ethertronics
shaping antenna technology™

PRELIMINARY PRODUCT BRIEF: CELLULAR

Part No. P522304

Prestta™ Standard Penta-Band Cellular Embedded Antenna

850/900/1800/1900/2100 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.

ETHERTRONICS
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PRELIMINARY PRODUCT BRIEF: Cellular

Example: Ethertronics' Penta-Band Internal (Embedded) Antenna Specifications.

Below are the typical specs for a Penta-Band application (subject to change).

Electrical Specifications

Typical Characteristics

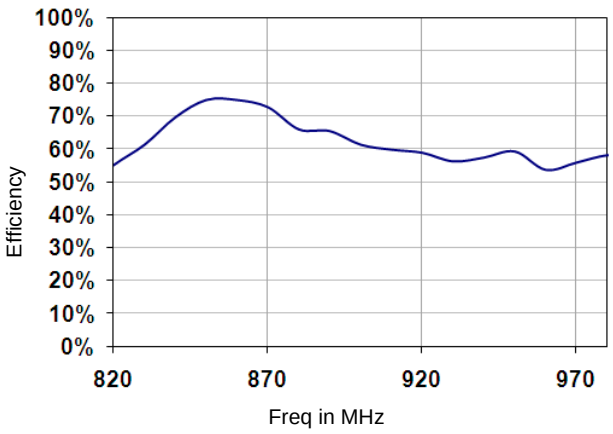
Measurements taken with a matching circuit on a 50 x 110 mm ground plane.

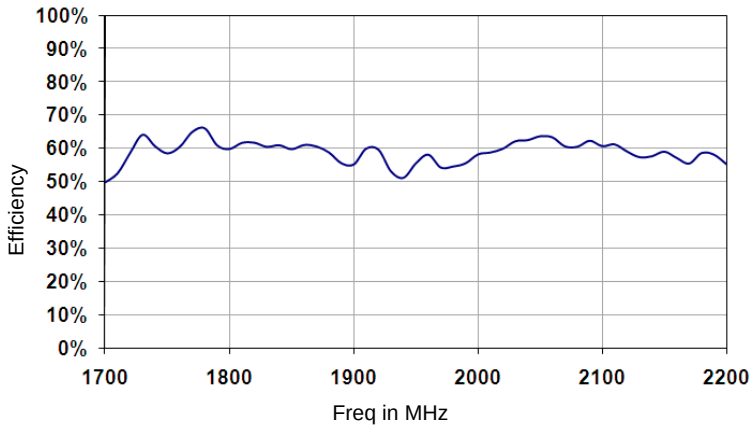
Cellular Antenna	824-849, 869-894	880-915, 925-960	1710-1785, 1805-1880	1850-1910, 1930-1990	1920- 1980, 2110-2170
Peak Gain	1.4 dBi	1.2 dBi	1.8 dBi	1.1 dBi	2.5 dBi
Average Efficiency	64%		59%		
VSWR Match	2.5:1 max				
Feed Point Impedance	50 ohms unbalanced (other if required)				
Power Handling	2 Watt cw				
Polarization	Linear				

Mechanical Specifications

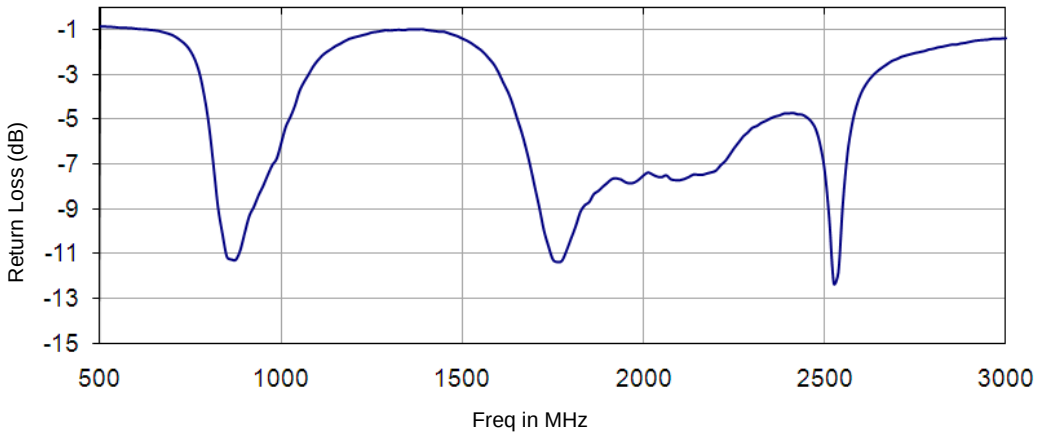
Maximum Dimensions	35.0 x 9.0 x 3.2 mm
Mechanical Mounting	Antenna Assembly is SMD attached to main PCB.
RF Mounting	RF and Ground feed pads are SMD attached to main PCB.

Typical Efficiency





Typical Return Loss



Antenna Radiation Patterns

Typical Performance

Ethertronics' Test Board
PCB: 50x110mm