

# External Combo Antenna LTE/GPS



AEACBK050048-C2LG



Ø50.0 x 48.0 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Features

- 4G/LTE full band coverage
- Active GPS with LNA gain of 28 dB
- IP66 rated
- Screw mount
- RHCP for GPS antenna

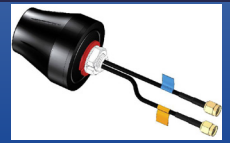
## Applications

- 4G/LTE/3G/2G/GSM applications
- GNSS/GPS
- Telematics
- M2M
- IoT and Industrial IoT
- Geolocation and tracking
- Transportation and agriculture
- Smart city

## Electrical Characteristics

| Parameters          | Min.   | Typ.              | Max. | Units | Note     |
|---------------------|--------|-------------------|------|-------|----------|
| LTE Antenna         |        |                   |      |       |          |
| Frequency Range     |        | 698-960/1710-2690 |      | MHz   |          |
| VSWR                |        |                   | 3.0  |       |          |
| Polarization        | Linear |                   |      |       |          |
| Impedance           |        | 50                |      | Ω     |          |
| Gain                |        | 2.0               |      | dBi   |          |
| GPS Antenna         |        |                   |      |       |          |
| Center Frequency    |        | 1575.42±1         |      | MHz   |          |
| Bandwidth           |        | CF±5              |      | MHz   |          |
| Polarization        |        | RHCP              |      |       |          |
| Gain                |        | 2                 |      | dBic  | Zenith   |
| VSWR                |        |                   | 1.5  |       |          |
| Impedance           |        | 50                |      |       |          |
| Axial Ratio         |        |                   | 3    | dB    |          |
| LNA                 |        |                   |      |       |          |
| Gain                |        | 28±2              |      | dB    |          |
| Noise Figure        |        |                   | 1.5  | dB    |          |
| VSWR                |        |                   | 2.0  |       |          |
| Ex-band Attenuation |        | 12                |      | dB    | CF+50MHz |
|                     |        | 16                |      | dB    | CF-50MHz |
| Supply Voltage      | 2.2    |                   | 5.0  | V     | DC       |
| Current Consumption | 5      |                   | 15   | mA    |          |

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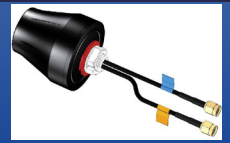
## Mechanical Characteristics

| Parameters   | Description     |
|--------------|-----------------|
| Connector    | SMA Male        |
| Cable Type   | RG174           |
| Cable Length | 3M              |
| Material     | ABS             |
| Mount way    | Screw           |
| Dimensions   | Φ50.0 x 48.0 mm |

## Environmental Characteristics

| Parameters            | Description                             |
|-----------------------|---|
| Waterproof            | IP66 (excluding cable outlet)           |
| Operating Temperature | -40 ~ +85 °C                            |
| Relative Humidity     | Up to 95%                               |
| MSL Level             | 1                                       |
| ROHS Complaint        | Yes                                     |
| Vibration             | 10 to 55Hz with 1.5mm amplitude 2 hours |

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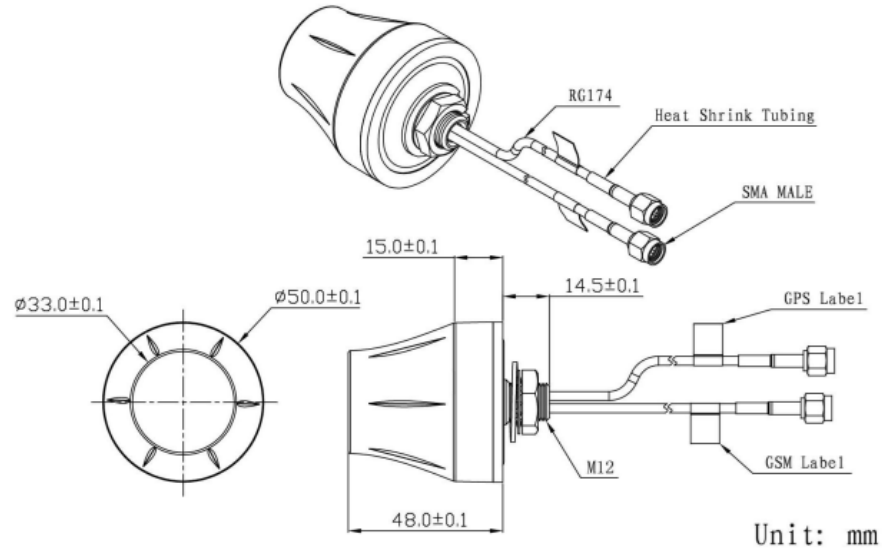


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## Dimensions



## Product Image



# External Combo Antenna LTE/GPS

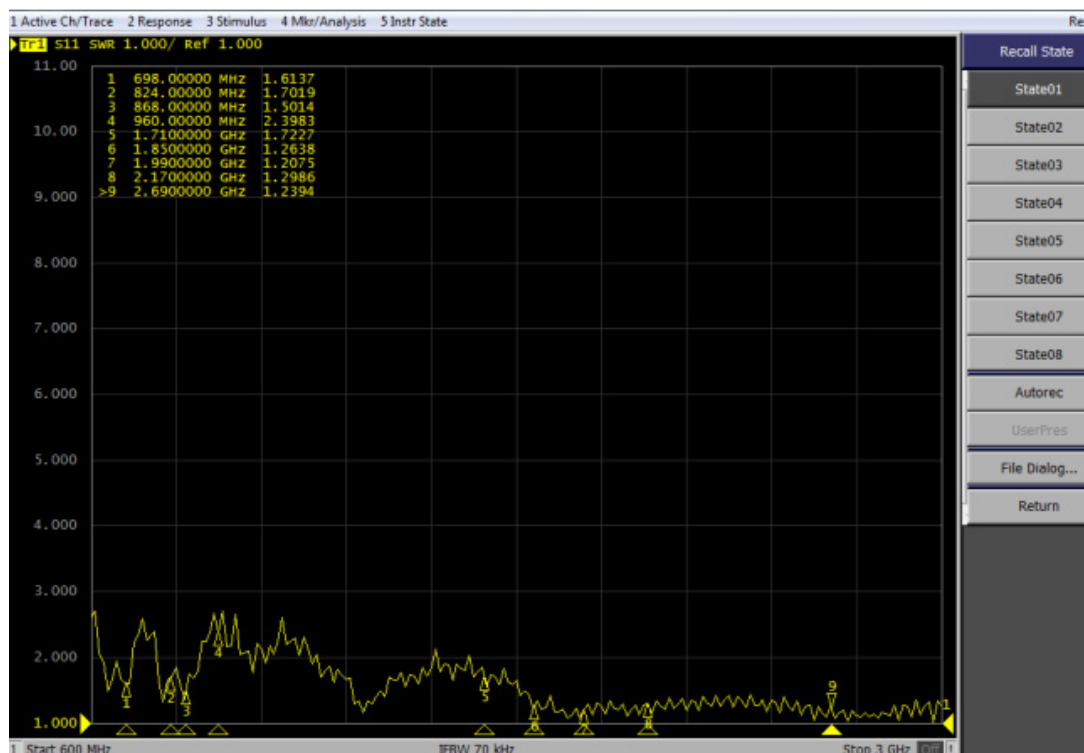


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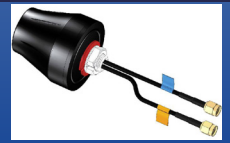
## VSWR Characteristics



## Gain and Efficiency

| Frequency (MHz) | Efficiency | Gain (dBi) |
|-----------------|------------|------------|
| 698             | 0.53       | 1.05       |
| 824             | 0.65       | 2.38       |
| 868             | 0.61       | 1.12       |
| 960             | 0.56       | 1.0        |
| 1710            | 0.49       | 0.9        |
| 1850            | 0.52       | 0.3        |
| 1990            | 0.57       | 0.73       |
| 2170            | 0.63       | 1.96       |
| 2690            | 0.53       | 1.94       |

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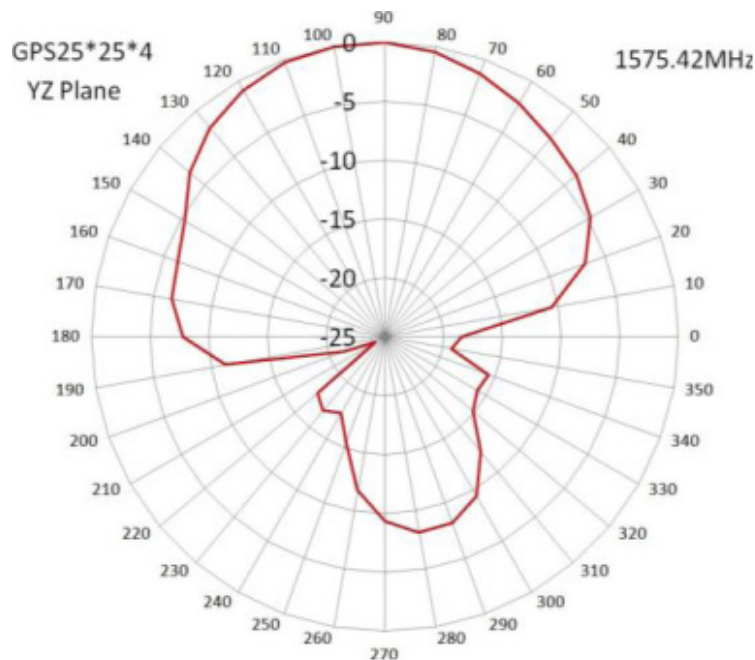
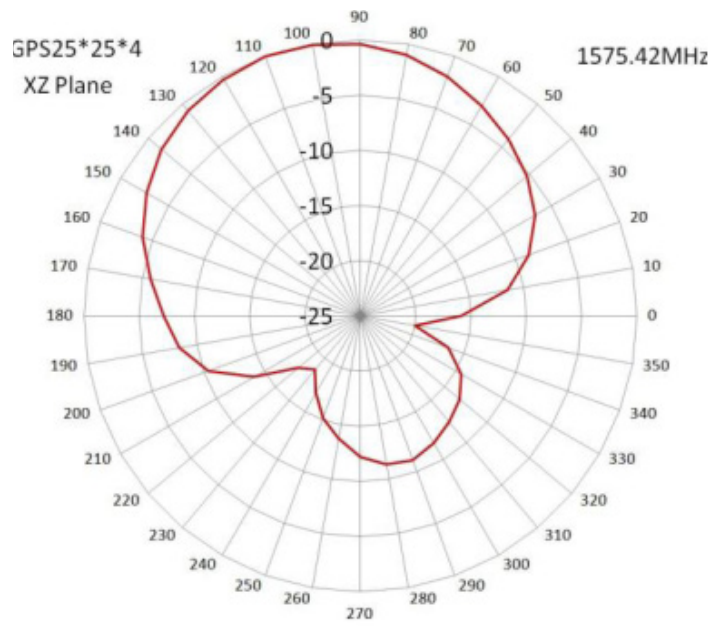
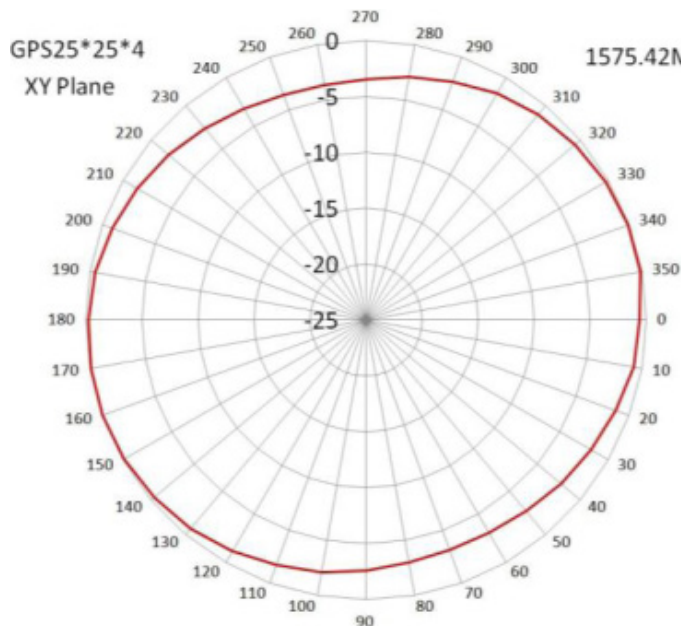
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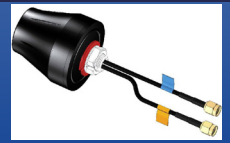
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## Radiation Patterns

2D Radiation Patterns  
GPS Antenna



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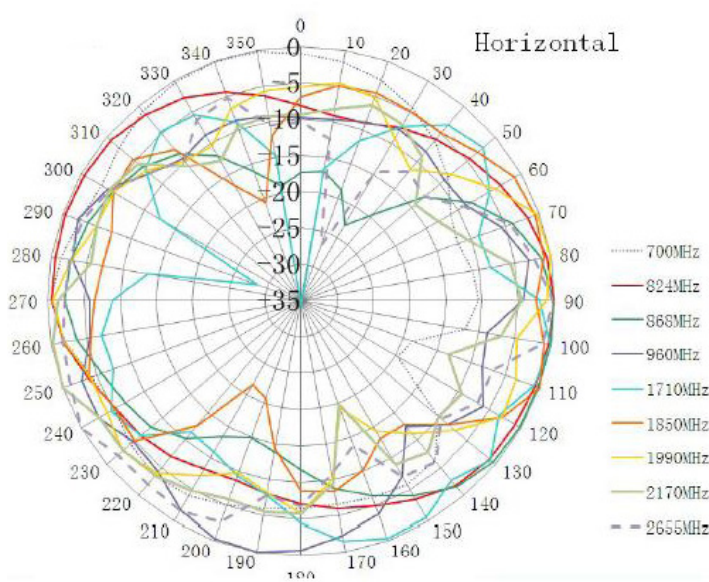
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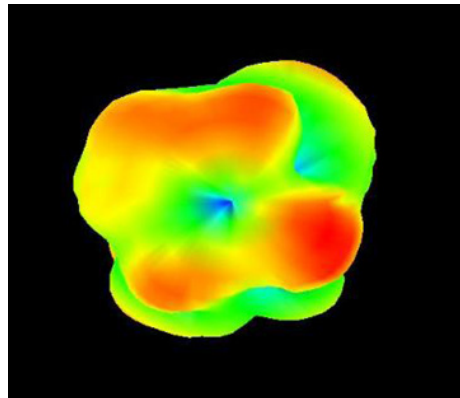
## Radiation Patterns

LTE Antenna

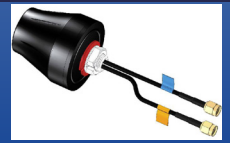


## 3D Radiation Patterns

GPS Antenna  
1575.42 MHz



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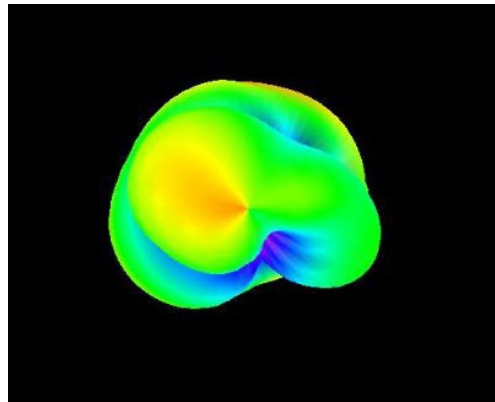
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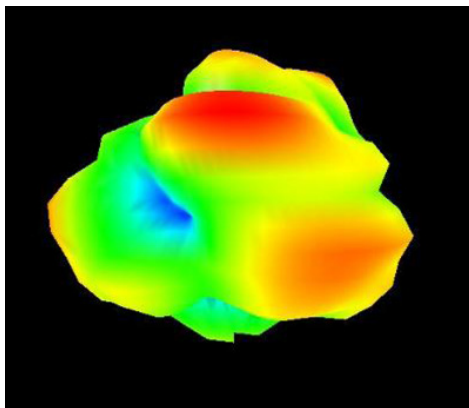
Ø50.0 x 48.0 mm  
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## 3D Radiation Patterns

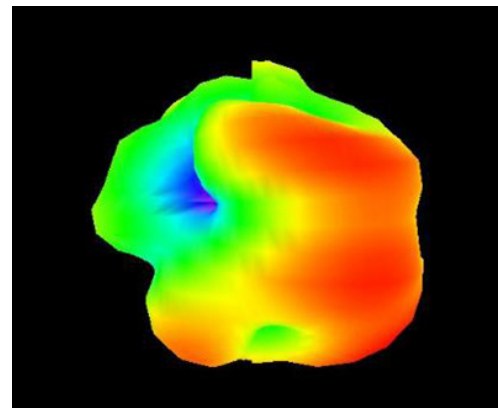
LTE Antenna  
698 MHz



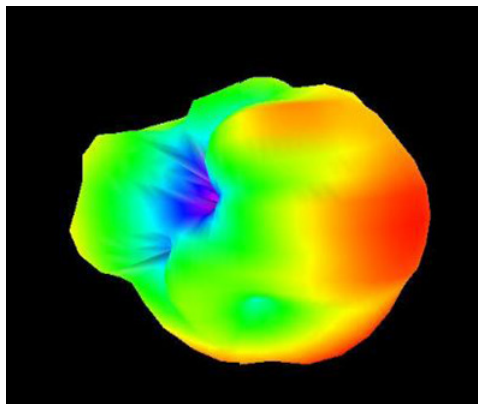
824 MHz



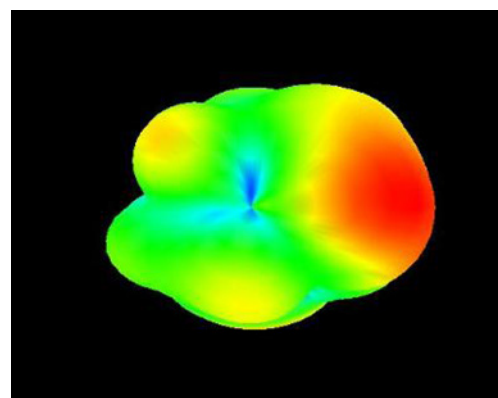
880 MHz



960 MHz



1710 MHz



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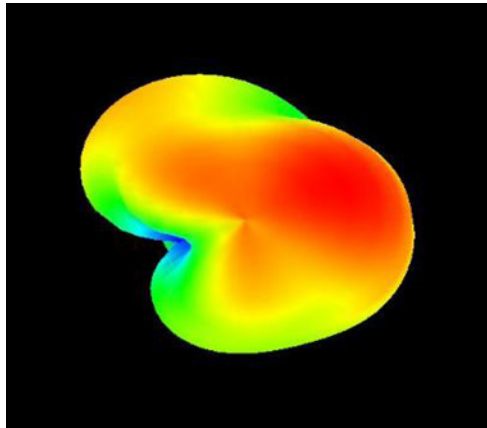
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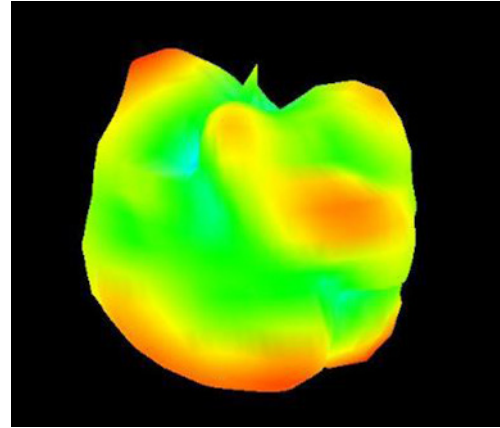
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## 3D Radiation Patterns

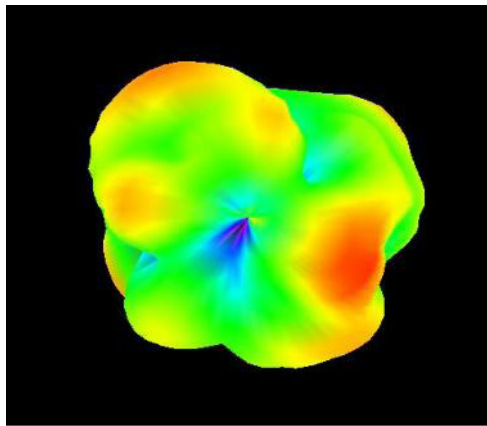
1850 MHz



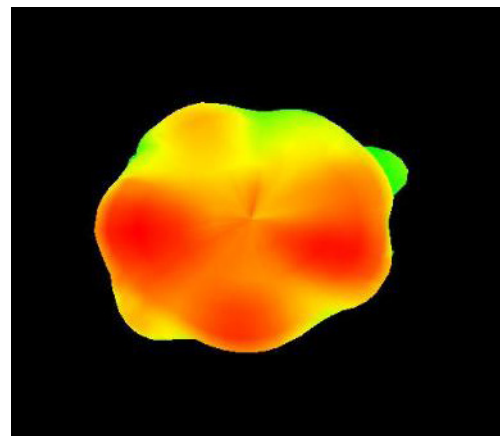
1990 MHz



2170 MHz



2670 MHz



## Packaging

Each 70 x 32 x 15 cm size carton includes 100 pcs antenna, weighs 15 kg.

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