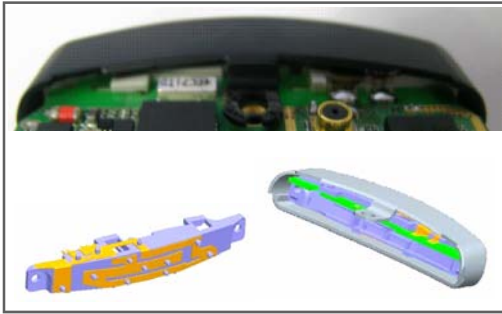


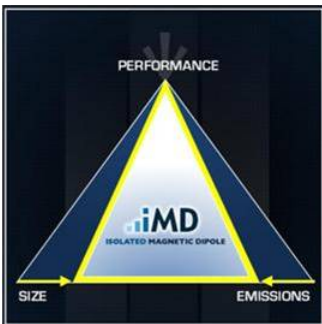
## Prestta™ Embedded Mobile Phone Antenna

800/900/1800/1900 MHz



Ethertronics' Prestta series of Isolated Magnetic Dipole™ (IMD) embedded antennas delivers on the key needs of today's mobile phone manufacturers: **high performance, small size and low emissions.** Patented IMD technology confines current flow on the antenna element and optimizes isolation to deliver better coverage, greater product design flexibility and lower SAR.

### 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.

#### Different Configurations to Meet Your Needs

With standard and custom solutions available in stamped metal and flex cable, patented IMD technology can be quickly implemented in a variety of mounting configurations to meet your unique design challenges, and deliver **performance up to 40% higher** than competing technologies. The end result is a smaller antenna volume, closer placement of other components, higher efficiency across a wider frequency range, lower program development risk and quicker time-to-market.

To extract higher performance from unique form factors and ergonomic designs, designers look increasingly to Prestta quad-band embedded antennas.



### KEY BENEFITS

#### DESIGN ADVANTAGES

##### Quicker Time-to-Market

- By optimizing antenna size, performance and emissions, customer and regulatory specifications are more easily met.

##### Greater Flexibility with Unique Form Factors

- Ethertronics' IMD technology helps you deliver more advanced ergonomic designs without adverse impact on product performance.

##### Hearing Aid Compliant

- Ethertronics IMD Cellular antennas are fully tested to assure compliance with US hearing aid compatibility regulations.

##### RoHS Compliant

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

#### END USER ADVANTAGES

##### Excels in Real-Life Conditions

- Utilizing IMD technology, Prestta embedded antennas deliver better end-user performance, helping you exceed consumers' high expectations of superior service.
- Meets the ever-growing demand for smaller, thinner product designs by eliminating whip and stub antennas.

##### Superior Coverage

- Better coverage means fewer dropped calls.

##### Faster Data Rates

- Improved performance also means faster data rates for downloading e-mail, surfing the internet and watching mobile video.

#### SERVICE AND SUPPORT

##### Extensive RF Experience

- Our design teams are composed of RF PhDs, project managers and a complete engineering team to support every project – from initial prototyping to TIS and TRP performance testing.

##### Global Operations & Design Support

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

**PRODUCT: Cellular**

**Example: Ethertronics' Quad Band Internal (Embedded) Antenna Specifications.**  
 (Ethertronics produces a wide variety of standard and custom antennas to meet user needs.  
 Below are the typical specs for a quad band application.)

**Electrical Specifications**

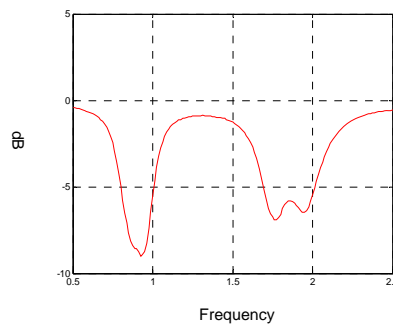
Typical Characteristics  
 (inside an enclosure)

Cellular Antenna (MHz)	824-894	880-960	1710-1880	1850-1990
Peak Gain	2.3 dBi	2.3 dBi	3.0 dBi	3.0 dBi
Efficiency	70%	70 %	70 %	70 %
VSWR Match	3.0 : 1	3.0 : 1	3.0 : 1	3.0 : 1
Front to Back Ratio	2 dB	2 dB	8 dB	8 dB
Feed Point Impedance	50 ohms unbalanced (other if required)			
Power Handling	2 Watt cw			
Polarization	Linear			
Shielding Ratio	6 to 1 (near field)			

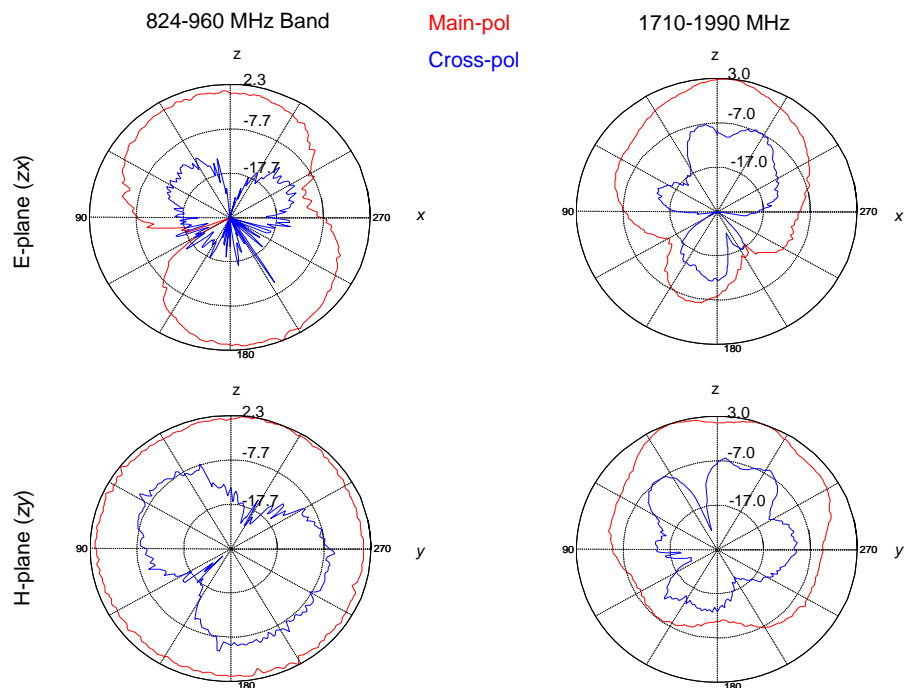
**Mechanical Specifications**

Size	Customized to the phone housing
Mounting	Surface mount, spring connection (phone housing or snap-in)
Weight	1 gram
Packaging	Tape and reel, tray optional

**Typical Return Loss**



**Antenna Radiation Patterns**



© 2006 Ethertronics. All rights reserved. Ethertronics, the Ethertronics logo, shaping antenna technology, Isolated Magnetic Dipole and the IMD logo are trademarks of Ethertronics. All other trademarks are the property of their respective owners. Specifications subject to change and are dependent upon actual implementation.