

# 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          |

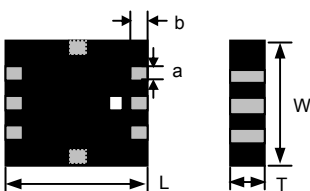
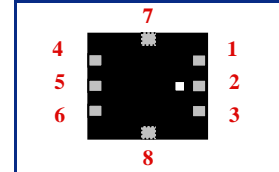
|                   |                          |            |               |                              |
|-------------------|--------------------------|------------|---------------|------------------------------|
| <b>P/N Suffix</b> | <b>Packaging Style</b>   | Bulk       | Suffix = S    | Eg. 2500AT52M3555S           |
|                   |                          | T & R      | Suffix = E    | Eg. 2500AT52M3555E           |
| <b>Suffix</b>     | <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

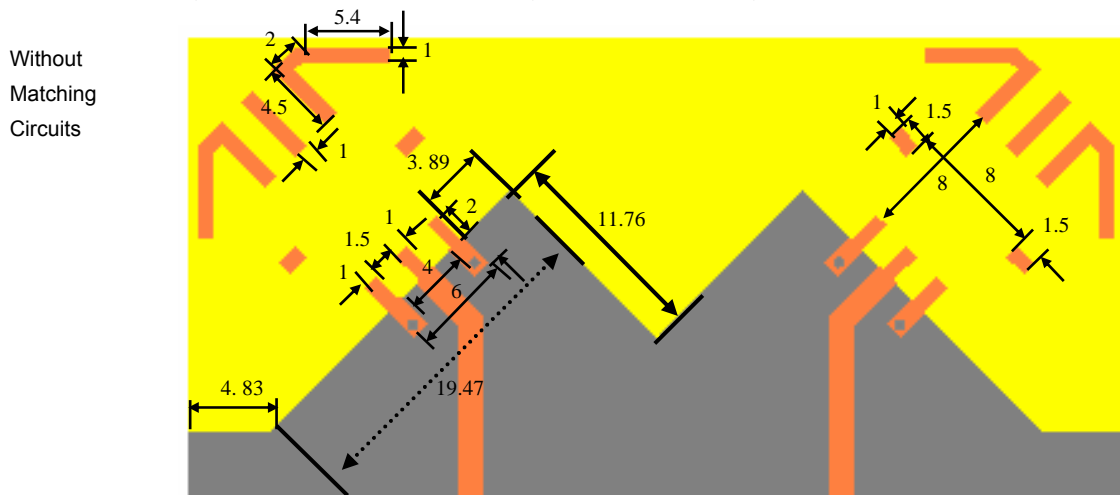
|          | In            | mm           |
|----------|---------------|--------------|
| <b>L</b> | 0.394 ± 0.012 | 10.00 ± 0.30 |
| <b>W</b> | 0.394 ± 0.012 | 10.00 ± 0.30 |
| <b>T</b> | 0.037 ± 0.010 | 0.95 ± 0.25  |
| <b>a</b> | 0.039 ± 0.012 | 1.00 ± 0.30  |
| <b>b</b> | 0.039 ± 0.012 | 1.00 ± 0.30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

### 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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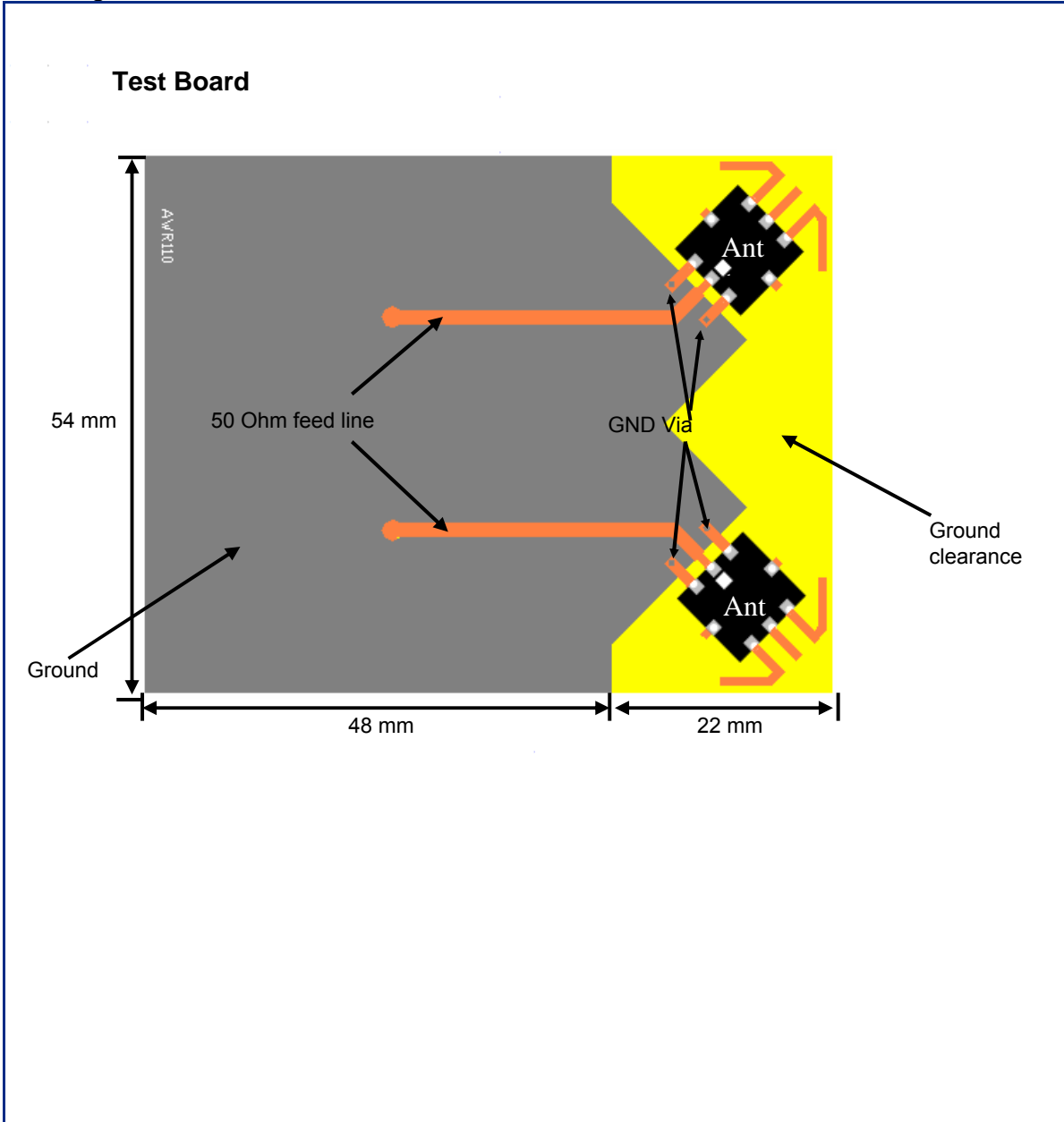
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## Mounting Considerations



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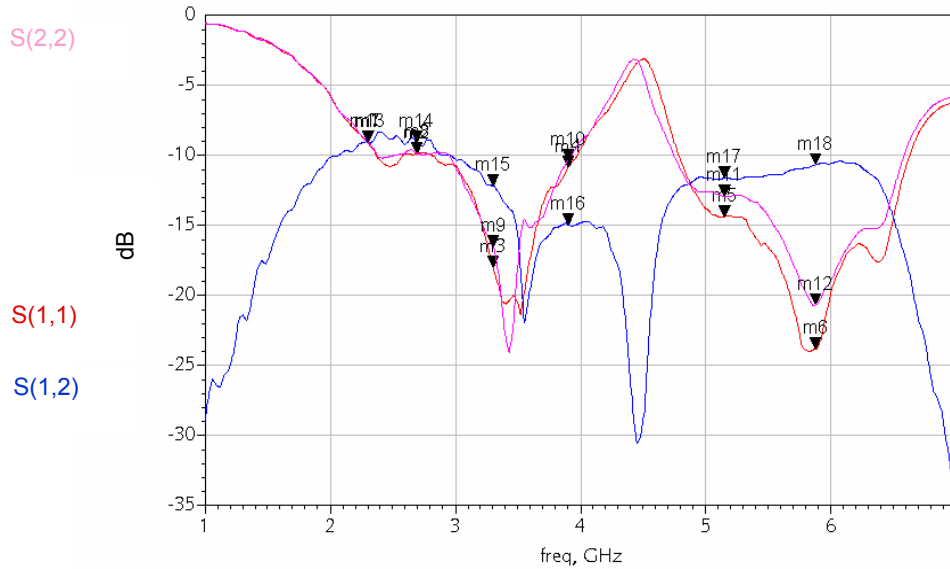
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## Mounting Considerations

### 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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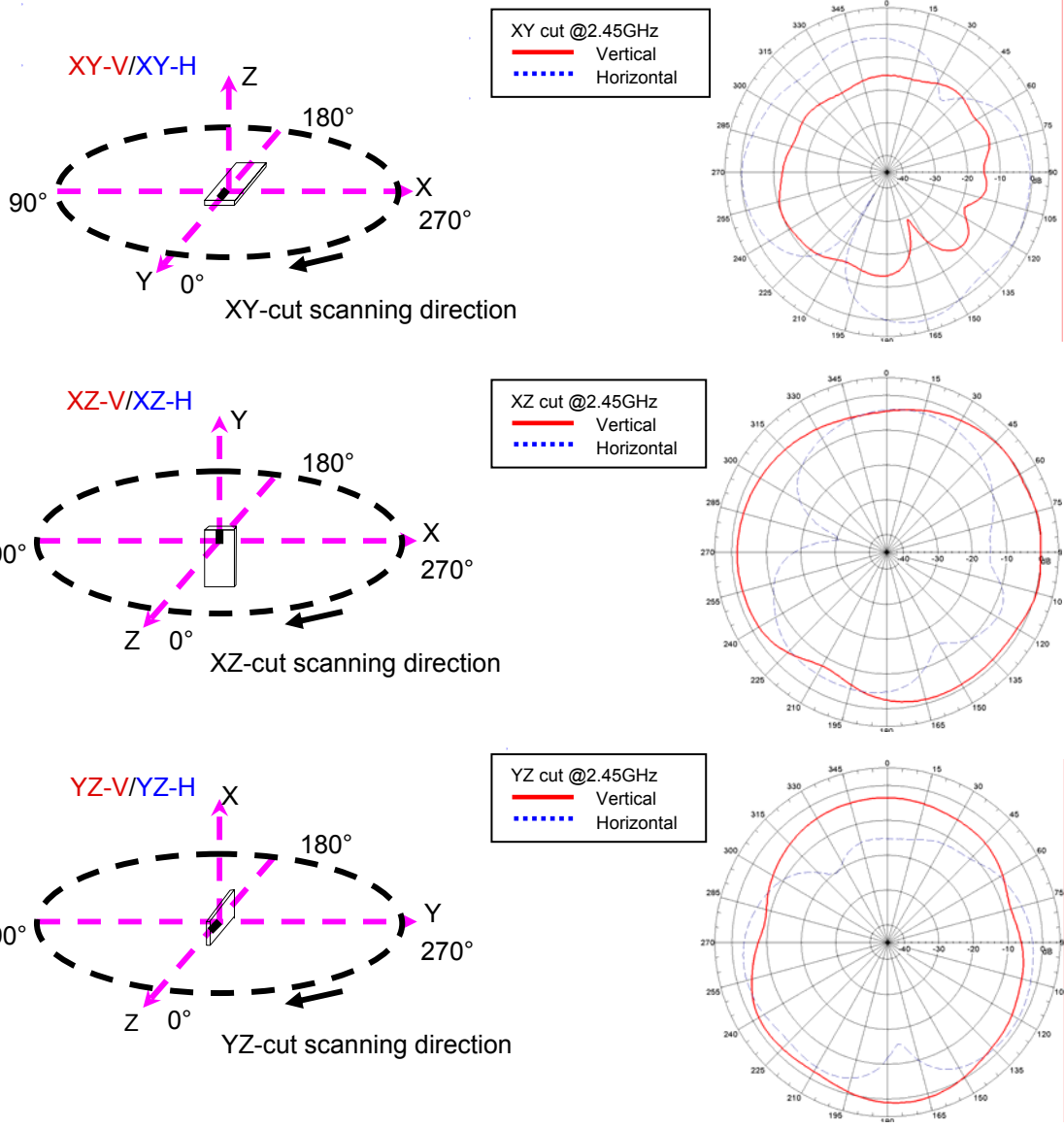
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## Ant1 Radiation Patterns



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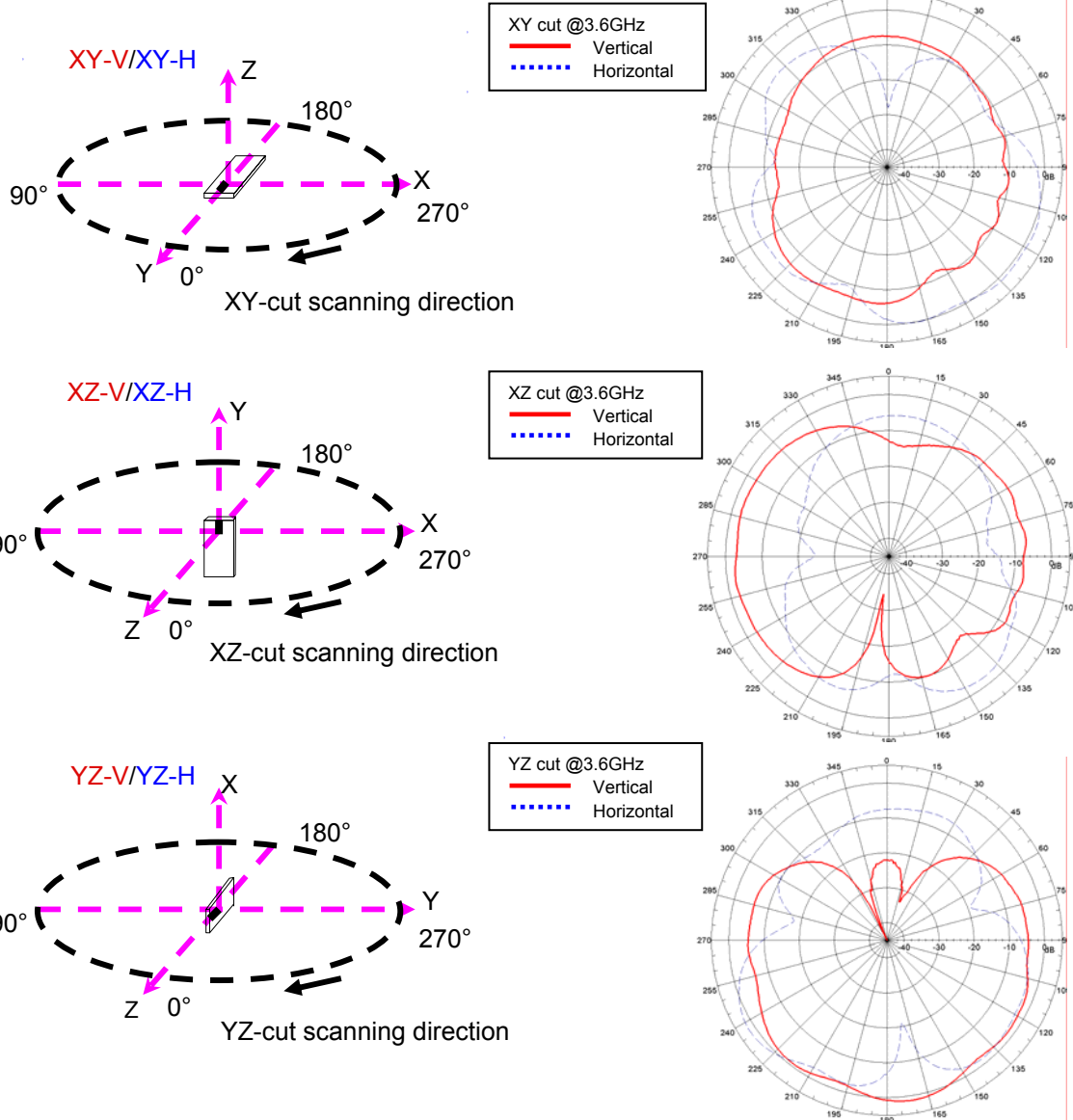
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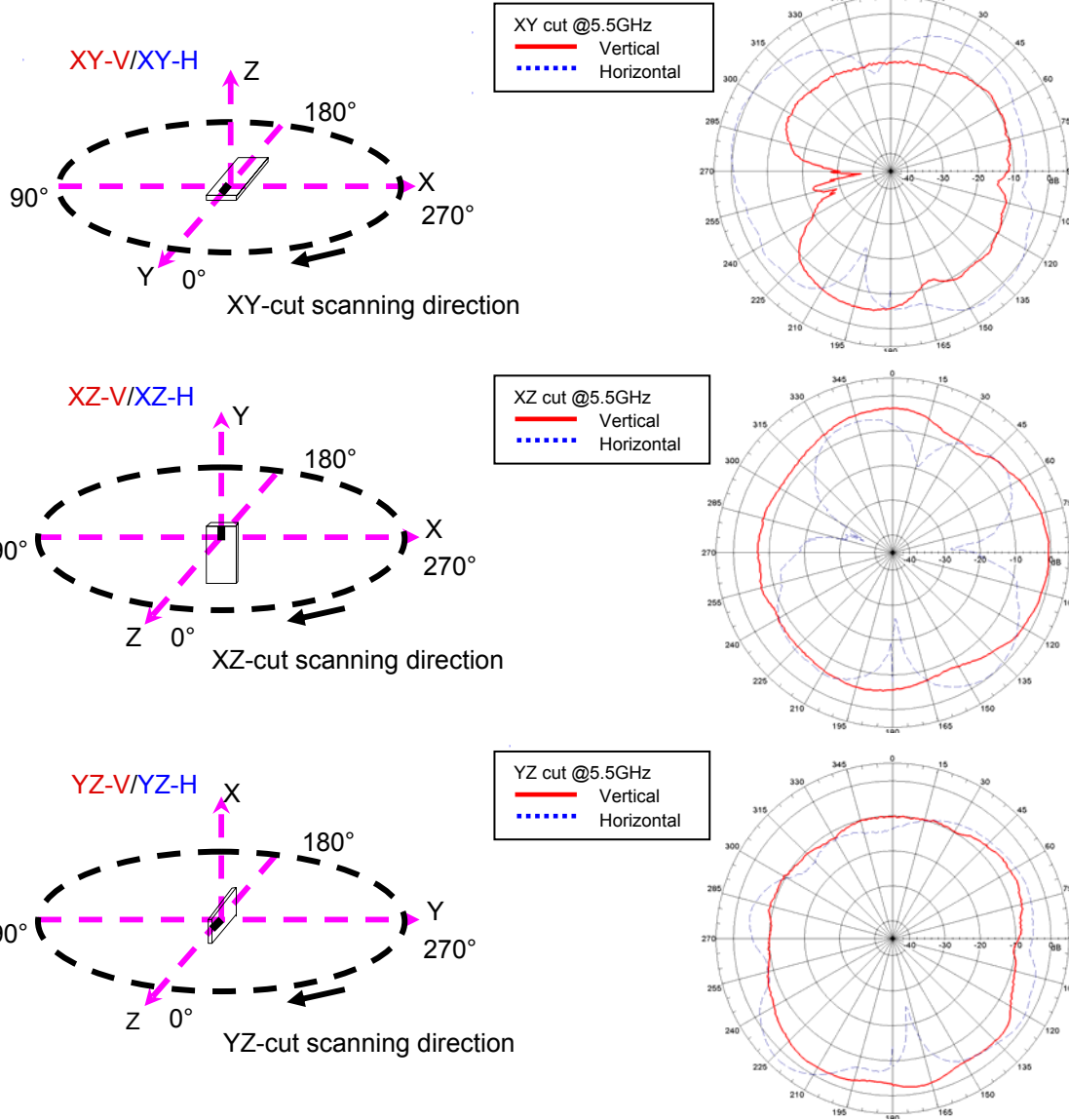
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## Ant1 Radiation Patterns



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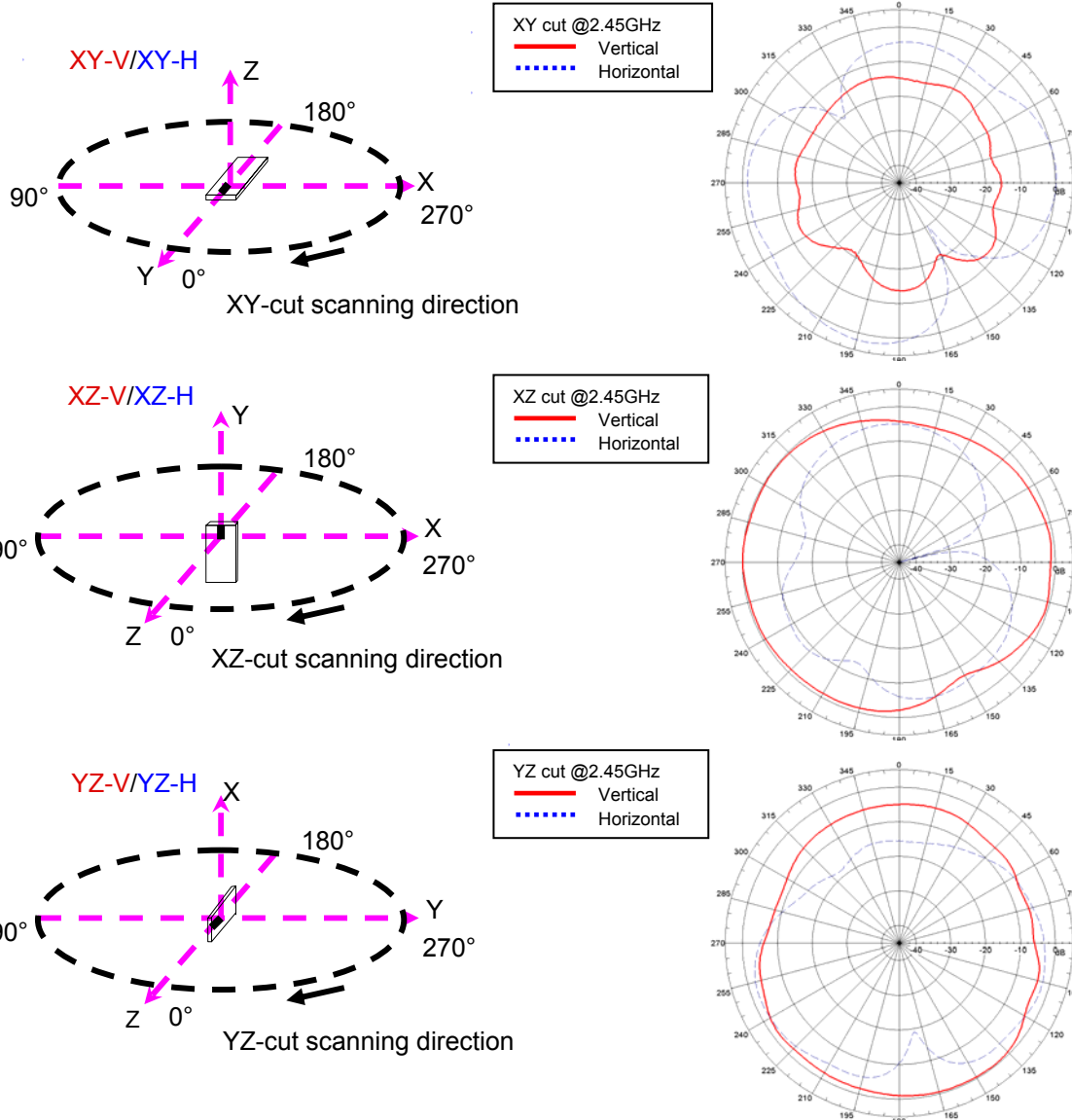
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## Ant2 Radiation Patterns



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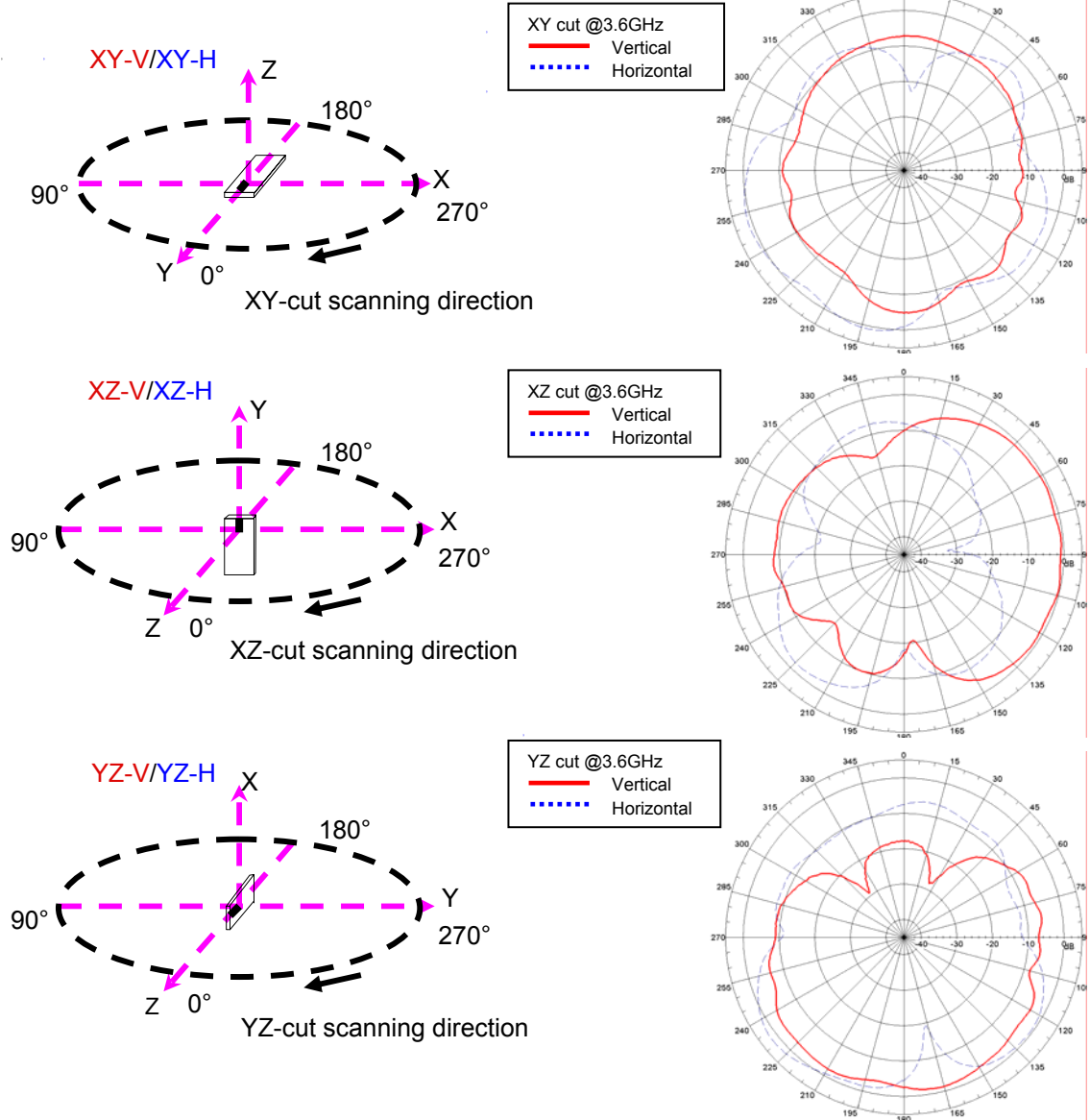
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## Ant2 Radiation Patterns



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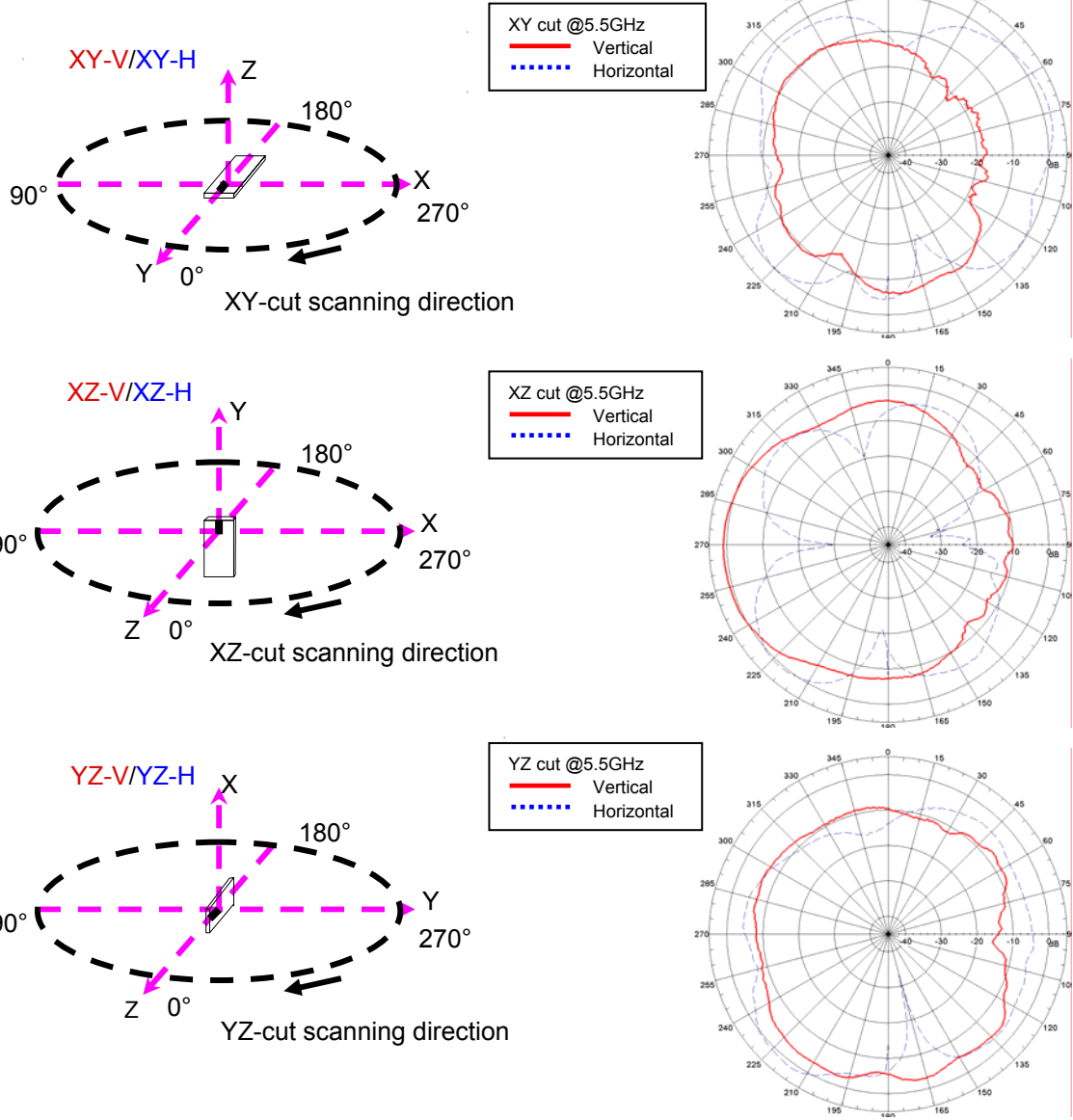
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## Ant2 Radiation Patterns



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- Защита от снятия компонента с производства.



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