



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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



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:

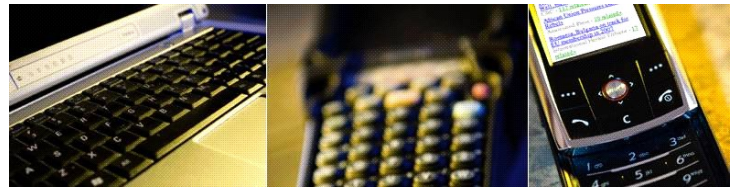
- M2M
- Automotive
- Automatic Meter Reading
- Healthcare
- Point of Sale
- Tracking...

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.



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.

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.

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 1002292

Ethertronics' Cellular Internal (Embedded) Antenna Specifications.

Below are the typical performances for a cellular application.

Electrical Specifications

Typical Characteristics. Antenna mounted directly on PC + ABS plastic carrier

Balanced Pentaband Antenna (1002292)	Low Band (LTE,GSM, EGSM)	High Band (DCS, PCS, WCDMA, LTE)
	704 – 960 MHz	1710 – 2690 MHz
Average Efficiency (No ground)	46 %	67 %
Average Efficiency (180 x 190 sq.mm ground)	51 %	67 %
VSWR	3:1 max , 5:1 max (LTE B13/B17)	
Feed Point Impedance	50 ohms unbalanced (other if required)	
Radiation Pattern	Omni-directional	
Power Handling	2 Watt cw	
Polarization	Linear	

Mechanical Specifications

Maximum Dimensions	85.2 x 42.1 x 0.15 mm (1.25mm high at cable solder connection)
Cable / Connector	U.fl compatible connector, Cable diameter 1.13mm, 28.5mm Cable length.
Mounting	Antenna backing using 3M468 Adhesive on FPC substrate

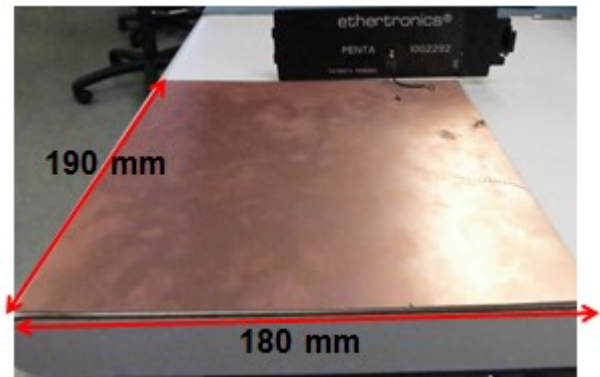
Antenna Configuration 1

Antenna located in Free Space



Antenna Configuration 2

Antenna located at the end of a PCB.

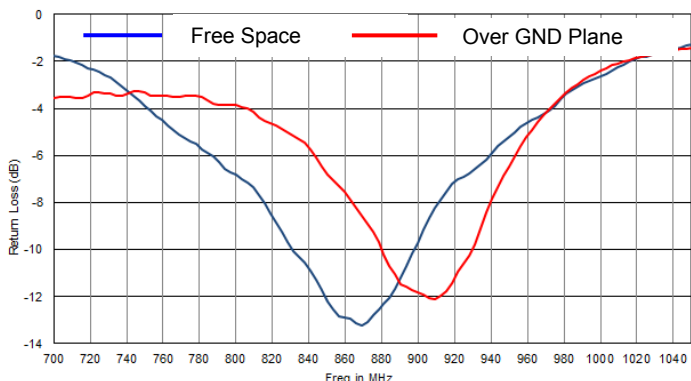


In this position, the antenna is located 1 mm away from the PCB and 5 mm above the PCB.

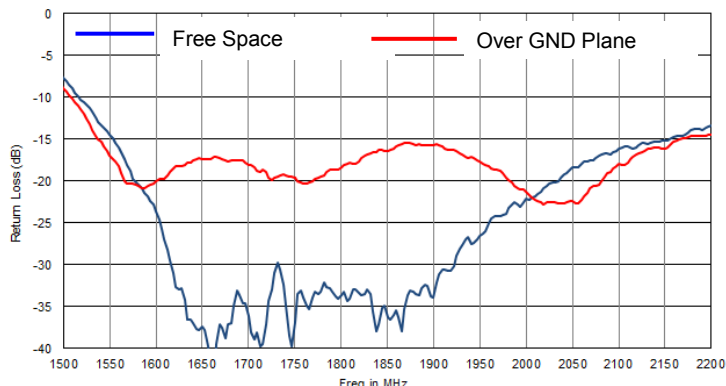
ETHERTRONICS

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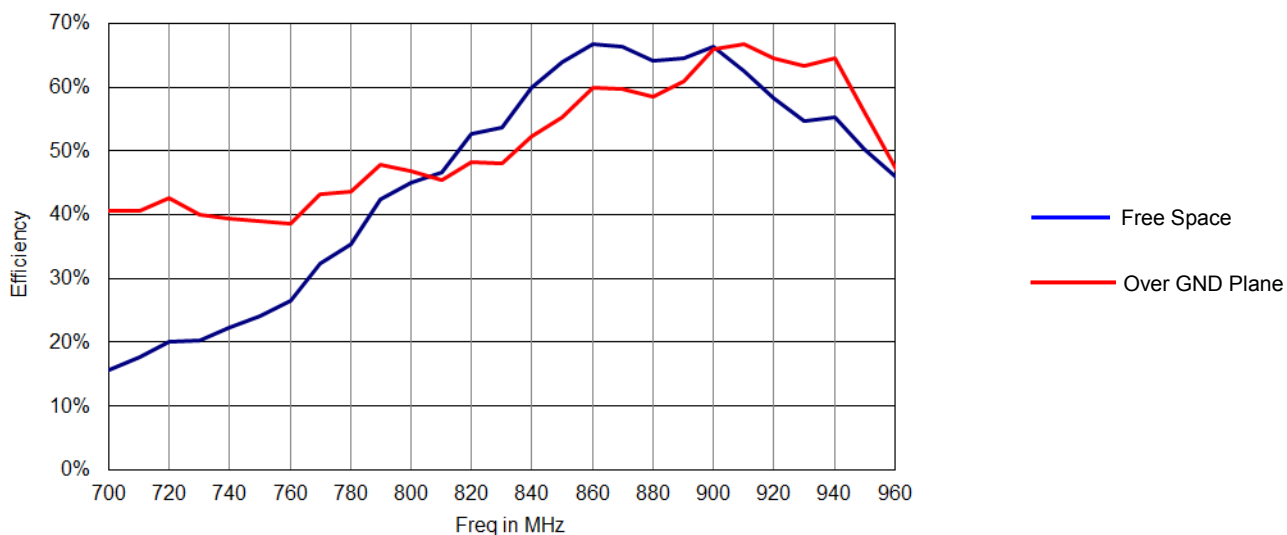
Return Loss in dB (Low Band)



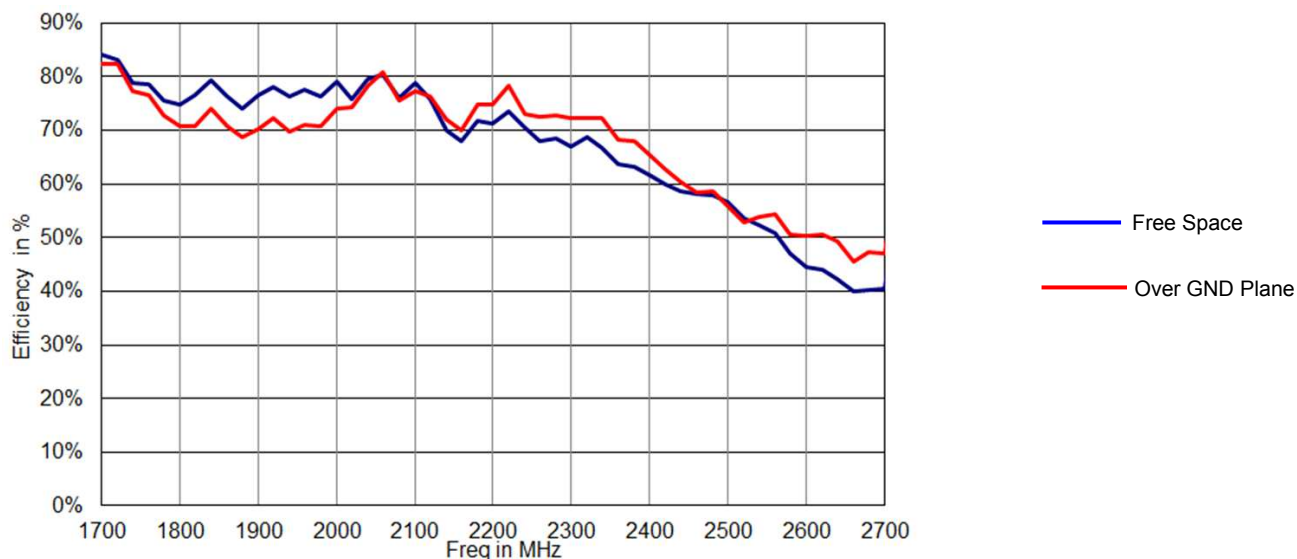
Return Loss, in dB (High Band)



Typical Low Band Efficiency, 700-960MHz

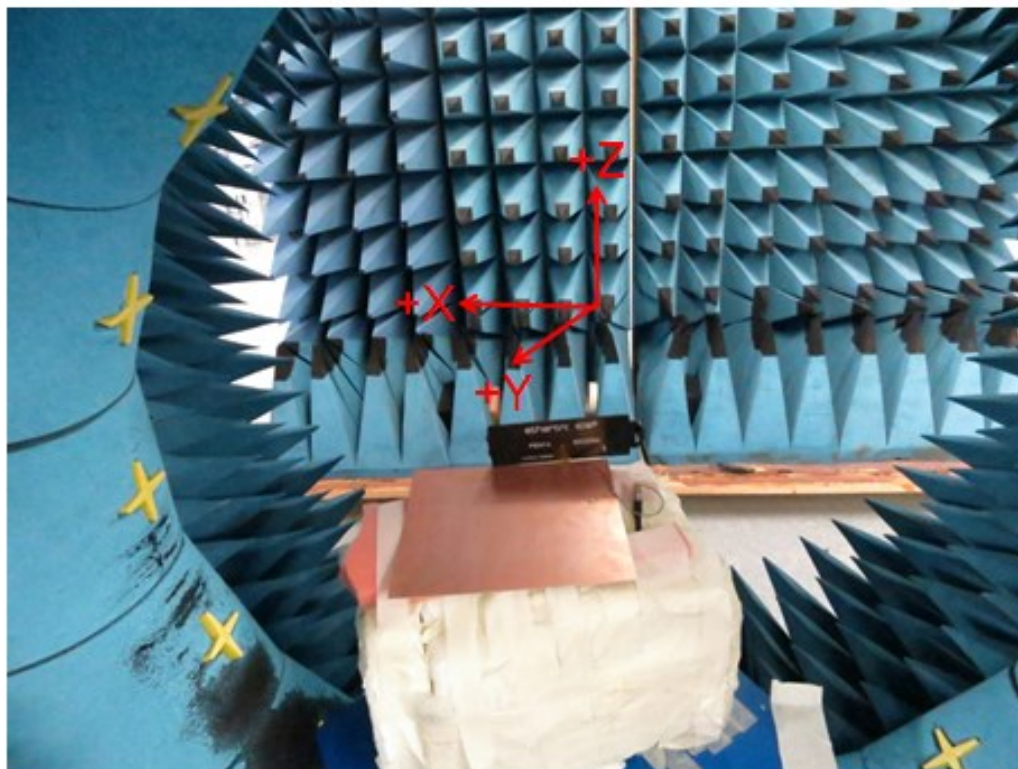


Typical High Band Efficiency, 1700-2700MHz



PRODUCT: Cellular Antenna - P/N 1002292

Radiation Patterns Setup Conditions

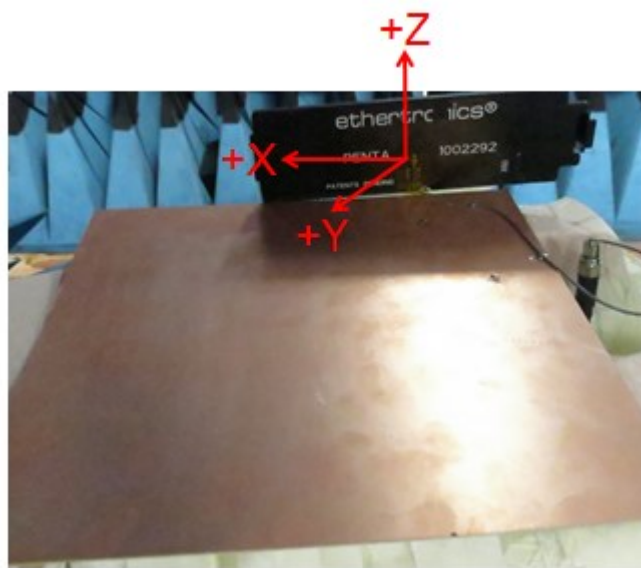


Antenna Configuration 1

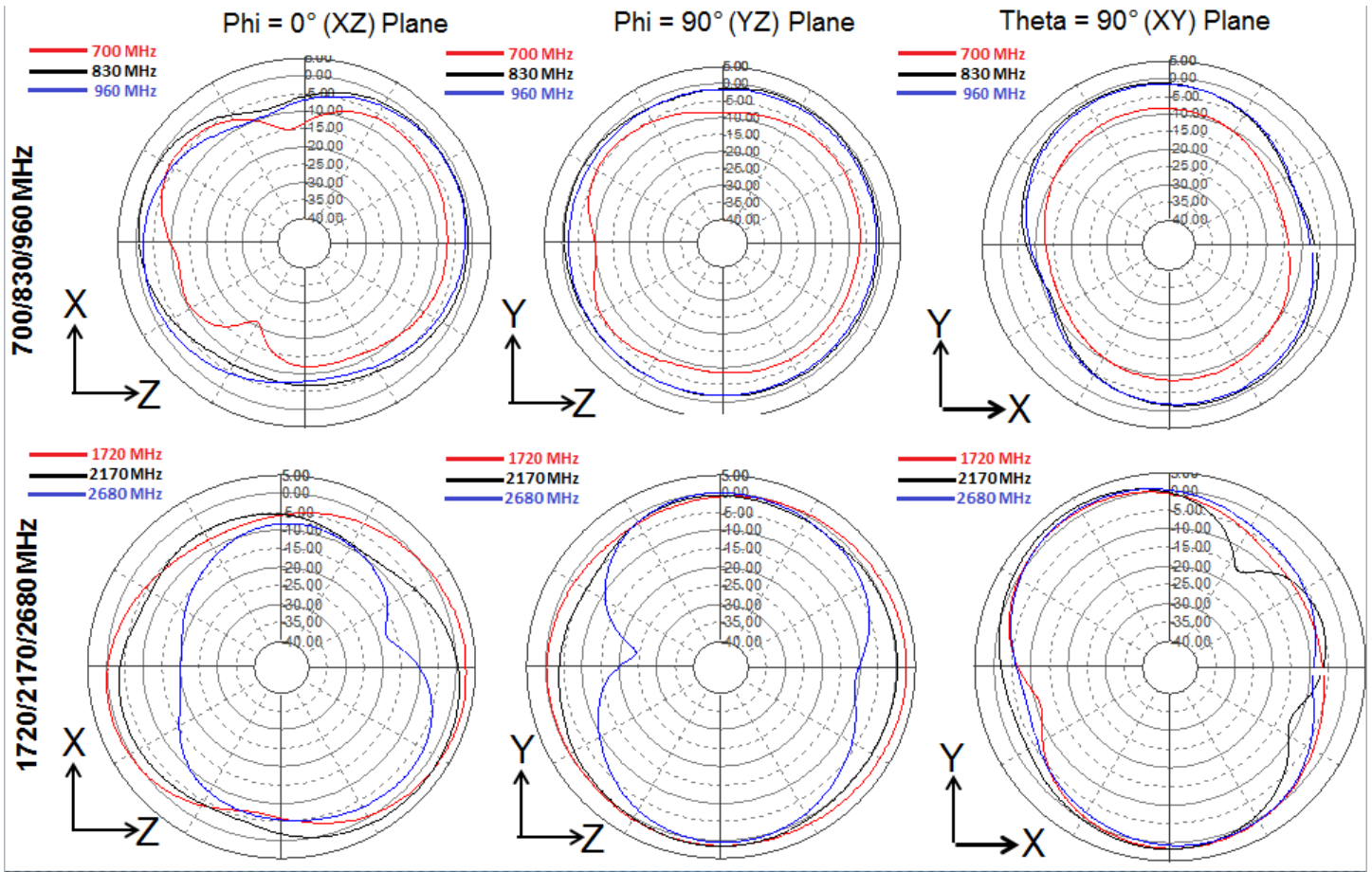
Antenna located in Free Space

Antenna Configuration 2

Antenna located at the end of a PCB.



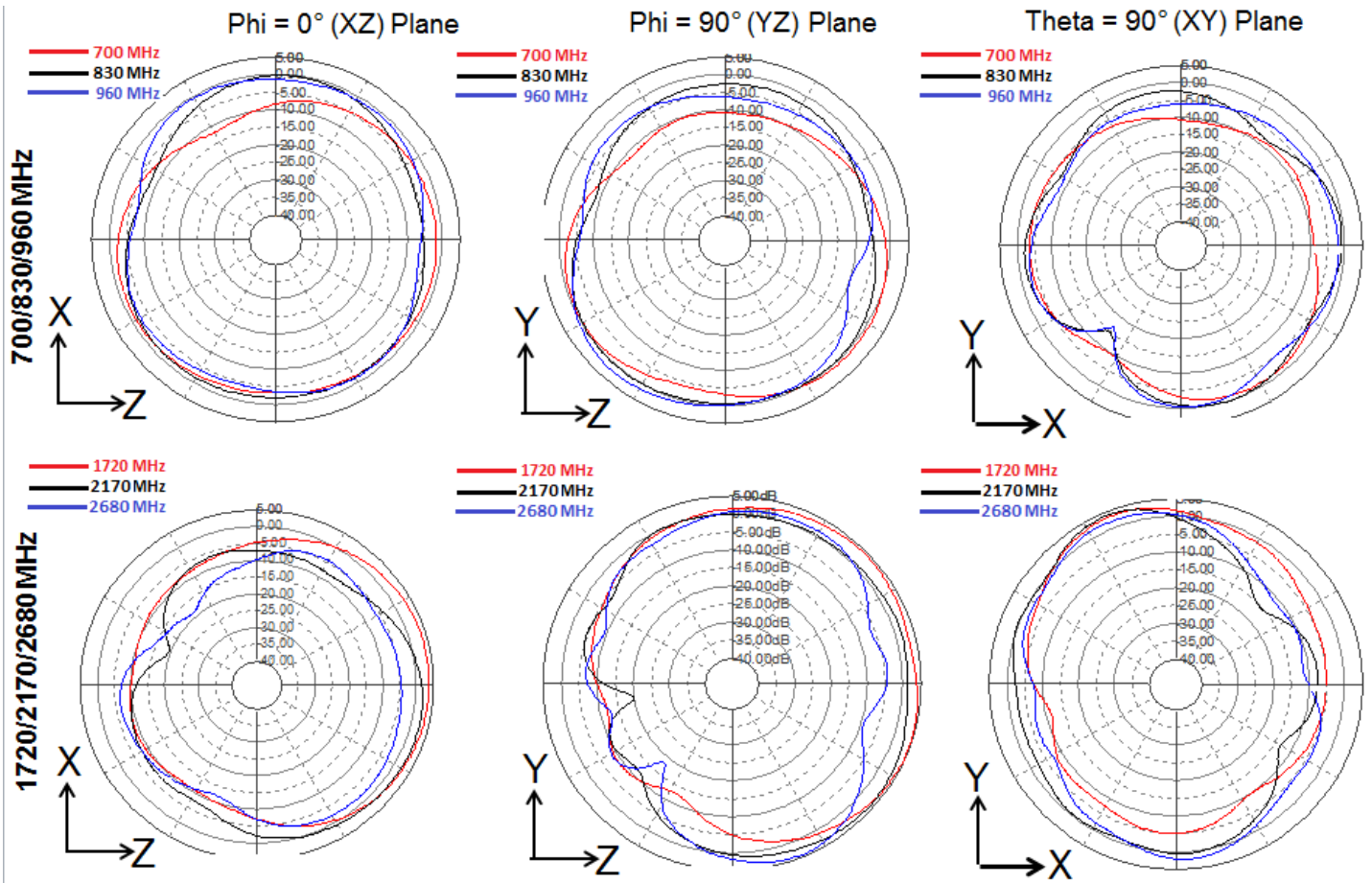
Typical Radiation Patterns - Antenna Configuration 1 : In Free Space



The Peak gain in the frequency band 700-960MHz is 0.5 dBi.

The Peak gain in the frequency band 1710-2200MHz is 3.0 dBi.

Typical Radiation Patterns - Antenna Configuration 2 : Over the Ground Plane



The Peak gain in the frequency band 820-960MHz is 3.0 dBi.

The Peak gain in the frequency band 1710-2200MHz is 5.0 dBi.