

## 5GHz Wire Coil Embedded Antenna

5150-5250/5260-5320/5500-5700/5745-5825MHz

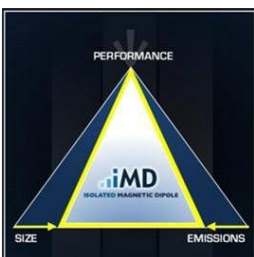


### KEY BENEFITS

Ethertronics' series antennas address the challenges facing today's product designers. Our high performance and isolation characteristics offer better connectivity and minimal interference. The 5GHz wire coil antennas can be used in a variety of applications including:

- M2M
- Automotive
- Automatic Meter Reading
- Healthcare
- Point of Sale
- Tracking

### TECHNOLOGY ADVANTAGES



#### Stays in Tune

Ethertronics antenna technology provides superior RF field containment, resulting in less interaction with surrounding components. Ethertronics antennas resist de-tuning; providing a robust radio link regardless of the usage position.

Ethertronics antennas use specific technology in a custom configuration to provide high performance. Our antennas requires a smaller design keep-out area, carry lower program development risk which yields a quicker time-to-market, without sacrificing RF performance.

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### DESIGN ADVANTAGES

#### Reduced Costs and Time-to-Market

- Standard antenna eliminates design fees and cycle time associated with a custom solution; getting products to market faster.

#### Greater Flexibility with Unique Form Factors

- Ethertronics' technology helps you deliver more advanced ergonomic designs without adverse impact on product performance.
- Easily mountable design enables faster and lower cost manufacturing.

#### RoHS Compliant

- Ethertronics' antennas are fully compliant with the European RoHS Directive 2011/65/EU

### END USER ADVANTAGES

#### Unique Form Factors Support Advanced Industrial Designs

- Smaller, more efficient embedded antennas break through restrictive design rules and provide new freedom in component placement.

#### Superior Range

- 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 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 BRIEF: 5GHz Wire Coil Antenna – P/N 1003326

## Ethertronics' Wifi Wire Coil Embedded Antenna Specifications

### Electrical Specifications

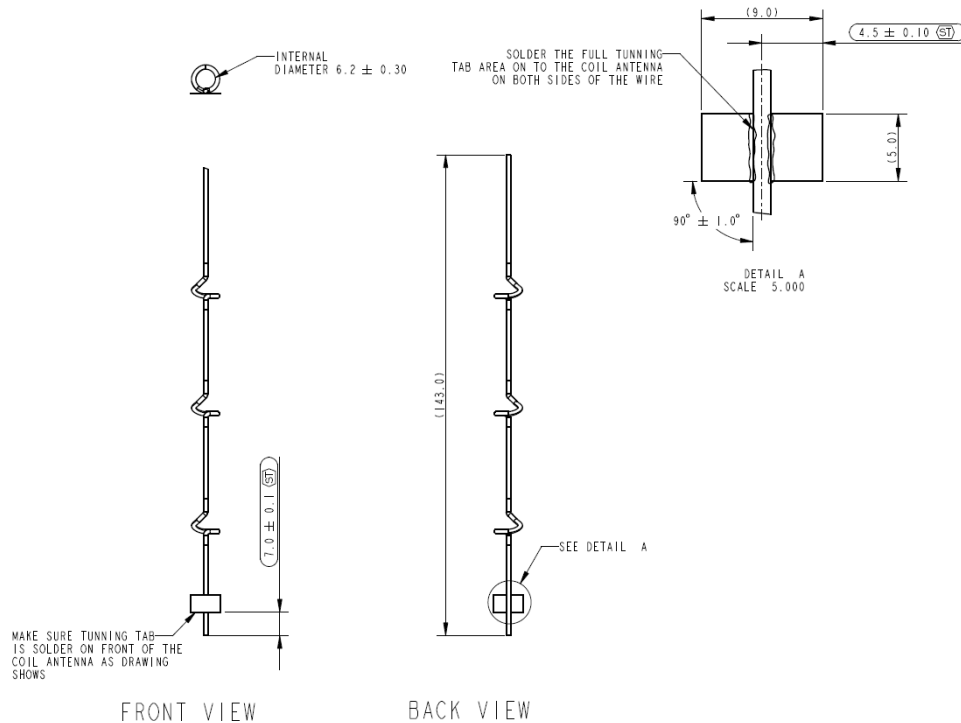
Typical Characteristics

Measurements taken in Free Space (with radius= 60mm circular ground)

2.4GHz Wifi Band	5150-5250MHz	5260-5320MHz	5500-5700MHz	5745-5825MHz
Peak Gain # 1003366(5G3)	5.1dBi	5dBi	5.4dBi	5.1dBi
Peak Gain # 1003366(5G2)	5.2dBi	5.1dBi	5.5dBi	5.2dBi
Peak Gain # 1003366(5G1)	5.7dBi	5.6dBi	6dBi	5.7dBi
Efficiency	82.6%			
VSWR Match	<2:1			
Input Power	2 Watt CW.			
Feed Point Impedance	50 Ω unbalanced			

### Mechanical Specifications

Mechanical Mounting	Antenna Assembly is soldered to connector under ground plane
Packaging	Custom

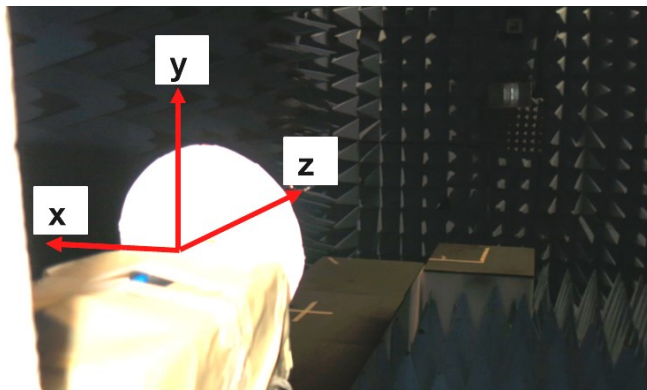


**Important note :** Dimensions and tolerances displayed as a guide and may change without notice. Please contact Ethertronics at [info@ethertronics.com](mailto:info@ethertronics.com) for additional information

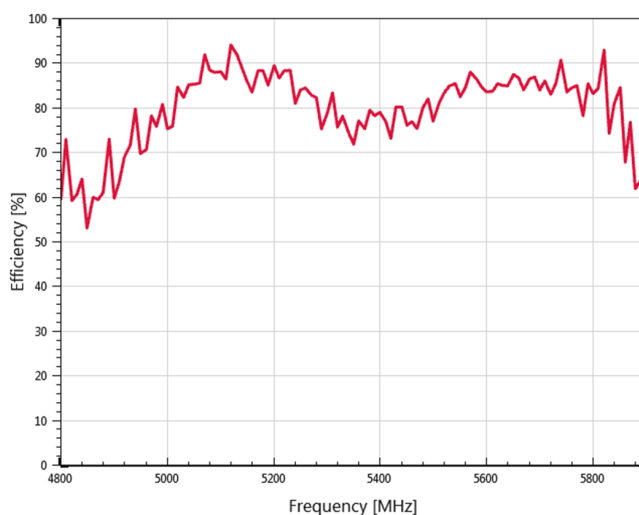
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## Ethertronics' Wifi Wire Coil Embedded Antenna Specifications

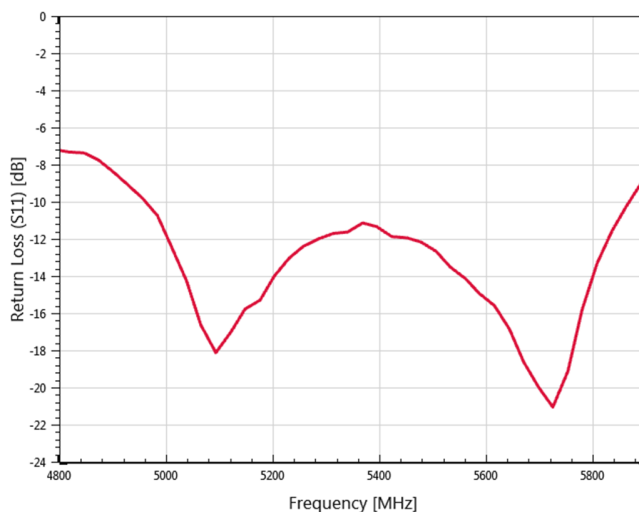
### Test Setup



### Typical Efficiency



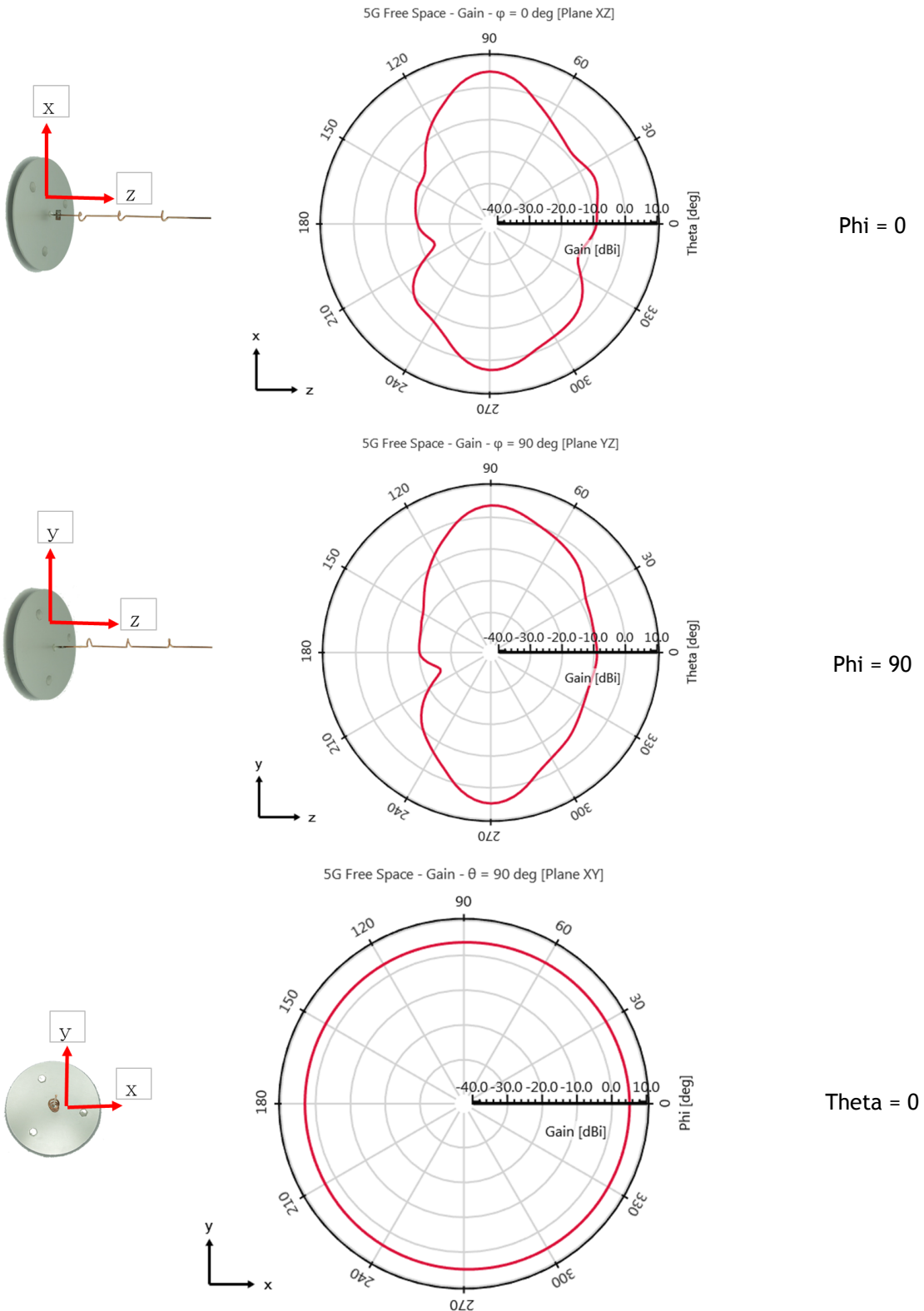
### Typical VSWR



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## Antenna Radiation Patterns

Typical Performance



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