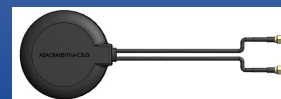


# External Combo Antenna LTE/GPS



AEACBA081016-C2LG



Ø81.6 x 16.2 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Features

- 4G/LTE full band coverage
- Active GPS with LNA gain of 28 dB
- IP67 rated
- Adhesive mount
- RHCP for GPS antenna

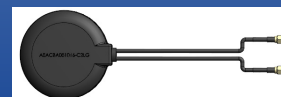
## Applications

- 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                |        | 2.5               |      | dBi   |        |
| GPS Antenna         |        |                   |      |       |        |
| Center Frequency    |        | 1575.42±3         |      | MHz   |        |
| Bandwidth           |        | CF±5              |      | MHz   |        |
| Polarization        |        | RHCP              |      |       |        |
| Gain                |        | 2                 |      | dBic  | Zenith |
| VSWR                |        |                   | 2.0  |       |        |
| Impedance           |        | 50                |      |       |        |
| Axial Ratio         |        |                   | 3    | dB    |        |
| LNA                 |        |                   |      |       |        |
| Gain                |        | 28±2              |      | dB    |        |
| Noise Figure        |        |                   | 1.5  | dB    |        |
| VSWR                |        |                   | 2.0  |       |        |
| Supply Voltage      |        | 2.2~5.0           |      | V     | DC     |
| Current Consumption |        |                   | 15   | mA    |        |

# External Combo Antenna LTE/GPS



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Ø81.6 x 16.2 mm  
RoHS/RoHS II Compliant  
MSL = 1

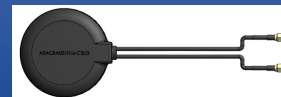
## Mechanical Characteristics

| Parameters   | Description  |
|--------------|--------------|
| Connector    | SMA Male     |
| Cable Type   | RG174        |
| Cable Length | 3M           |
| Material     | ABS          |
| Mount way    | Adhesive     |
| Dimensions   | Φ81.6x16.2mm |

## Environmental Characteristics

| Parameters            | Description                             |
|-----------------------|-----------------------------------------|
| Waterproof            | IP67                                    |
| 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 |

# External Combo Antenna LTE/GPS

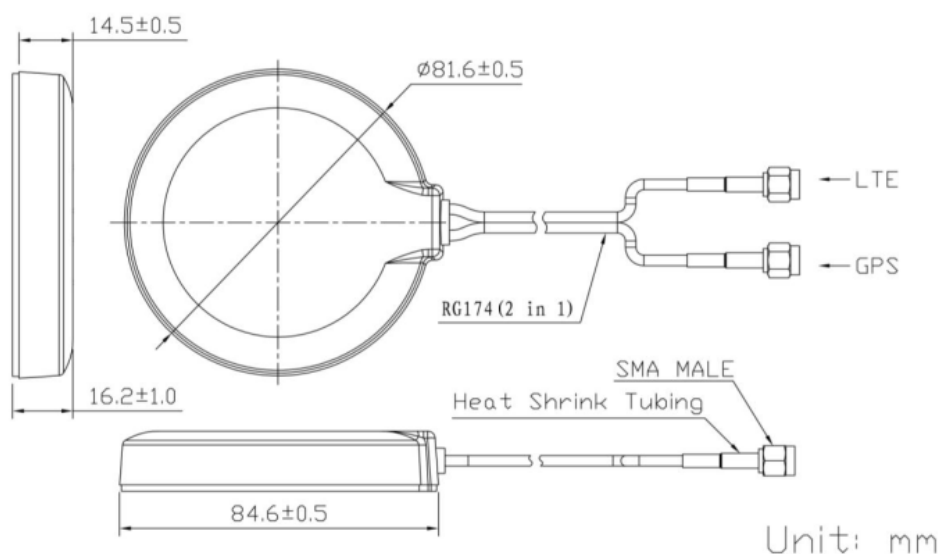


AEACBA081016-C2LG

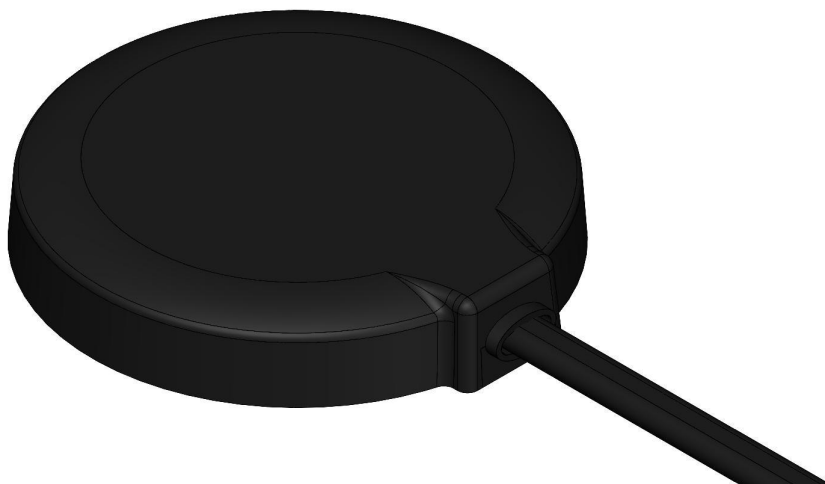


Ø81.6 x 16.2 mm  
RoHS/RoHS II Compliant  
MSL = 1

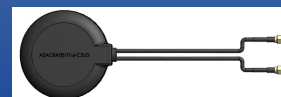
## Dimensions



## Product Image



# External Combo Antenna LTE/GPS

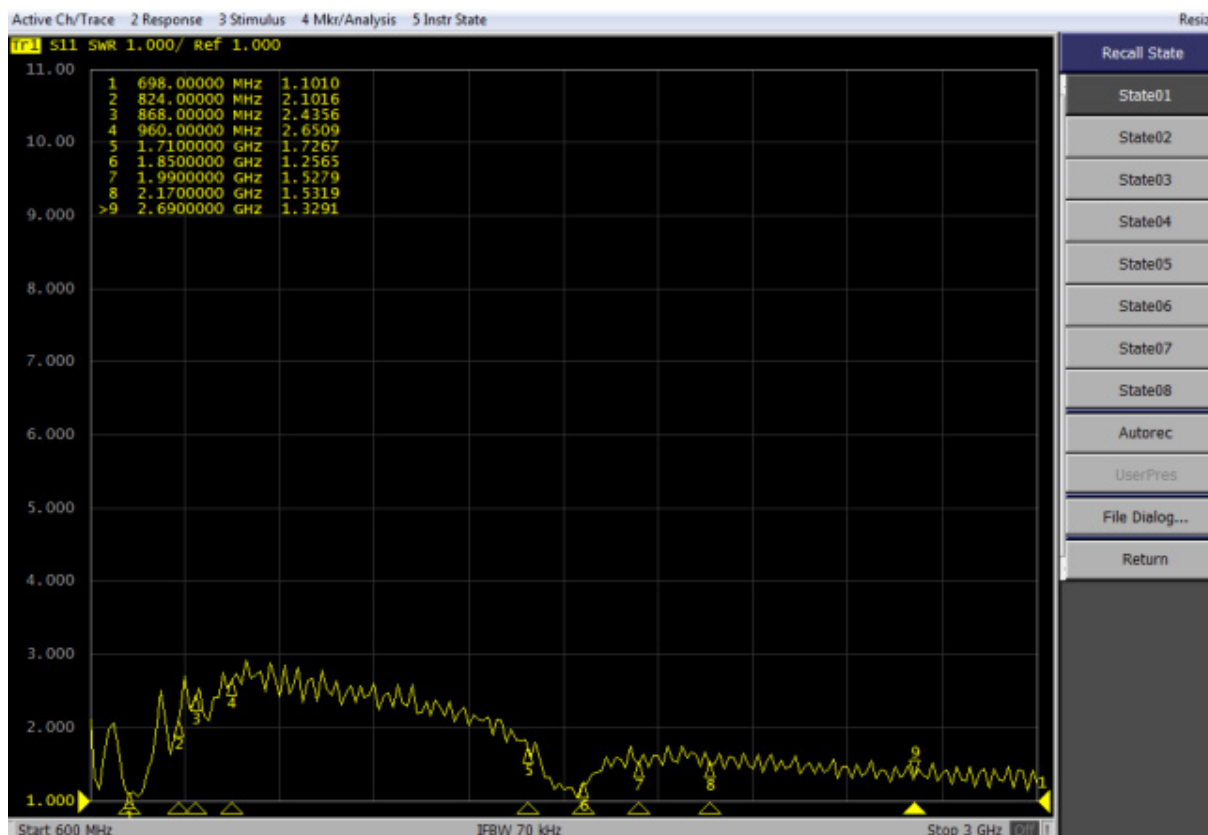


AEACBA081016-C2LG



Ø81.6 x 16.2 mm  
RoHS/RoHS II Compliant  
MSL = 1

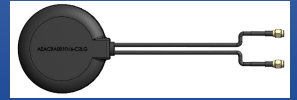
## VSWR Characteristics



## Gain and Efficiency

| Frequency (MHz) | Efficiency | Gain (dBi) |
|-----------------|------------|------------|
| 698             | 0.69       | 2.23       |
| 824             | 0.58       | 2.38       |
| 868             | 0.55       | 1.12       |
| 960             | 0.54       | 1.0        |
| 1710            | 0.57       | 0.9        |
| 1850            | 0.52       | 0.3        |
| 1990            | 0.57       | 0.73       |
| 2170            | 0.59       | 1.96       |
| 2690            | 0.58       | 1.94       |

# External Combo Antenna LTE/GPS

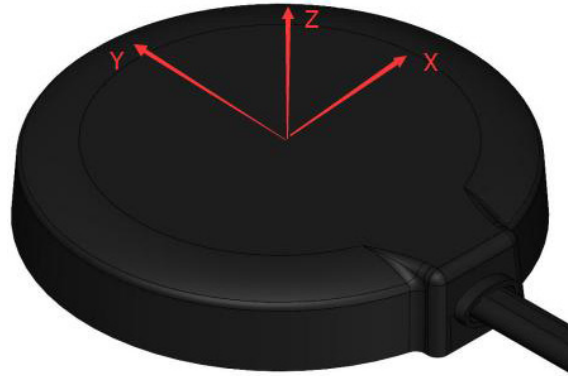


AEACBA081016-C2LG



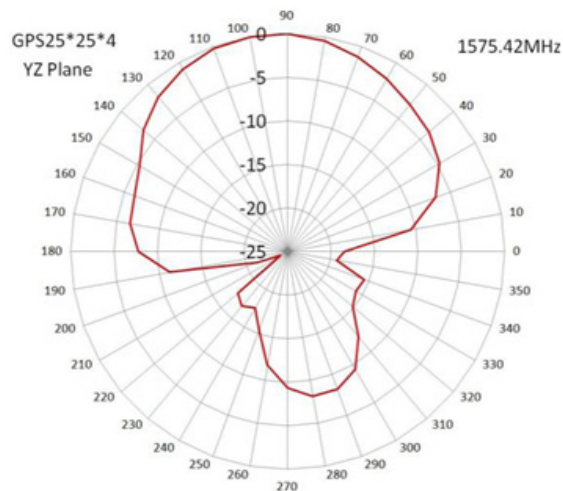
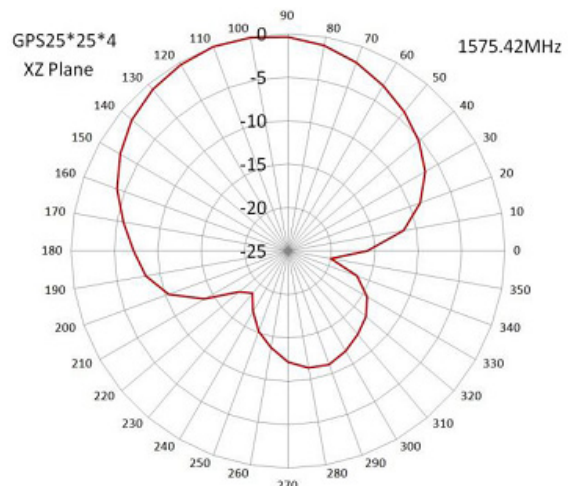
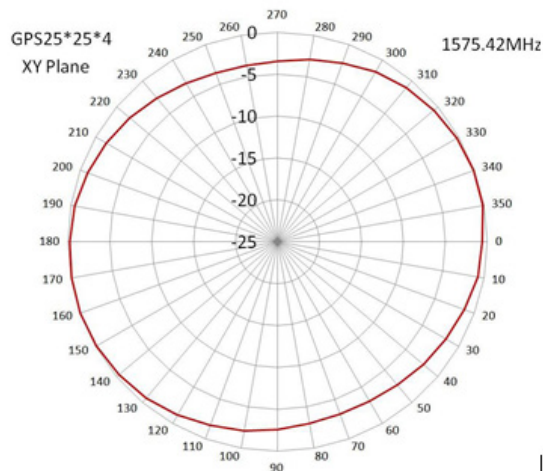
Ø81.6 x 16.2 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Radiation Patterns

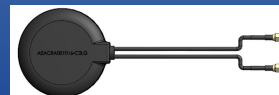


## 2D Radiation Patterns

### GPS Antenna



# External Combo Antenna LTE/GPS



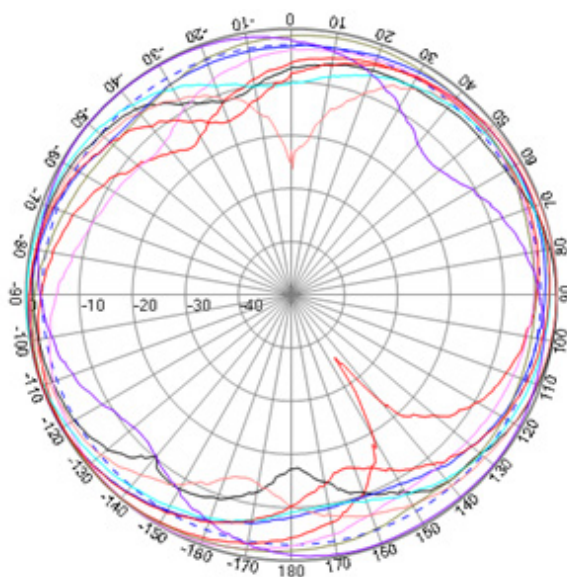
AEACBA081016-C2LG



Ø81.6 x 16.2 mm  
RoHS/RoHS II Compliant  
MSL = 1

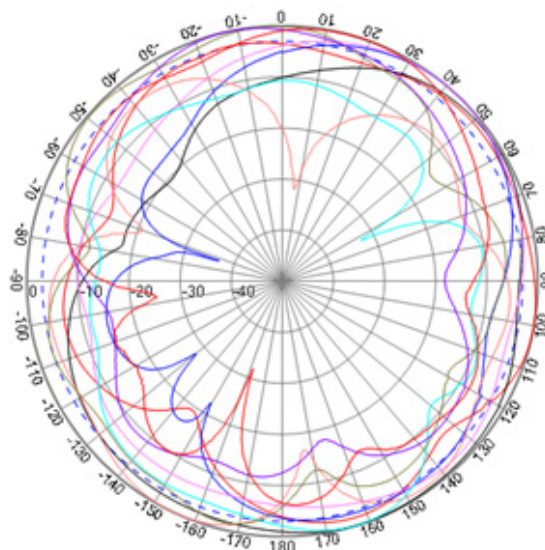
## 2D Radiation Patterns

LTE Antenna



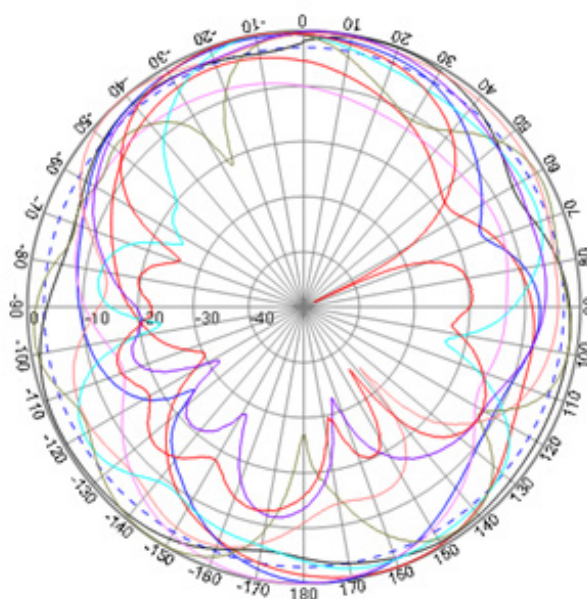
XY PLANE

Freq: 700  
Freq: 824  
Freq: 868  
Freq: 960  
Freq: 1710  
Freq: 1850  
Freq: 1990  
Freq: 2170  
Freq: 2690



XZ PLANE

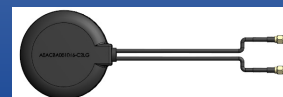
Freq: 700  
Freq: 824  
Freq: 868  
Freq: 960  
Freq: 1710  
Freq: 1850  
Freq: 1990  
Freq: 2170  
Freq: 2690



YZ PLANE

Freq: 700  
Freq: 824  
Freq: 868  
Freq: 960  
Freq: 1710  
Freq: 1850  
Freq: 1990  
Freq: 2170  
Freq: 2690

# External Combo Antenna LTE/GPS



AEACBA081016-C2LG

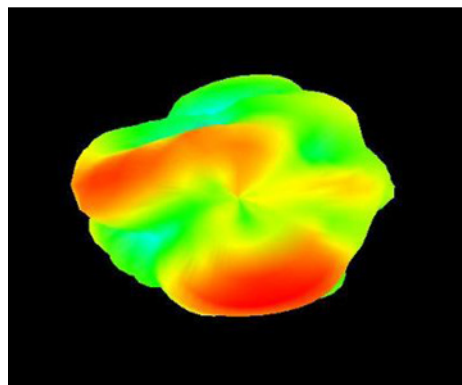


Ø81.6 x 16.2 mm  
RoHS/RoHS II Compliant  
MSL = 1

## 3D Radiation Patterns

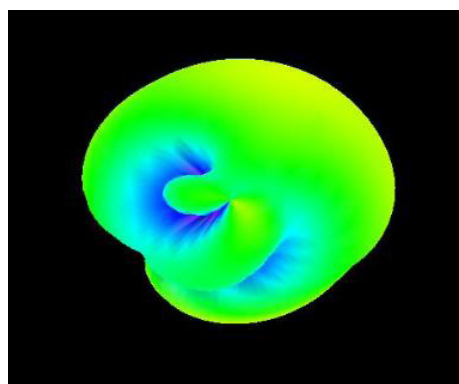
### GPS Antenna

1575.42 MHz

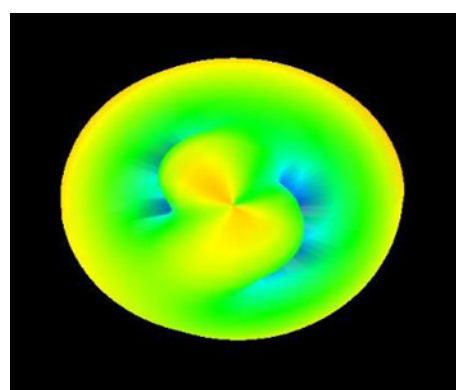


### LTE Antenna

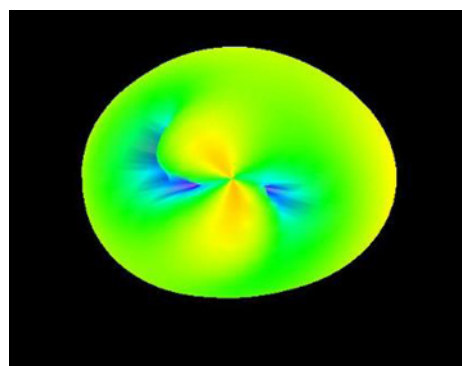
700 MHz



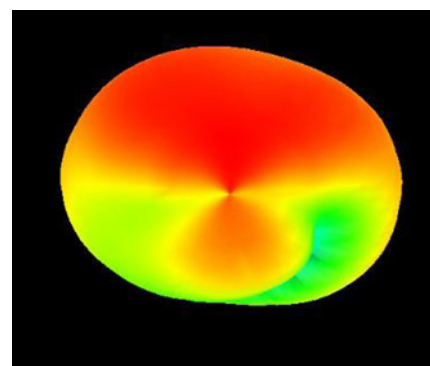
824 MHz



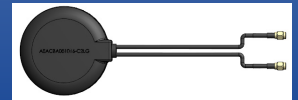
868 MHz



960 MHz



# External Combo Antenna LTE/GPS



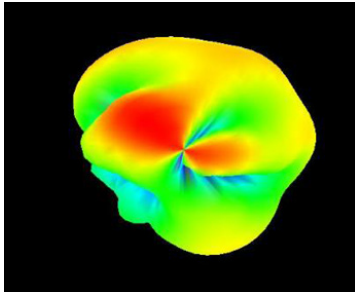
AEACBA081016-C2LG



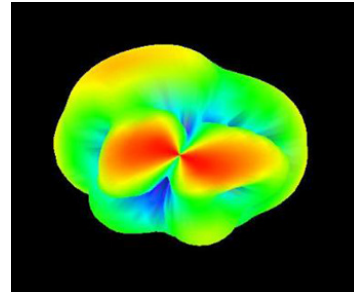
Ø81.6 x 16.2 mm  
RoHS/RoHS II Compliant  
MSL = 1

## 3D Radiation Patterns

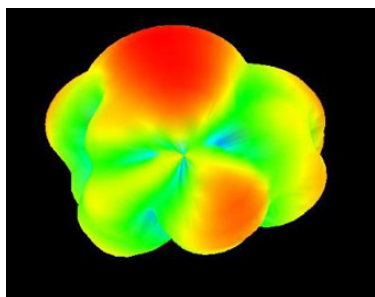
1710 MHz



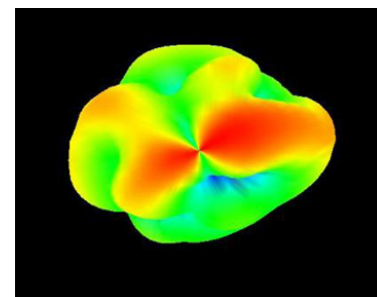
1850 MHz



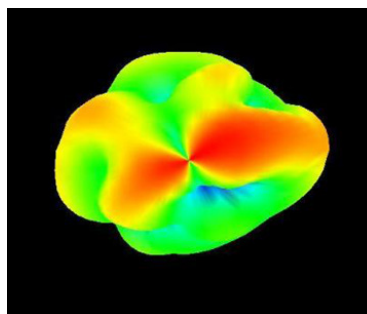
1990 MHz



2170 MHz



2690 MHz



## Packaging

Each 49.5 x 22.5 x 27 cm size carton includes 50 pcs antenna, weighs 7.5 kg.

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