

Prestta™ Standard Octa-Band Cellular Embedded Antenna
700/750/850/900/1800/1900/2100/2700 MHz



KEY BENEFITS

DESIGN ADVANTAGES

Reduced Costs and Time-to-Market

- Standard antenna eliminates design fees and cycle time associated with a custom solution; getting products to market faster.

Greater Flexibility with Unique Form Factors

- Ethertronics' IMD technology helps you deliver more advanced ergonomic designs without adverse impact on product performance.
- SMD mountable design enables faster and lower cost manufacturing.

RoHS Compliant

- Ethertronics' antennas are fully compliant with the European RoHS Directive 2002/95/EC.

Ethertronics' Prestta series of Isolated Magnetic Dipole™ (IMD) embedded antennas address the challenges facing today's product designers. IMD's high performance and isolation characteristics offer better connectivity and minimal interference. Prestta antennas can be used in a variety of applications including:

- M2M
- Automotive
- Automatic Meter Reading
- Healthcare
- Point of Sale
- Tracking...

END USER ADVANTAGES

Unique Form Factors Support Advanced Industrial Designs

- Smaller, more efficient IMD embedded antennas break through restrictive design rules and provide new freedom in component placement.

Superior Range

- Better antenna function means longer range and greater sensitivity to critically precise signals—delivering greater customer satisfaction while building brand loyalty.

TECHNOLOGY ADVANTAGES



Stays in Tune

IMD antenna technology provides superior RF field containment, resulting in less interaction with surrounding components. Ethertronics IMD antennas **resist de-tuning**; providing a robust radio link regardless of the usage position.

Prestta antennas use patented IMD technology in a stamped metal configuration to provide high performance. IMD antennas requires a smaller design keep-out area, carry lower program development risk which yields a quicker time-to-market, without sacrificing RF performance.

SERVICE AND SUPPORT

Extensive RF Experience

- Our Prestta antennas are supported by documentation, and when needed, by the expertise of RF engineers who have integrated hundreds of antenna designs into wireless devices.

Global Operations & Design Support

- Ethertronics' global operations supports an integrated network of design centers that can take projects from concept to production.

PRODUCT: Cellular Antenna - P/N 1002289

Ethertronics' Cellular Internal (Embedded) Antenna Specifications.

Below are the typical performances for a cellular application.

Electrical Specifications

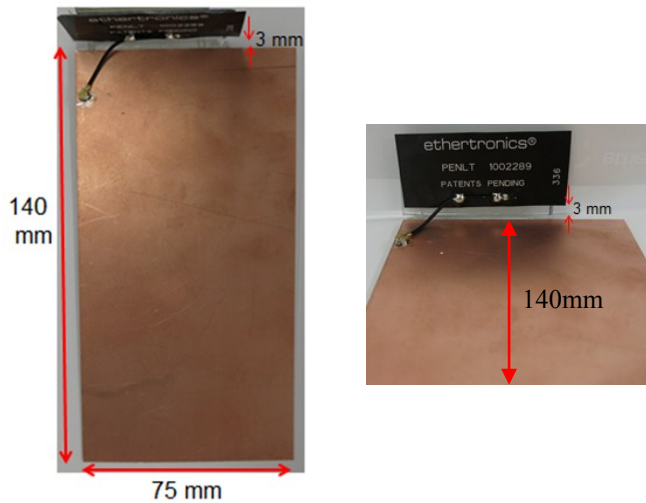
Typical Characteristics. Measurements taken with on a 75 x 140 mm ground plane. Antenna mounted directly on PC + ABS housing material.

Wideband Cellular Antenna	700 – 960 MHz	1710 – 2700 MHz
Average Efficiency (Longer Edge)	74%	58%
Average Efficiency (Shorter Edge)	67%	63%
VSWR	2.5:1 max	
Feed Point Impedance	50 ohms unbalanced	
Radiation Pattern	Omni-directional	
Power Handling	2 Watt CW	
Polarization	Linear	

Mechanical Specifications

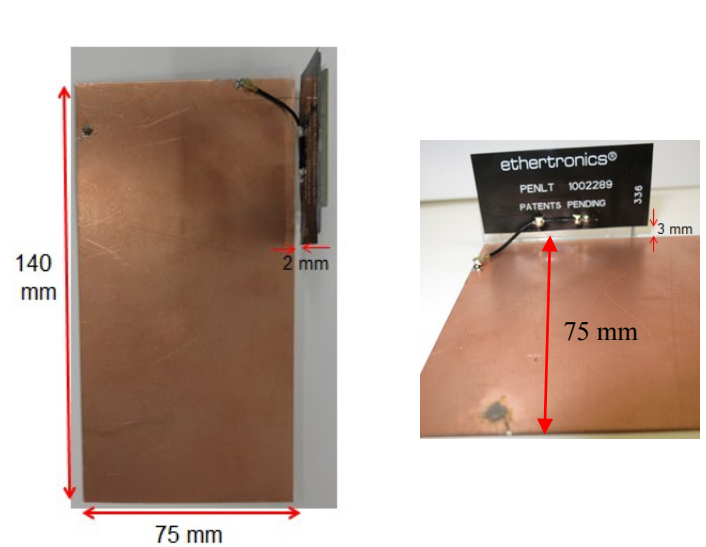
Maximum Dimensions	53.6 x 25.1 x 1.25 mm (1.25mm high at cable solder connection)
Cable / Connector	U.fl compatible connector, Cable diameter 1.13mm, 25mm Cable length.
Mounting	Antenna backing using 3M468 Adhesive

Antenna Location 1: Antenna located at the end of the long edge of the PCB.



In this position, the antenna is located 3mm away from the PCB and 3mm above the PCB.

Antenna Location 2: Antenna located at the end of the short edge of the PCB.



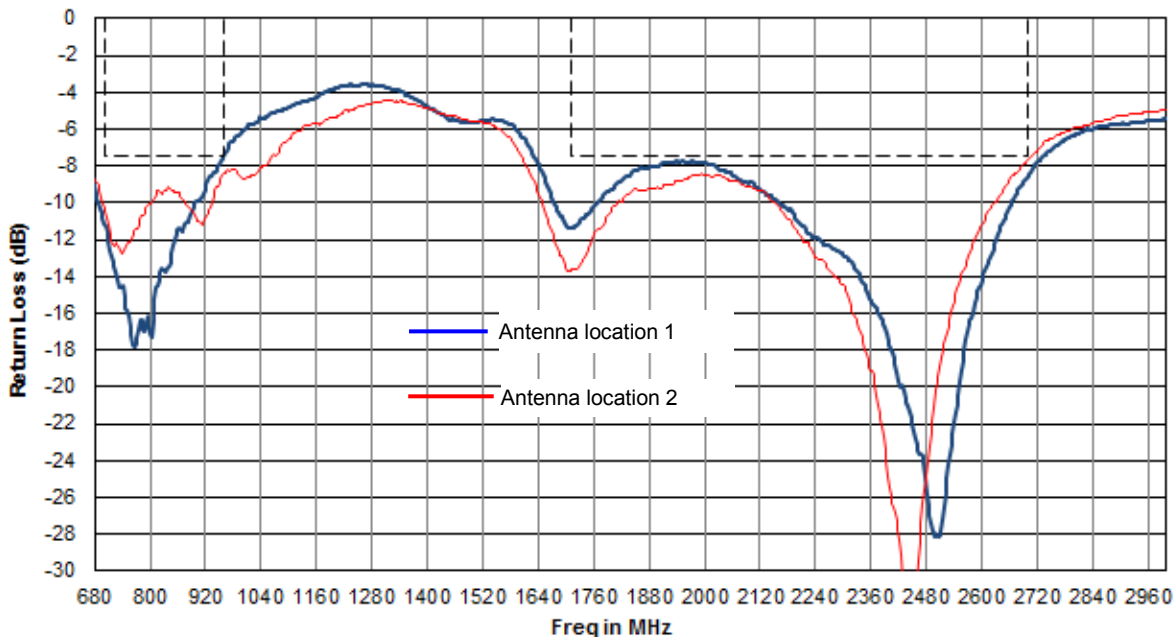
In this position, the antenna is located 2mm away from the PCB and 3mm above the PCB.

ETHERTRONICS

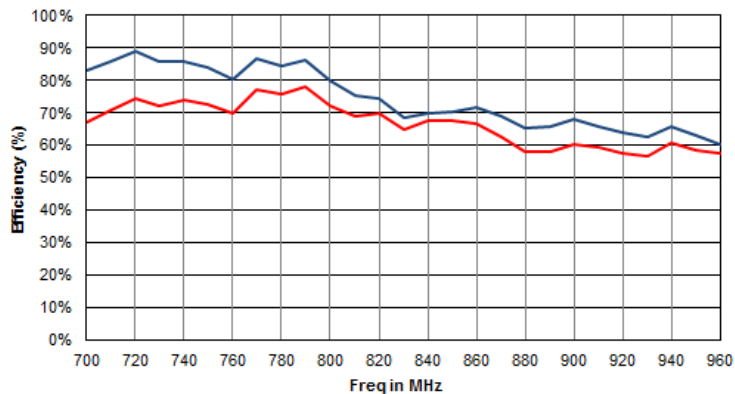
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Return Loss in dB

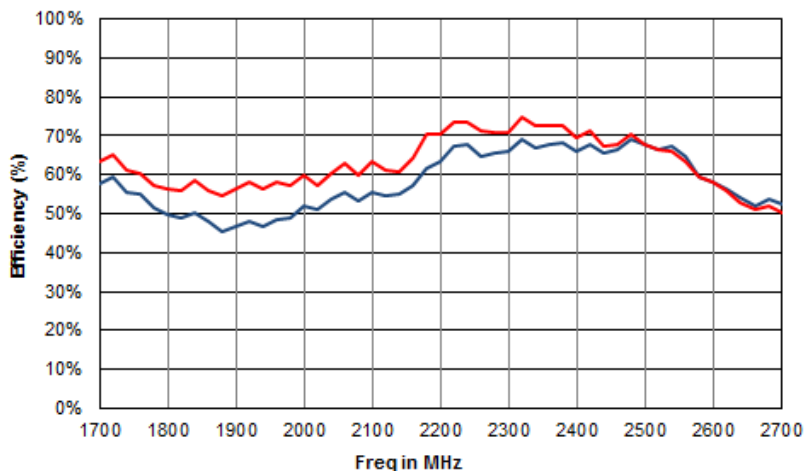
Antenna mounted directly on PC + ABS housing material.



Typical Low Band Efficiency, 700-960MHz

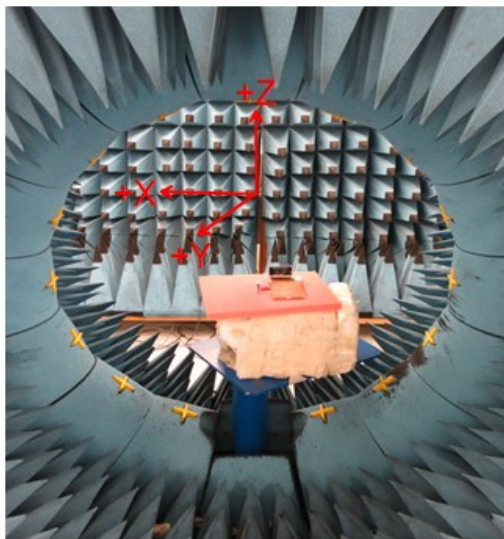


Typical High Band Efficiency, 1700-2700MHz

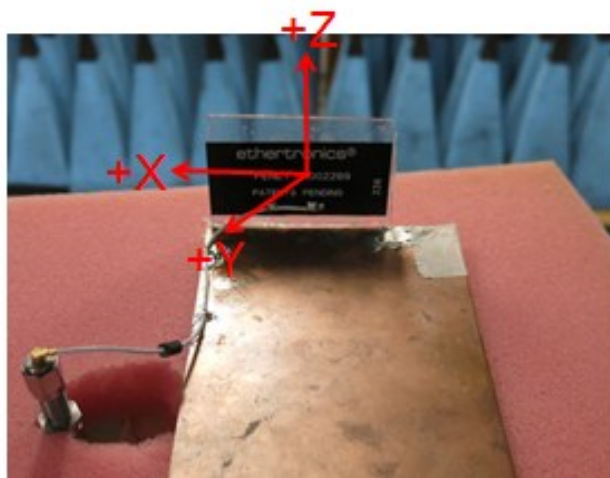


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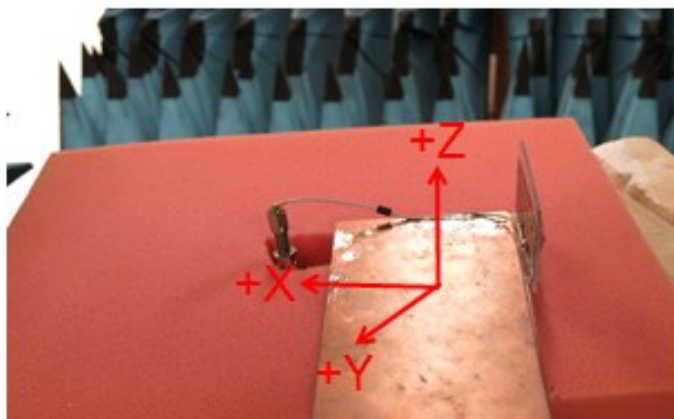
Configuration test set-up



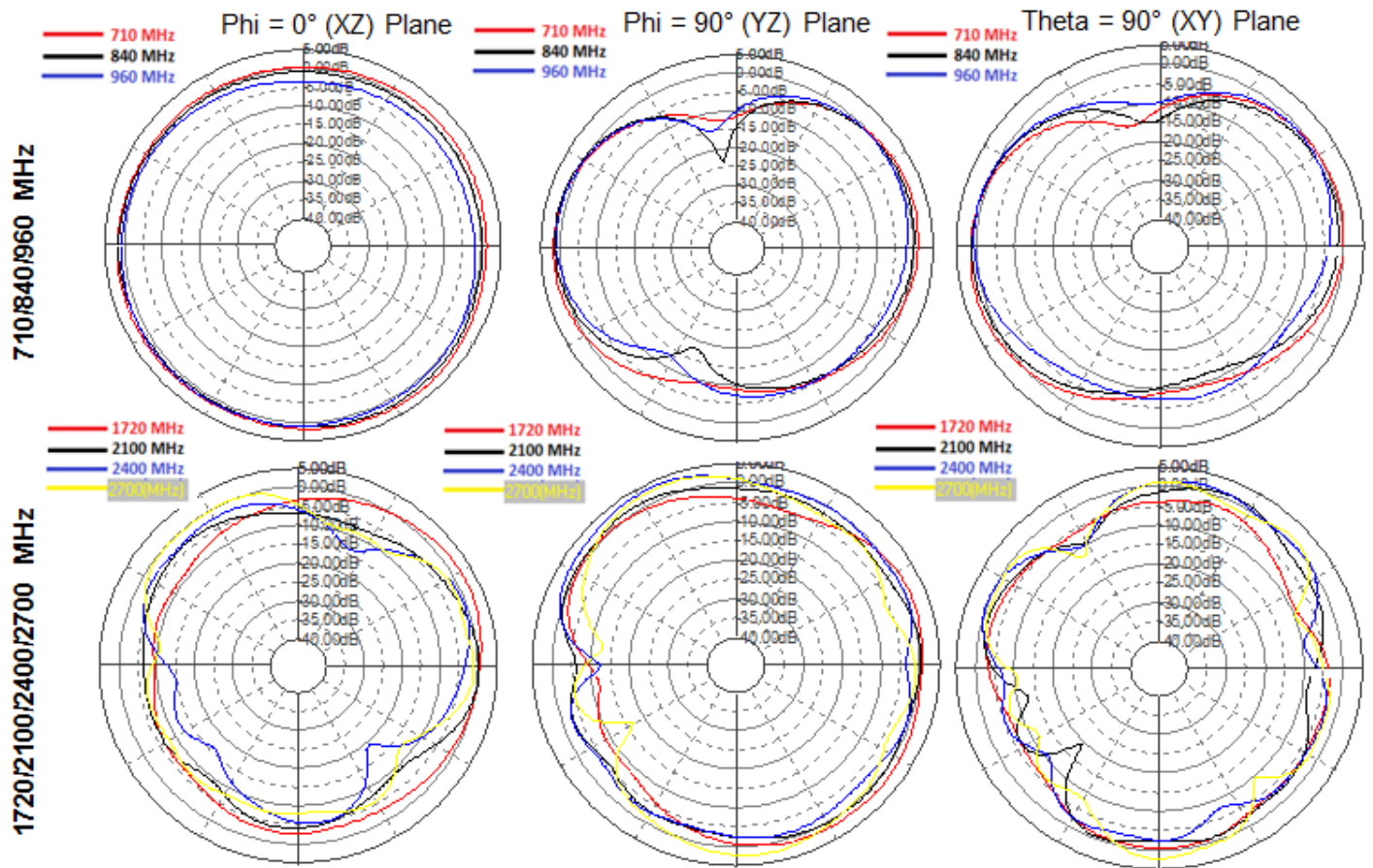
Antenna Location 1: Antenna located at the end of the long edge of the PCB.



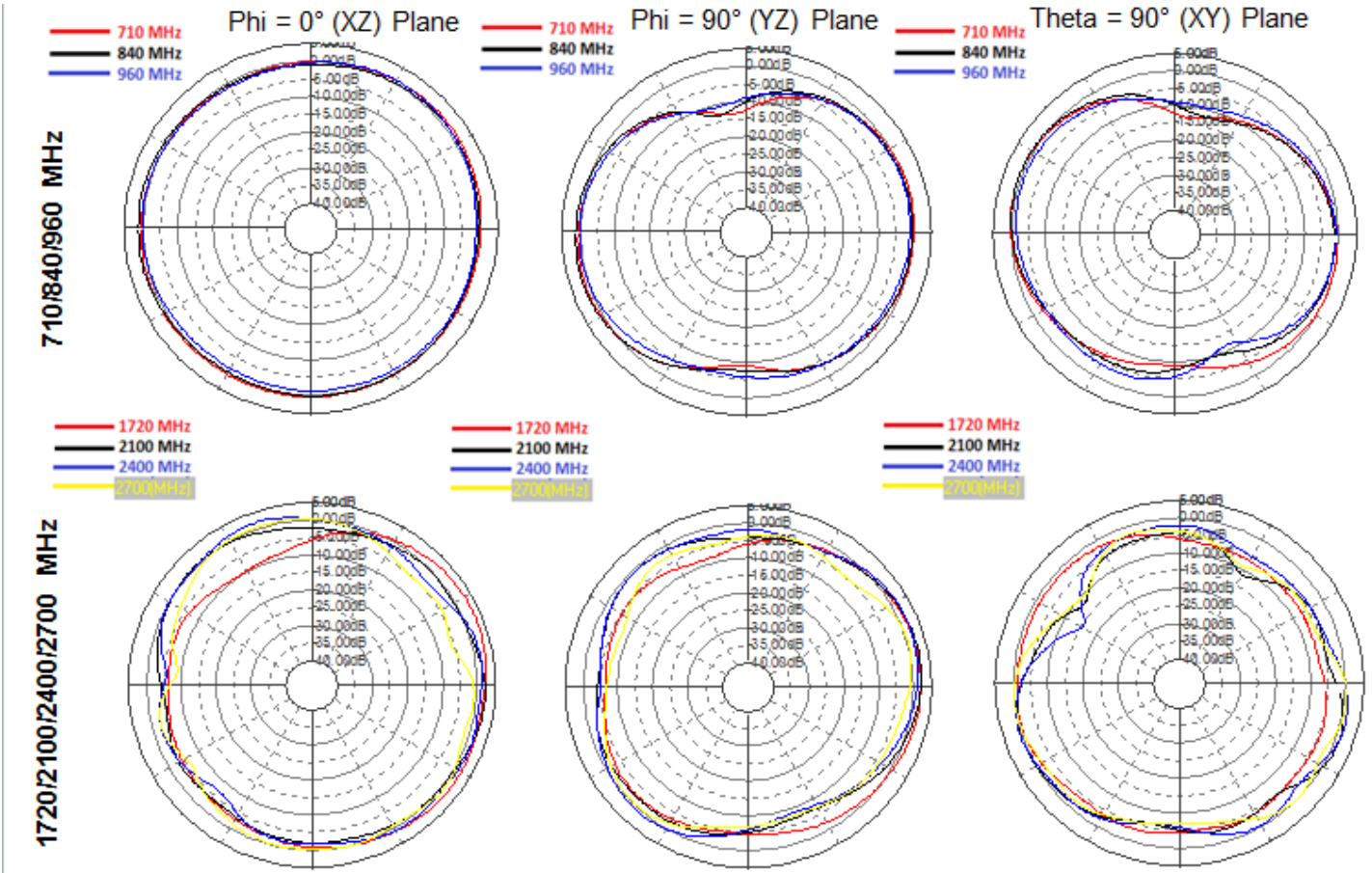
Antenna Location 2: Antenna located at the end of the short edge of the PCB.



Typical Radiation Patterns - Antenna Location 1



Typical Radiation Patterns - Antenna Location 2



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Mechanical Dimensions

