

# High Frequency Ceramic Solutions

## (Tri-Band) WiMax Antenna

P/N 2500AT52M3555

Detail Specification: 08/11/06

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### General Specifications

<b>Part Number</b>	2500AT52M3555		
<b>Freq. Range (GHz)</b>	2.3 - 2.69	3.3 - 3.9	5.15 - 5.875
<b>Peak Gain (XZ-V)</b>	2.0 dBi typ.	2.0 dBi typ.	2.0 dBi typ.
<b>Average Gain (XZ-V)</b>	-2.0 dBi typ.	-4.0 dBi typ.	-3.0 dBi typ.
<b>Return Loss</b>	8.5 dB min.	9.5 dB min.	9.5 dB min.

<b>Input Power</b>	5W max.
<b>Impedance</b>	50 Ω
<b>Operating Temp.</b>	-40 to +85°C
<b>Reel Quantity</b>	300

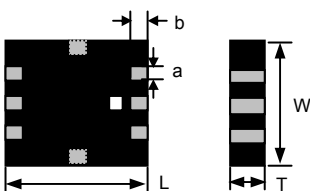
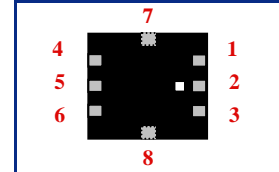
<b>P/N Suffix</b>	<b>Packaging Style</b>	Bulk	Suffix = S	Eg. 2500AT52M3555S
		T & R	Suffix = E	Eg. 2500AT52M3555E
<b>Termination Style</b>		100% Tin	Suffix = None	Eg. 2500AT52M3555(E or S)
		Tin / Lead	Suffix = /Pb	Eg. 2500AT52M3555(E or S)/Pb

### Terminal Configuration

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

### Mechanical Dimensions

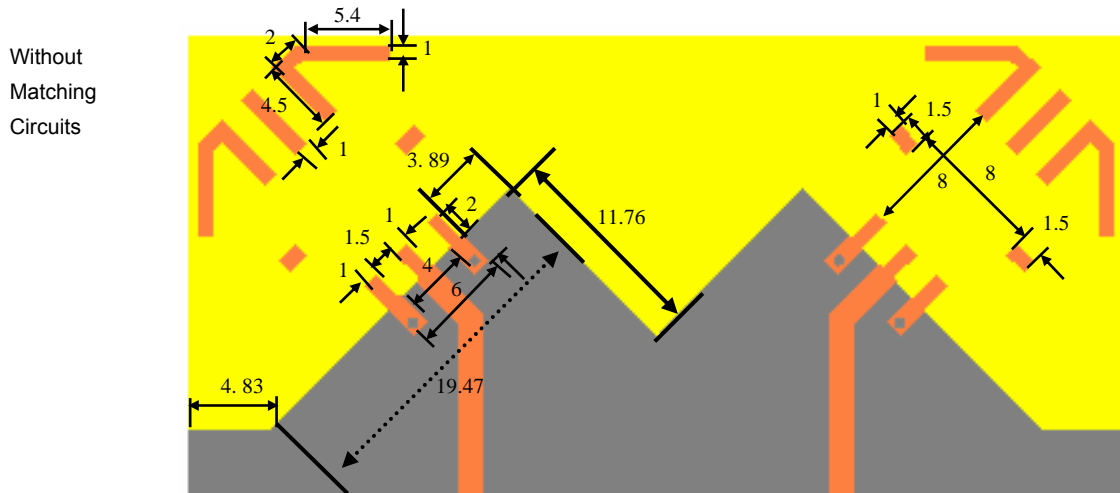
	In	mm
<b>L</b>	0.394 ± 0.012	10.00 ± 0.30
<b>W</b>	0.394 ± 0.012	10.00 ± 0.30
<b>T</b>	0.037 ± 0.010	0.95 ± 0.25
<b>a</b>	0.039 ± 0.012	1.00 ± 0.30
<b>b</b>	0.039 ± 0.012	1.00 ± 0.30

### Mounting Considerations

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

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



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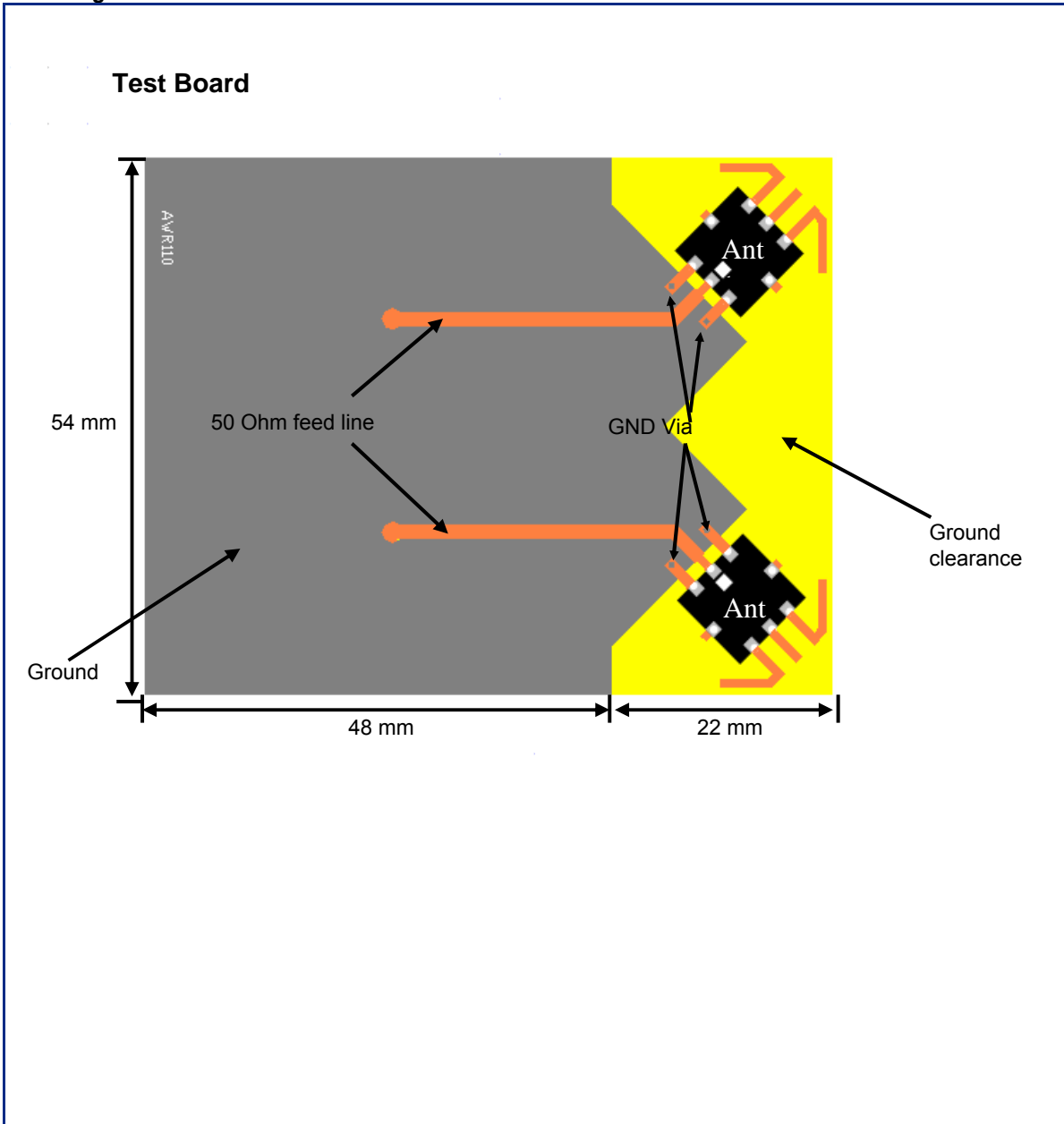
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## Mounting Considerations



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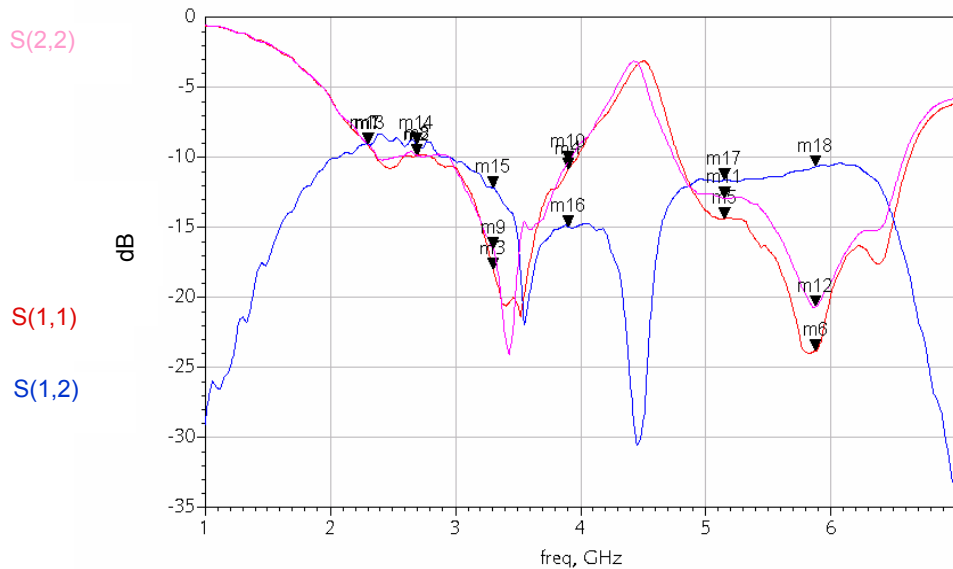
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## Mounting Considerations

### Return Loss & Isolation (Without Matching Circuits)



Ant1 return loss \_ S(1,1)  
 Ant2 return loss \_ S(2,2)  
 Ant1 & Ant2 isolation \_ S(1,2)

m1  
 freq=2.300GHz  
 dB(S(1,1))=-9.072

m7  
 freq=2.300GHz  
 dB(S(2,2))=-9.065

m13  
 freq=2.300GHz  
 dB(S(1,2))=-9.068

m2  
 freq=2.690GHz  
 dB(S(1,1))=-9.901

m8  
 freq=2.690GHz  
 dB(S(2,2))=-9.849

m14  
 freq=2.690GHz  
 dB(S(1,2))=-9.085

m3  
 freq=3.300GHz  
 dB(S(1,1))=-18.019

m9  
 freq=3.300GHz  
 dB(S(2,2))=-16.521

m15  
 freq=3.300GHz  
 dB(S(1,2))=-12.188

m4  
 freq=3.900GHz  
 dB(S(1,1))=-10.890

m10  
 freq=3.900GHz  
 dB(S(2,2))=-10.368

m16  
 freq=3.900GHz  
 dB(S(1,2))=-14.939

m5  
 freq=5.150GHz  
 dB(S(1,1))=-14.393

m11  
 freq=5.150GHz  
 dB(S(2,2))=-12.929

m17  
 freq=5.150GHz  
 dB(S(1,2))=-11.630

m6  
 freq=5.875GHz  
 dB(S(1,1))=-23.835

m12  
 freq=5.875GHz  
 dB(S(2,2))=-20.665

m18  
 freq=5.875GHz  
 dB(S(1,2))=-10.668

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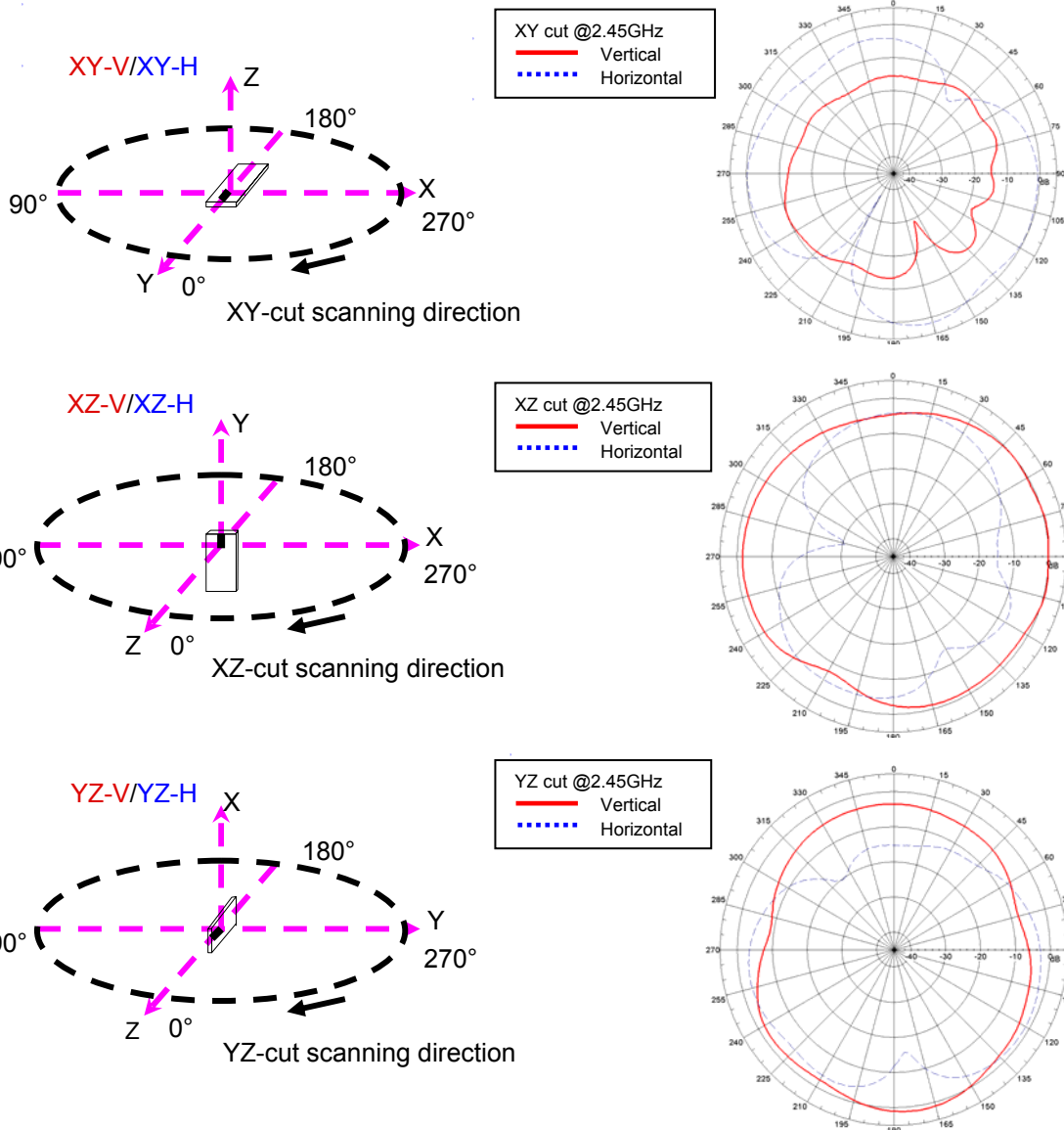
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## Ant1 Radiation Patterns



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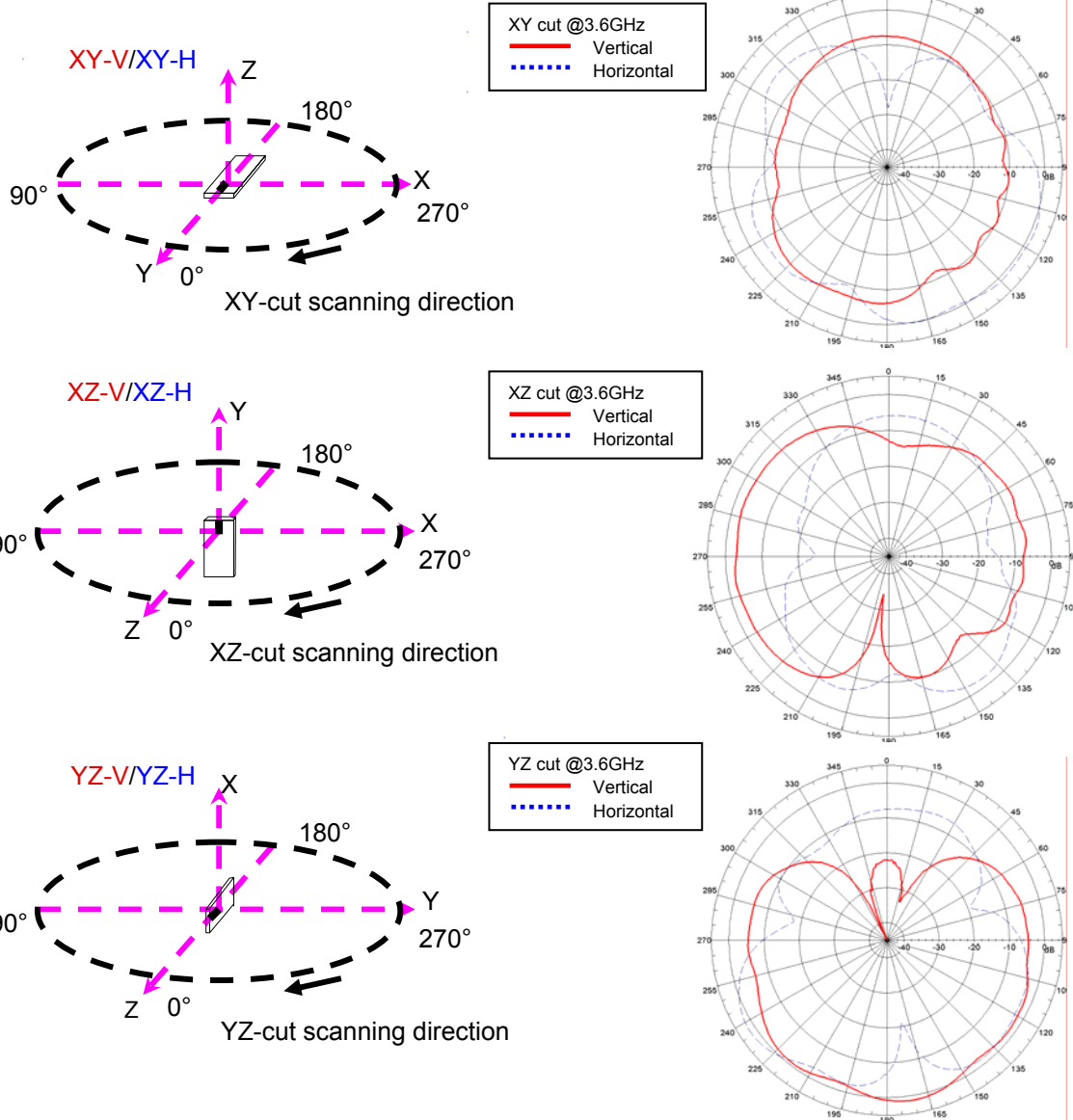
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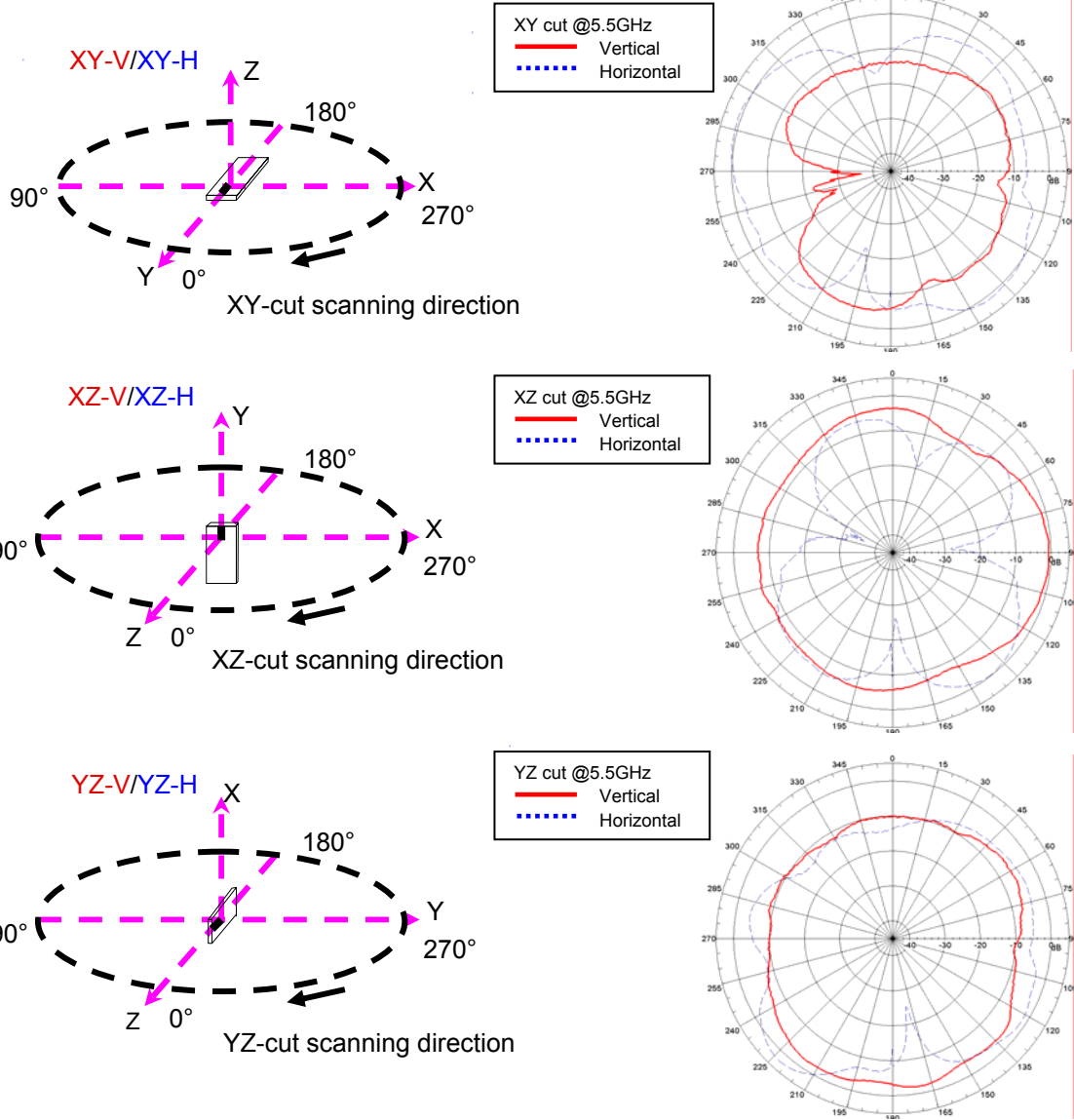
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## Ant1 Radiation Patterns



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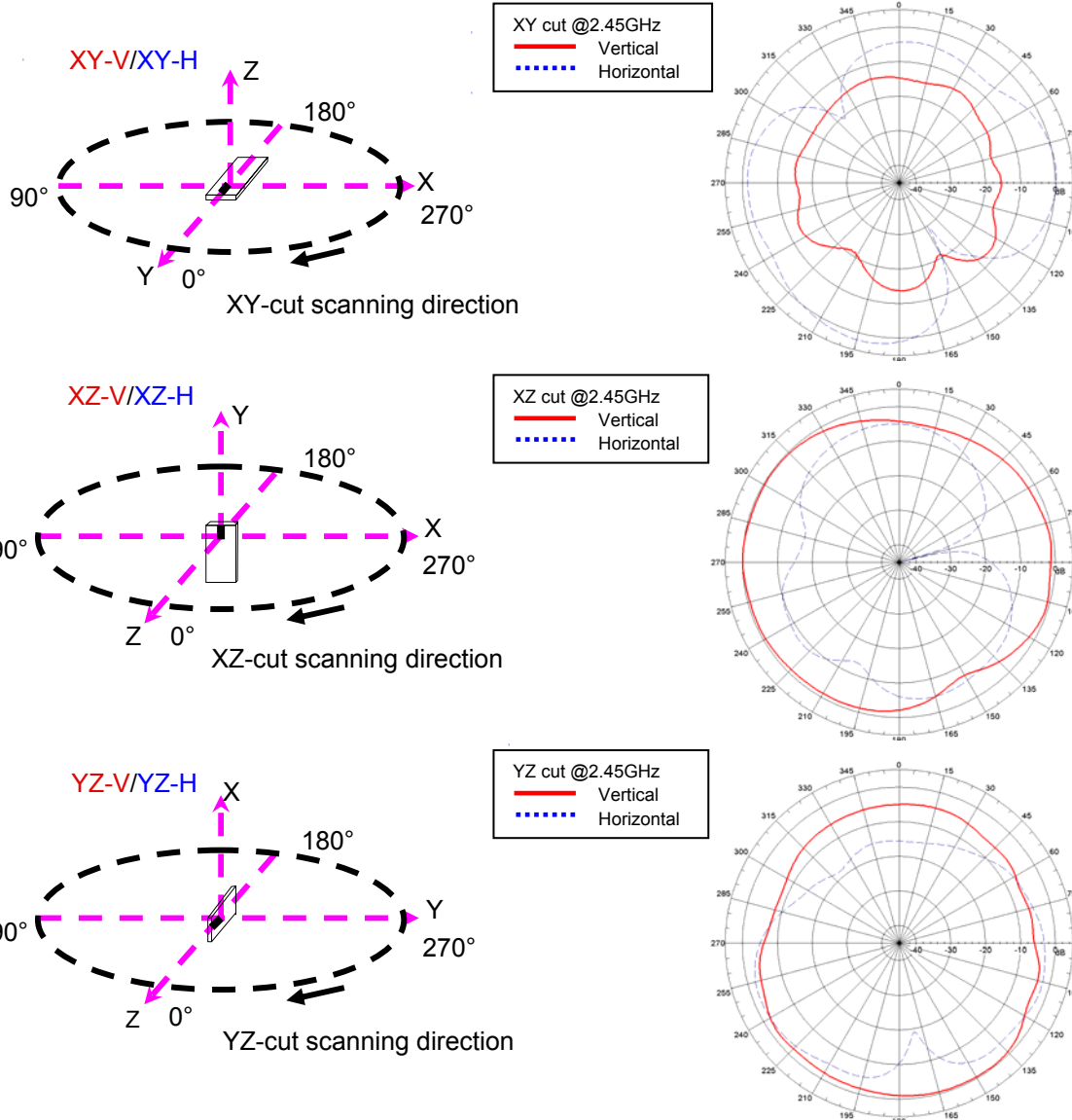
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## Ant2 Radiation Patterns



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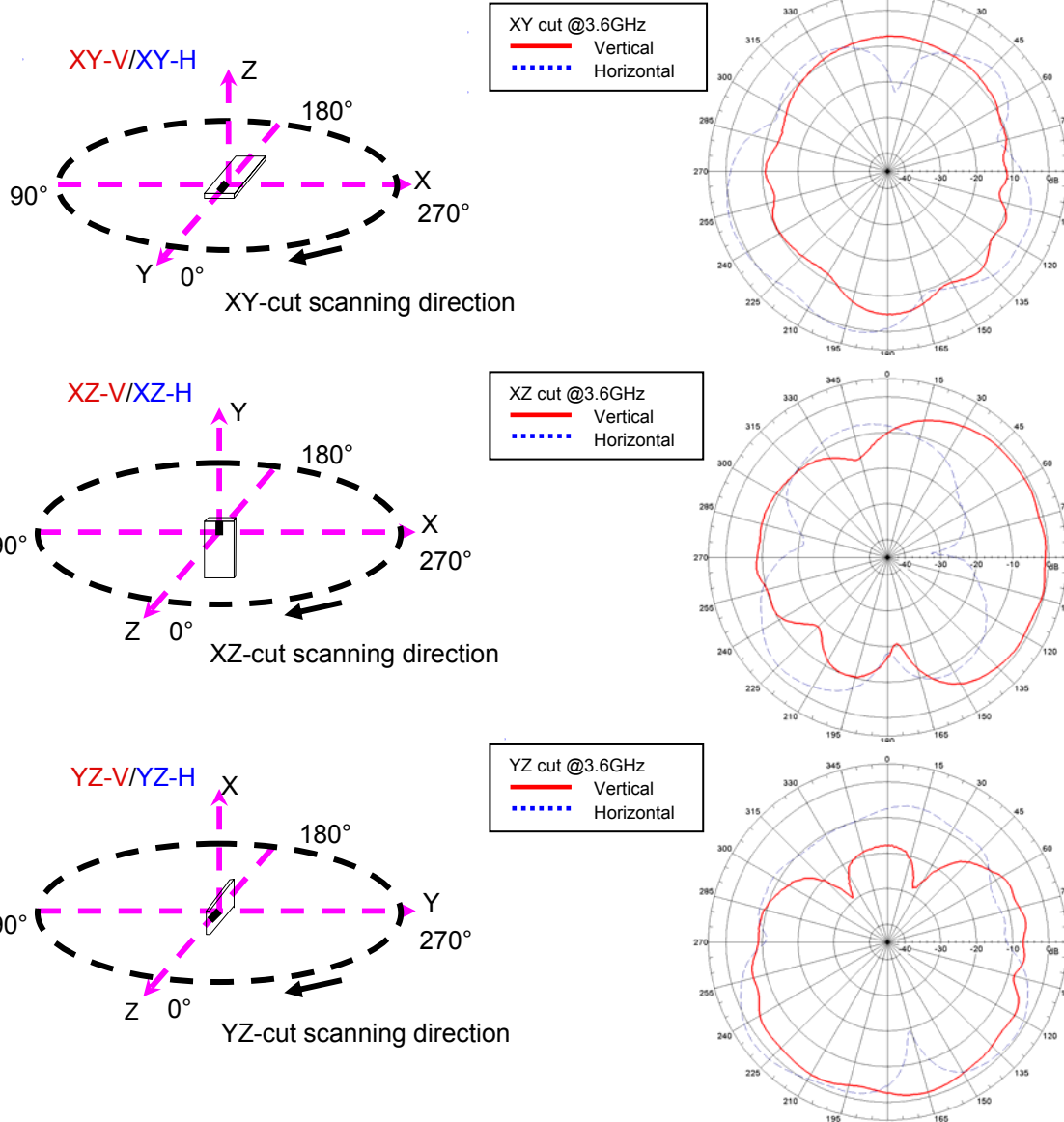
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## Ant2 Radiation Patterns



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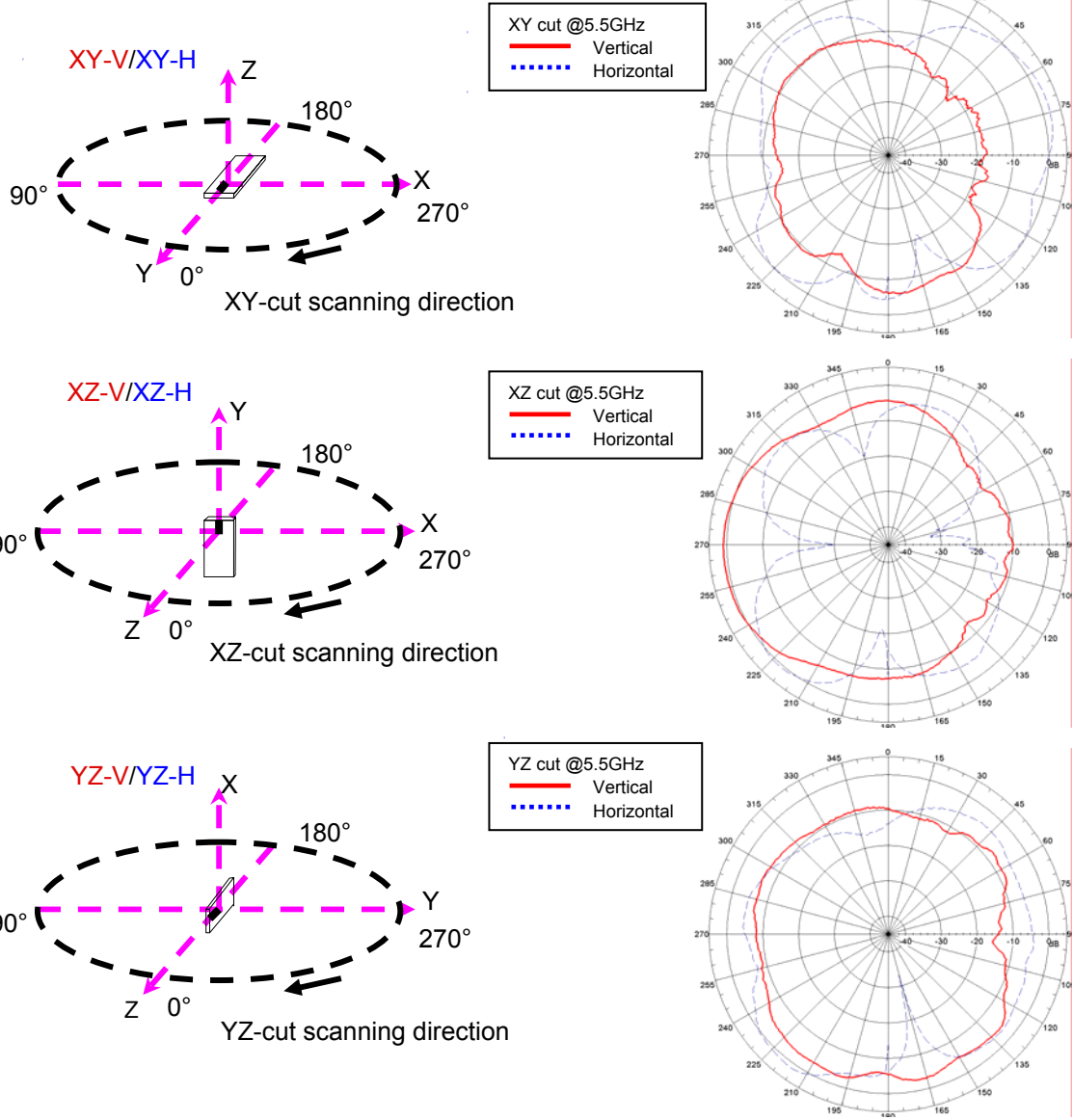
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## Ant2 Radiation Patterns



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