

Part No. 1000423

WLAN / BT / Zigbee Stamped Metal Antenna

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

Supports: Wi-Fi applications, Agriculture, Automotive, Bluetooth, Zigbee, WLAN, Smart Home, Healthcare, Digital Signage



Ethertronics' WLAN antennas deliver on the key needs of device designers for higher functionality and performance in smaller/thinner designs. These innovative antennas provide compelling advantages for a 2.4 GHz and 5.0 GHz enabled handheld devices, media players and other mobile devices.

Wi-Fi Dual Band Stamped Metal Embedded Antenna

2.4 GHz; 5 GHz

KEY BENEFITS

Stay-in-Tune

Ethertronics antenna technology provides superior RF field containment, resulting in less interaction with surrounding components.

Quicker Time-to-Market

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

Reliability

Products are the latest RoHS version compliant

APPLICATIONS

- Embedded design
- Cellular, Headsets, Tablets
- Gateway, Access Point
- Handheld
- Telematics
- Tracking
- Healthcare
- M2M, Industrial devices
- Smart Grid
- OBD-II

Real-World Performance and Implementation

Antennas may look alike on the outside, but the important difference is inside. Other antennas may contain simple PIFA or monopole designs that interact with their surroundings, complicating layout or changing performance with use position. Ethertronics' antennas utilize patented Isolated Magnetic Dipole (IMD) technology to deliver a unique size and performance combination.

Electrical Specifications

Typical Performance using 100 mm cable tested in Free-space

Frequency	2400 – 2485 MHz	4900 – 5825 MHz
Peak Gain	0.6 dBi	4.5 dBi
Average Efficiency	57%	75%
VSWR Match	2.5:1 max	
Feed Point Impedance	50 ohms unbalanced	
Polarization	Linear	
Power Handling	0.5 Watt CW	

Mechanical Specifications & Ordering Part Number

Ordering Part Number	1000423
Size (mm)	40.0 x 15.0 x 6.4
Weight (grams)	1.6
Mounting	Antenna can be mounted directly onto metal surface using two 3 mm screw holes
Connectors	U.FI compatible receptacle on the PCB
Cable Length	Cables sold separately, please contact Ethertronics

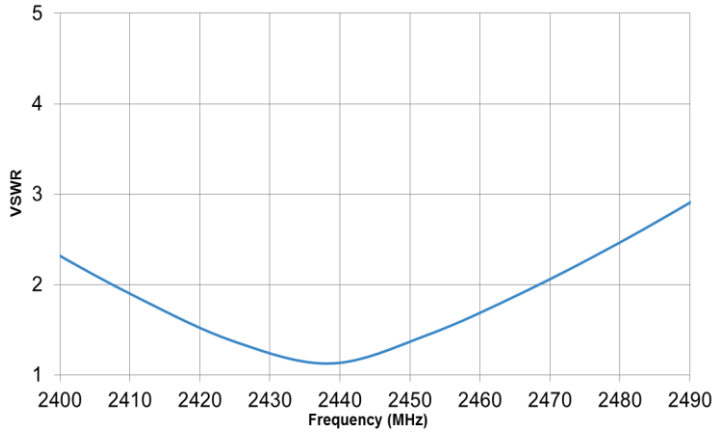


2.4 / 5 GHz Ethertronics' Embedded Antenna Specifications
Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

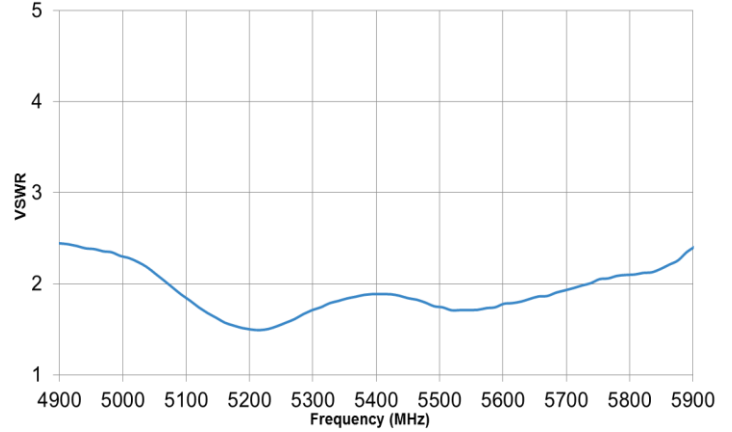
VSWR, Efficiency and Peak Gain Plots

Typical Performance using 100 mm cable tested in Free-space

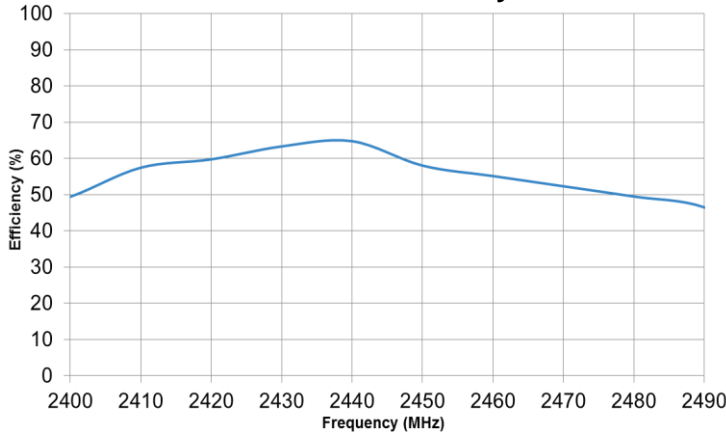
2.4 GHz VSWR



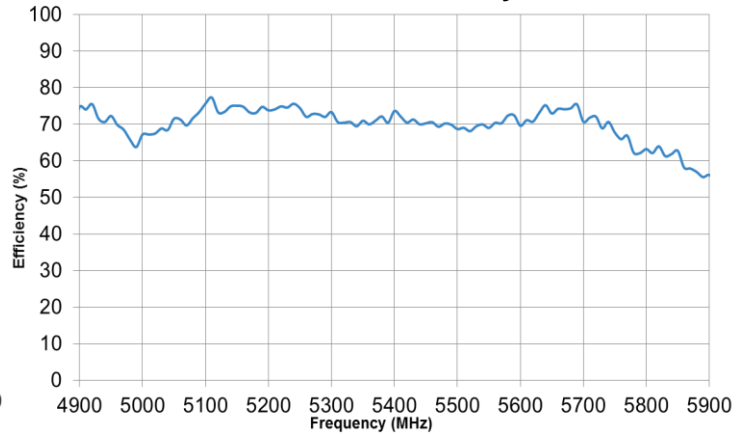
5 GHz VSWR



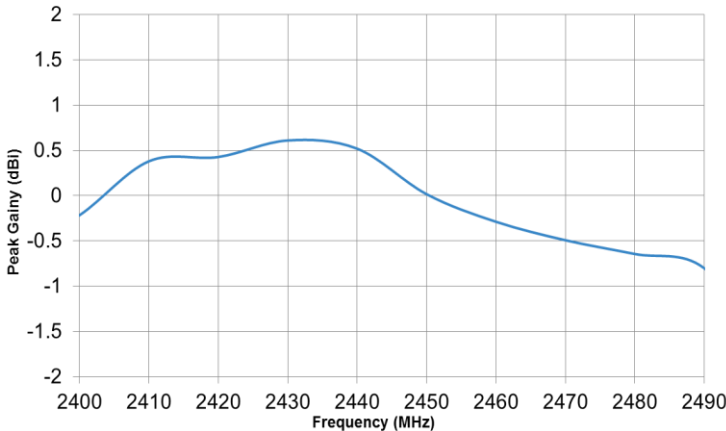
2.4 GHz Efficiency



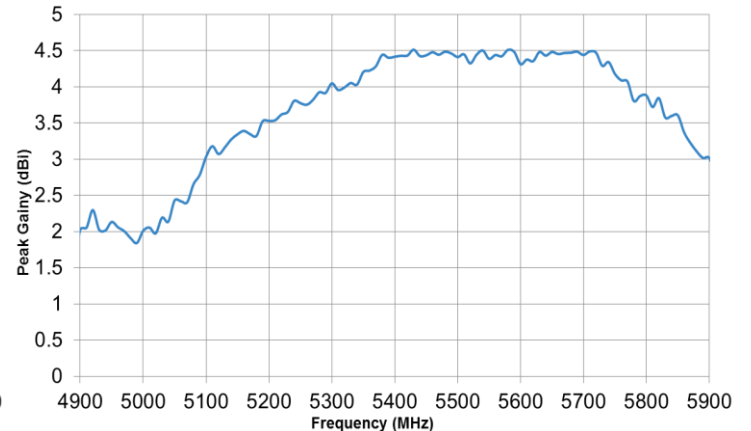
5 GHz Efficiency



2.4 GHz Peak Gain



5 GHz Peak Gain



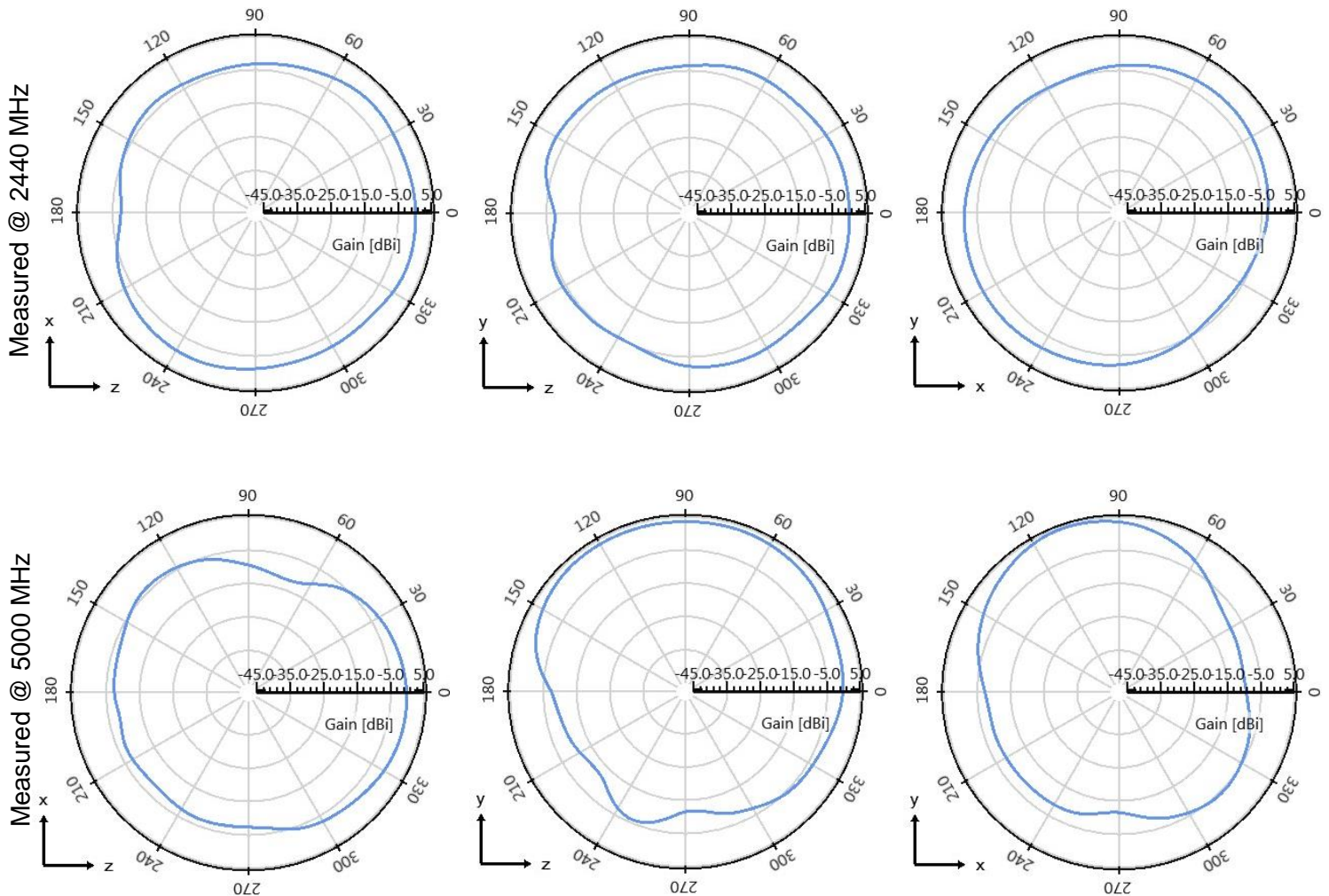
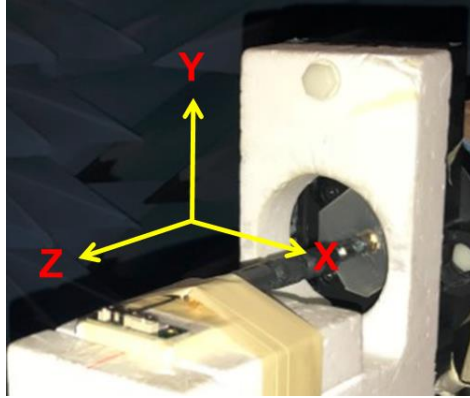


2.4 / 5 GHz Ethertronics' Embedded Antenna Specifications

Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

Antenna Radiation Patterns

Typical performance using 100 mm cable tested in Free-space
Measured @ 2440, 5000 MHz



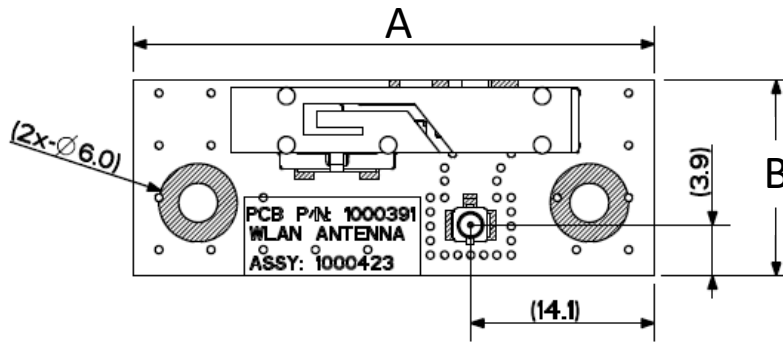


2.4 / 5 GHz Ethertronics' Embedded Antenna Specifications
Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

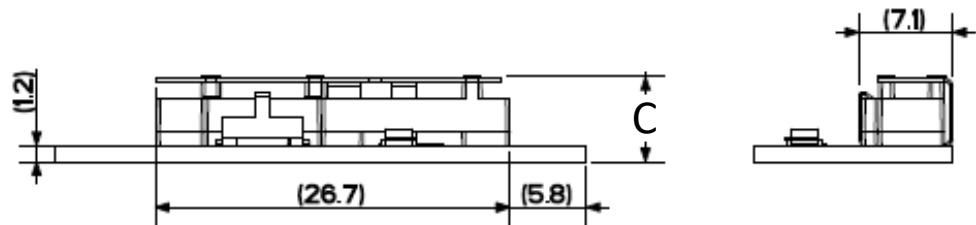
Mechanical Dimensions

Typical antenna dimensions (mm)

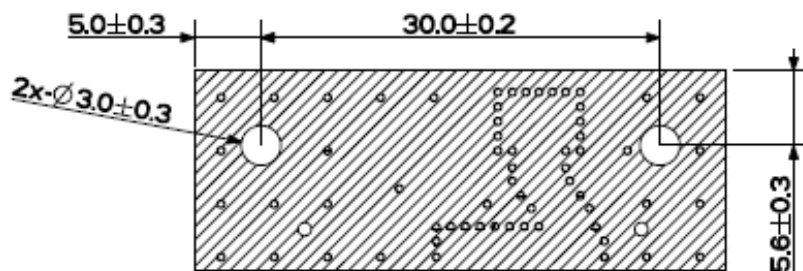
Part Number	A (mm)	B (mm)	C (mm)
1000423	40.0 ± 0.3	15.0 ± 0.3	6.4 ± 0.5



Top View



Side View



Bottom View