

# "High Frequency Ceramic Solutions"

## 5.775 GHz Antenna

P/N 5775AT43A100

Detail Specification: 03/09/05

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### General Specifications

|                 |                      |
|-----------------|----------------------|
| Part Number     | 5775AT43A100         |
| Frequency Range | 5725 - 5825 Mhz      |
| Peak Gain       | 3.9 dBi typ. (XZ-V)  |
| Average Gain    | -1.5 dBi typ. (XZ-V) |
| Return Loss     | 9.5 dB min.          |

|                       |              |
|-----------------------|--------------|
| Input Power           | 3W max.      |
| Impedance             | 50 Ω         |
| Operating Temperature | -40 to +85°C |
| Reel Quantity         | 1,000        |

| No. | Function | Terminal Configuration |
|-----|----------|------------------------|
| 1   | Input    |                        |
| 2   | NC       |                        |

### Mechanical Dimensions

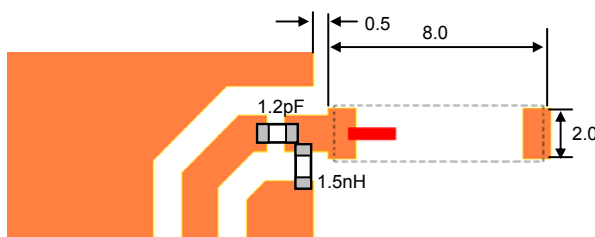
|   | In                 | mm             |  |
|---|--------------------|----------------|--|
| L | 0.276 ± 0.008      | 7.00 ± 0.20    |  |
| W | 0.079 ± 0.008      | 2.00 ± 0.20    |  |
| T | 0.047 +.004/-0.008 | 1.20 +0.1/-0.2 |  |
| a | 0.020 ± 0.012      | 0.50 ± 0.30    |  |

### Mounting Considerations (Close Up)

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

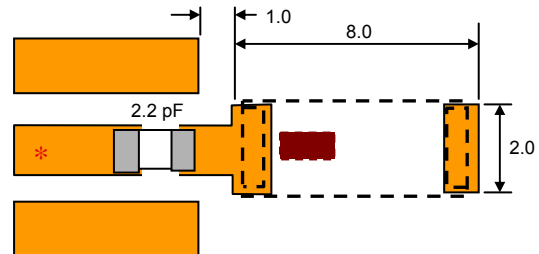
\* Line width should be designed to provide 50Ω impedance matching characteristics.

#### With Matching Circuit (Horizontal Mounting Situation)



JTI P/N for Matching Circuit:  
Cap (1.2pF): 500R07S1R2BV4T  
Inductor (1.5nH): L-07C1N5SV6T

#### With Matching Circuit (Vertical Mounting Situation)



JTI P/N for Matching Circuit:  
Cap (2.2pF): 500R07S2R2BV4T

(Matching components, if used, will vary in value depending on PCB layout)

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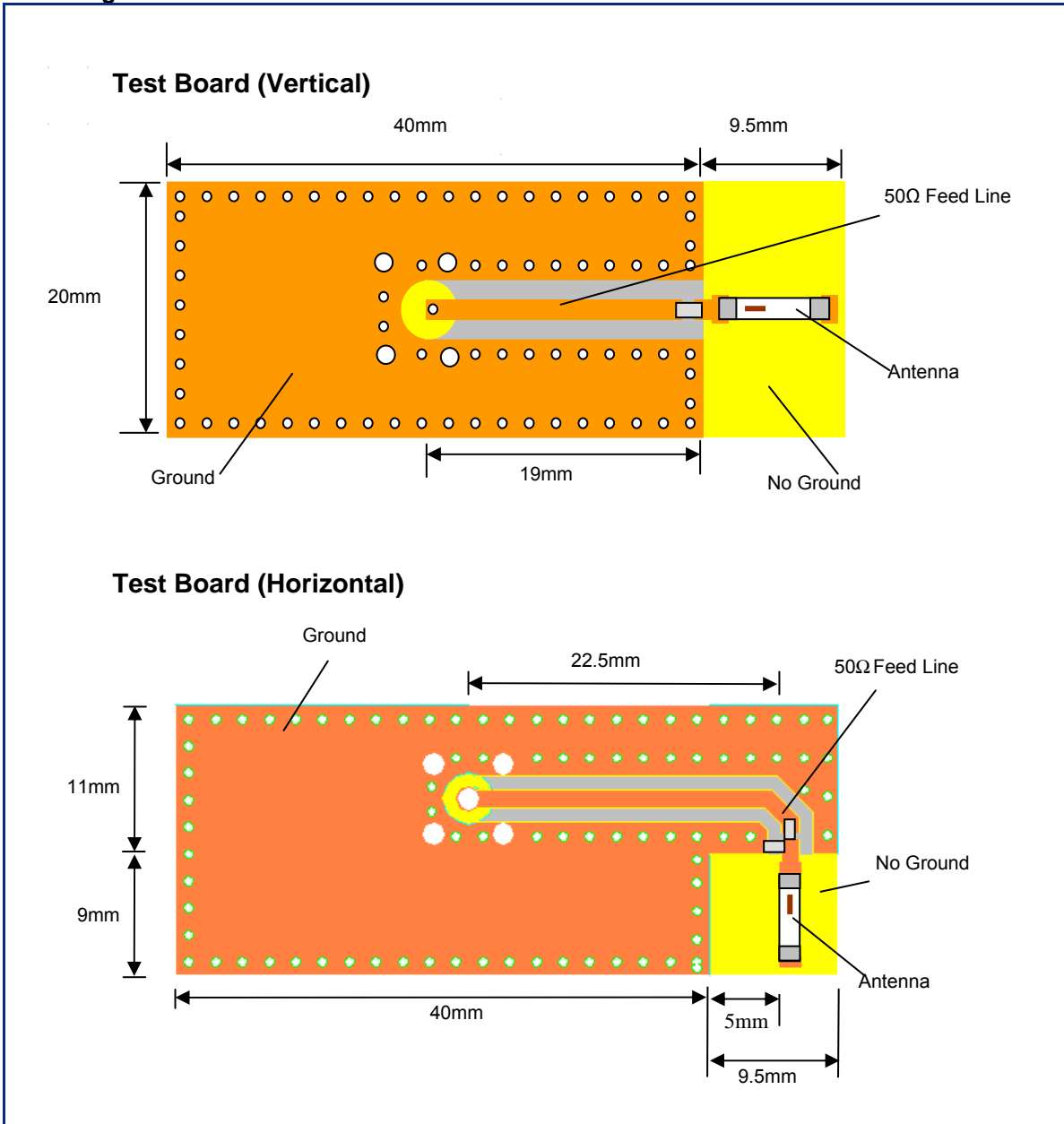
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## Mounting Considerations



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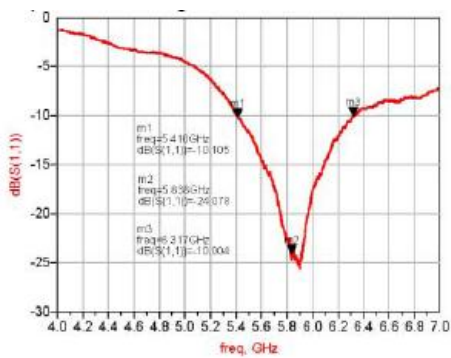
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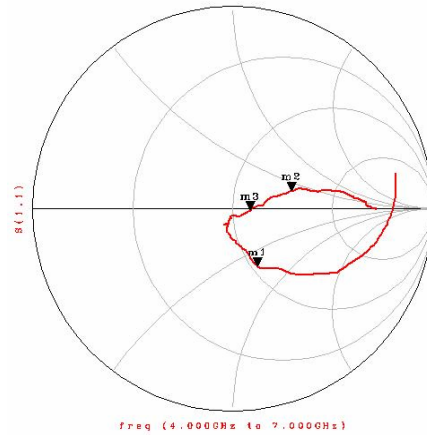
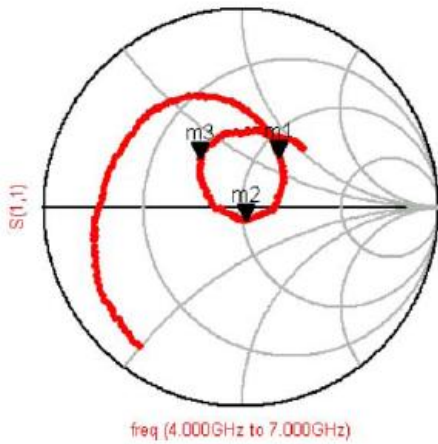
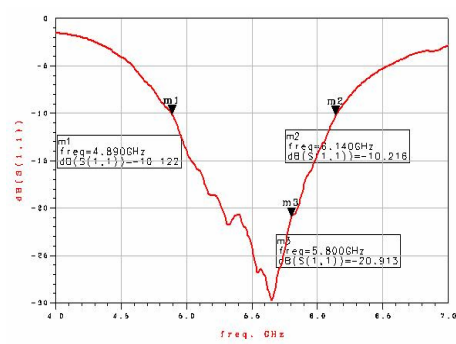
## Typical Electrical Characteristics (T=25°C)

### Return Loss

**Vertical Test Board  
(with matching components)**



**Horizontal Test Board  
(with matching components)**



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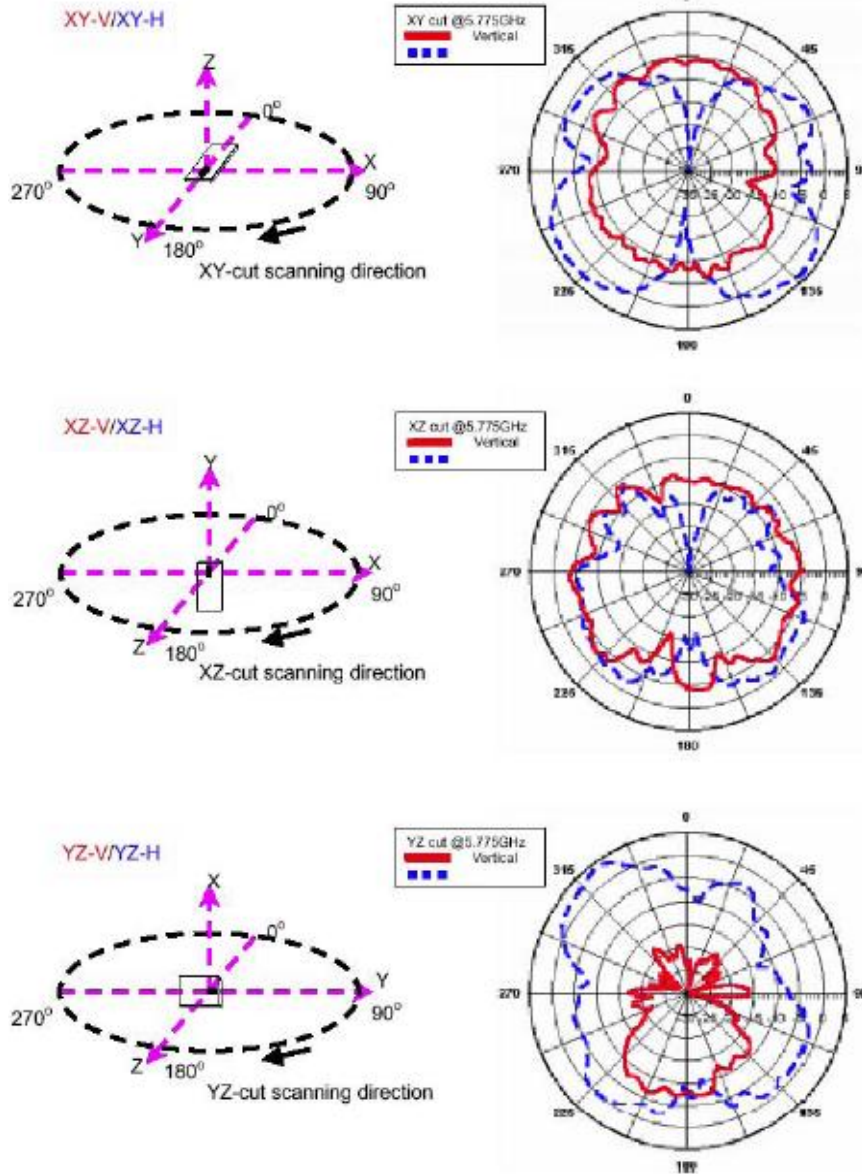
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## Typical Radiation Patterns (Vertical Test Board)



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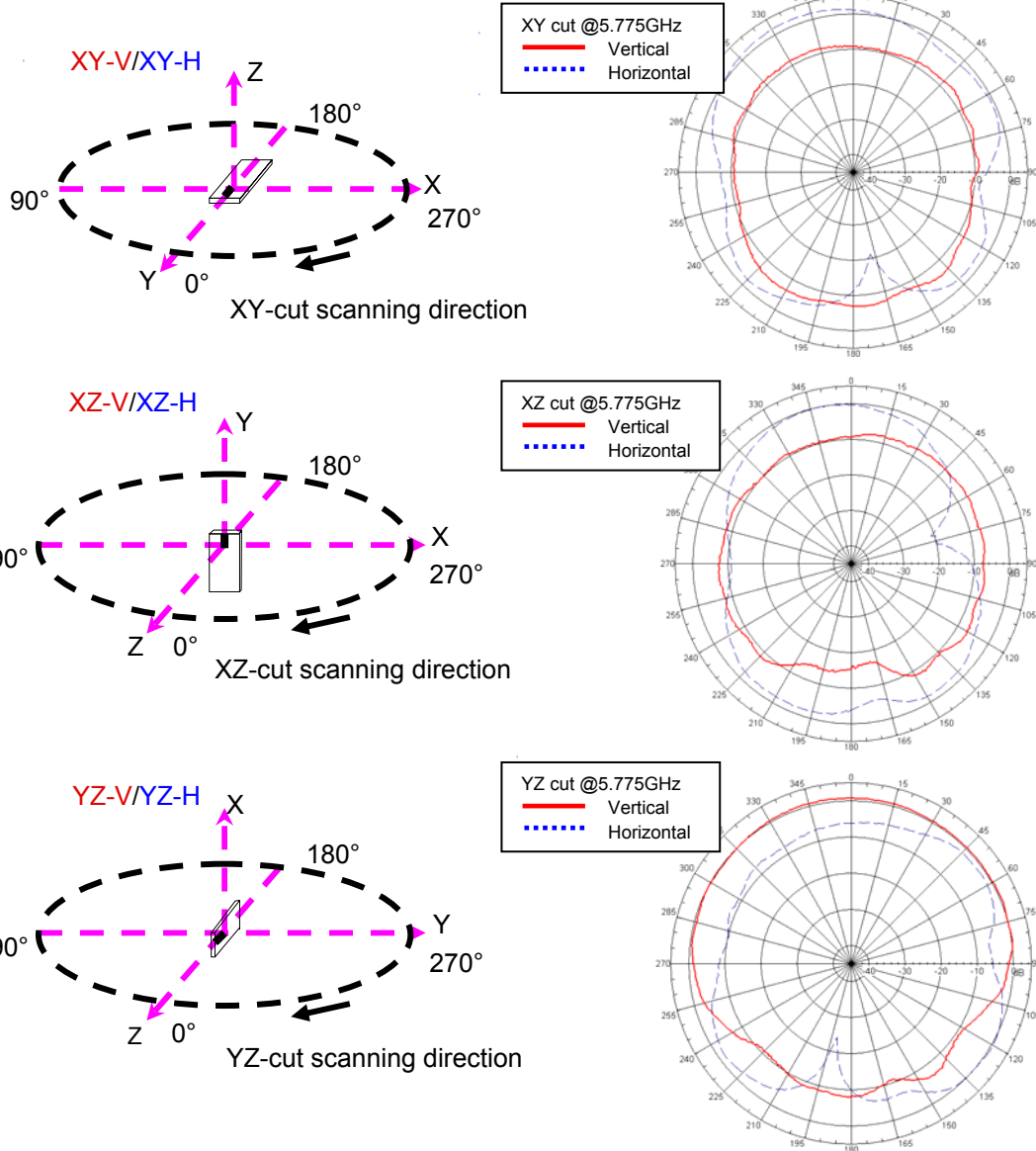
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## Typical Radiation Patterns (Horizontal Test Board)



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