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

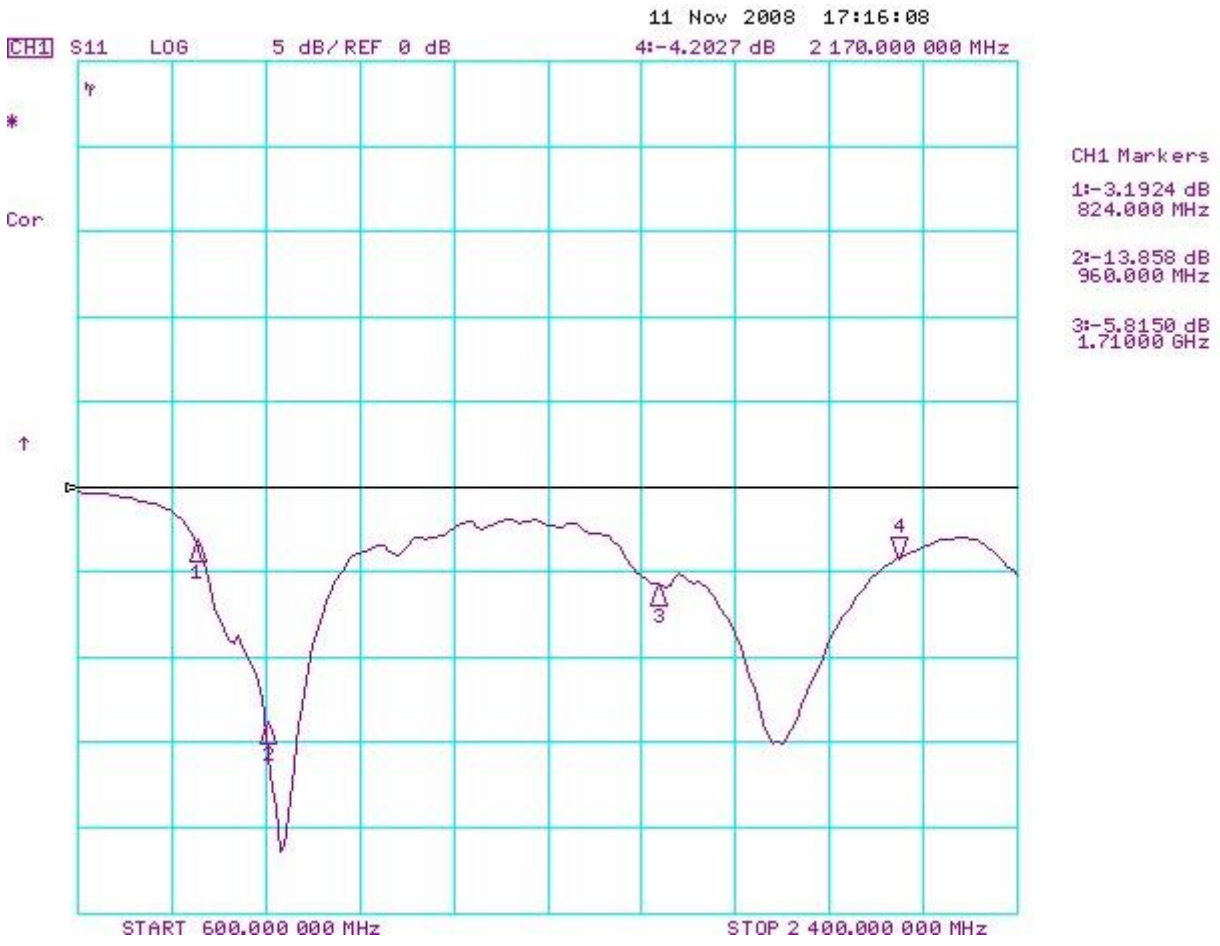
Parameter	Specification
Frequency range	800MHz to 2200MHz
Bands	GSM-DCS-PCS-UMTS-CDMA-GPRS-EDGE-HSPA
VSWR	≦2.3
Polarization	Linear
Power handling	20 W
Impedance	50 Ohms
Connector	Straight RP-SMA(M)

Environmental & Mechanical Characteristics

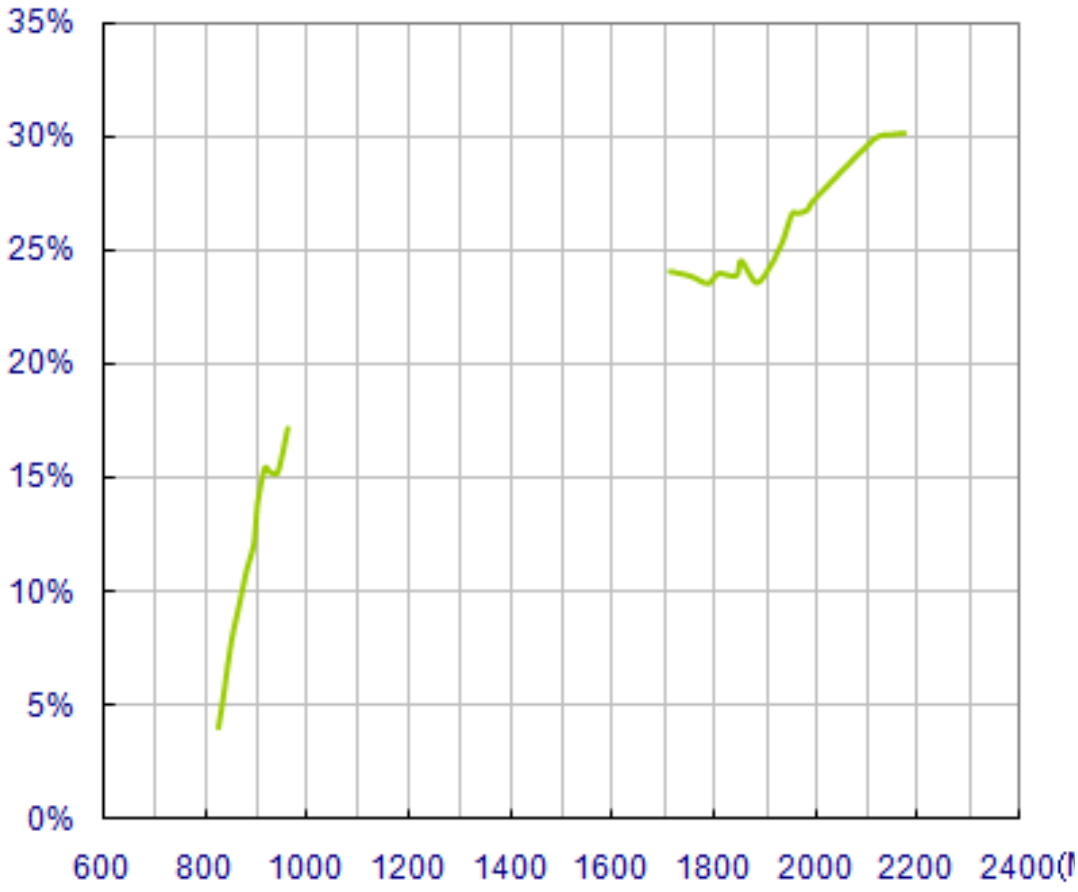
Parameter	Specification
Temperature	-40°C to +85°C
Radome color	Black
Radome material	Pu
Weight	6 g

3. Performance Measurements

3.1 Return Loss (dB)



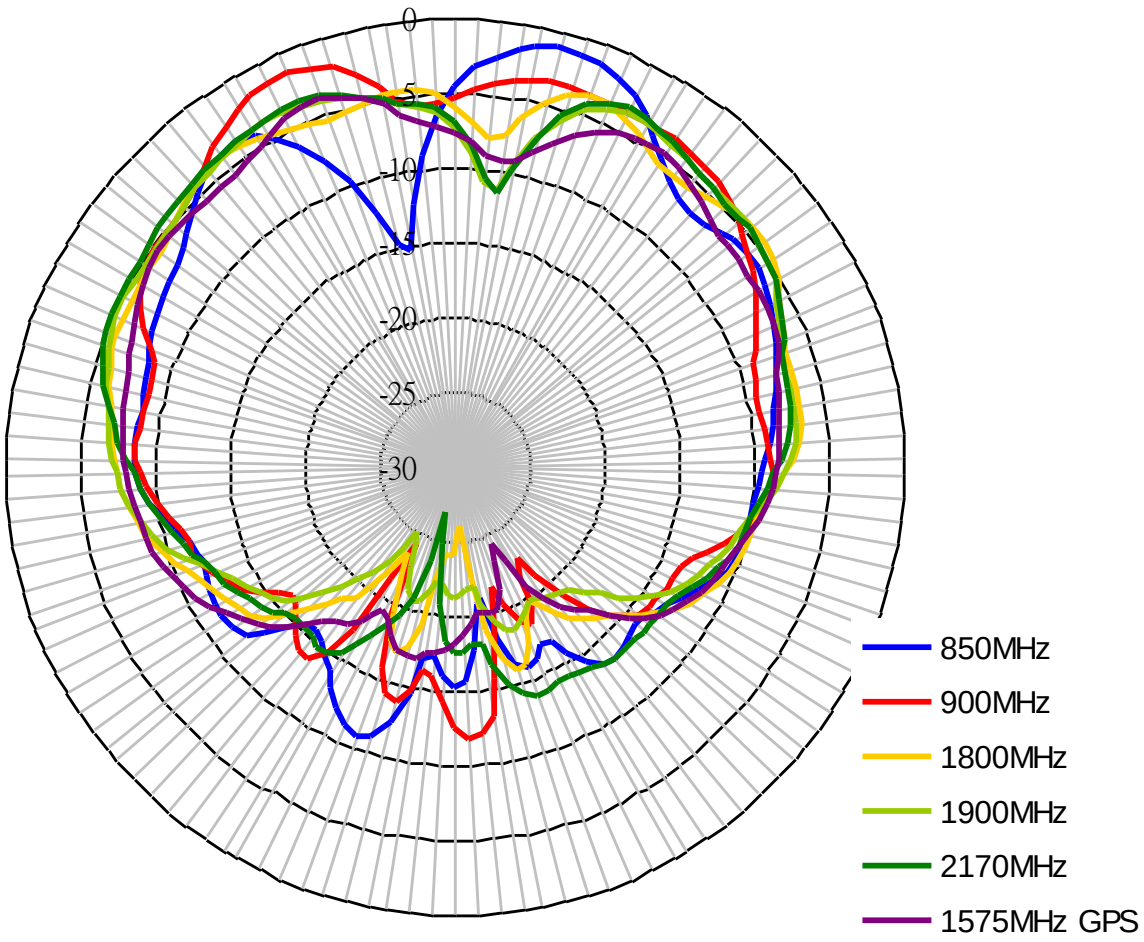
3.2 Efficiency (dB)



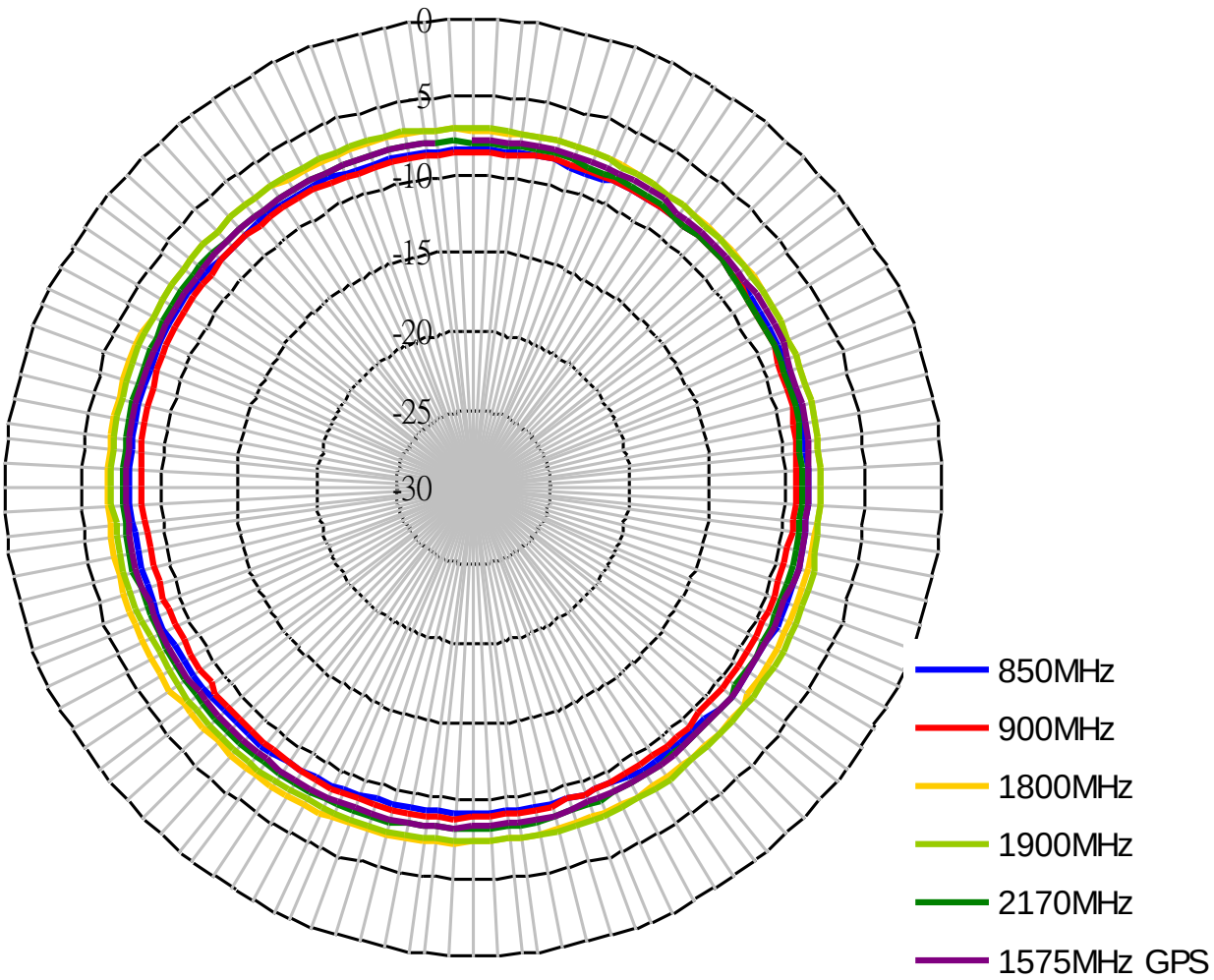
TG.22.0151	
Frequency	Efficiency
824	3.99%
836	5.76%
849	7.77%
869	9.84%
880	10.99%
894	12.15%
900	13.77%
915	15.41%
925	15.23%
940	15.19%
960	17.15%
1575	20.22%
1710	24.03%
1750	23.83%
1785	23.50%
1805	23.93%
1840	23.85%
1850	24.50%
1880	23.54%
1910	24.39%
1920	24.86%
1930	25.29%
1950	26.59%
1960	26.59%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

3.3 Radiation Pattern Data

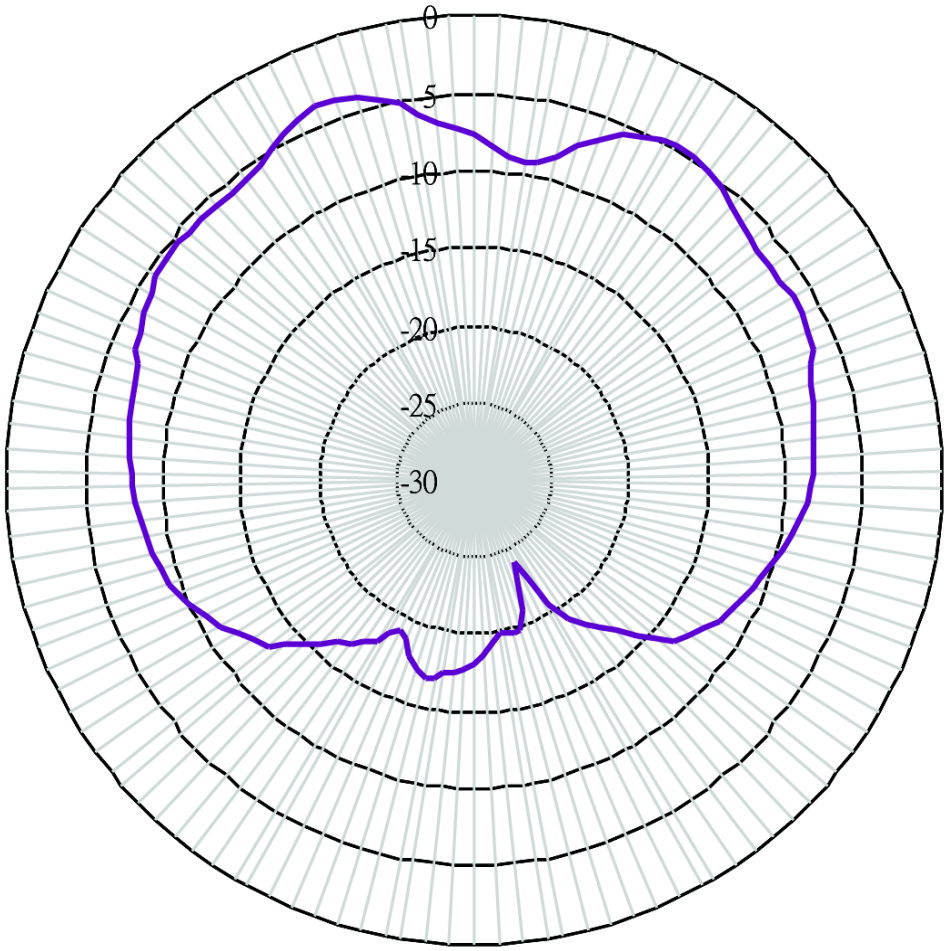
3.3.1Radiation Pattern, Aligned at the Connector



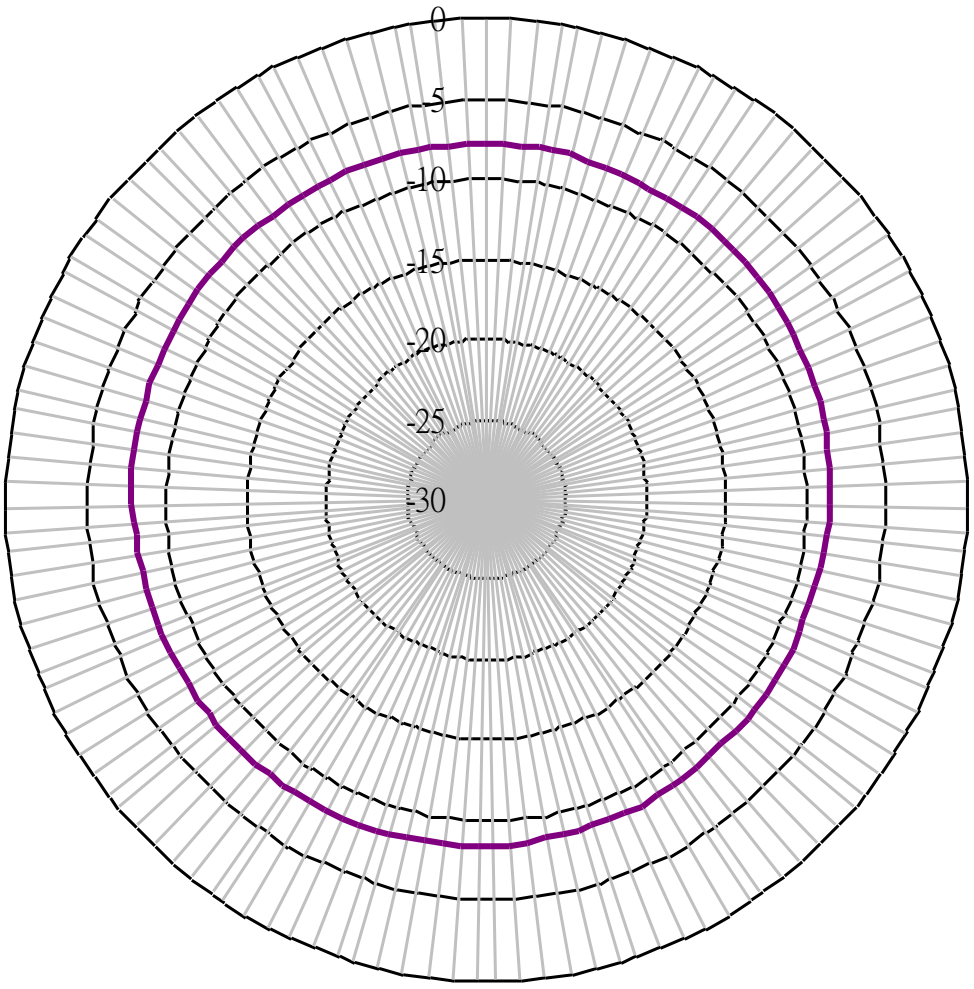
3.3.2 Radiation Pattern, Azimuth Plane (XY)



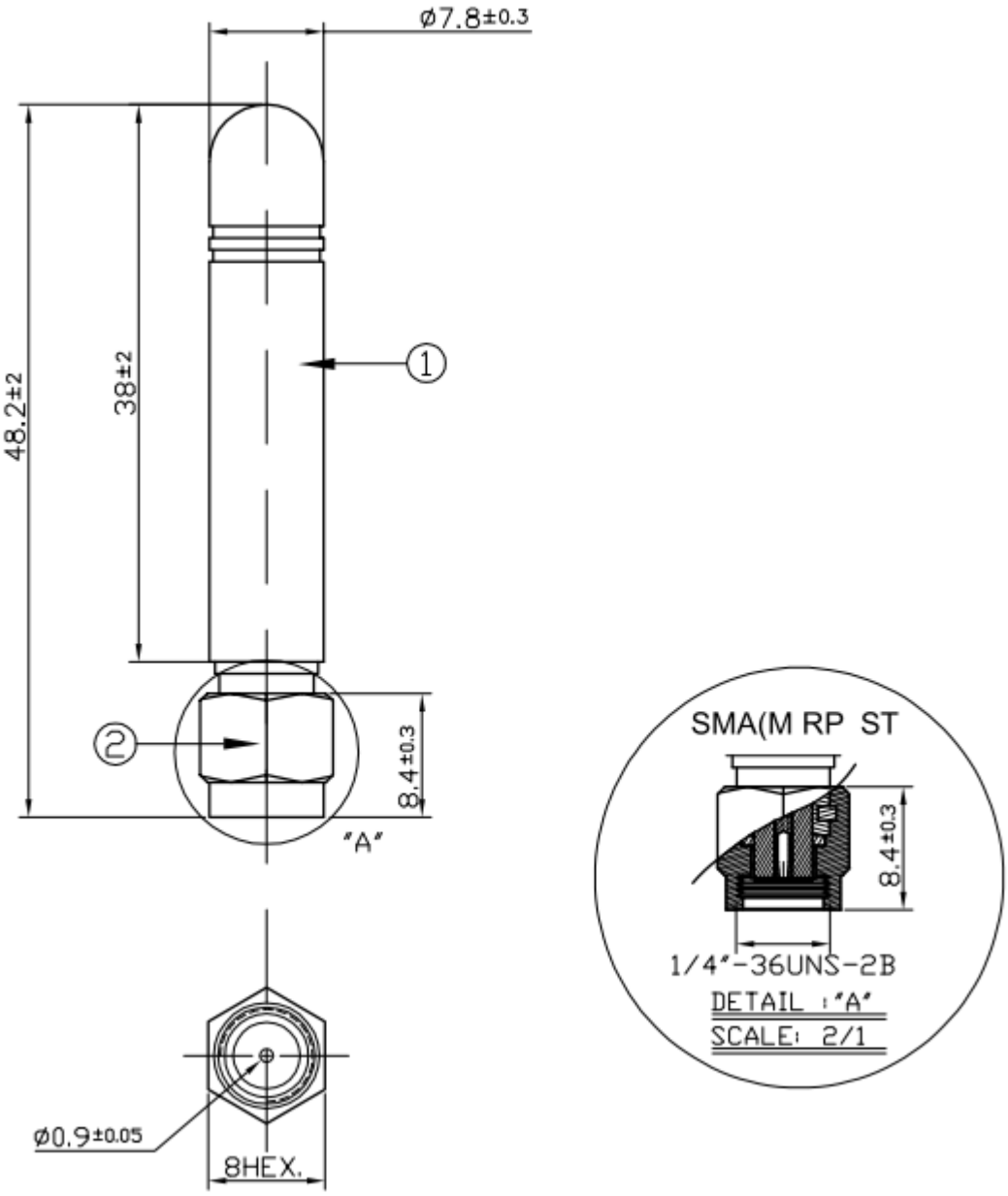
3.3.4 Radiation pattern – Aligned at the connector 1575MHz only



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

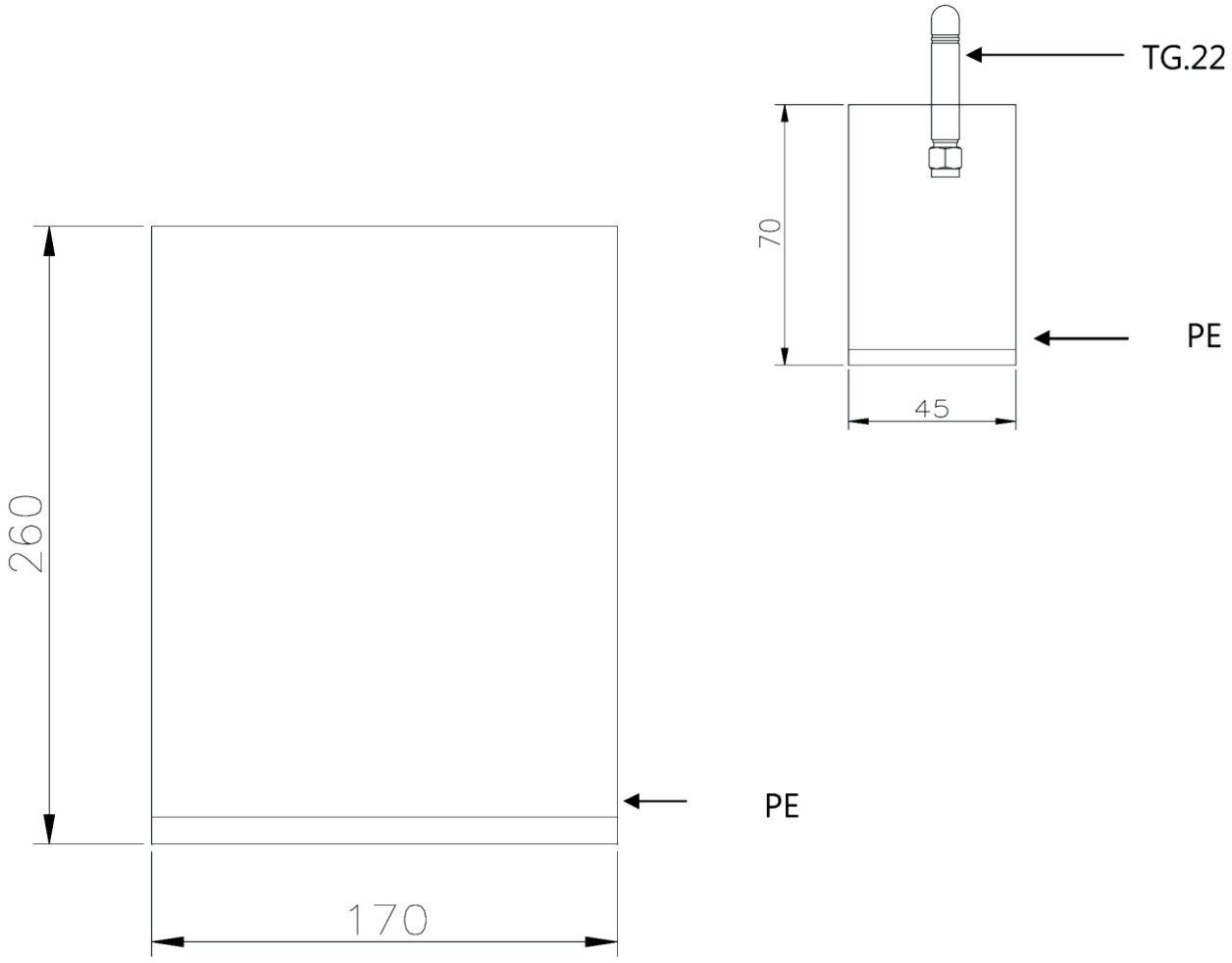


4. Drawing and Dimensions (unit: mm)



	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.