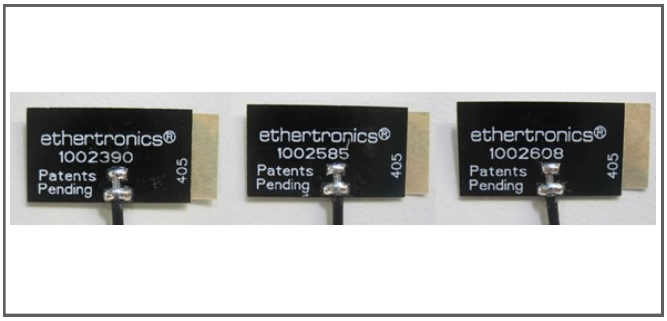
ethertronics®
INNOVATE

PRODUCT: 5GHz Antennas

Part No. 1002390 - 1002585 - 1002608

Prestta™ WLAN Embedded Antennas

Single Band 5GHz



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

5501 Oberlin Drive, Suite 100, San Diego, CA. 92121, USA www.ethertronics.com

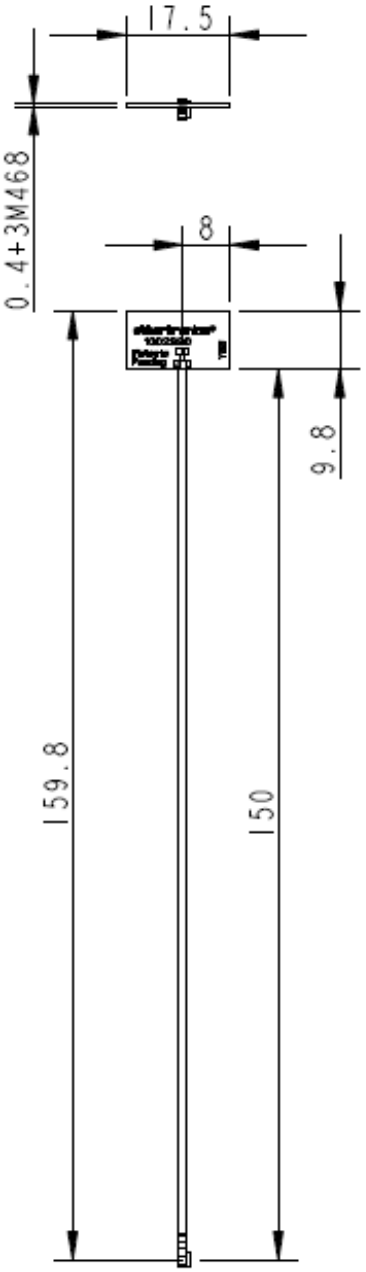
Tel +(1) 858.550.3820 | fax +(1) 858.550.3821 | contact: info@ethertronics.com

PRODUCTS: P/N 1002390 - 1002585 - 1002608

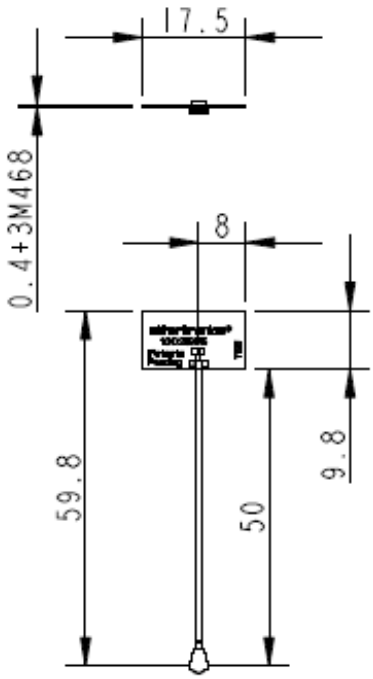
Ethertronics' Internal (Embedded) Antenna Specifications.
Below are the typical specs.

Overall Dimensions:

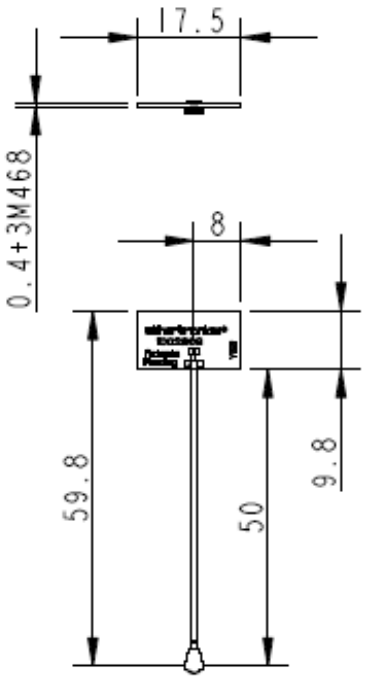
Antenna 5G1
P/N 1002390



Antenna 5G2
P/N 1002585



Antenna 5G3
P/N 1002608



ETHERTRONICS
5501 Oberlin Drive, Suite 100, San Diego, CA. 92121, USA www.ethertronics.com
Tel +(1) 858.550.3820 | fax +(1) 858.550.3821 | contact: info@ethertronics.com

PRODUCTS: P/N 1002390 - 1002585 - 1002608

Ethertronics' Internal (Embedded) Antenna Specifications.

Below are the typical specs.

Mechanical Specifications

Dimensions	17.5 x 9.8 x 0.40 mm
Weight	Approx. 0.15 g
Cable Information	**5G1 Antenna** **P/N 1002390** (150 mm cable, 1.13mm diameter, 3M468) **5G2 Antenna** **P/N 1002585** (50 mm cable, 1.13mm diameter, 3M468) **5G3 Antenna** **P/N 1002608** (50 mm cable, 1.13mm diameter, 3M468)

ETHERTRONICS
5501 Oberlin Drive, Suite 100, San Diego, CA. 92121, USA www.ethertronics.com
Tel +(1) 858.550.3820 | fax +(1) 858.550.3821 | contact: info@ethertronics.com

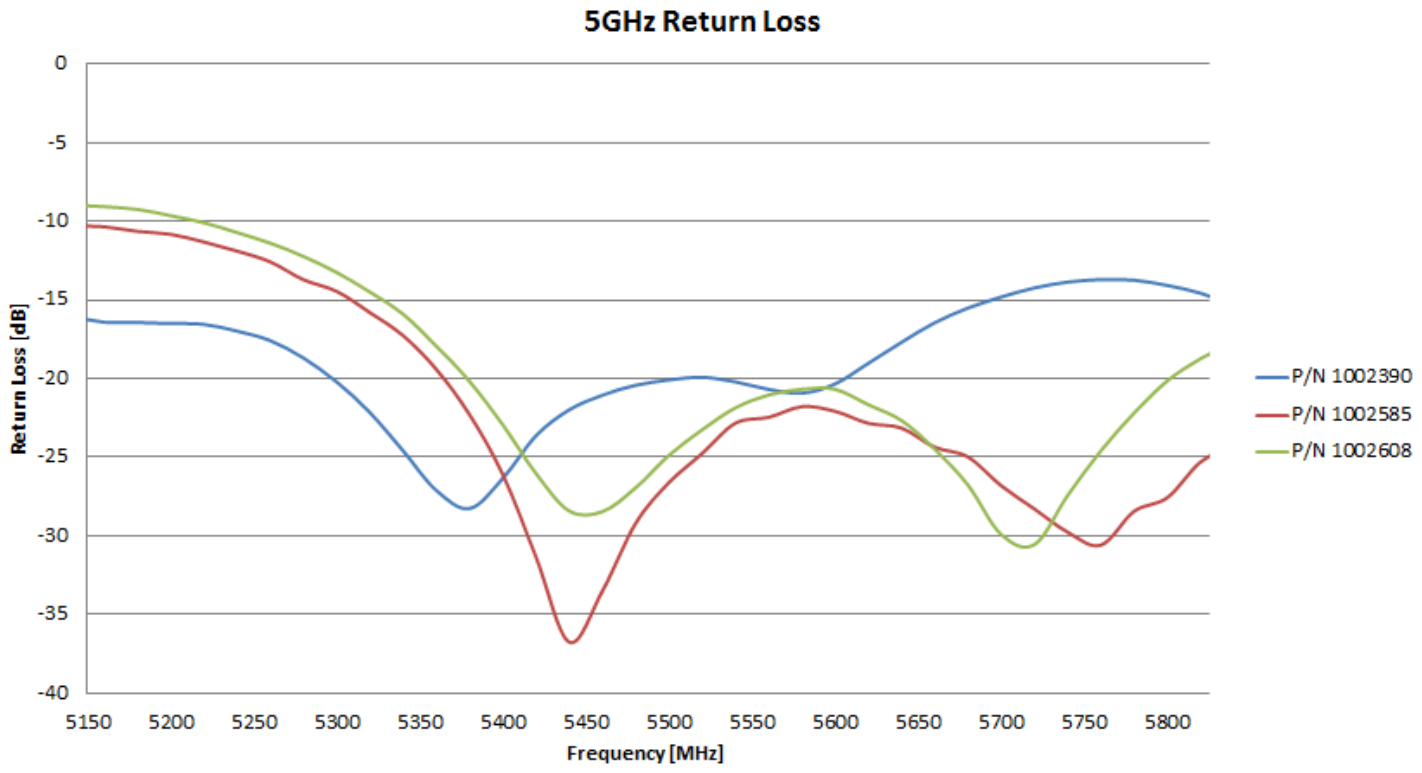
PRODUCTS: P/N 1002390 - 1002585 - 1002608

Ethertronics' Internal (Embedded) Antenna Specifications.
Below are the typical specs.

Electrical Performance Summary:

	P/N 1002390 5G1 5.15 – 5.85 GHz	P/N 1002585 5G2 5.15 – 5.85 GHz	P/N 1002608 5G3 5.15 – 5.85 GHz
Peak Gain	3.99 dBi	4.65 dBi	4.13 dBi
Efficiency	66.4 %	71.6 %	60.2 %
Return Loss	≤ -13 dB	≤ -10 dB	≤ -10 dB
Input Impedance	50 Ohm unbalanced	50 Ohm unbalanced	50 Ohm unbalanced
Isolation	≤ -27 dB with all other antennas	≤ -33 dB with all other antennas	≤ -29 dB with all other antennas

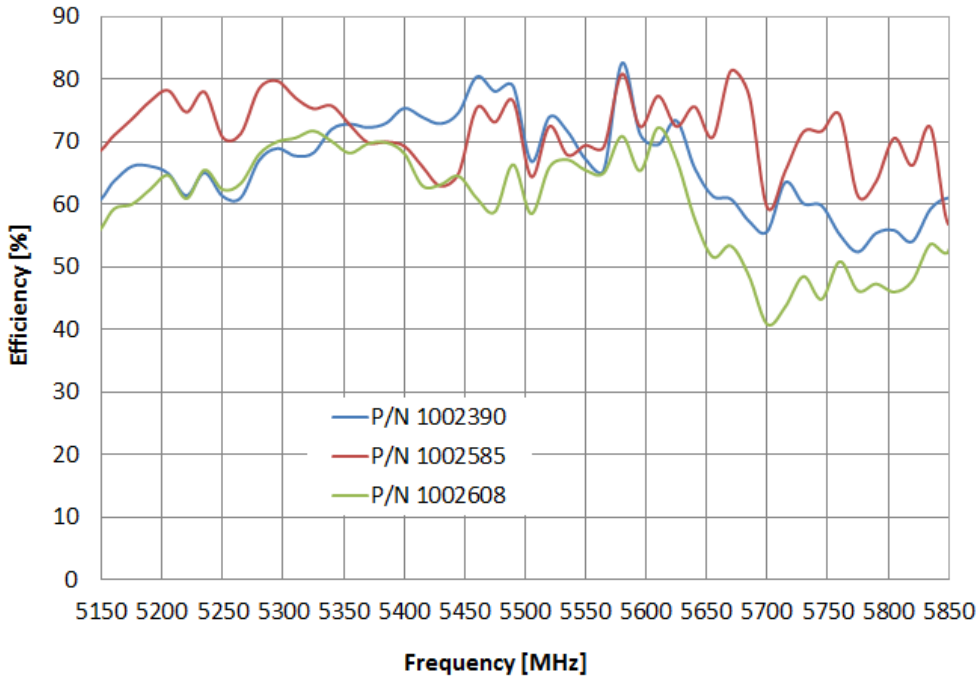
Return Loss Plots:



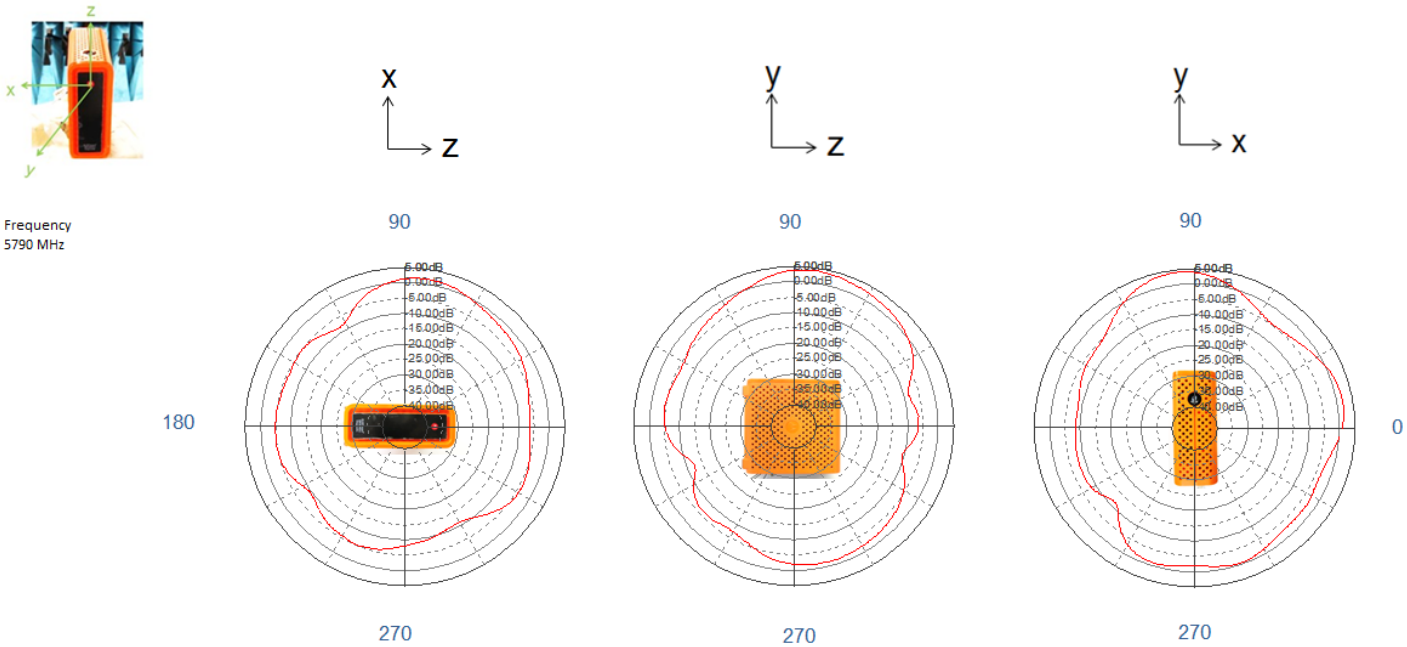
ETHERTRONICS
5501 Oberlin Drive, Suite 100, San Diego, CA. 92121, USA www.ethertronics.com
Tel +(1) 858.550.3820 | fax +(1) 858.550.3821 | contact: info@ethertronics.com

Ethertronics' Internal (Embedded) Antenna Specifications.
Below are the typical specs.

Efficiency Plots:



Radiation Patterns of the 5G1 (P/N 1002390) Antenna at 5.79GHz:

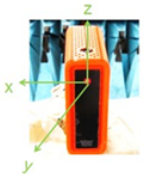


ETHERTRONICS
5501 Oberlin Drive, Suite 100, San Diego, CA. 92121, USA www.ethertronics.com
Tel +(1) 858.550.3820 | fax +(1) 858.550.3821 | contact: info@ethertronics.com

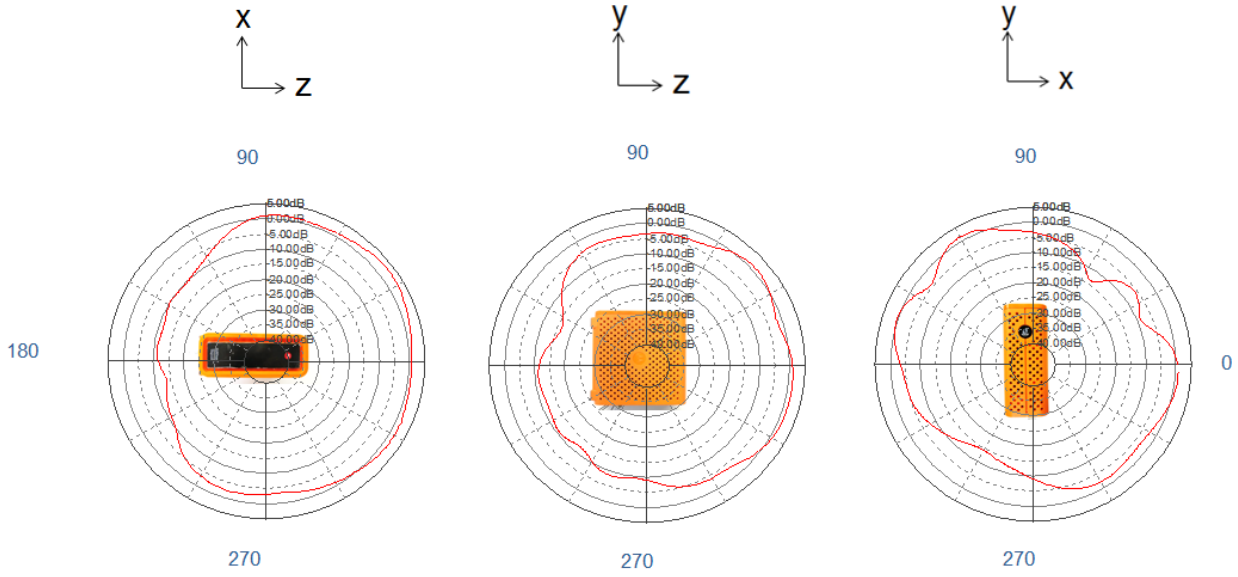
PRODUCTS: P/N 1002390 - 1002585 - 1002608

Ethertronics' Internal (Embedded) Antenna Specifications.
Below are the typical specs.

Radiation Patterns of the 5G2 (P/N 1002585) Antenna at 5.79GHz:

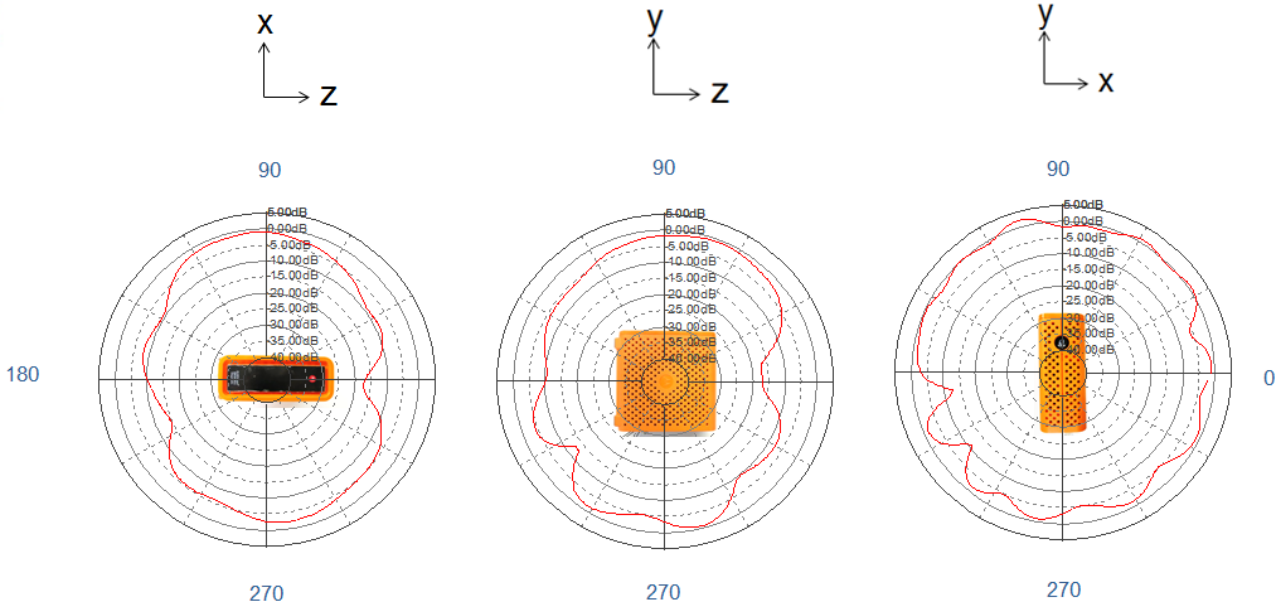


Frequency
5790 MHz



Radiation Patterns of the 5G3 (P/N 1002608) Antenna at 5.79GHz:

Frequency
5790 MHz

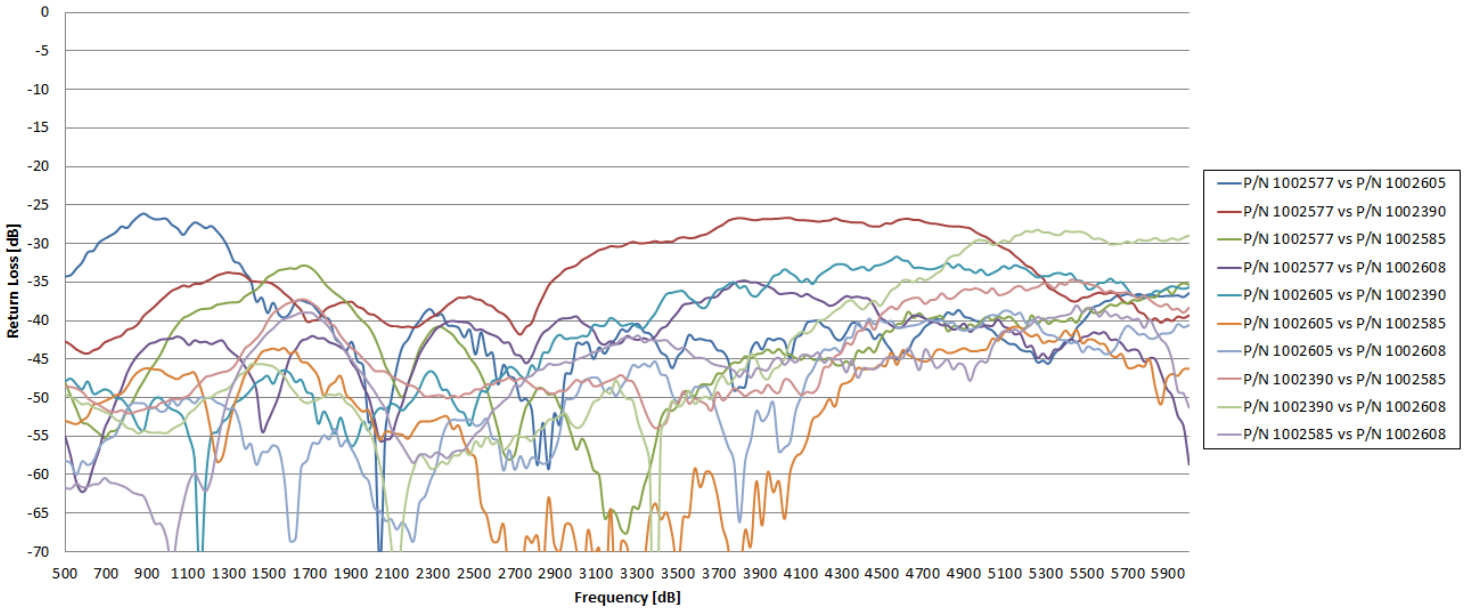


ETHERTRONICS
5501 Oberlin Drive, Suite 100, San Diego, CA. 92121, USA www.ethertronics.com
Tel +(1) 858.550.3820 | fax +(1) 858.550.3821 | contact: info@ethertronics.com

PRODUCTS: P/N 1002390 - 1002585 - 1002608

Ethertronics' Internal (Embedded) Antenna Specifications.
Below are the typical specs.

Isolation between all antennas:



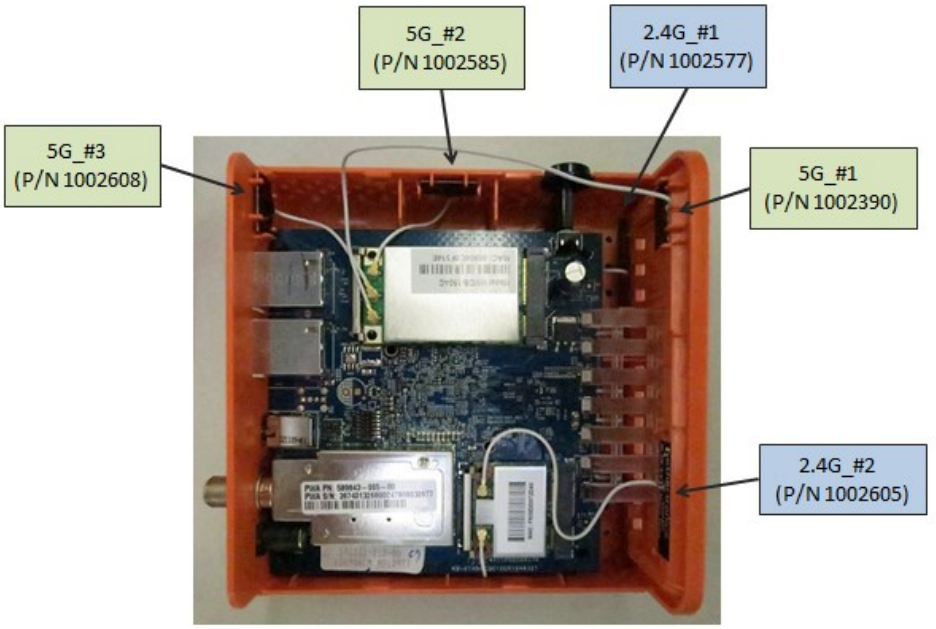
ETHERTRONICS
5501 Oberlin Drive, Suite 100, San Diego, CA. 92121, USA www.ethertronics.com
Tel +(1) 858.550.3820 | fax +(1) 858.550.3821 | contact: info@ethertronics.com

PRODUCTS: P/N 1002390 - 1002585 - 1002608

Ethertronics' Internal (Embedded) Antenna Specifications.

Below are the typical specs.

TEST SETUP



PEAK GAIN TABLE

	Peak Gain (over 5150-5250MHz) in dBi	Peak Gain (over 5250-5350MHz) in dBi	Peak Gain (over 5470-5725MHz) in dBi	Peak Gain (over 5725-5850MHz) in dBi
5G1	2.968274036	2.724911058	3.655808943	3.997507609
5G2	3.828800136	4.054309303	4.262106986	4.649438074
5G3	3.507536326	4.133931014	3.911460603	3.099522852

COMPOSITE GAIN TABLE

5GHZ				
Antennas	Peak Gain in dBi (over 5150-5250MHz)	Peak Gain in dBi (over 5250-5350MHz)	Peak Gain in dBi (over 5470-5725MHz)	Peak Gain in dBi (over 5725-5850MHz)
Chain A0	2.968274036	2.724911058	3.655808943	3.997507609
Chain A1	3.828800136	4.054309303	4.262106986	4.649438074
Chain A2	3.507536326	4.133931014	3.911460603	3.099522852
2Tx Composite-1	6.42	6.43	6.97	7.34
2Tx Composite-2	6.68	7.10	7.10	6.92
2Tx Composite-3	6.25	6.47	6.79	6.57
3Tx Composite	8.21	8.43	8.72	8.71