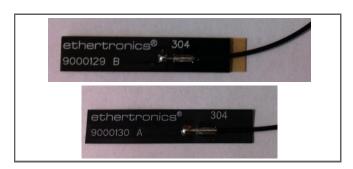




# Prestta™ WLAN Embedded Antenna

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
- Access Points
- WiFi enabled Televisions & Monitors

#### 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**

#### **Ouicker 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 receptioncritical 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.

# PRODUCT: WLAN a/b/g/n + Japan - P/N 9000129 & 9000130

# Ethertronics' Internal (Embedded) Antenna Specifications. Below are the typical specs for a WLAN application.

## **Electrical Specification**

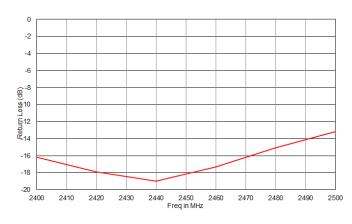
Typical Characteristics (In reference device housing made of PC/ABS plastic)

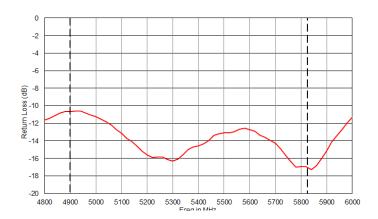
| WLAN a/b/g/n + Japan<br>Antenna (GHz) | 2.390-2.490<br>b, g                 | 4.900-5.100<br>Japan | 5.150-5.350<br>a | <b>5.35-5.90</b><br>a |
|---------------------------------------|-------------------------------------|----------------------|------------------|-----------------------|
| Peak Gain in dBi                      | 2.0                                 | 4.0                  | 5.0              | 6.0                   |
| Efficiency                            | 65%                                 | 72%                  | 72%              | 65%                   |
| Return Loss in dB                     | < -10.0                             | < -10.0              | < -10.0          | < -10.0               |
| Feed Point Impedance                  | 50 Ω unbalanced (other if required) |                      |                  |                       |

## **Mechanical Specification**

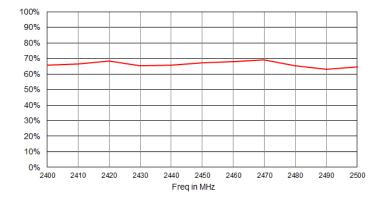
| Dimensions             | 42.0 x 8.0 x 0.8 mm  |  |  |
|------------------------|--|--|--|
| Weight                 | 0.4 g  |  |  |
| Cable / Connector      | U.fl Connector, 1.13mm diameter coaxial cable.                             |  |  |
| Cable Length           | 100mm cable  |  |  |
| Main Antenna Substrate | P/N 9000129: Based on PCB substrate<br>P/N 9000130: Based on FPC substrate |  |  |

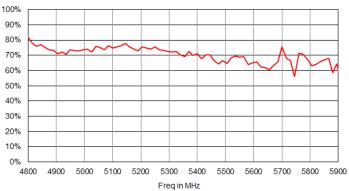
#### Return Loss in dB





## Efficiency in %





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