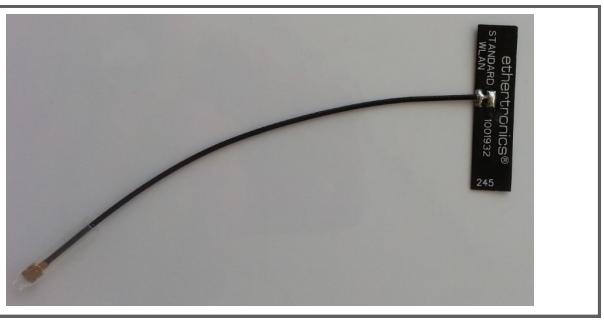
ethertronics INNOVATE

Application Note : WLAN high gain

Part No. 1001932

Prestta™ WLAN Embedded Antenna

2.4/4.9/5.2/5.8 GHz (802.11 a/b/g/n + Japan)



Ethertronics' Prestta series of Isolated Magnetic Dipole™ (IMD) trace antennas address the challenges facing today's product designers. IMD's high performance and isolation characteristics offer better connectivity and minimal interference.

IMD antennas can be used in a variety of devices:

- Notebook Computers & Tablets
- Access Points, Gateways, STB
- WiFi enabled Televisions & Monitors
- Trackers...

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 WLAN antennas use patented IMD technology in a trace 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

Quicker Time-to-Market

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

Greater Flexibility

- Ethertronics' first-in-class IMD technology enables you to develop concept designs that are more advanced and that deliver superior performance in reception-critical applications.
- Multiple cable lengths to fit a variety of devices.

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 & Signal Strength

- 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 WLAN 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.

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PRODUCT: WLAN a/b/g/n + Japan - P/N 1001932

Ethertronics' Internal (Embedded) Antenna Specifications.

Below are the typical specs for a WLAN application.

Electrical Specifications

Typical Characteristics
(In reference device housing made of PC/ABS plastic with extended ground)

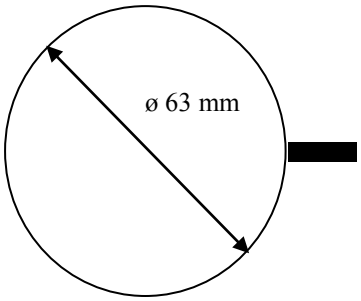
WLAN a/b/g/n + Japan Antenna (GHz)	2.390-2.490 b, g	4.900-5.100 Japan	5.150-5.350 a	5.350-5.725 a	5.70-5.900 a
Max Peak Gain	2.0-4.0 dBi	4.5-6.0 dBi	4.5-8.0 dBi	5.5-9.0 dBi	5.0-8.0 dBi
Feed Point Impedance	50 Ω unbalanced (other if required)				

Mechanical Specifications

Dimensions	35.2 x 8.5 x 0.40 mm (Height up to 1.80mm at soldering point)
Weight	0.30 g
Cable / Connector	1.13 mm diameter & u.fl compatible connector
Cable Length	1001932—Antenna with 100 mm cable No Adhesive in the back side

Side View

Top View



Efficiency