

# Part No. X9001091-W3DSMW

## External Hinged Wi-Fi Dual Band Antenna

2.4 GHz, 5 GHz

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



Ethertronics series of External antennas deliver on the key needs of device designers for higher functionality and performance in access points.

The antenna offers a high gain on both the 2.4 & 5 GHz bands, and can be mounted easily straight or at right angle to the device via an SMA.

### Extensive RF Experience

Our external 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 encompass an integrated network of design centers that provide local customer support.

### Electrical Specifications

Typical Characteristics measured in Free Space tested and 90° bent position

Frequency (GHz)	2.400 – 2.485	5.150 – 5.850
Return Loss	<-14 dB	<-11 dB
Peak Gain	1.8 dBi	4.0 dBi
Average Efficiency	75%	80%
Polarization	Vertical	
Feed Point Impedance	50 ohm	

### Mechanical Specifications & Ordering Part Number

Ordering Part Number	X9001091-W3DSMW
Dimensions (mm)	84.00 ± 2.00 height 9.35 ± 0.10 diameter
Connector Type	SMA Male ( RP-SMA is available. Refer to appendix on last page )
Weight (grams)	12
Hinge	Foldable 90° at the hinge level
Color	White (Black color is available. Refer to appendix on the last page)
Operating Temperature (°C)	-40 to +120
Radome Material	TPEE

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#### KEY BENEFITS

##### Quicker Time-to-Market

Standard part means fewer design changes with, simple implementation

Easy Assembly using RP-SMA or SMA

##### Best in Class Performance

External antennas are designed to maintain high efficiency in a variety of device configurations

##### Great Flexibility

Standard connector to makes easy set-up

##### RoHS Compliant

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
- IoT

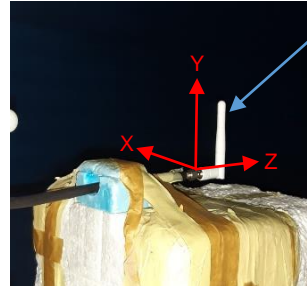
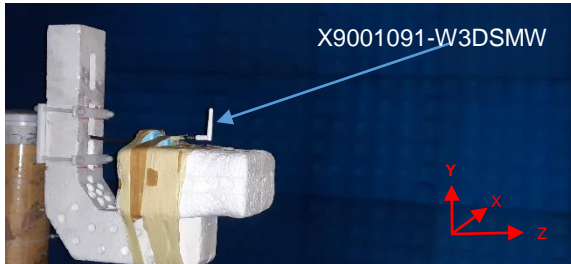


## 2.4 / 5 GHz External Wi-Fi antenna specifications

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

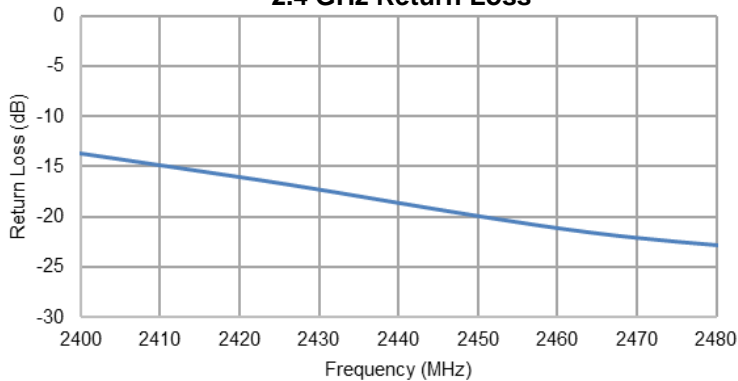
### Return Loss, Efficiency, and Peak Gain Plots

Typical performance measured in free space, and in 90° bent position

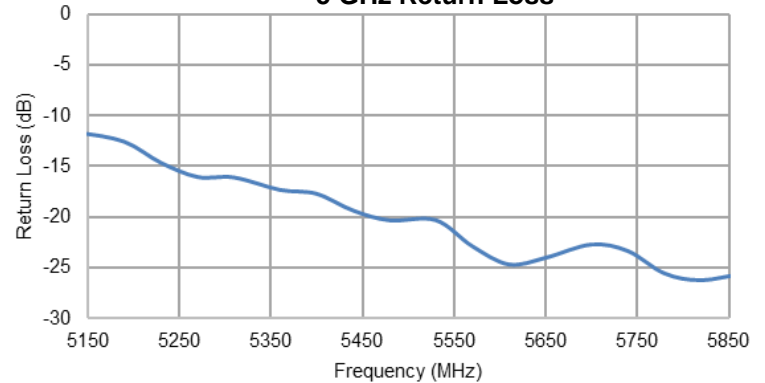


X9001091-W3DSMW  
in 90° bent position

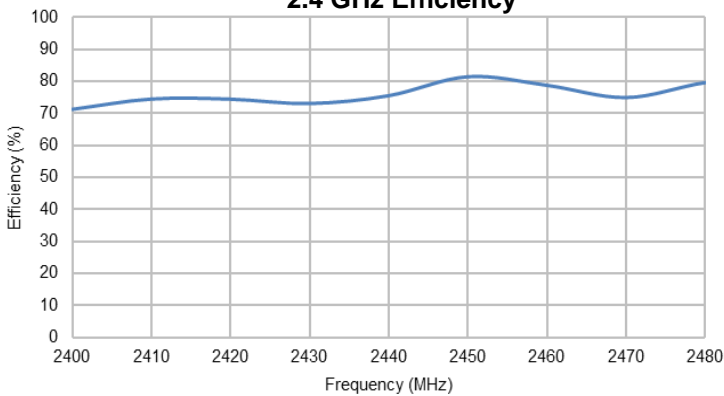
#### 2.4 GHz Return Loss



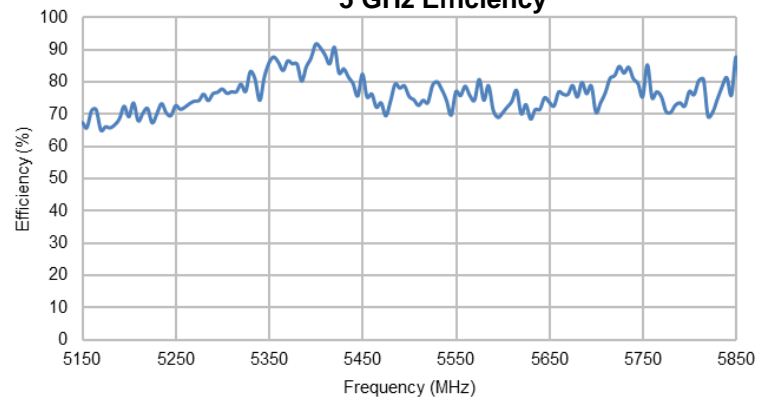
#### 5 GHz Return Loss



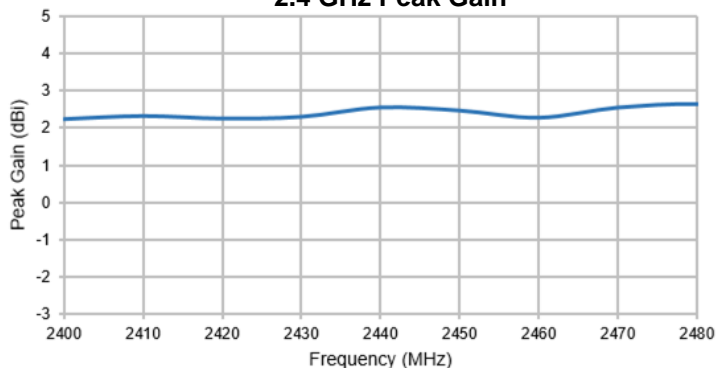
#### 2.4 GHz Efficiency



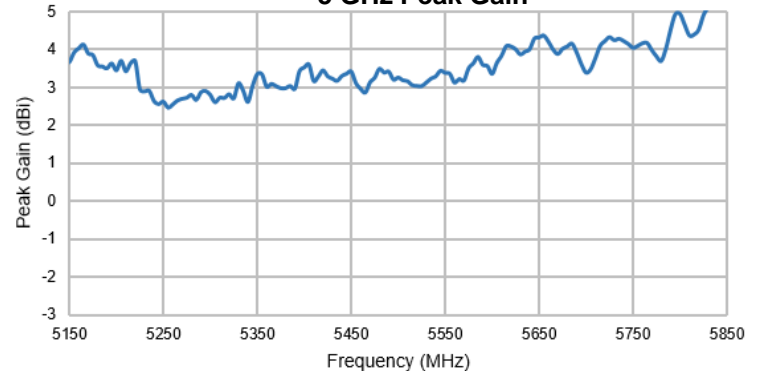
#### 5 GHz Efficiency



#### 2.4 GHz Peak Gain



#### 5 GHz Peak Gain





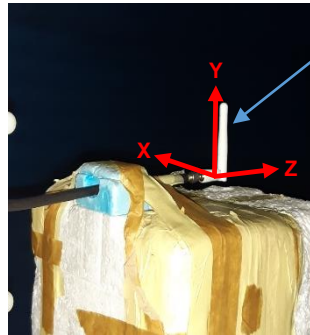
## 2.4 / 5 GHz External Wi-Fi antenna specifications

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### Radiation Patterns Plots

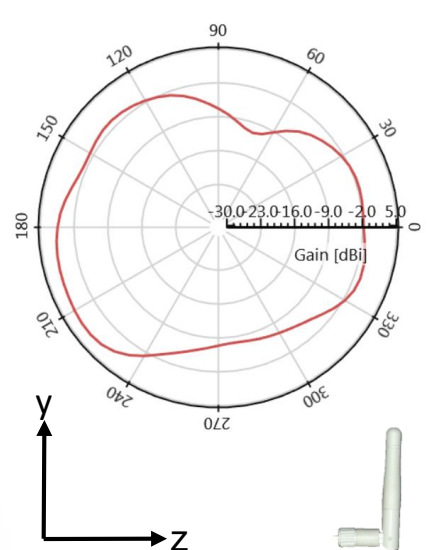
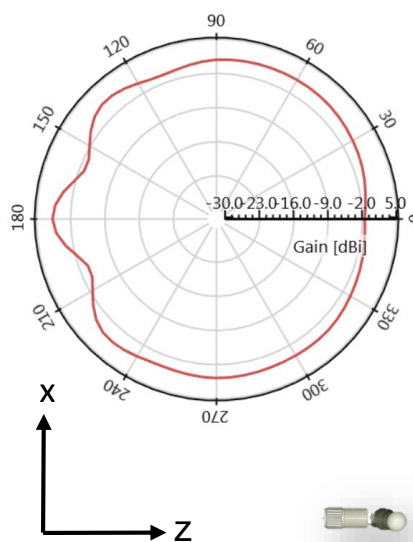
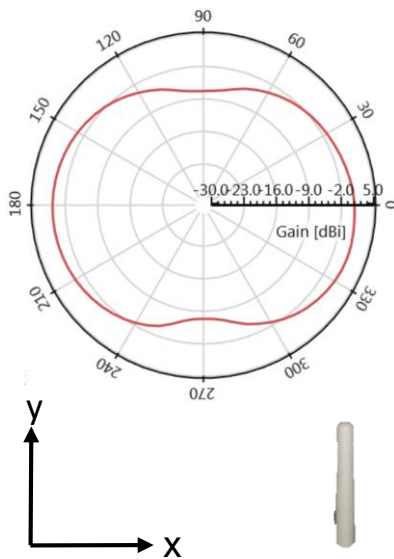
Typical performance measured in free space, and in 90° bent position

Measured at 2.44 GHz, 5.55 GHz

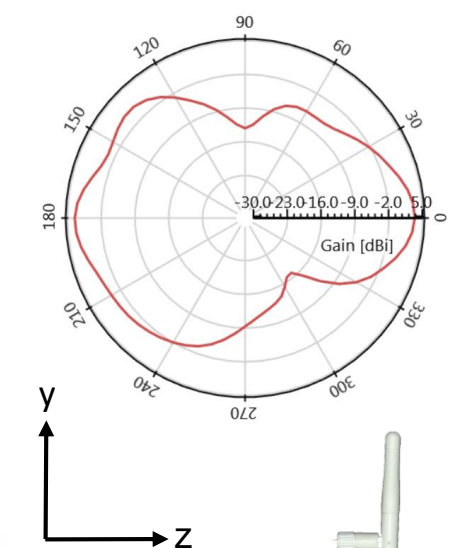
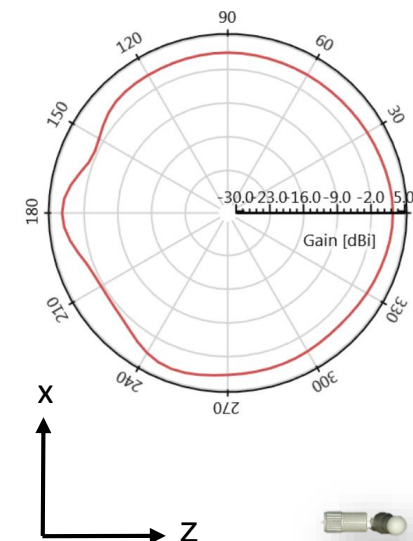
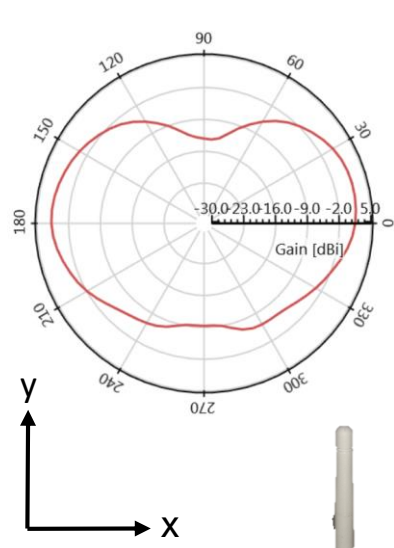


X9001091-W3DSMW

Measured at 2.44 GHz



Measured at 5.55 GHz





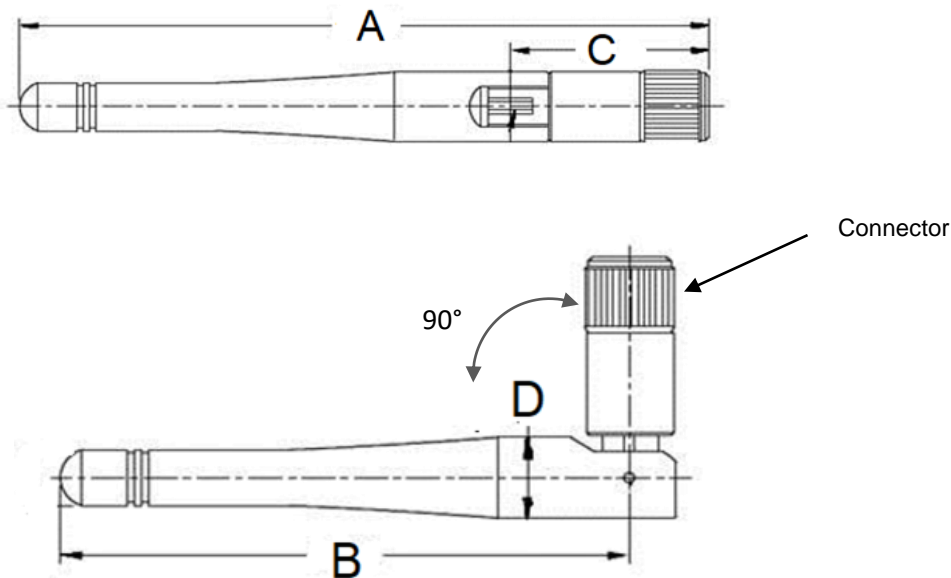
2.4 / 5 GHz External Wi-Fi antenna specifications

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

**Mechanical Specifications**

Typical antenna dimensions in mm

Part Number	A (mm)	B (mm)	C (mm)	D (mm)	Color	Connector
X9001091-W3DSMW	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	White	SMA Male
X9001091-W3DRMW	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	White	RP-SMA Male
X9001091-W3DSMB	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	Black	SMA Male
X9001091-W3DRMB	84.00 ± 2.00	58.00 ± 2.00	25.80 ± 2.00	9.35 ± 0.10	Black	RP-SMA Male



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