



TG.22.0112.HT

Specification

Part No.	TG.22.0112.HT
Product Name	Penta-Band Cellular Connector Mount Monopole Helical GSM-DCS-PCS-UMTS-CDMA-GPRS-EDGE-HSPA 800MHz ~2200 MHz
Feature	0dBi Gain SMA(M) Fixed Right Angle plug, 50 Ohms Dupont® Hytrel® High Temperature Resistant TPEE Housing (up to 150°C) ROHS Compliant

1. Introduction

The TG.22.0112.HT Penta-band GSM-DCS-PCS-UMTS-CDMA-GPRS-EDGE-HSPA 800MHz to 2,170 MHz monopole helical antenna is a quality robust antenna with high gain in small form factor. Antenna housing applies highly resistant Dupont® Hytrel®

TPEE material which is durable in high temperature application environments up to 150°C. This material is often applied in automotive or industrial applications, where the antenna is placed near the engine or heat generating components.

Connection is made via fixed right angle SMA(M) connector with a hardened TPEE casing, this antenna is the ideal GSM antenna for telematics devices.

2. Antenna Performance

2.1 Electrical Specifications

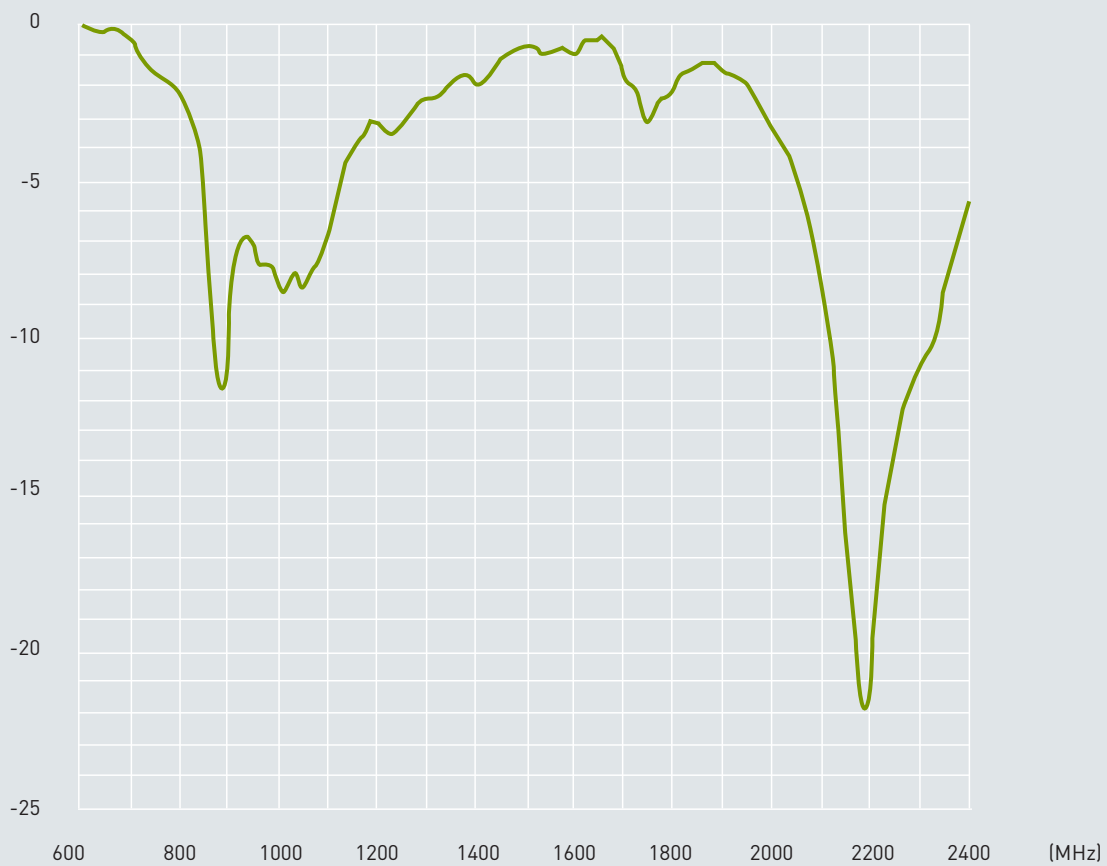
Parameter	Specification
Frequency Range	800MHz to 2200MHz
Bands	GSM-DCS-PCS-UMTS-CDMA-GPRS-EDGE-HSPA
VSWR	≤ 2.3
Power Handling	20W
Polarization	Linear
Impedance	50 Ohms
Connector	SMA(M) RA

2.2 Environmental & Mechanical Characteristics

Parameter	Specification
Temperature	-40°C to +150°C
Radome Color	Black
Radome Material	Dupont® Hytrel® TPEE
Weight	6g

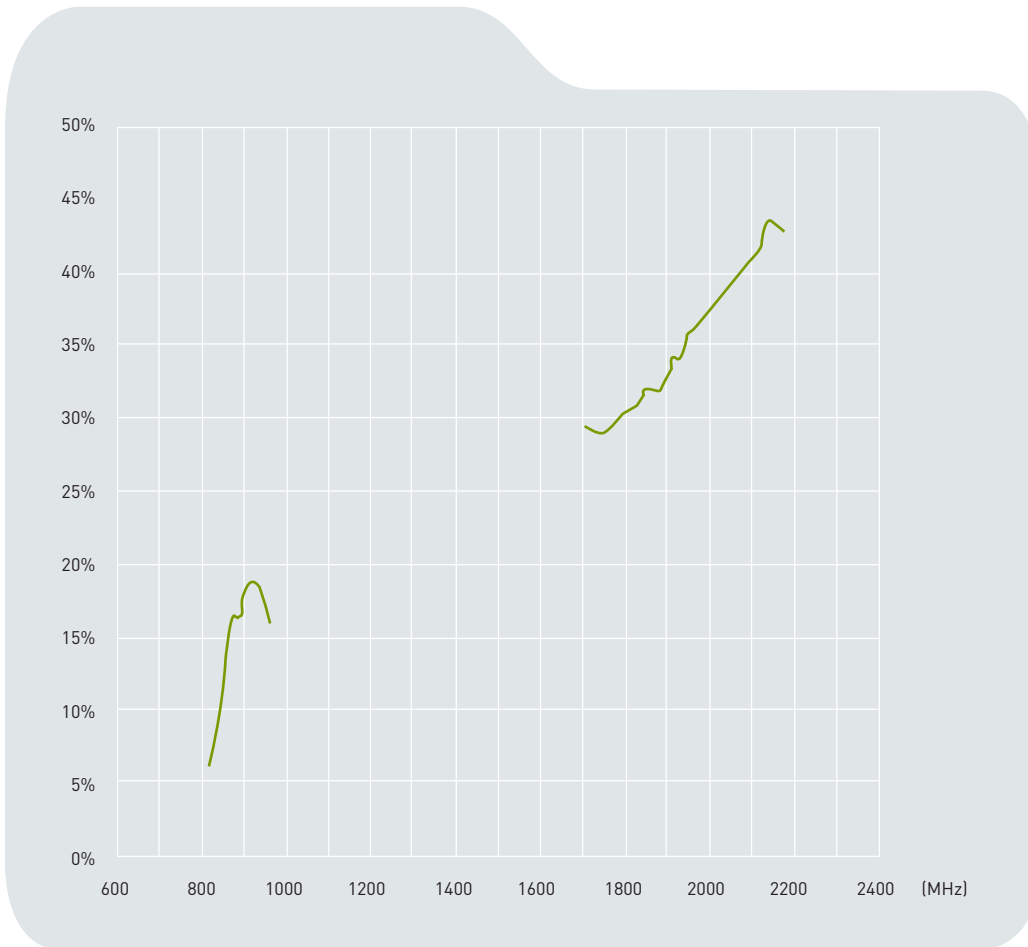
3. Performance Measurements

3.1 Return Loss (dB)



3. Antenna Characteristics

3.2 Efficiency (dB)



Frequency	824	836	849	869	880	894	900	915	925	940	960
Efficiency	6.27%	8.09%	10.76%	14.60%	16.19%	16.45%	17.70%	18.58%	18.62%	18.21%	16.00%

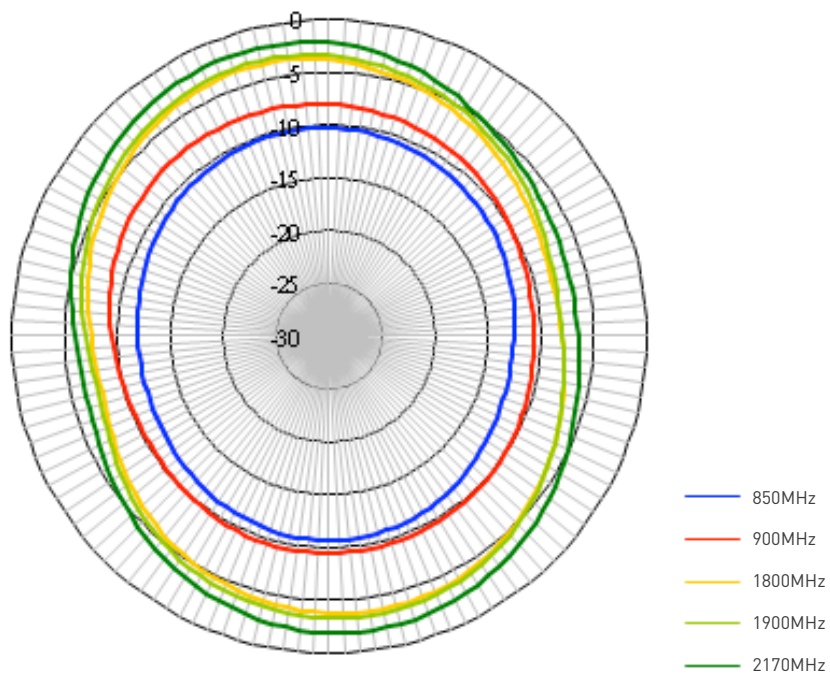
Frequency	1575
Efficiency	21.75%

Frequency	1710	1750	1785	1805	1840	1850	1880	1910	1920	1930	1950
Efficiency	29.50%	29.13%	29.94%	30.52%	31.18%	32.10%	32.01%	33.35%	34.33%	34.01%	35.90%

Frequency	1960	1980	1990	2110	2140	2170
Efficiency	35.87%	36.71%	37.07%	41.34%	43.44%	42.88%

3. Antenna Characteristics

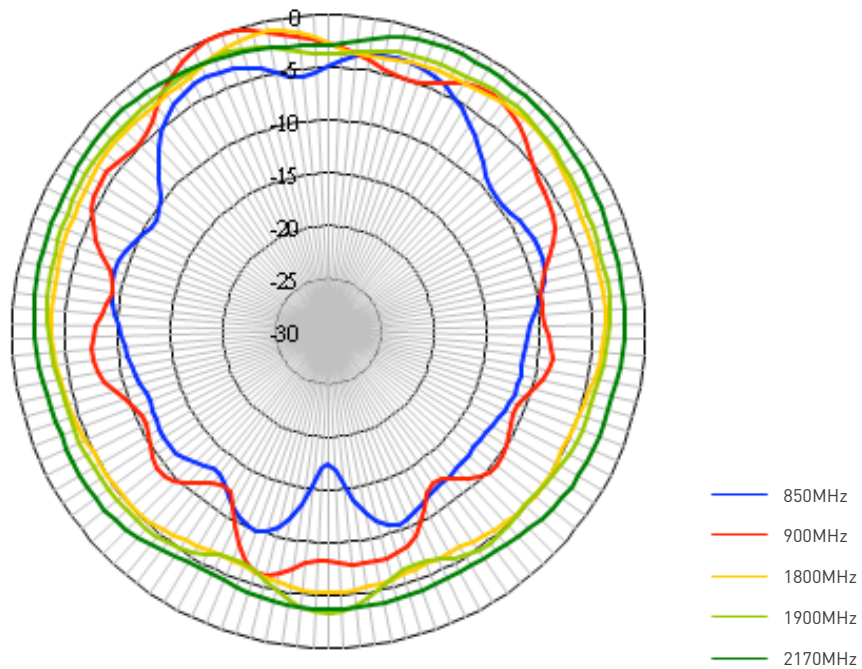
3.3 Radiation Pattern Data



A. Radiation Pattern, Azimuth Plane (XY)

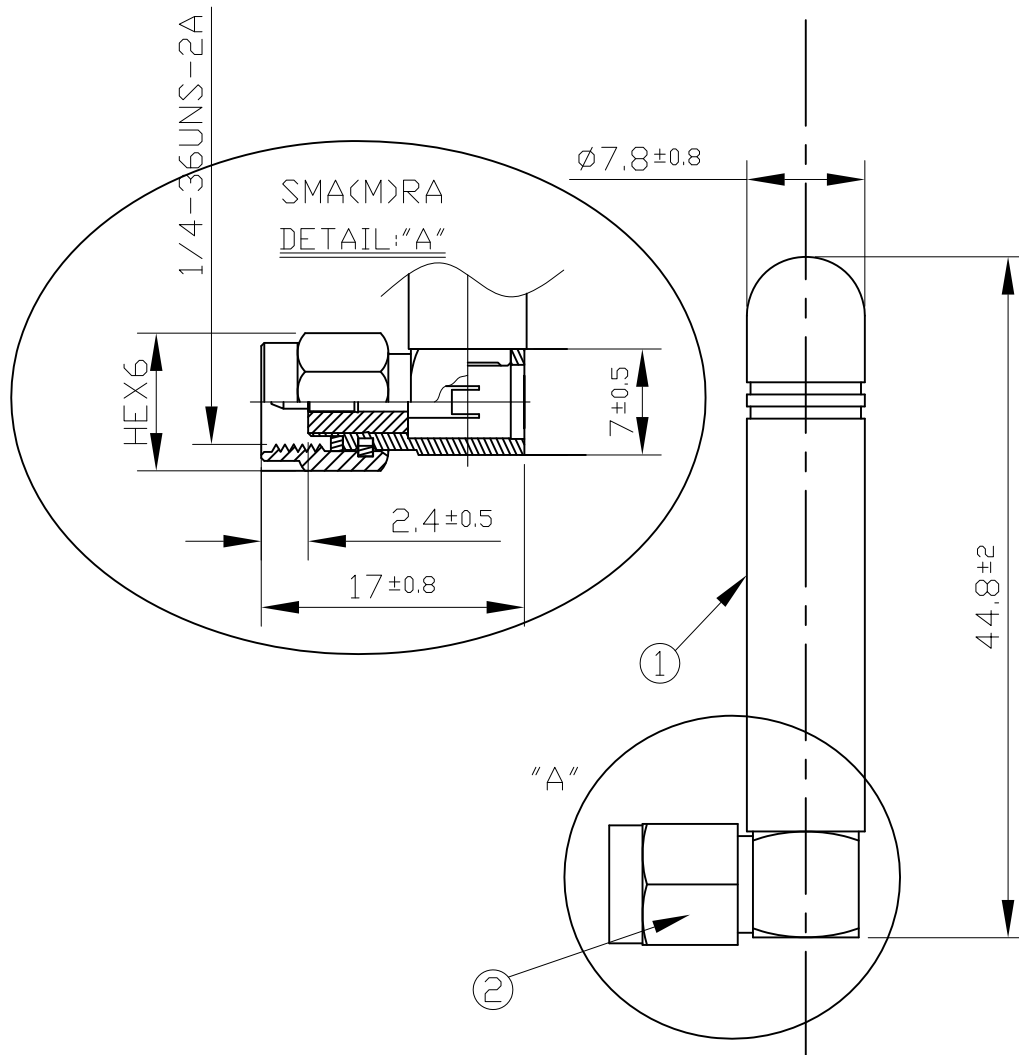
3. Antenna Characteristics

3.3 Radiation Pattern Data



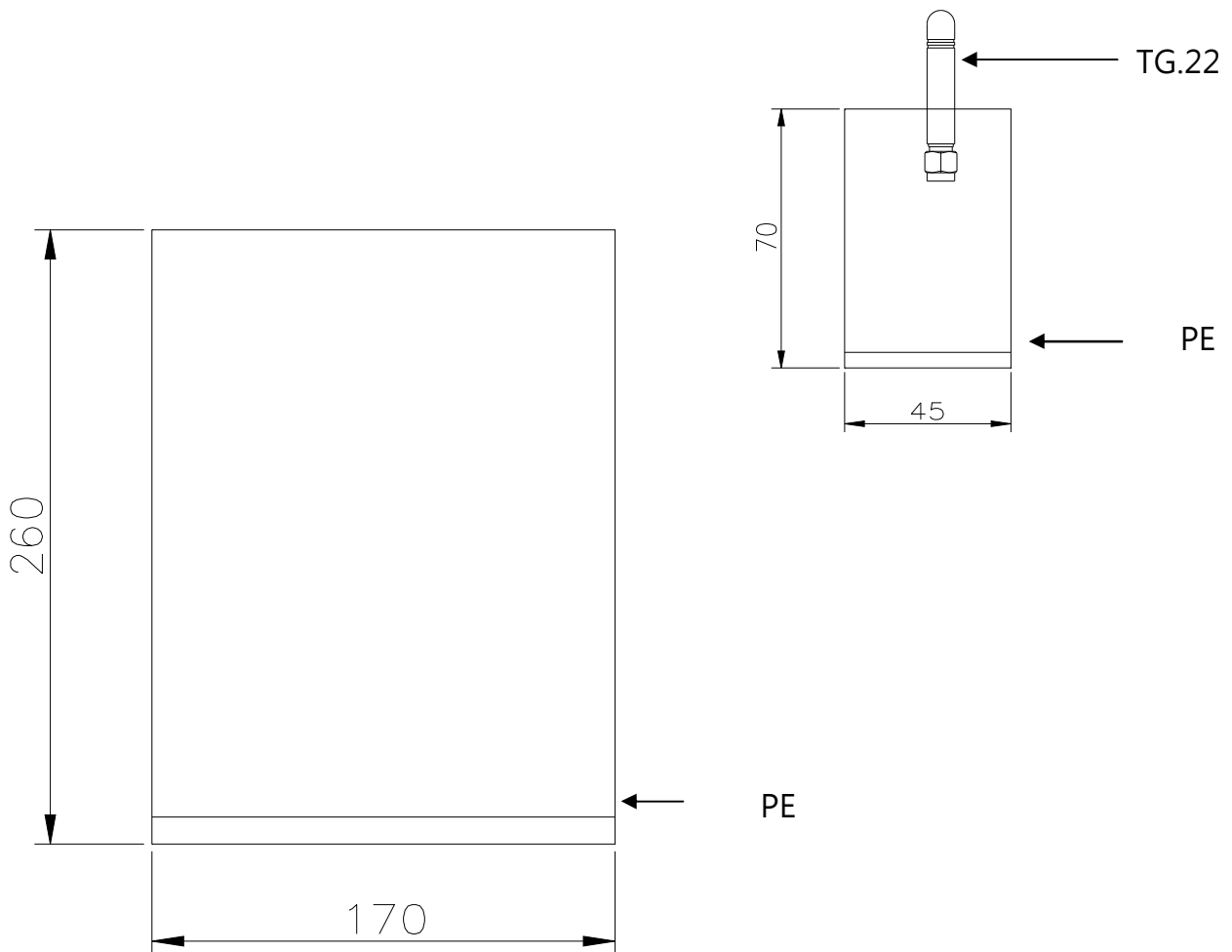
B. Radiation Pattern, Aligned at the Connector

4. Mechanical Drawing



	Name	Material	Finish	QTY
1	High Temperature Resistant Housing	TPEE	Black	1
2	SMA(M) RA	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.