

# 2J6541BGa 2J6541MGa (DATASHEET)

<b>Type</b>	LTE MIMO/GNSS antenna
<b>Frequencies</b>	2x 4G/LTE (791-960/1710-2690 MHz) AMPS (824-894 MHz) GSM (900 MHz) DCS (1800 MHz) PCS (1900 MHz) 3G (UMTS 2.1 GHz) WIFI / BLUETOOTH (2.4 GHz)
<b>Mounting</b>	GPS (1575.42 MHz) GALILEO E1 (1575.42 MHz) GLONASS (1592 - 1610 MHz) B-Body Mount M-Magnetic Mount
<b>Revision</b>	00



# 1. SPECIFICATION

## 1.1. Electrical Specifications

### LTE (Cable 1)

Frequencies	4G/LTE (791-960/1710-2690 MHz) AMPS (824-894 MHz) GSM (900 MHz) DCS (1800 MHz) PCS (1900 MHz) 3G (UMTS 2.1 GHz) WIFI / BLUETOOTH (2.4 GHz)
Impedance	50 Ohms
Polarization	Linear
Gain	5 dBi
VSWR*	<6:1
Power handling	50 W

### LTE (Cable 2)

Frequencies	4G/LTE (791-960/1710-2690 MHz) AMPS (824-894 MHz) GSM (900 MHz) DCS (1800 MHz) PCS (1900 MHz) 3G (UMTS 2.1 GHz) WIFI / BLUETOOTH (2.4 GHz)
Impedance	50 Ohms
Polarization	Linear
Gain	5 dBi
VSWR*	<6:1
Power handling	50 W

### Navigation (Cable 3)

Frequencies	GPS (1575.42 MHz) GALILEO E1 (1575.42 MHz) GLONASS (1592 - 1610 MHz)
Impedance	50 Ohms
Noise figure	1.15 dB
Polarization	RHCP
LNA Gain	GNSS: 23dB at3V, 24dB at 5V
Voltage supply	2.7 V - 5.5 V
Current	15 mA – 25 mA
Power (max.)	138 mW

### Enviromental

Operating temperature	40°C to +85°C
Certificates	IP67, IK09

\*Values stated when measured on 20x20cm ground plane with 1m cable length

## 1.2. Connection Specifications

Cable 1 (LTE):  
 Connector type: SMA male  
 Cable: RG58  
 Cable length: 2,5 m

Cable 2 (LTE):  
 Connector type: SMA male  
 Cable: RG58  
 Cable length: 2,5 m

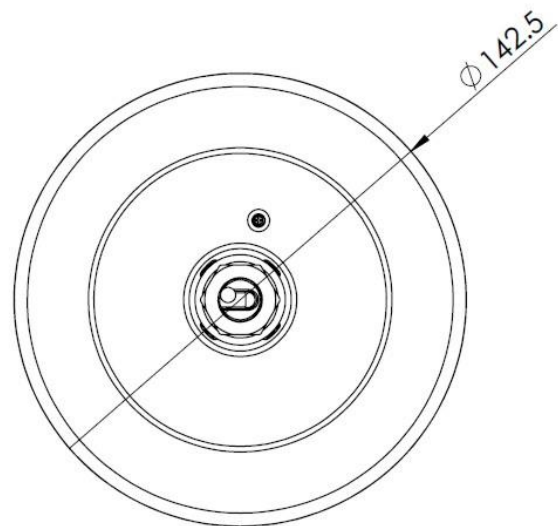
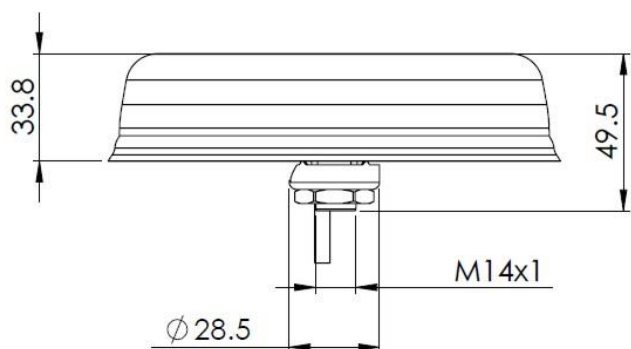
Cable 3 (Navigation):  
 Connector type: SMA male  
 Cable: RG174  
 Cable length: 2,5 m

For different cable length and connector type ask our sales team.

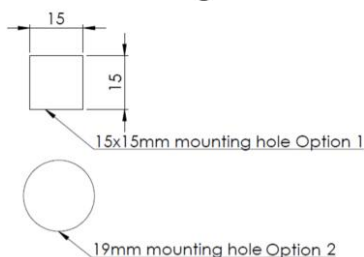
## 1.3. Mechanical Specifications and Dimensions

### 1.3.1. 2J6541BGa

Material: Lid: ABS / Base: Zamak / Gasket: TPE  
 Max. dimensions: 146mm x 32mm (when placed on ground-plane)  
 Colour: Black/ Green/ White (for different colours please ask our sales team)

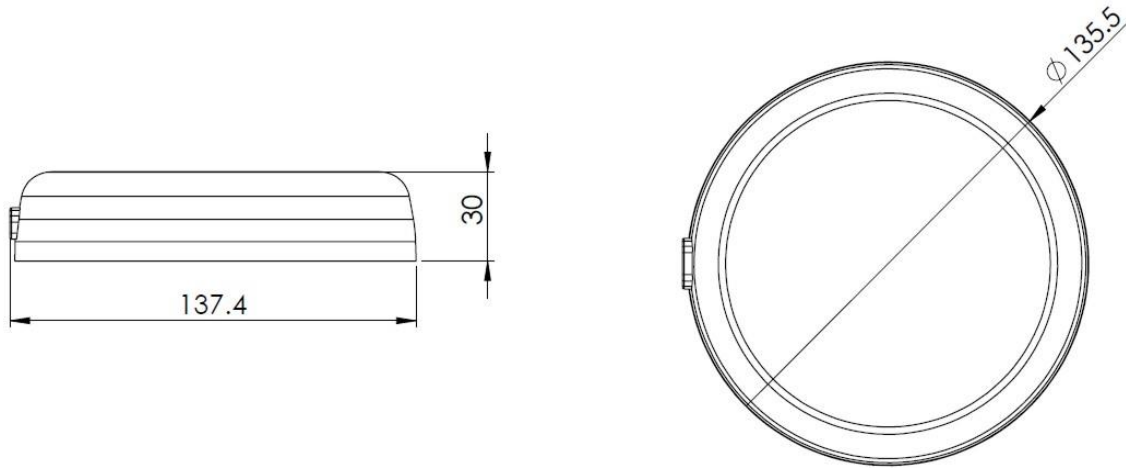


### Mounting holes



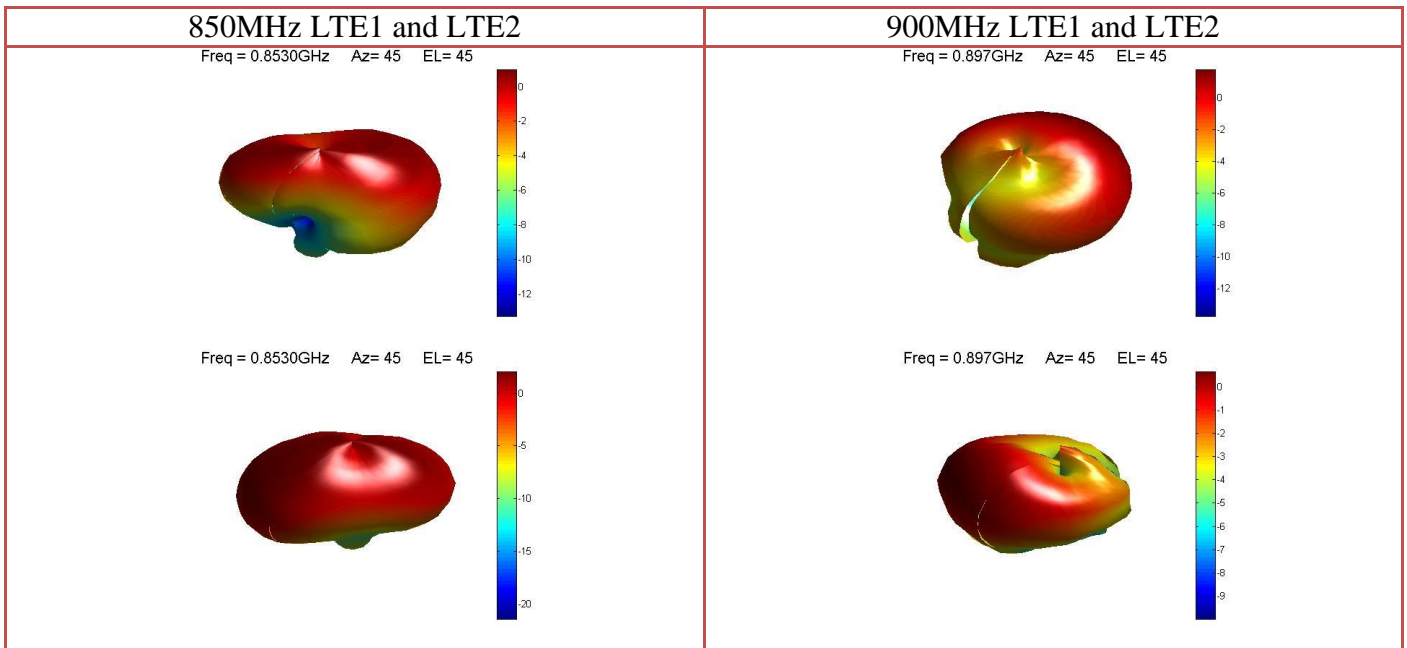
### 1.3.2. 2J6541MGa

Material: Lid: ABS / Base: Zamak  
 Max. dimensions: 135.5mm x 30mm  
 Colour: Black/ Green/ White (for different colours please ask our sales team)



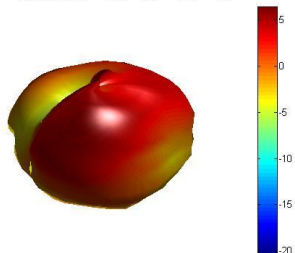
## 2. MEASUREMENT

### 2.1. LTE:

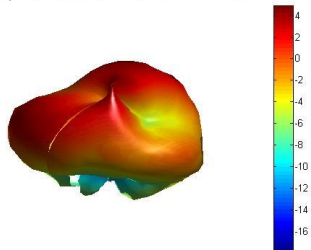


### 1800MHz LTE1 and LTE2

Freq = 1.799GHz Az= 45 EL= 45

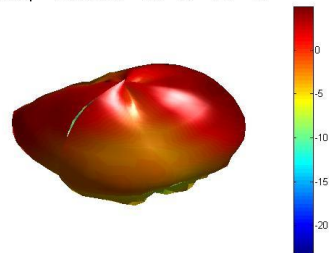


Freq = 1.799GHz Az= 45 EL= 45

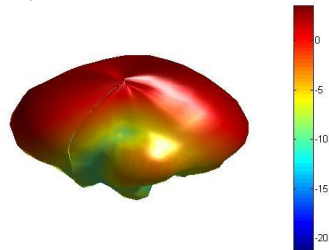


### 1900MHz LTE1 and LTE2

Freq = 1.909GHz Az= 45 EL= 45

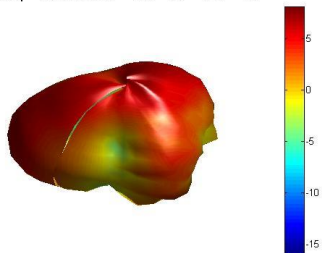


Freq = 1.898GHz Az= 45 EL= 45

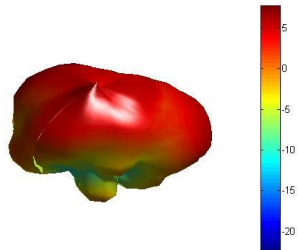


### 2100MHz LTE1 and LTE2

Freq = 2.107GHz Az= 45 EL= 45

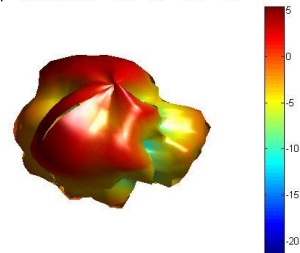


Freq = 2.107GHz Az= 45 EL= 45

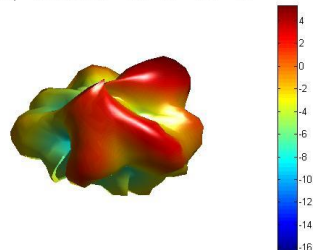


### 2600MHz LTE1 and LTE2

Freq = 2.602GHz Az= 45 EL= 45



Freq = 2.602GHz Az= 45 EL= 45



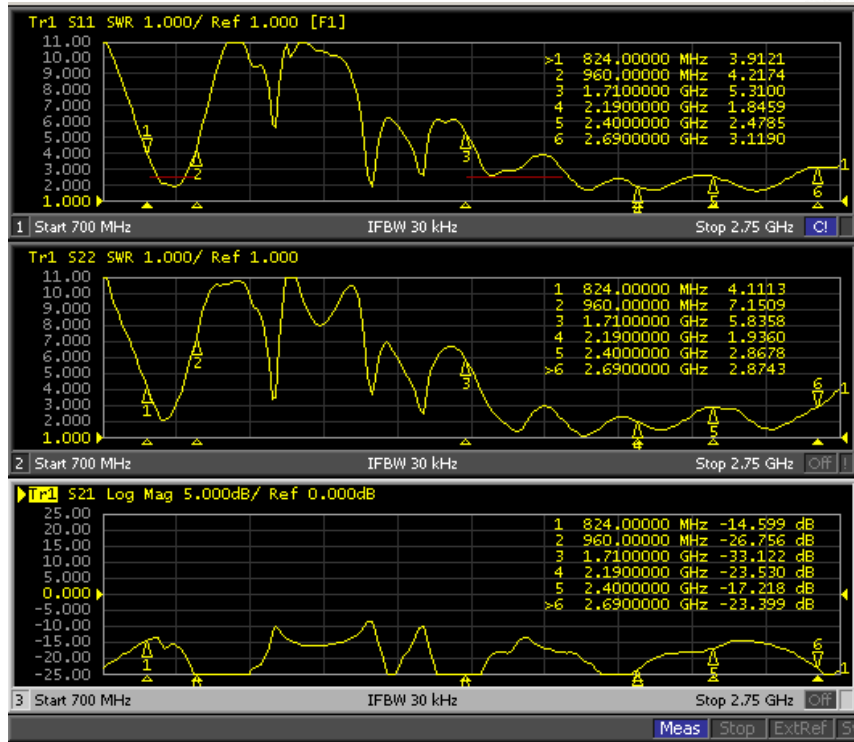
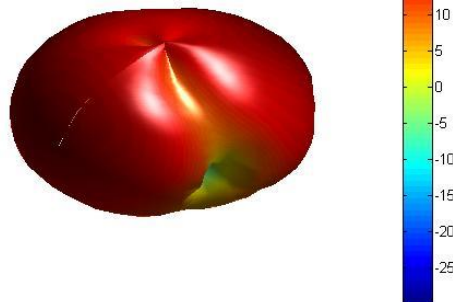


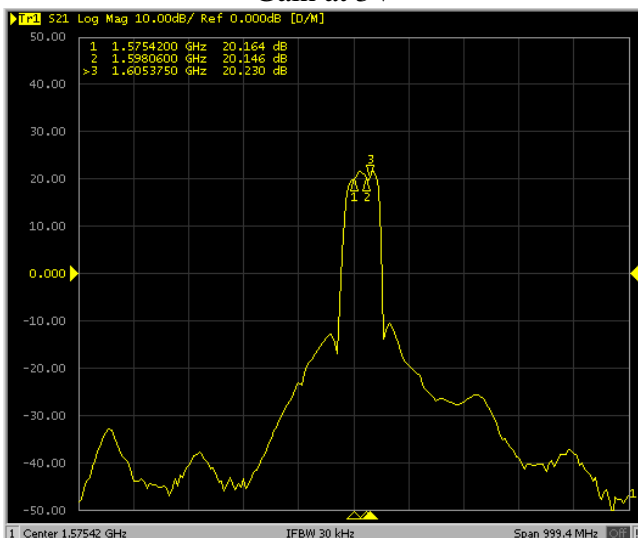
Figure 1 - VSWR for LTE 1 and LTE2 and antenna isolation

## 2.2. GNSS:

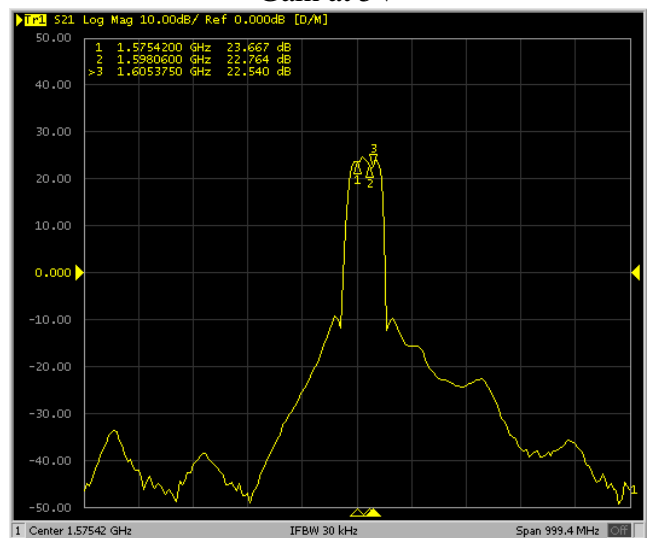
Freq = 1.5754GHz Az= 45 EL= 45



Gain at 3V



Gain at 5V



### 3. IMAGES

