

## Prestta™ Standard BT & WLAN b/g/n Embedded Antenna 2.4GHz



### 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:

- Handsets
- Tablets
- M2M
- 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.

# PRELIMINARY PRODUCT BRIEF: BT & WLAN b/g/n Antenna ON GROUND

Example: Ethertronics' BT & WLAN Internal (Embedded) Antenna Specifications.  
Below are the typical specs for a BT & WLAN application (subject to change).

## Electrical Specifications

Typical Characteristics

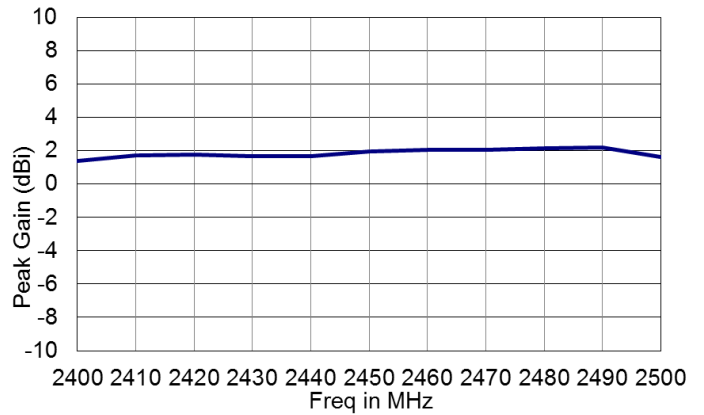
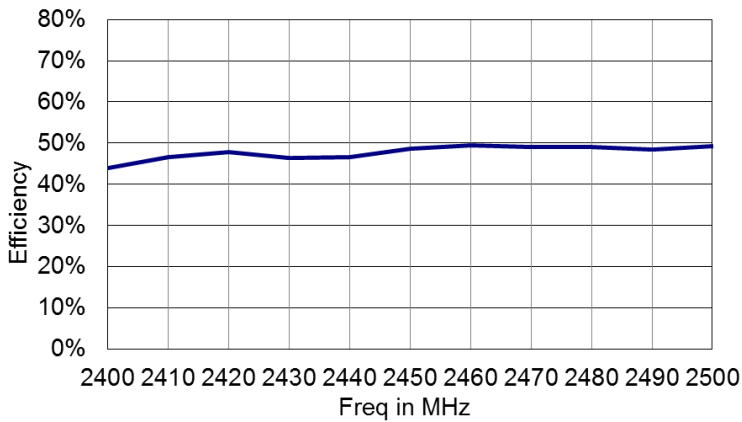
Measurements taken on a  
50 x 100 mm ground plane.

WiFi Antenna (MHz)	2400-2485 MHz
Peak Gain	2.1 dBi
Average Efficiency	48%
VSWR Match	2.3:1 max
Feed Point Impedance	50 ohms unbalanced (other if required)
Power Handling	2 Watt CW
Polarization	Linear

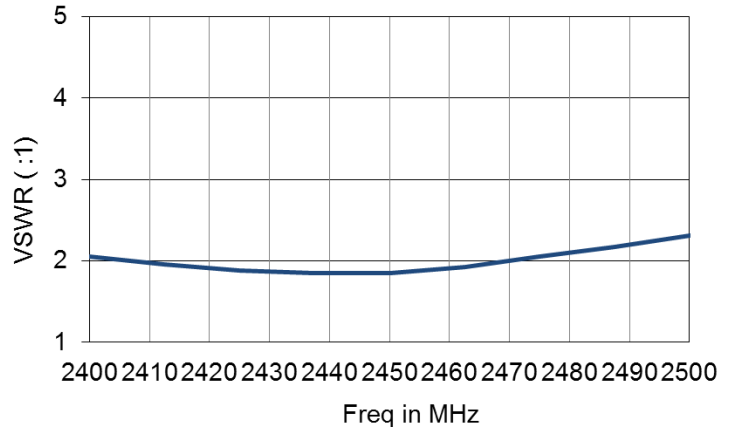
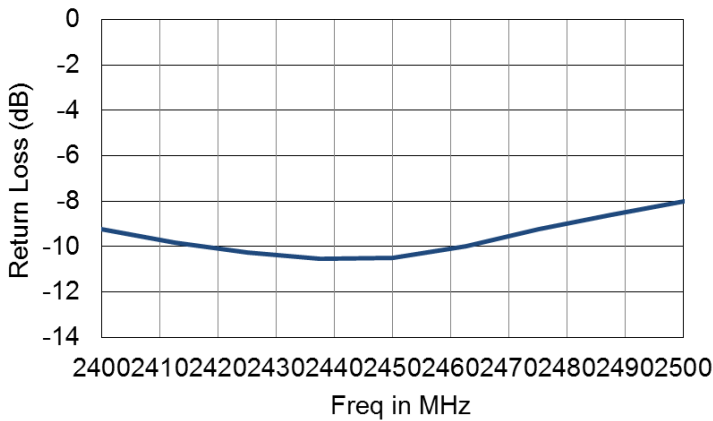
## Mechanical Specifications

Maximum Dimensions	15.0x3.2x3.3mm
Mechanical Mounting	Antenna Assembly is Surface Mounted onto main PCB.
RF Mounting	RF and Ground feed pads are Surface Mounted onto main PCB. No Ground Clearance is required under antenna.

## Typical Efficiency & Peak Gain



## Typical Return Loss & VSWR



# PRODUCT: BT & WiFi b/g/n Antenna ON GROUND

## Antenna Radiation Patterns

Typical Performance (2450MHz)

Ethertronics' Test Board  
PCB: 50x100 mm  
Tests performed in Satimo Starlab

