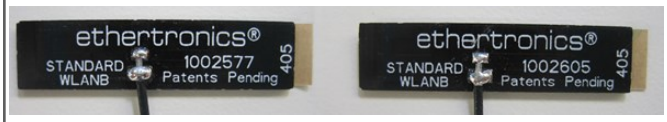
ethertronics®
INNOVATE

PRODUCT: 802.11 b/g/n

Part No. 1002577 - 1002605

Prestta™ WLAN Embedded Antennas

Single Band 2.4GHz



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.

ETHERTRONICS

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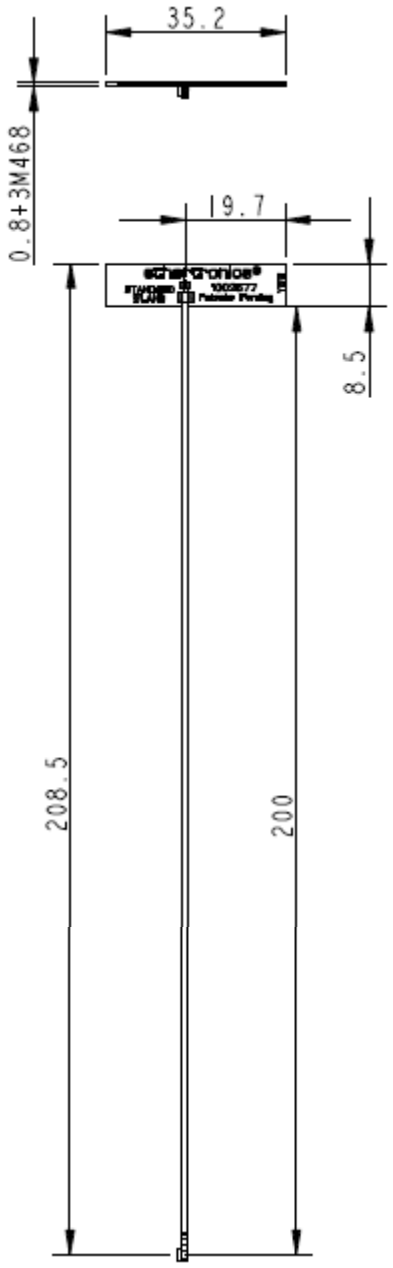
PRODUCTS: P/N 1002577 - 1002605

Ethertronics' Internal (Embedded) Antenna Specifications.

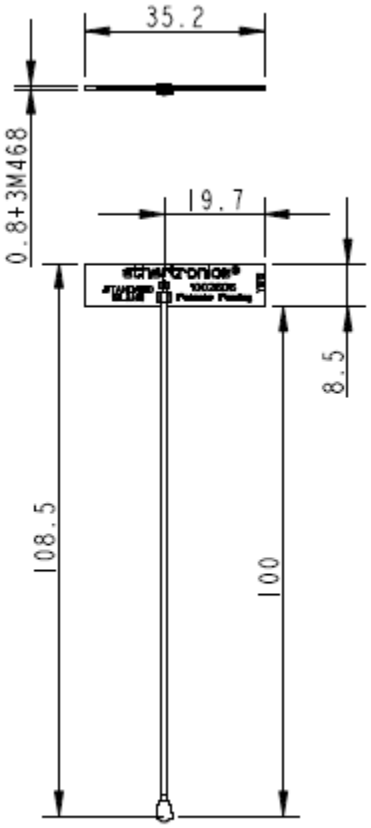
Below are the typical specs.

Overall Dimensions:

Antenna 2G1
P/N 1002577



Antenna 2G2
P/N 1002605



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Mechanical Specifications

Dimensions	35.2 x 8.5 x 0.80 mm
Weight	Approx. 0.30 g
Cable Information	**2G1 Antenna** **P/N 1002577 Rev C.** (200 mm cable, 1.13mm diameter, 3M468, **Black Cable**) **2G2 Antenna** **P/N 1002605 Rev B.** (100 mm cable, 1.13mm diameter, 3M468, **Black cable**)

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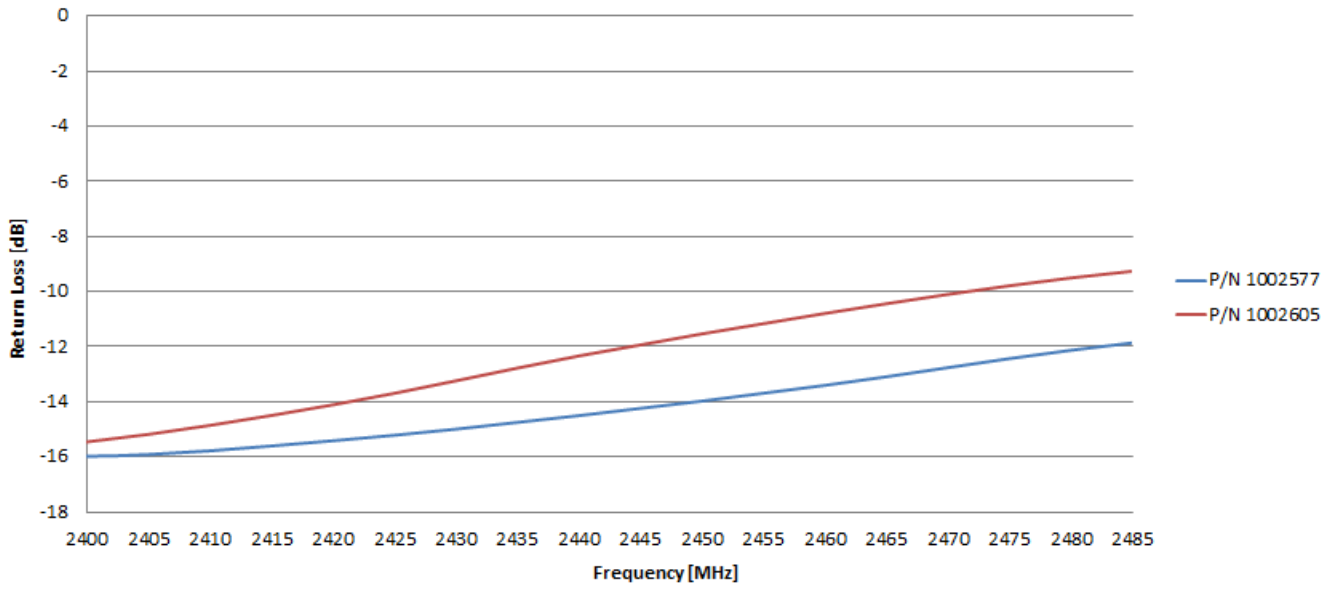
Electrical Performance Summary:

	P/N 1002577 2G1 2.4 – 2.485GHz	P/N 1002605 2G2 2.4 – 2.485GHz
Peak Gain	1.66 dBi	3.35 dBi
Efficiency	60.8 %	64.7 %
Return Loss	≤ -12 dB	≤ -9 dB
Input Impedance	50 Ohm unbalanced	50 Ohm unbalanced
Isolation	≤ -26 dB with all other antennas	≤ -26 dB with all other antennas

Return Loss Plots



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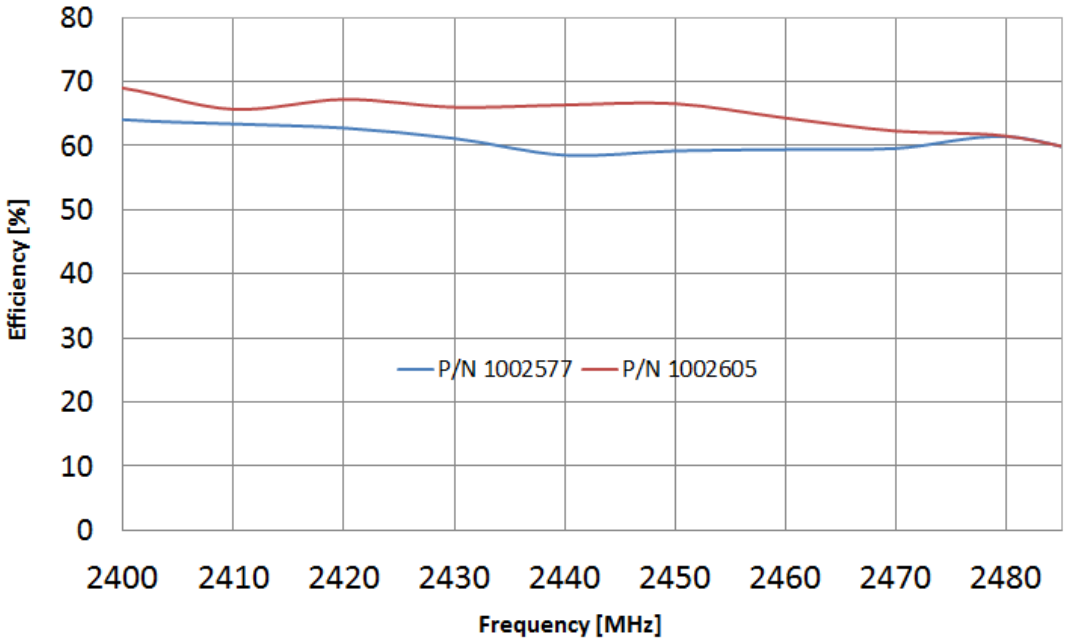
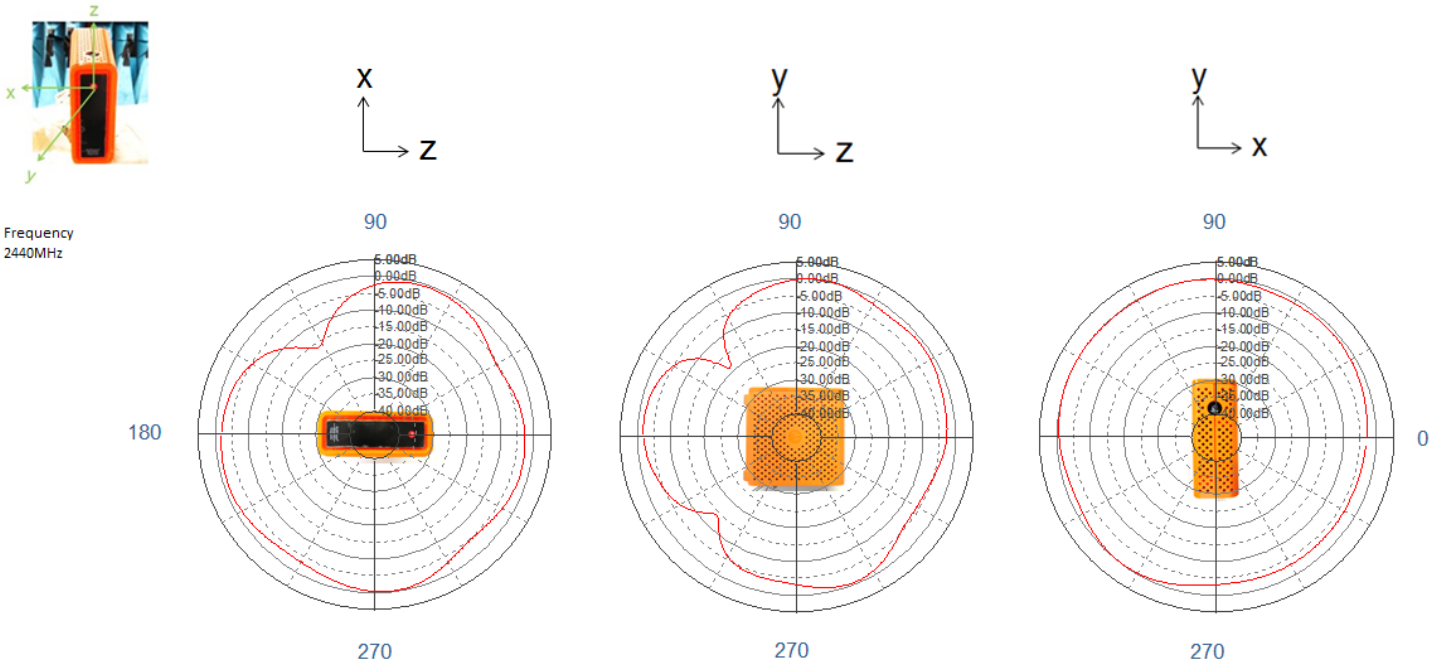
Efficiency Plots:



Radiation Patterns of the 2G1 (P/N 1002577) Antenna at 2.44GHz



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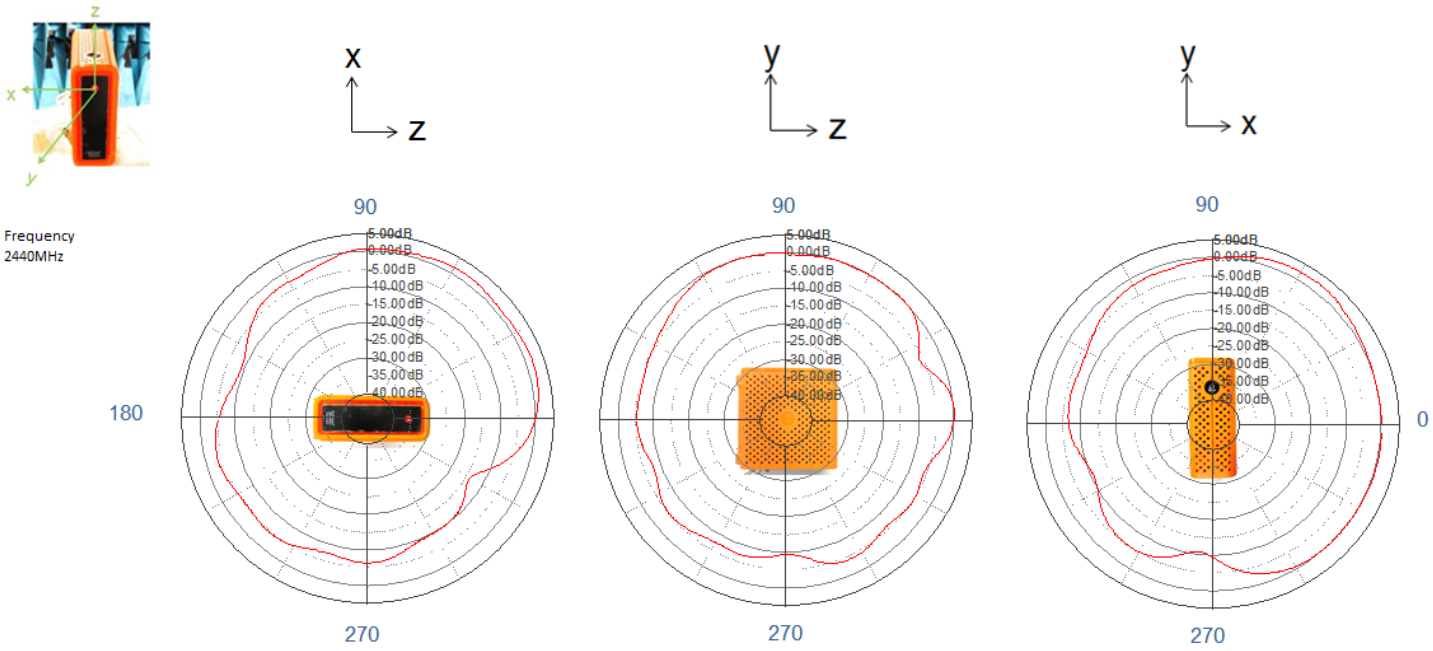
PRODUCTS: P/N 1002577 - 1002605

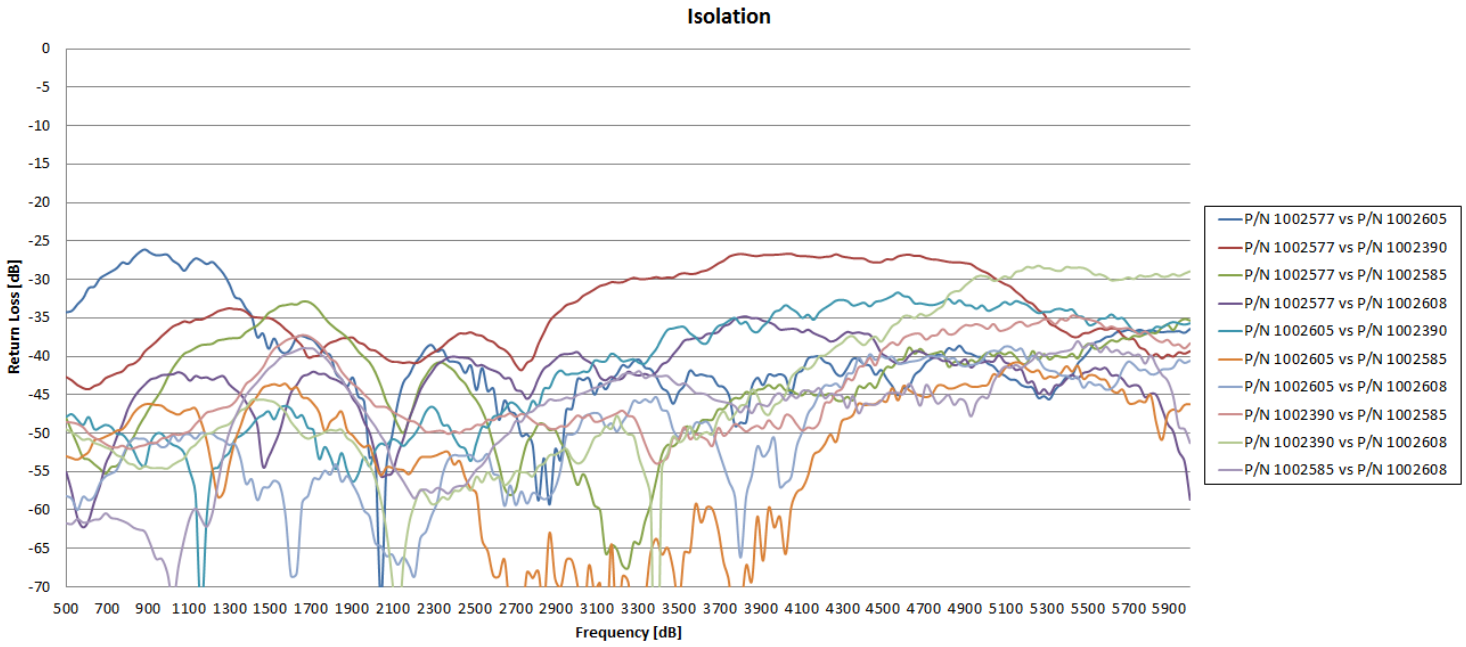
Ethertronics' Internal (Embedded) Antenna Specifications.

Below are the typical specs.

Radiation Patterns of the 2G2 (P/N 1002605) Antenna at 2.44GHz



Isolation between all antennas



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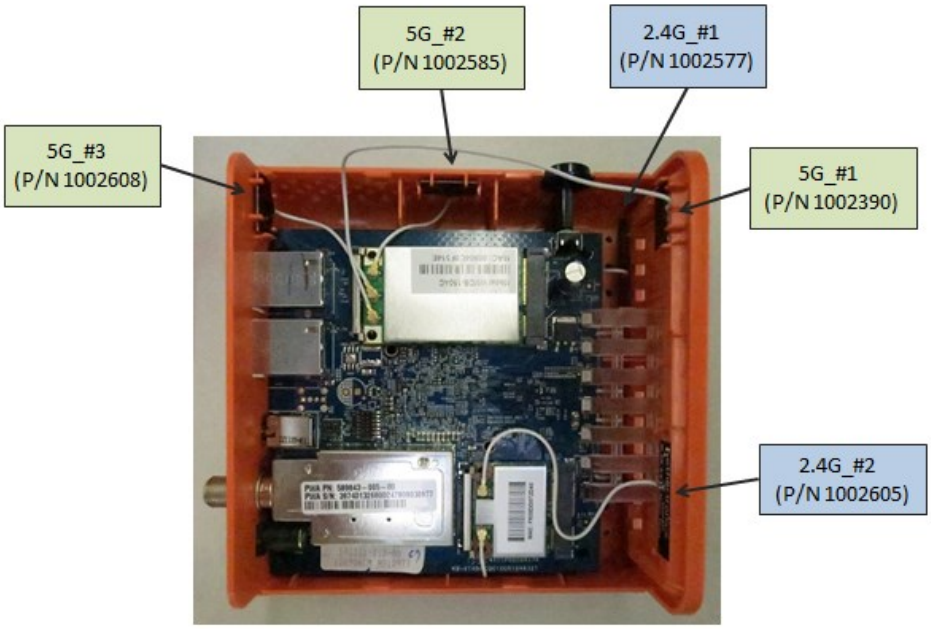
TEST SETUP



DETAILED GAIN TABLE

Frequency [MHz]	2G1	2G2
2400	1.84	3.15
2410	2.04	3.16
2420	1.95	3.44
2430	1.77	3.53
2440	0.98	3.73
2450	1.15	3.76
2460	1.46	3.52
2470	1.67	3.35
2480	1.86	3.31
2490	1.70	2.84
2500	1.84	3.12

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COMPOSITE GAIN TABLE

2.4GHZ	
Antennas	Peak Gain (over 2400-2483.5MHz)
Chain A0	1.66
Chain A1	3.36
2Tx Composite	5.56