

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
Features	:	0dBi Gain SMA(M) Fixed Right Angle plug, 50 Ohms Dupont® Hytrel® High Temperature Resistant TPEE Housing (up to 150°C) ROHS Compliant
Photo	:	



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

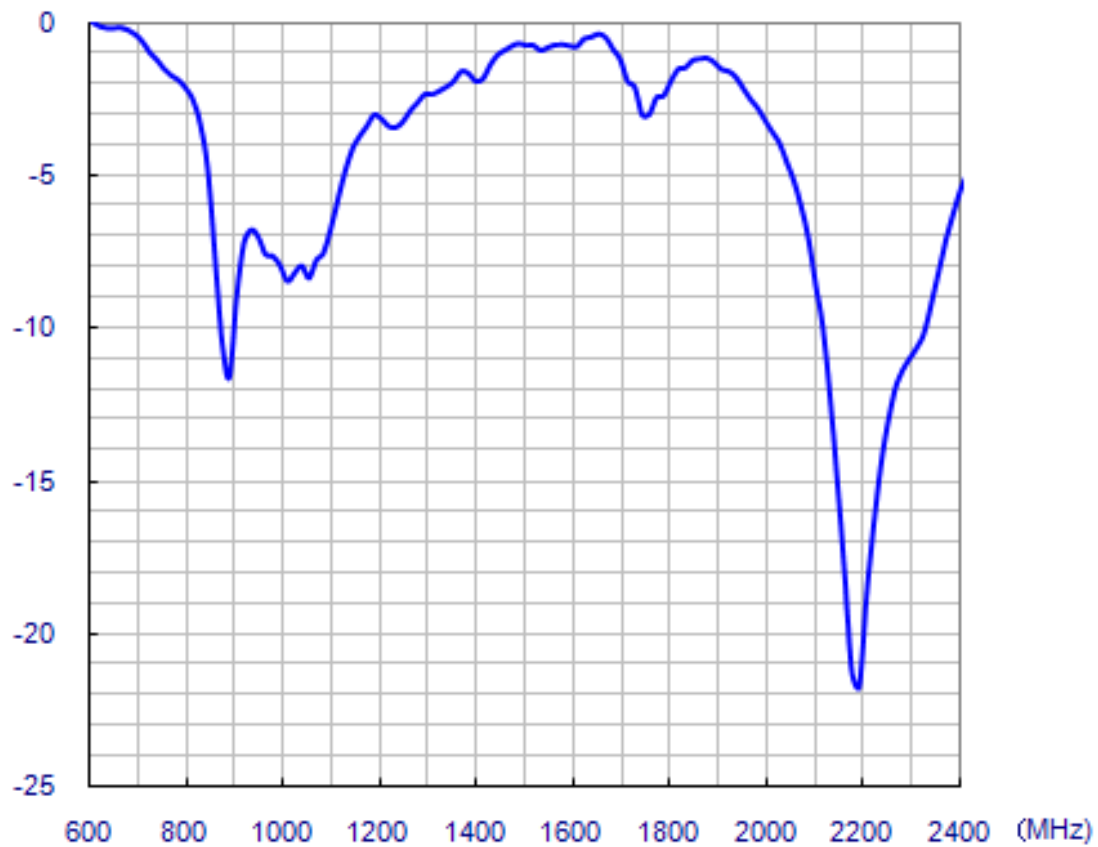
No	Parameter	Specification
1	Frequency Range	800MHz to 2200MHz
2	Bands	GSM-DCS-PCS-UMTS-CDMA-GPRS-EDGE-HSPA
3	VSWR	≤ 2.3
4	Power Handling	20W
5	Polarization	Linear
6	Impedance	50 Ohms
7	Connector	SMA(M)RA

2.2 Environmental & Mechanical Characteristics

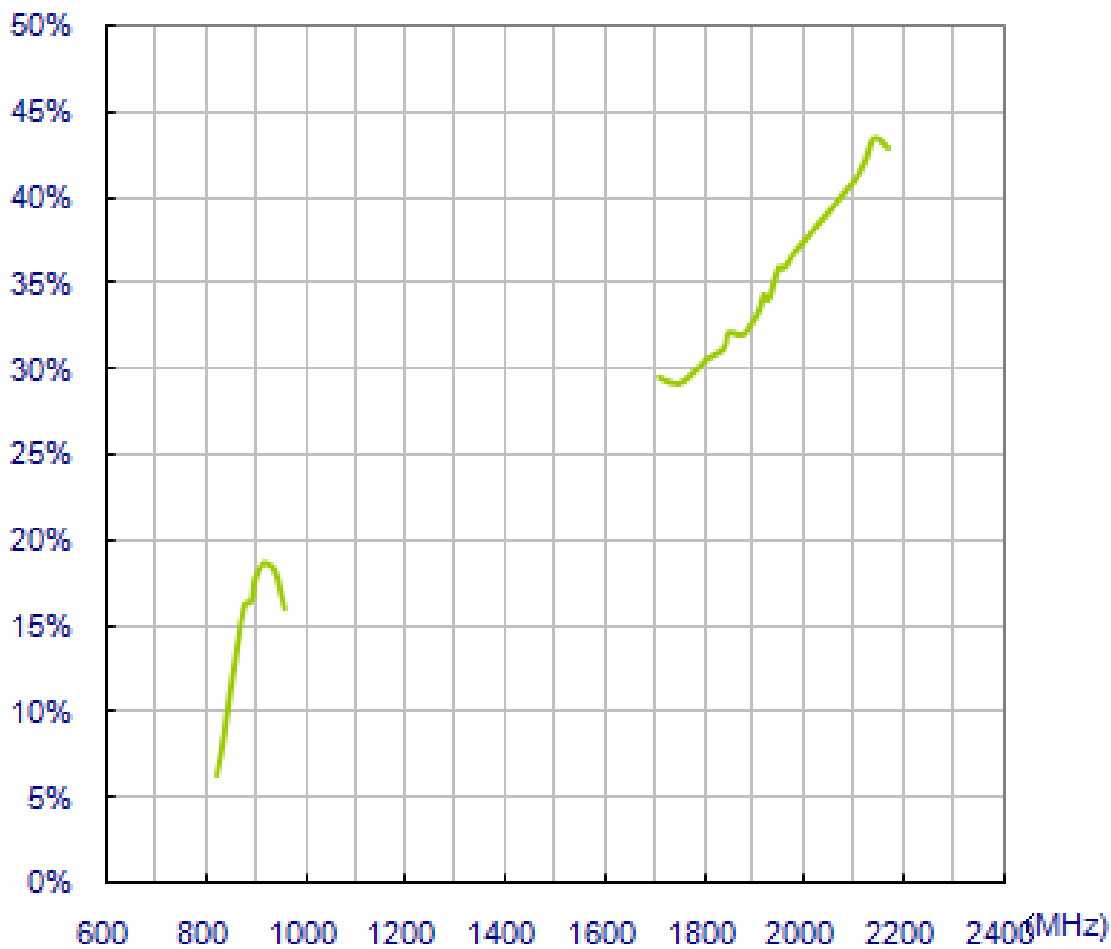
No	Parameter	Specification
1	Temperature	-40°C to +150°C
2	Radome Colour	Black
3	Radome Material	Dupont® Hytrel® TPEE
4	Weight	6g

3. Performance Measurements

3.1 Return Loss (dB)

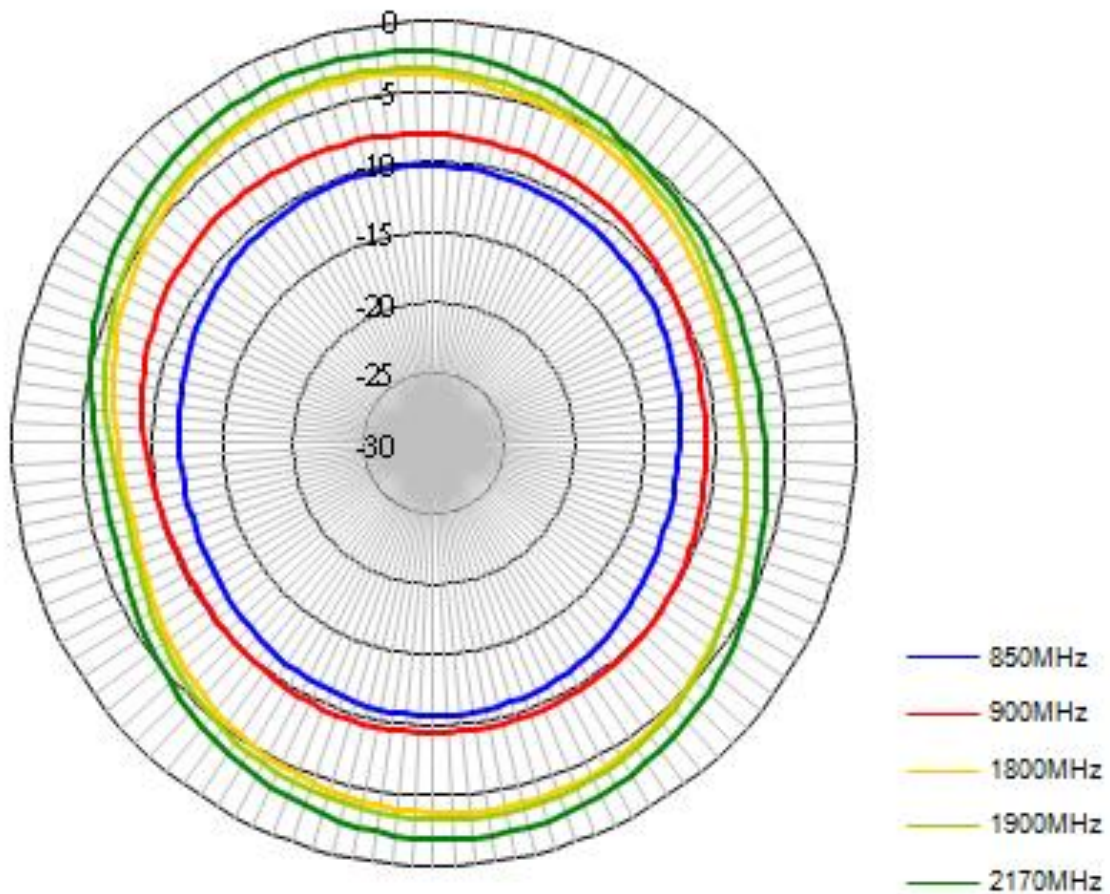


3.2 Efficiency (dB)

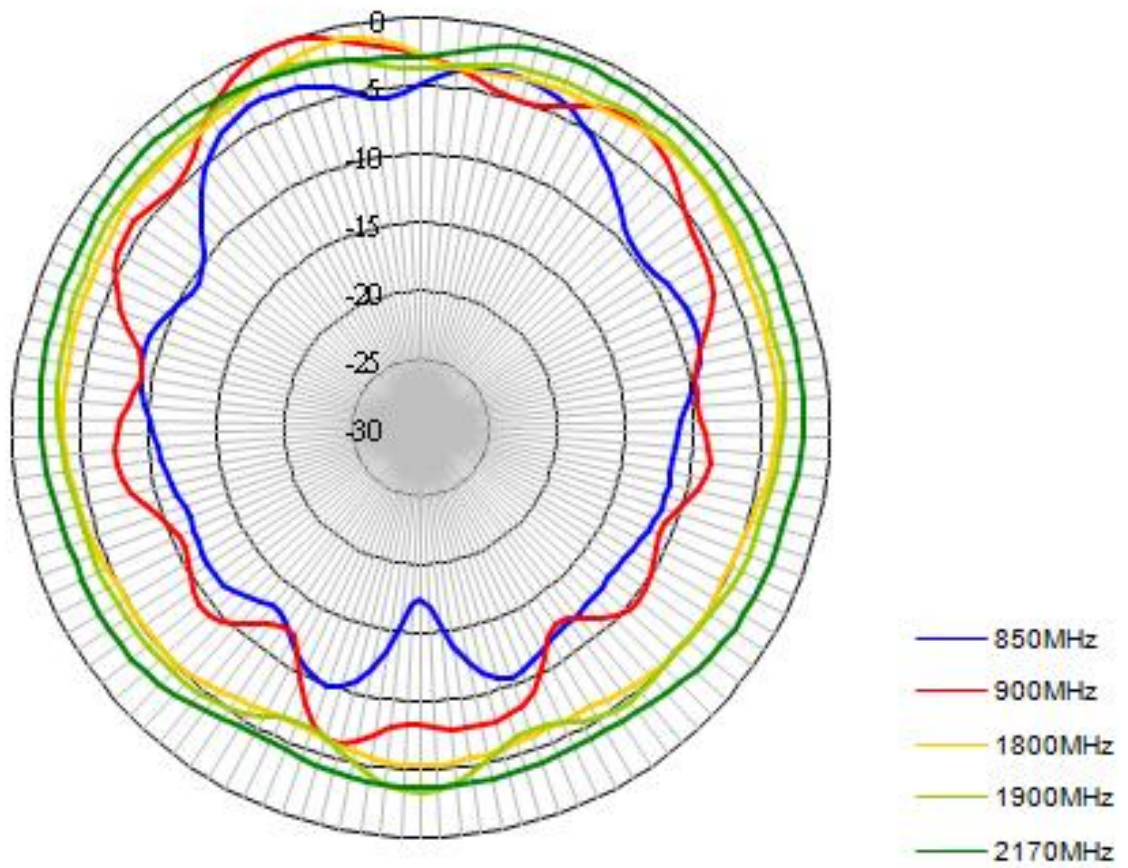


TG.22.0112	
Frequency	Efficiency
824	6.27%
836	8.09%
849	10.76%
869	14.60%
880	16.19%
894	16.45%
900	17.70%
915	18.58%
925	18.62%
940	18.21%
960	16.00%
1575	21.75%
1710	29.50%
1750	29.13%
1785	29.94%
1805	30.52%
1840	31.18%
1850	32.10%
1880	32.01%
1910	33.35%
1920	34.33%
1930	34.01%
1950	35.90%
1960	35.87%
1980	36.71%
1990	37.07%
2110	41.34%
2140	43.44%
2170	42.88%

3.3 Radiation Pattern Data

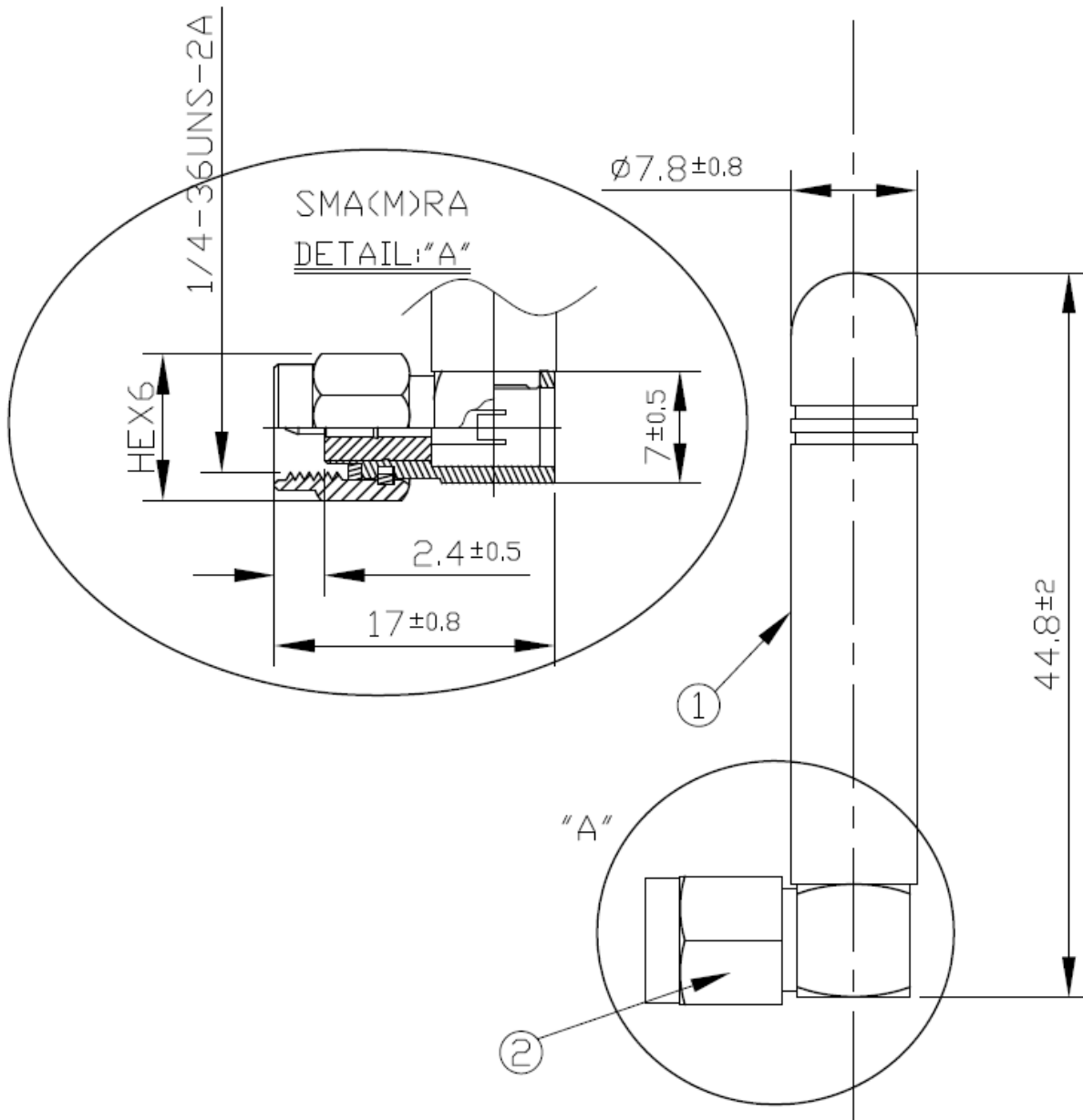


A. Radiation Pattern, Azimuth Plane (XY)



B. Radiation Pattern, Aligned at the Connector

4. Mechanical Drawing



	Name	P/N	Material	Finish	QTY
①	High Temperature Resistant Housing	000111K040002A	TPEE	Black	1
②	SMA(M)RA	210211G010002A	Brass	Gold	1

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