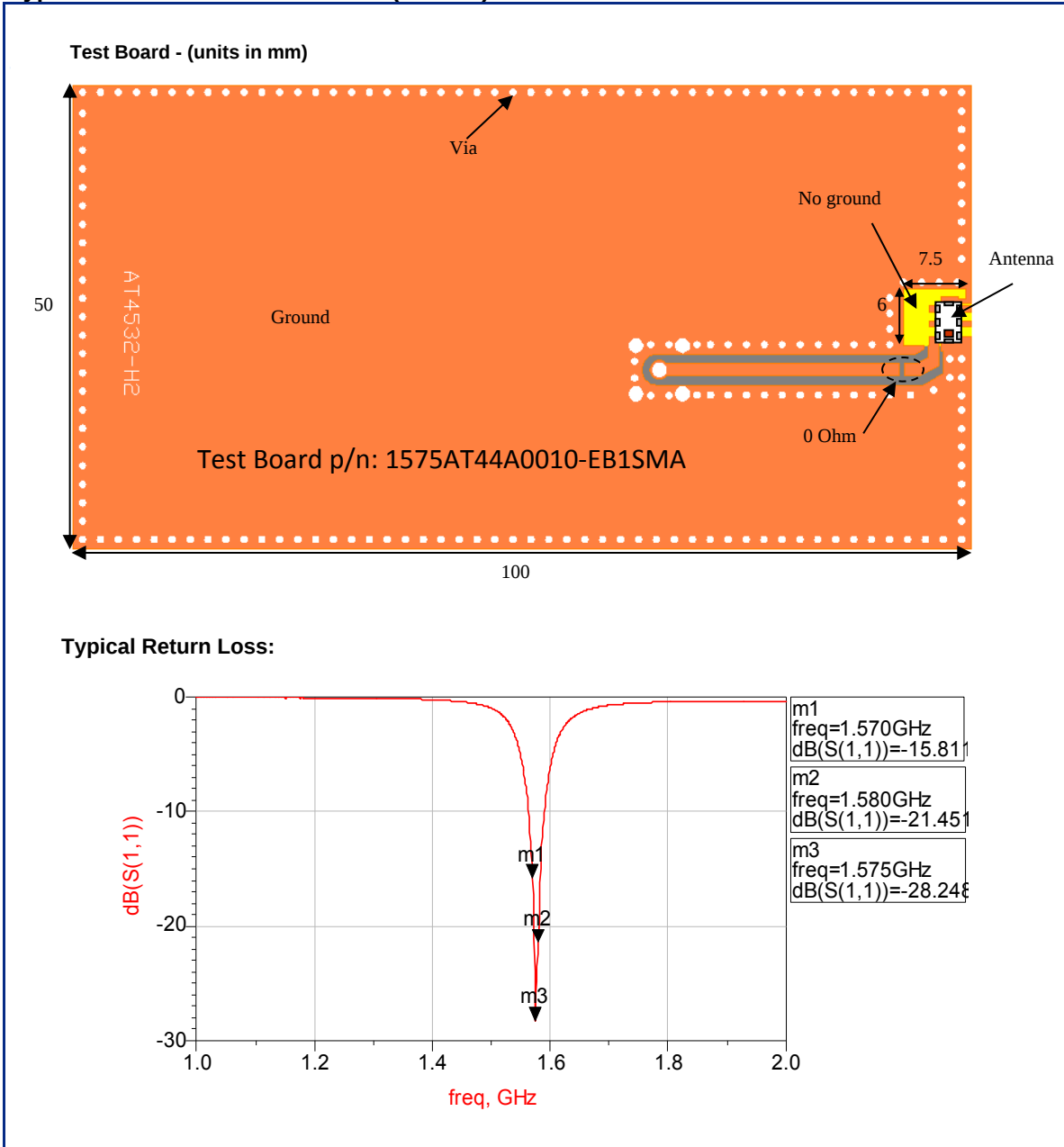
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Typical Electrical Characteristics (T=25°C)



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Preliminary

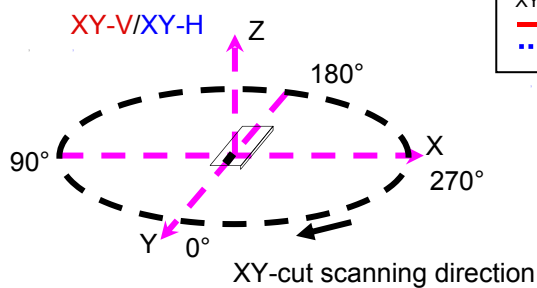
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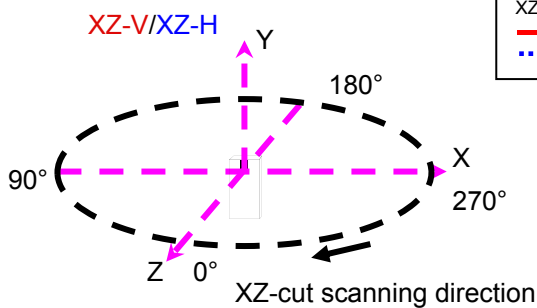
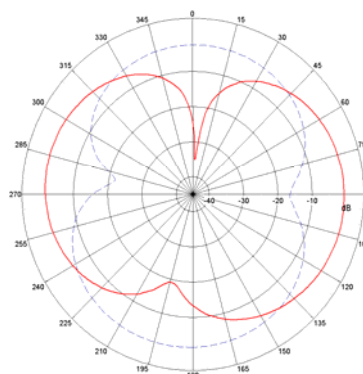
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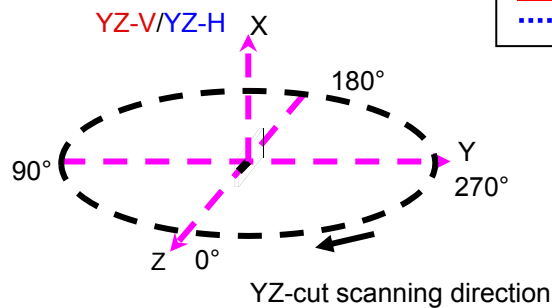
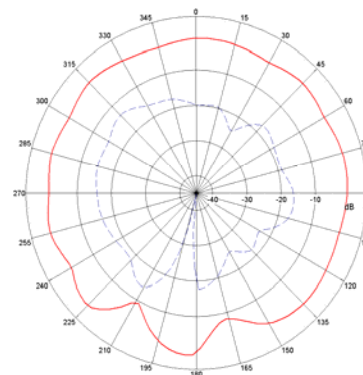
Typical Radiation Patterns



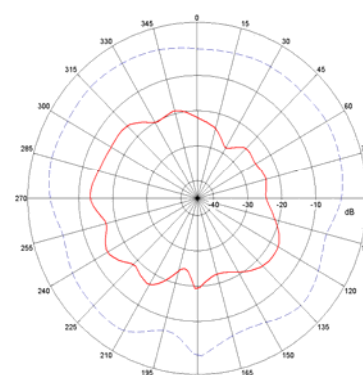
XY cut @1.575GHz
— Vertical
- - - Horizontal



XZ cut @1.575GHz
— Vertical
- - - Horizontal



YZ cut @1.575GHz
— Vertical
- - - Horizontal



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