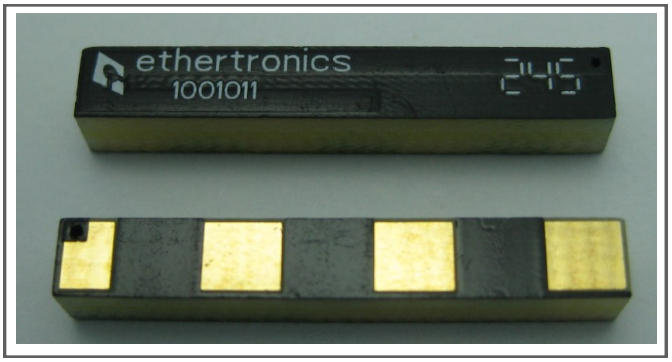
ethertronics
INNOVATE

PRODUCT BRIEF: GPS ANTENNA

Part No. 1001011

Prestta™ Standard GPS Embedded Antenna

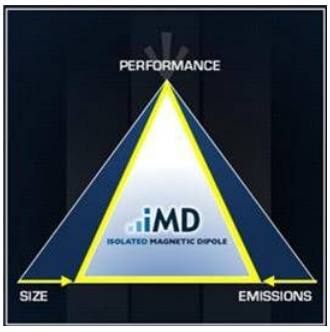
1575 MHz



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:

- Handsets
- Tablets
- Femtocells
- M2M
- 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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PRODUCT: Embedded GPS Antenna - P/N 1001011

Ethertronics' GPS (Embedded) Antenna Specifications.

Below are the typical specs for a GPS antenna (subject to change).

Electrical Specifications

Typical Characteristics

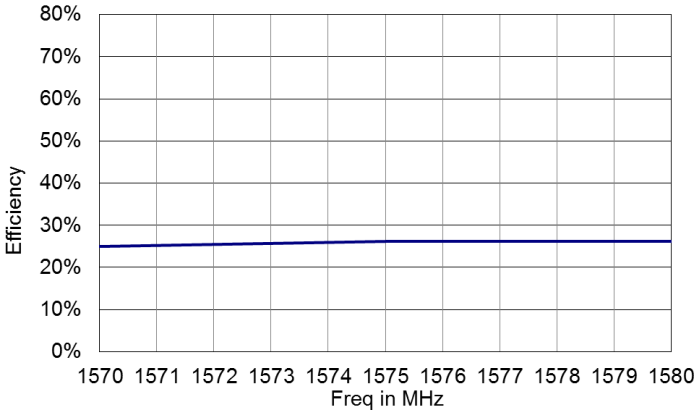
Measurements taken on a 50 x 100 mm ground plane.

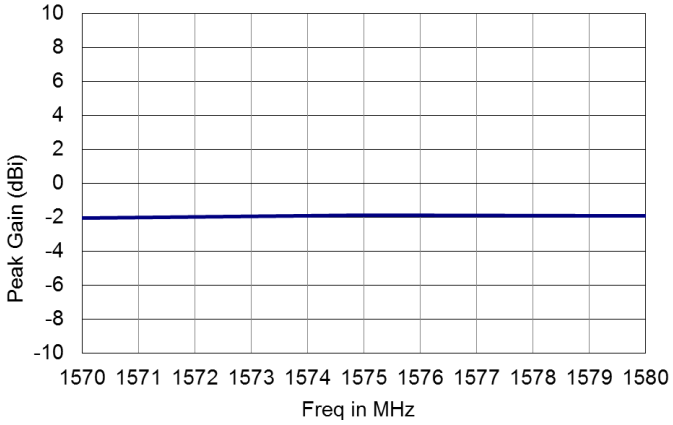
GPS Antenna (MHz)	1570-1580
Peak Gain	-1.8 dBi
Average Efficiency	26%
VSWR Match	2:1 max
Feed Point Impedance	50 ohms unbalanced (other if required)
Power Handling	2 Watt CW
Polarization	Linear

Mechanical Specifications

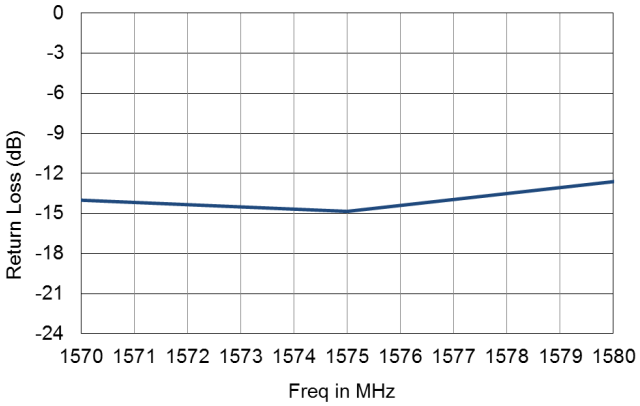
Maximum Dimensions	22.0x3.2x3.3 mm
Mechanical Mounting	Antenna is Surface Mounted to main PCB.
RF Mounting	RF and Ground pads are Surface Mounted to main PCB. No Ground Clearance required under the antenna.

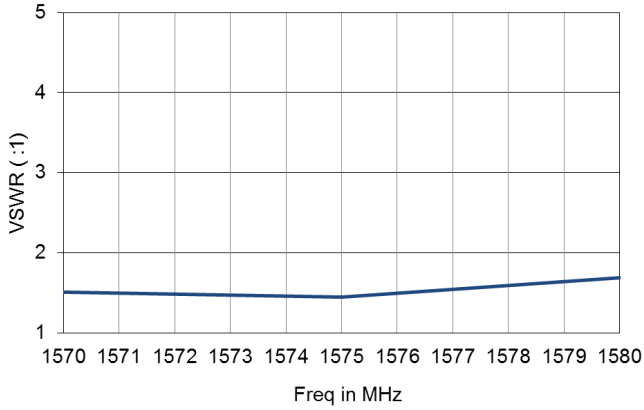
Typical Efficiency & Peak Gain





Typical Return Loss & VSWR





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Antenna Radiation Patterns

Typical Performance (1575 MHz)

Ethertronics' Test Board
PCB: 50x100mm
Tests performed in Satimo Starlab