

## SPECIFICATION

- Part No. : **TG.22.0151**
- Product Name : Penta-Band Cellular Connector Mount  
GSM-DCS-PCS-UMTS-CDMA-GPRS-EDGE-HSPA  
800MHz ~2200 MHz
- Features : 0dBi Gain  
Straight RP-SMA Male, 50 Ohms  
ROHS Compliant



## 1. Introduction

The TG.22.0151, Penta-band GSM-DCS-PCS-UMTS-CDMA-GPRS-EDGE-HSPA 800MHz to 2200MHz monopole helical antenna is a quality robust antenna with high gain in small form factor. Connection is made via straight RP-SMA(M) connector. With a hardened waterproof PU casing, this antenna is the ideal GSM antenna for telematics devices.

## 2. Key Antenna Performance Indicators

### Electrical Specifications

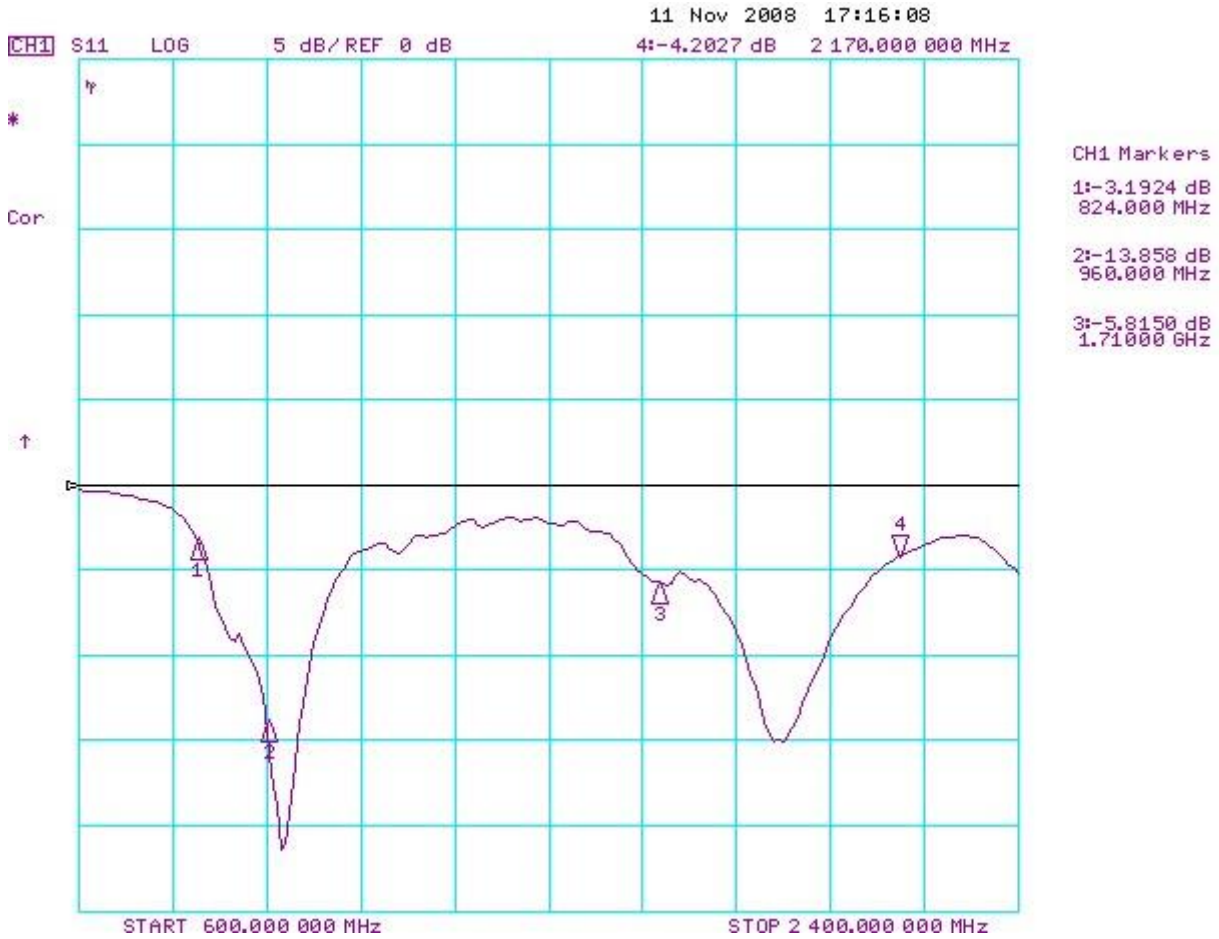
Parameter	Specification
Frequency range	800MHz to 2200MHz
Bands	GSM-DCS-PCS-UMTS-CDMA-GPRS-EDGE-HSPA
VSWR	$\leq 2.3$
Polarization	Linear
Power handling	20 W
Impedance	50 Ohms
Connector	Straight RP-SMA(M)

### Environmental & Mechanical Characteristics

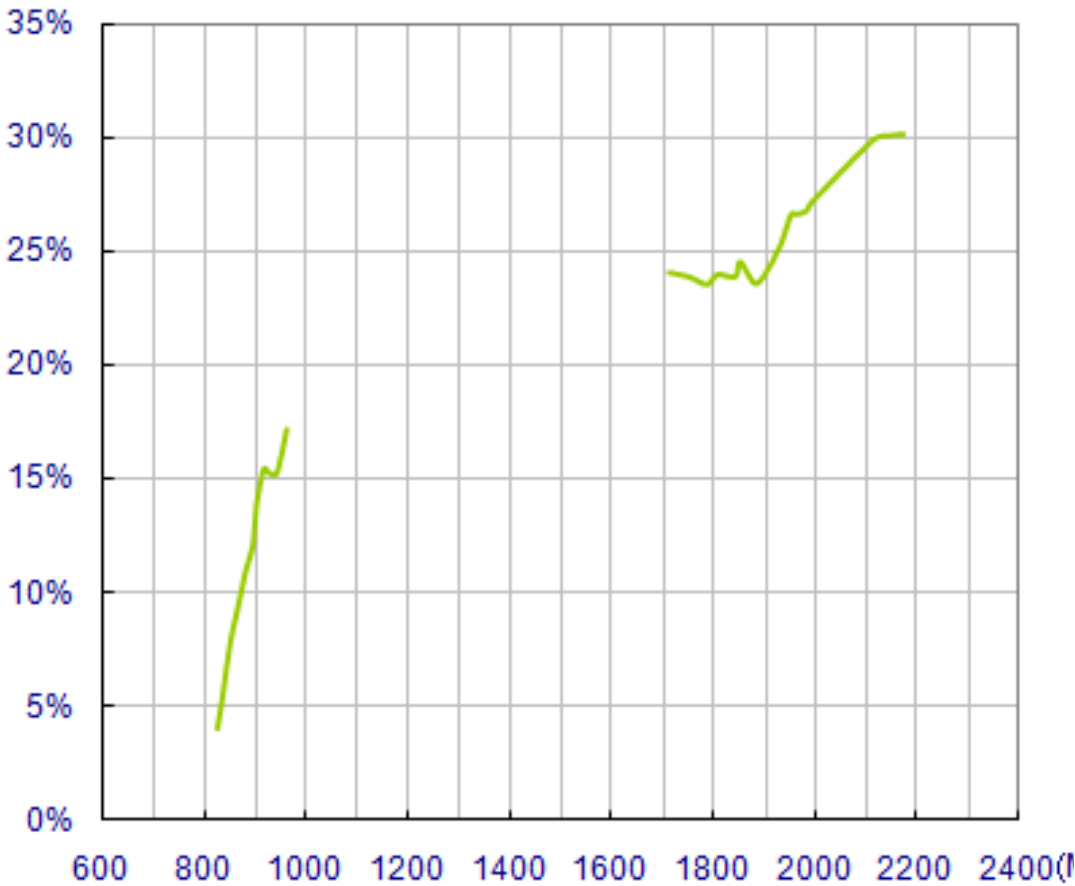
Parameter	Specification
Temperature	-40°C to +85°C
Radome color	Black
Radome material	Pu
Weight	6 g

### 3. Performance Measurements

#### 3.1 Return Loss (dB)



### 3.2 Efficiency (dB)

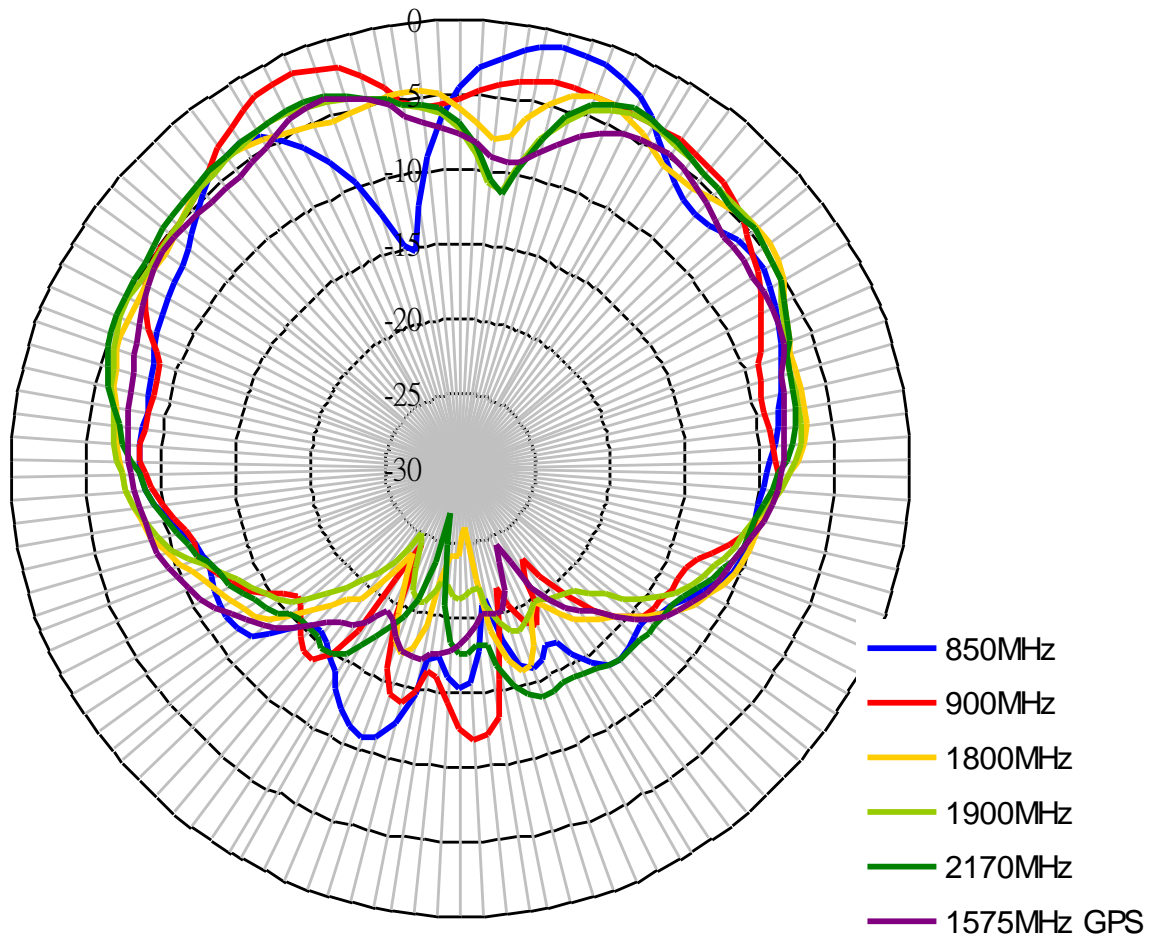


TG.22.0151		
Frequency	Efficiency	
824	3.99%	
836	5.76%	
849	7.77%	
869	9.84%	
880	10.99%	
894	12.15%	
900	13.77%	
915	15.41%	
925	15.23%	
940	15.19%	
960	17.15%	
1575	20.22%	
1710	24.03%	
1750	23.83%	
1785	23.50%	
1805	23.93%	
1840	23.85%	
1850	24.50%	
1880	23.54%	
1910	24.39%	
1920	24.86%	
1930	25.29%	
1950	26.59%	
1960	26.59%	
1980	26.74%	
1990	27.11%	
2110	29.84%	
2140	30.03%	
2170	30.10%	

### 3.3 Radiation Pattern Data

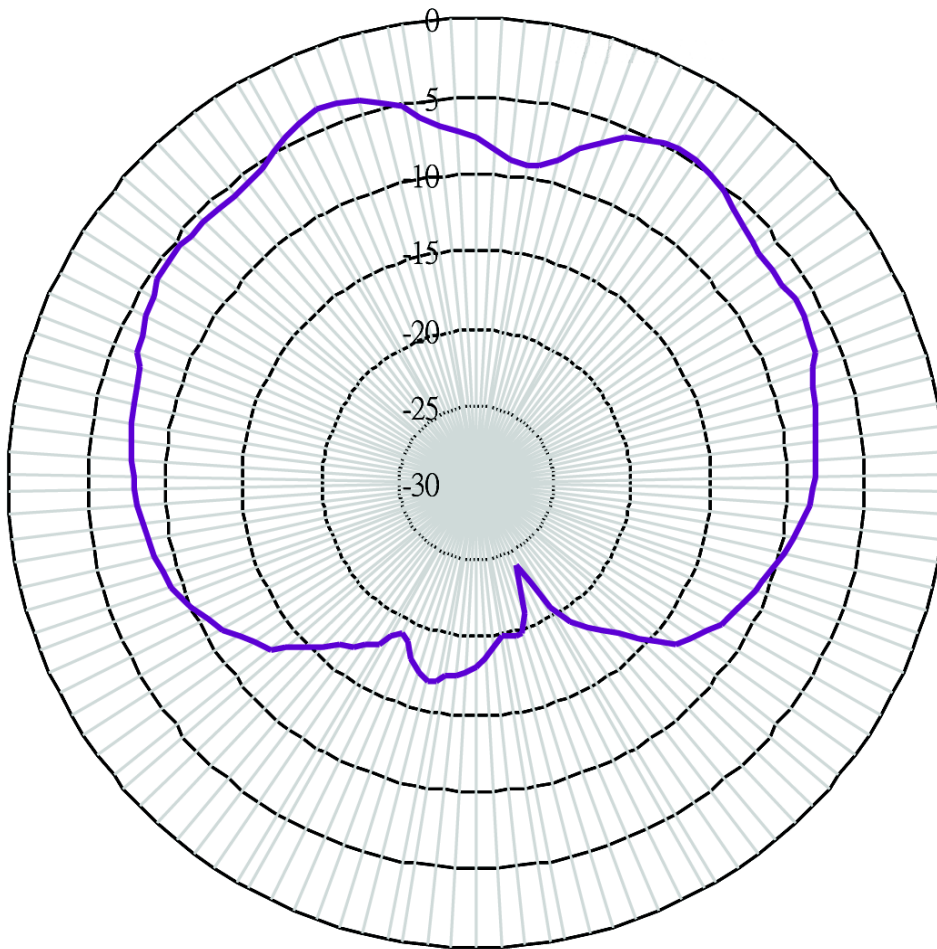


### 3.3.1 Radiation Pattern, Aligned at the Connector



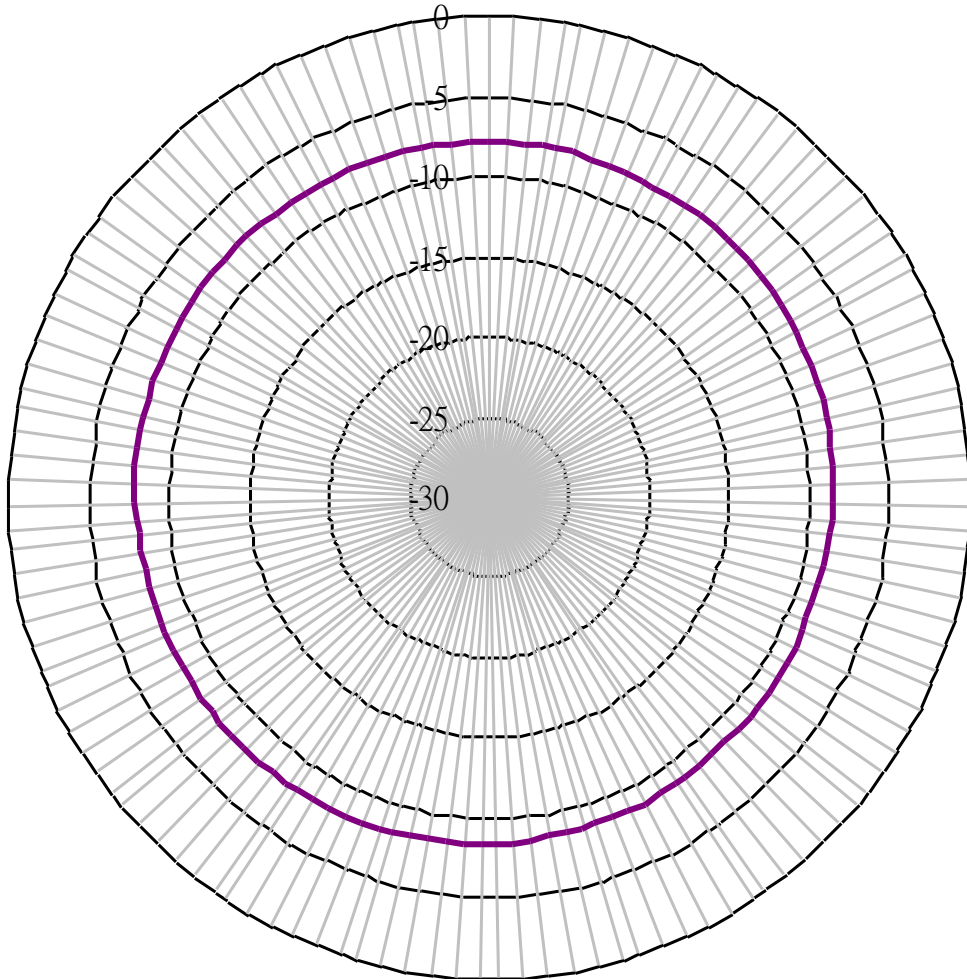


### 3.3.4 Radiation pattern – Aligned at the connector 1575MHz only

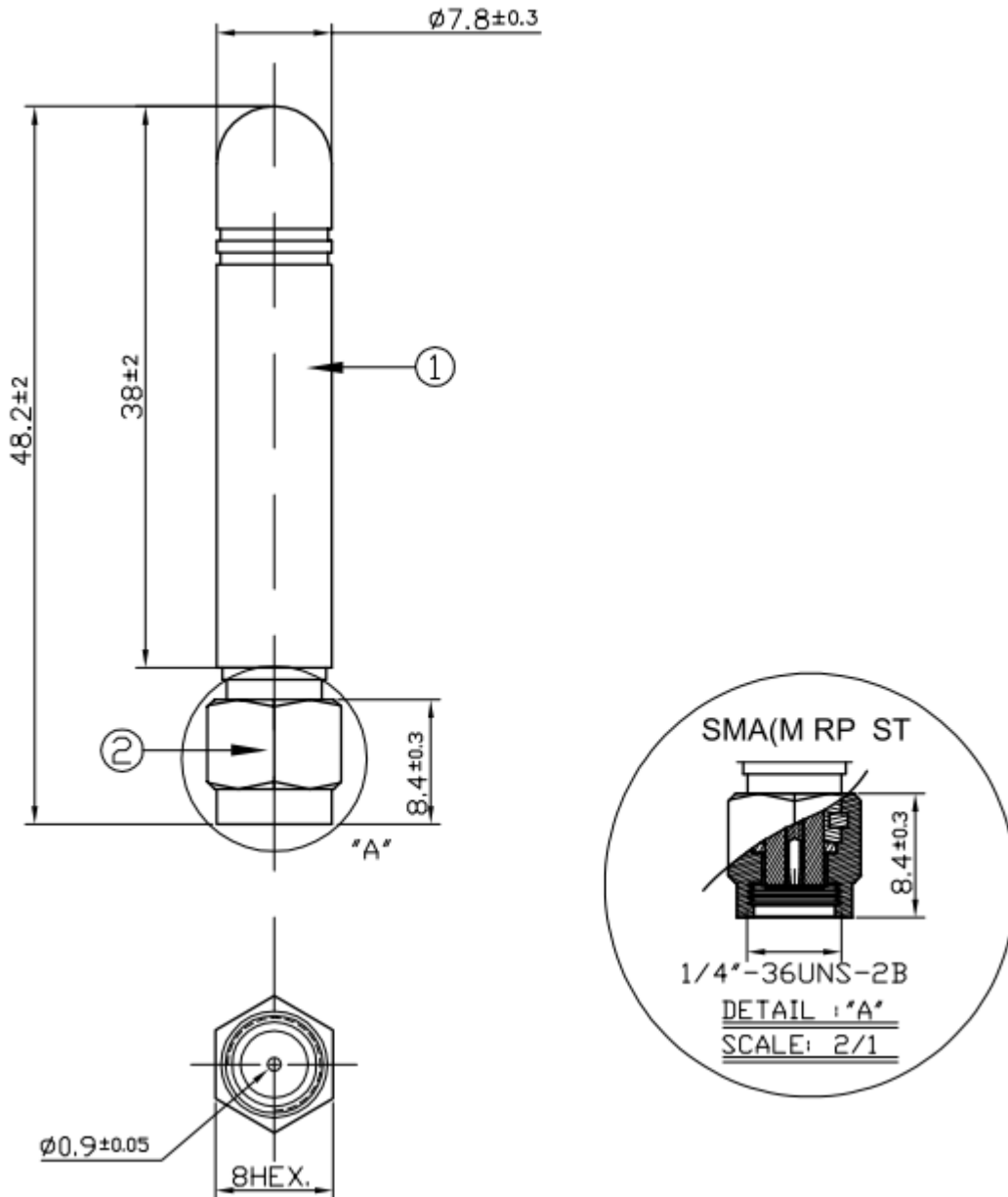




### 3.3.5 Radiation Pattern, Azimuth Plane (XY) – 1575MHz only

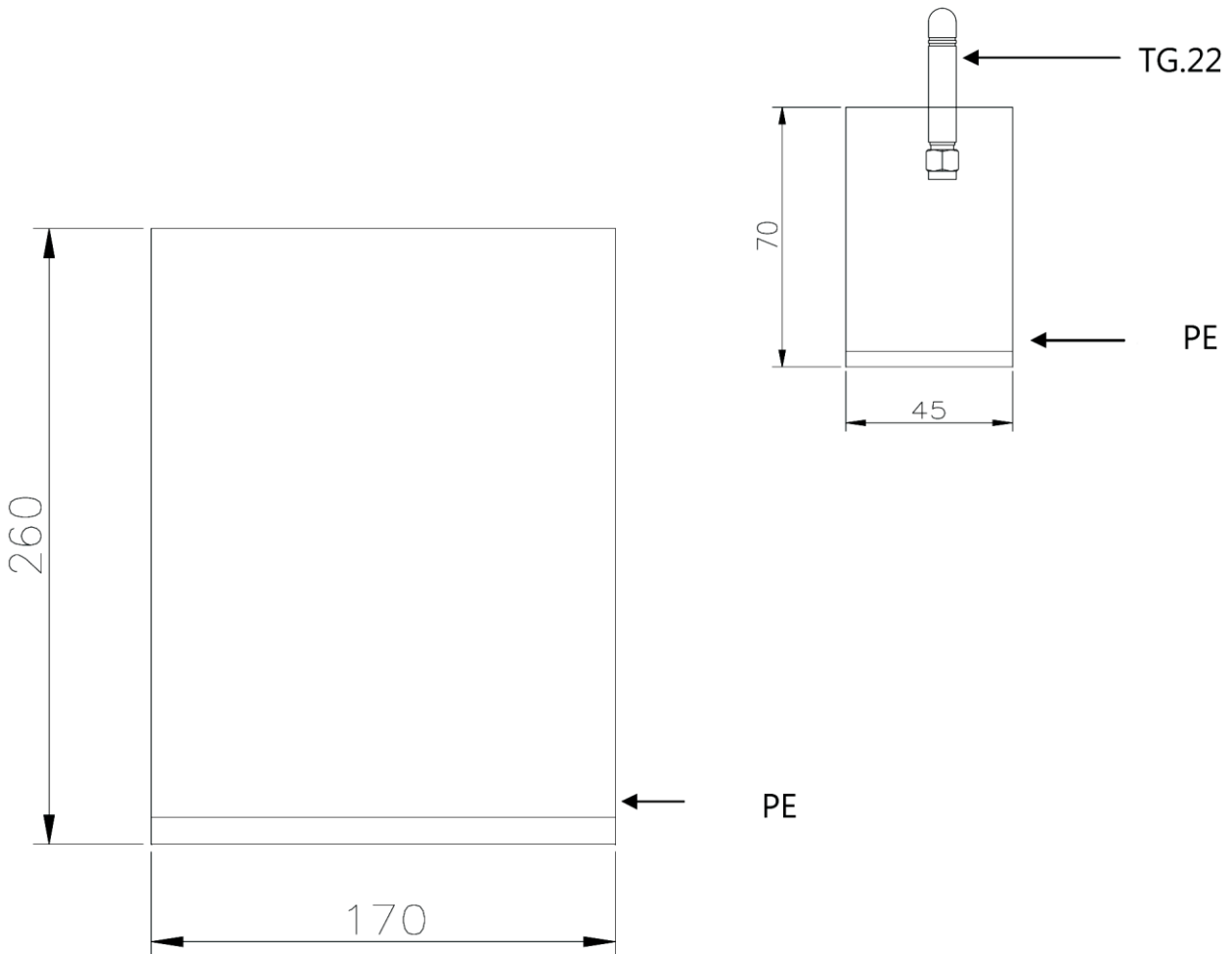


## 4. Drawing and Dimensions (unit: mm)



	Name	P/N	Material	Finish	Quantity
1	Antenna Housing	000111F0300XXA	TPEE	Black	1
2	RP-SMA(M) ST	200211J000002A	Brass	Gold	1

## 5. Packaging



1pcs antennas per small PE bag.

100 small PE bags per big PE bag.

100pcs antennas per big sealed PE bag.

## 6. Installation

- 1) Use hand to screw the SMA connector.  
Tighten it until it feels a little tight.



- 2) Use torque wrench which has 0.9 Nm torque limit to tighten it.



- 3) Do not use normal wrench.

