

# Part No. X9001376-4GDRMB

## External EU 4G / LTE Antenna

790 – 960 MHz / 1710 – 2690 MHz

Supports: LTE Cat 1, LTE-M, SigFox, LoRa, NB-IoT, M2M applications, IoT Gateways, Routers, Access point, Cellular LPWAN



### External EU 4G / LTE Antenna

Low Band: 790 - 960 MHz  
High Band: 1710 - 2690 MHz

#### 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

- Gateways
- Telematics
- Smart metering
- Home automation
- Smart city
- Structural health monitoring
- Predictive maintenance

Ethertronics series of External antennas deliver on the key needs of device designers for higher functionality and performance in access point, with wide range of frequency options.

X9001376 is an IP67 black antenna, which offers protection against dust tight and water. This antenna provides a high gain suited for 4G LTE applications. The antenna can be mounted easily to the device via an RP- SMA.

#### Electrical Specifications

Typical Characteristics in Free Space

| Frequency (MHz)      | 790 – 960  | 1710 – 2690 |
|----------------------|------------|-------------|
| Return Loss          | < -3.00 dB | <-7.33 dB   |
| Peak Gain            | 1.16 dBi   | 2.50 dBi    |
| Average Efficiency   | 63 %       | 62 %        |
| Polarization         | Linear     |             |
| Feed Point Impedance | 50 ohm     |             |

#### Mechanical Specifications & Ordering Part Number

| Ordering Part Number       | X9001376-4GDRMB   |
|----------------------------|---|
| Dimensions (mm)            | 180.00 ± 2.00 height<br>12.98 ± 0.20 diameter                             |
| Connector Type             | RP-SMA  |
| Weight (grams)             | 24  |
| Color                      | Black<br>(White color available upon request with the PN X9001376-4GDRMW) |
| Operating Temperature (°C) | - 40 to +120  |
| Radome Material            | TPEE  |
| IP Rating                  | IP67  |



EU 4G / LTE External antenna specifications

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

LTE Bands covered by X9001376

| LTE Band | Frequency Band (MHz) | Uplink (UL) (MHz) | Downlink (DL) (MHz) | Region  | Covered |
|----------|----------------------|-------------------|---------------------|---------|---------|
| 1        | 2100                 | 1920 - 1980       | 2110 - 2170         | Global  | Yes     |
| 2        | 1900                 | 1850 - 1910       | 1930 - 1990         | NAM     |         |
| 3        | 1800                 | 1710 - 1785       | 1805 - 1880         | Global  |         |
| 4        | 1700                 | 1710 - 1755       | 2110 - 2155         | NAM     |         |
| 5        | 850                  | 824 - 849         | 869 - 894           | NAM     |         |
| 6        | 850                  | 830 - 840         | 875 - 885           | APAC    |         |
| 7        | 2600                 | 2500 - 2570       | 2620 - 2690         | EMEA    |         |
| 8        | 900                  | 880 - 915         | 925 - 960           | Global  |         |
| 9        | 1800                 | 1749.9 - 1784.9   | 1844.9 - 1879.9     | APAC    |         |
| 10       | 1700                 | 1710 - 1770       | 2110 - 2170         | NAM     |         |
| 11       | 1500                 | 1427.9 - 1447.9   | 1475.9 - 1495.9     | Japan   | No      |
| 12       | 700                  | 699 - 716         | 729 - 746           | NAM     |         |
| 13       | 700                  | 777 - 787         | 746 - 756           | NAM     |         |
| 14       | 700                  | 788 - 798         | 758 - 768           | NAM     |         |
| 17       | 700                  | 704 - 716         | 734 - 746           | NAM     |         |
| 18       | 850                  | 815 - 830         | 860 - 875           | Japan   | Yes     |
| 19       | 850                  | 830 - 845         | 875 - 890           | Japan   |         |
| 20       | 800                  | 832 - 862         | 791 - 821           | EMEA    |         |
| 21       | 1500                 | 1447.9 - 1462.9   | 1495.9 - 1510.9     | Japan   | No      |
| 22       | 3500                 | 3410 - 3490       | 3510 - 3590         | EMEA    | Yes     |
| 23       | 2000                 | 2000 - 2020       | 2180 - 2200         | NAM     | No      |
| 24       | 1600                 | 1626.5 - 1660.5   | 1525 - 1559         | NAM     | Yes     |
| 25       | 1900                 | 1850 - 1915       | 1930 - 1995         | NAM     | Yes     |
| 26       | 850                  | 814 - 849         | 859 - 894           | NAM     | Yes     |
| 27       | 850                  | 807 - 824         | 852 - 869           | NAM     | No      |
| 28       | 700                  | 703 - 748         | 758 - 803           | APAC,EU | No      |
| 29       | 700                  | N/A               | 717 - 728           | NAM     | Yes     |
| 30       | 2300                 | 2305 - 23151      | 2350 - 2360         | NAM     | No      |
| 31       | 450                  | 452.5 - 457.5     | 462.5 - 467.5       | Global  | No      |
| 32       | 1500                 | N/A               | 1452 - 1496         | EMEA    | Yes     |
| 33       | 1900                 |                   | 1900 - 1920         |         |         |
| 34       | 2000                 |                   | 2010 - 2025         |         |         |
| 35       | 1850                 |                   | 1850 - 1910         |         |         |
| 36       | 1900                 |                   | 1930 - 1990         |         |         |
| 37       | 1900                 |                   | 1910 - 1930         |         |         |
| 38       | 2600                 |                   | 2570 - 2620         |         |         |
| 39       | 1900                 |                   | 1880 - 1920         |         |         |
| 40       | 2300                 |                   | 2300 - 2400         |         |         |
| 41       | 2500                 |                   | 2496 - 2690         |         |         |
| 42       | 3500                 |                   | 3400 - 3600         |         | No      |
| 43       | 3700                 |                   | 3600 - 3800         |         |         |

NAM: North America, EMEA: Europe, Middle East, and Africa, APAC: Asia-Pacific, EU: Europe



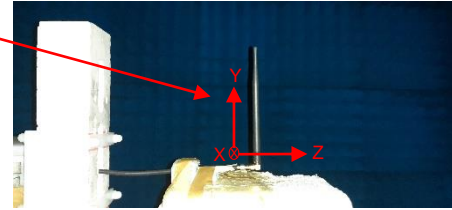
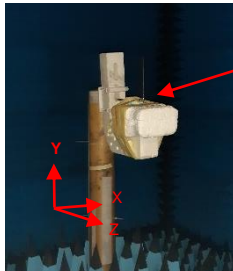
EU 4G / LTE External antenna specifications

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

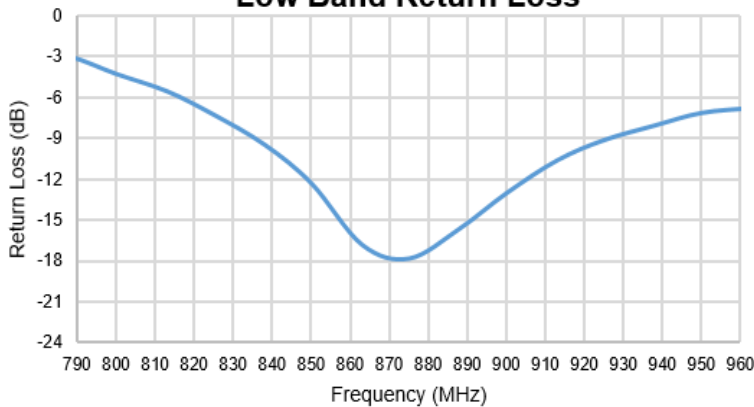
**Return Loss, Efficiency and Peak Gain Plots**

Typical performance measured in Free Space

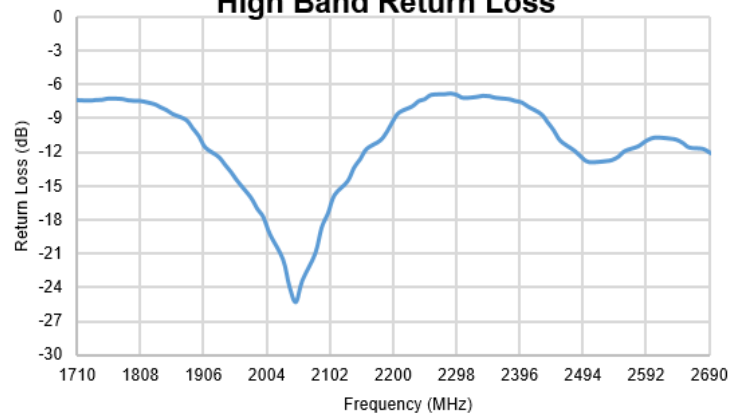
X9001376-4GDRMB



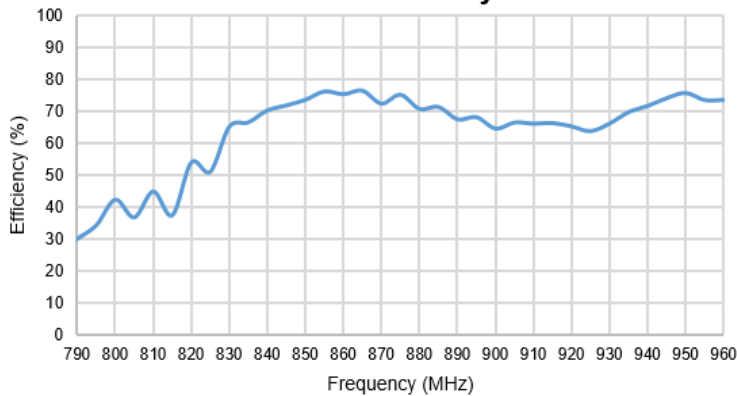
**Low Band Return Loss**



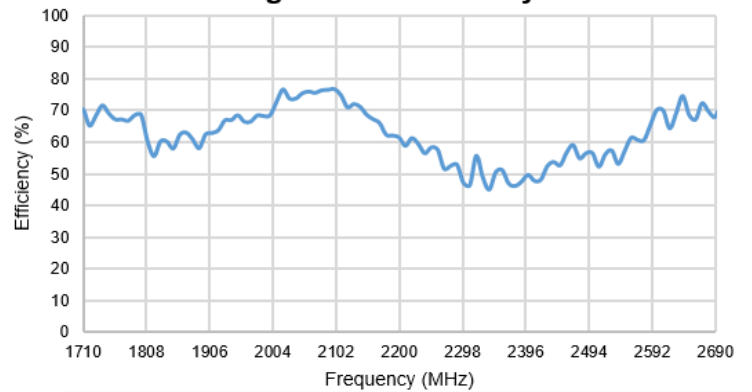
**High Band Return Loss**



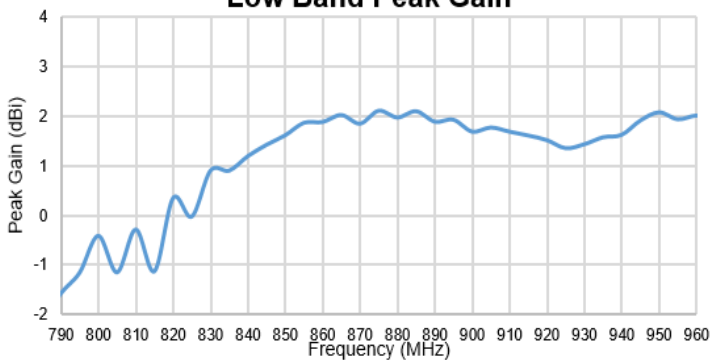
**Low Band Efficiency**



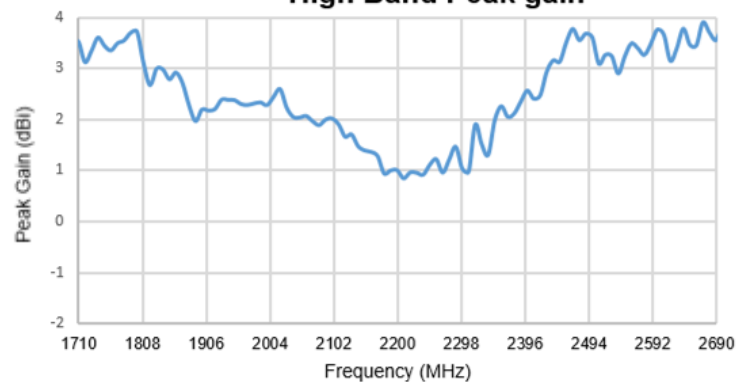
**High Band Efficiency**



**Low Band Peak Gain**



**High Band Peak gain**





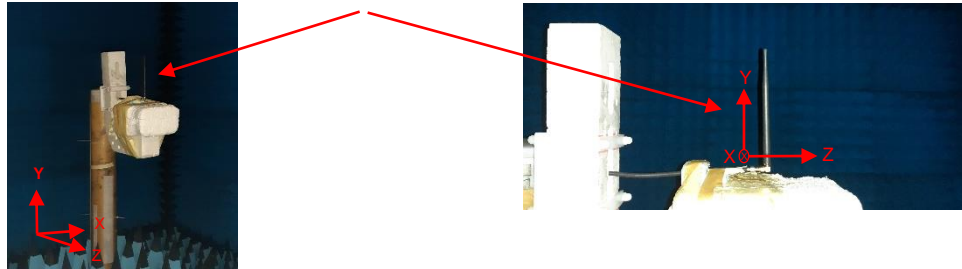
**EU 4G / LTE External antenna specifications**

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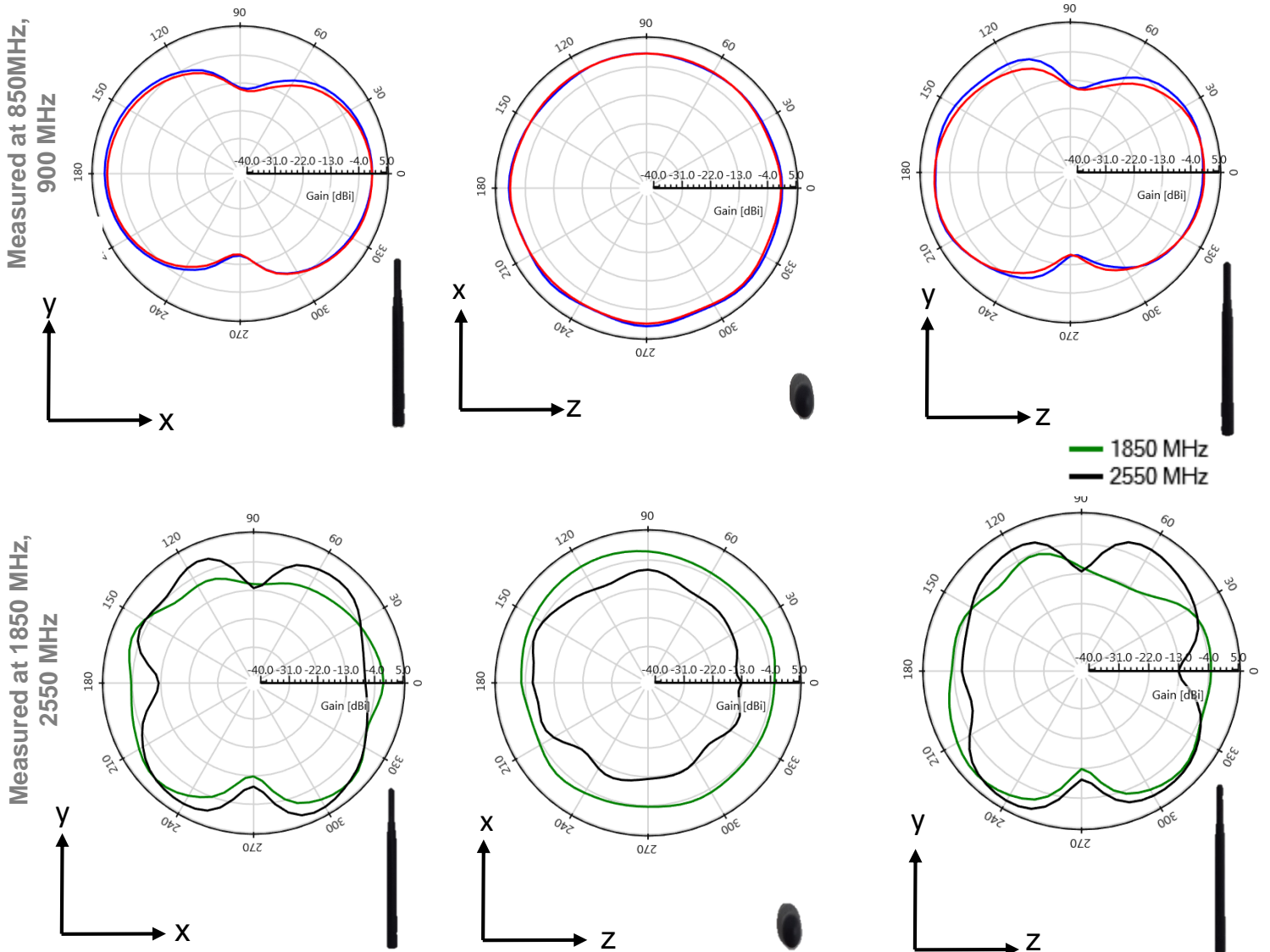
**Radiation Patterns Plots**

Typical performance measured in Free Space

X9001376-4GDRMB



— 850 MHz  
— 900 MHz





EU 4G / LTE External antenna specifications

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**Mechanical Specifications**

Typical antenna dimensions in mm

| Part Number     | A (mm)        | B (mm)       | Connector |
|-----------------|---------------|--------------|-----------|
| X9001376-4GDRMB | 180.00 ± 2.00 | 12.98 ± 0.20 | RP-SMA    |

