

SPECIFICATION

Part No.	:	TG.22.0112
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 ROHS Compliant
Photo	:	



1. Introduction

The TG.22.0112 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 fixed right angle SMA(M) connector with a hardened waterproof PU casing, this antenna is the ideal GSM antenna for telematics devices.

2. Antenna Performance

2.1 Electrical Specifications

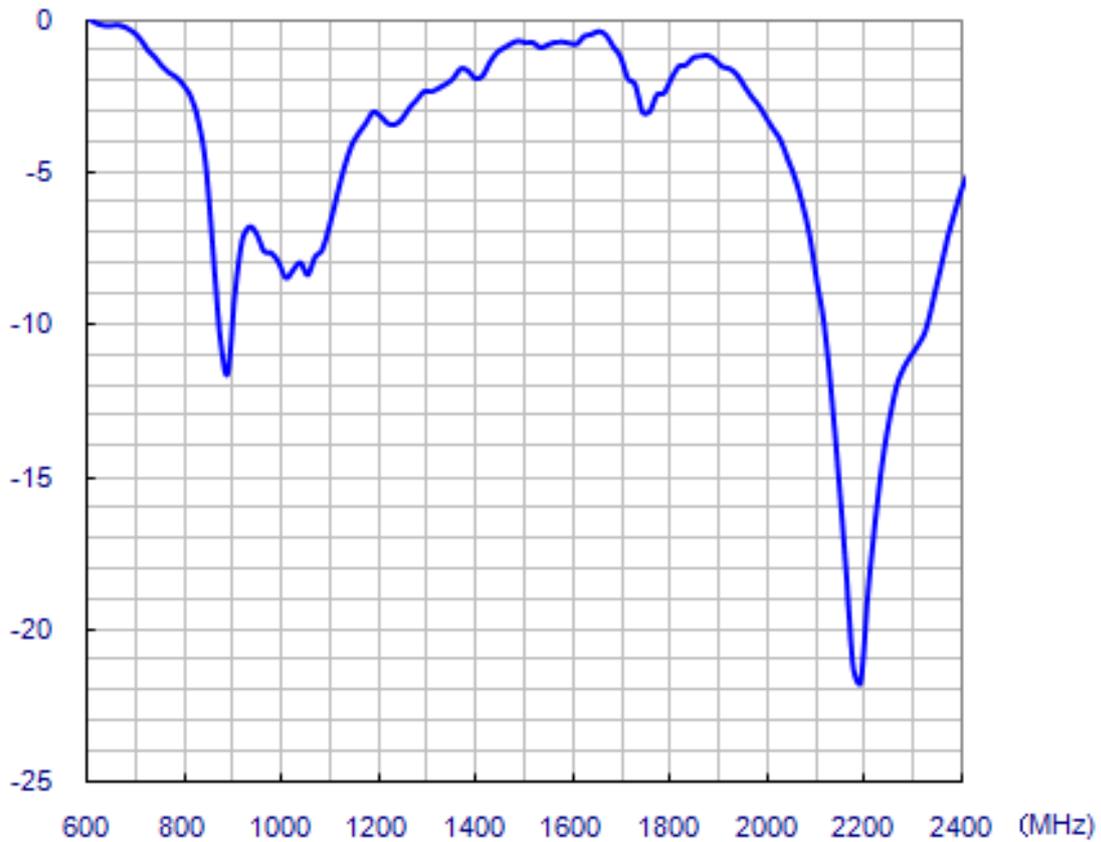
No	Parameter	Specification
1	Frequency Range	800MHz to 2200MHz
2	Bands	GSM-DCS-PCS-UMTS-CDMA-GPRS-EDGE-HSPA
3	VSWR	≤ 2.3
4	Power Handling	20W
5	Polarization	Linear
6	Impedance	50 Ohms
7	Connector	SMA(M)RA

2.2 Environmental & Mechanical Characteristics

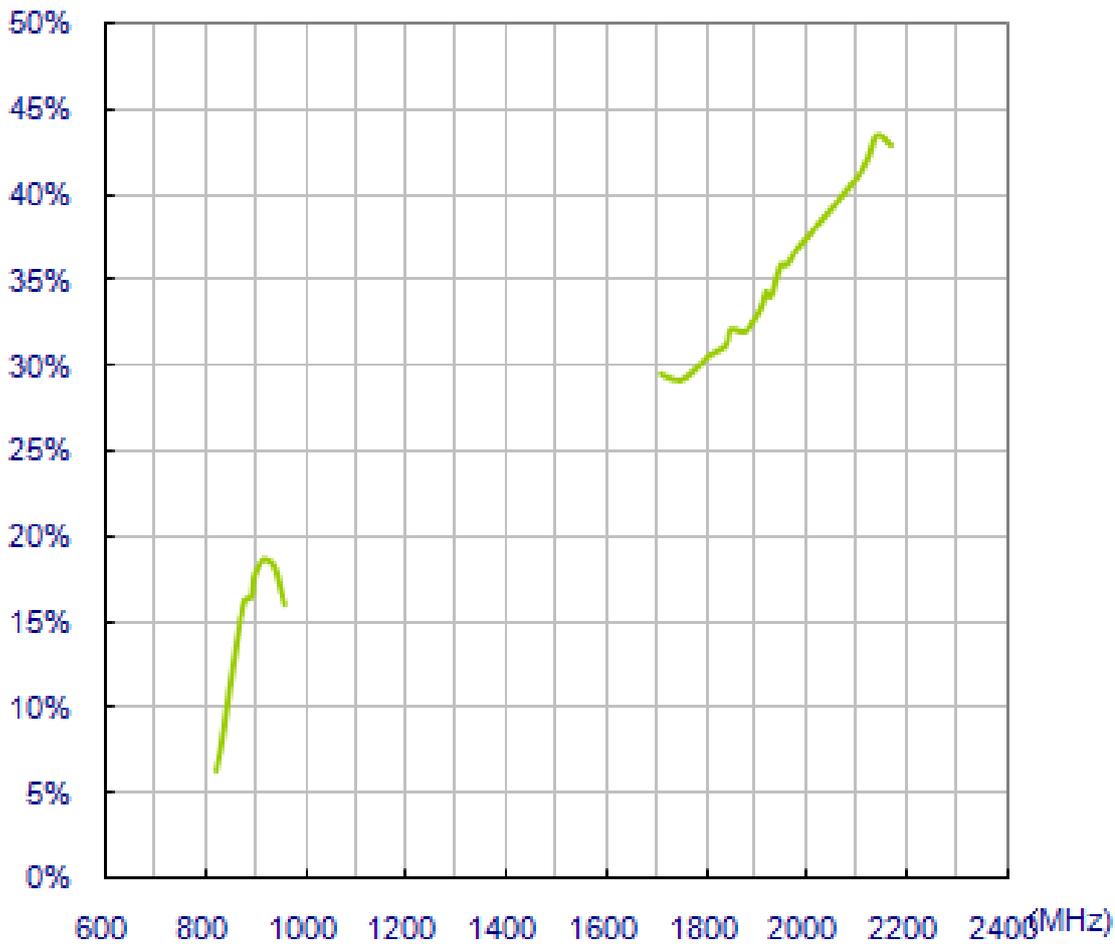
No	Parameter	Specification
1	Temperature	-40°c to +85°c
2	Radome Colour	Black
3	Radome Material	Pu
4	Weight	6g

3. Performance Measurements

3.1 Return Loss (dB)

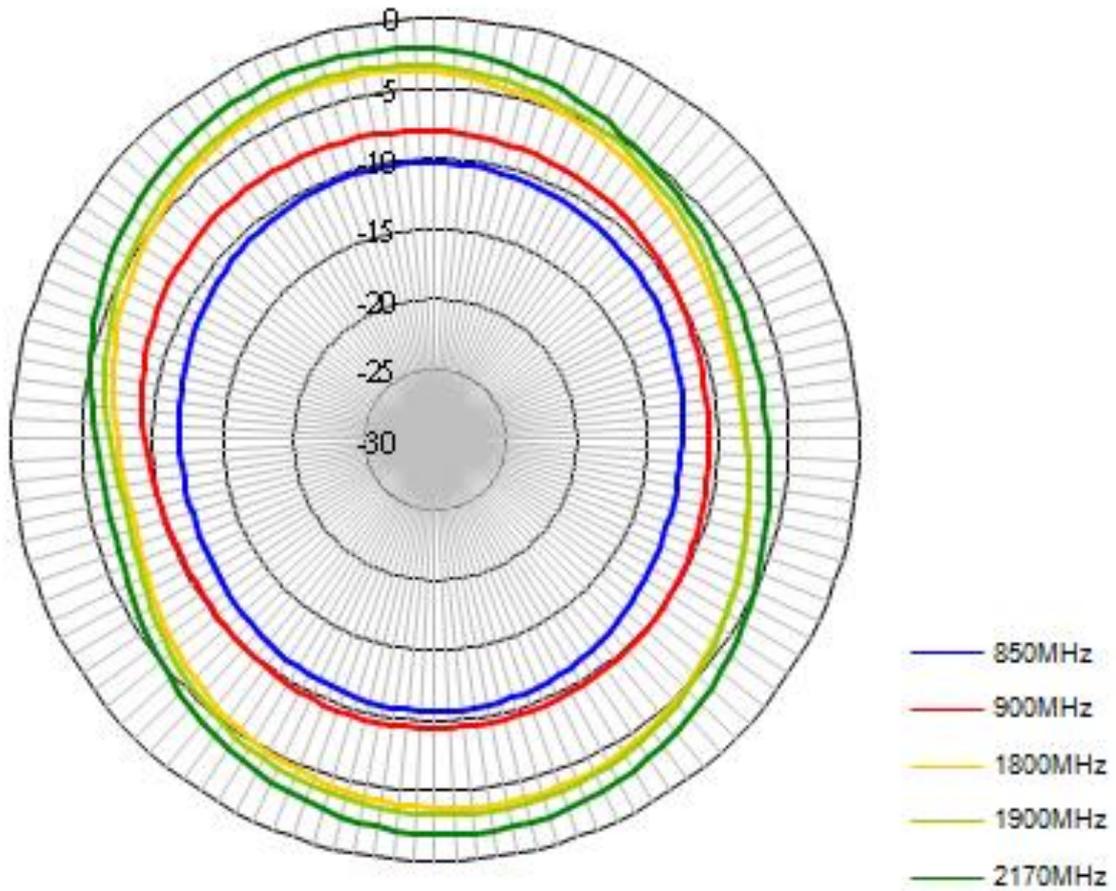


3.2 Efficiency (dB)

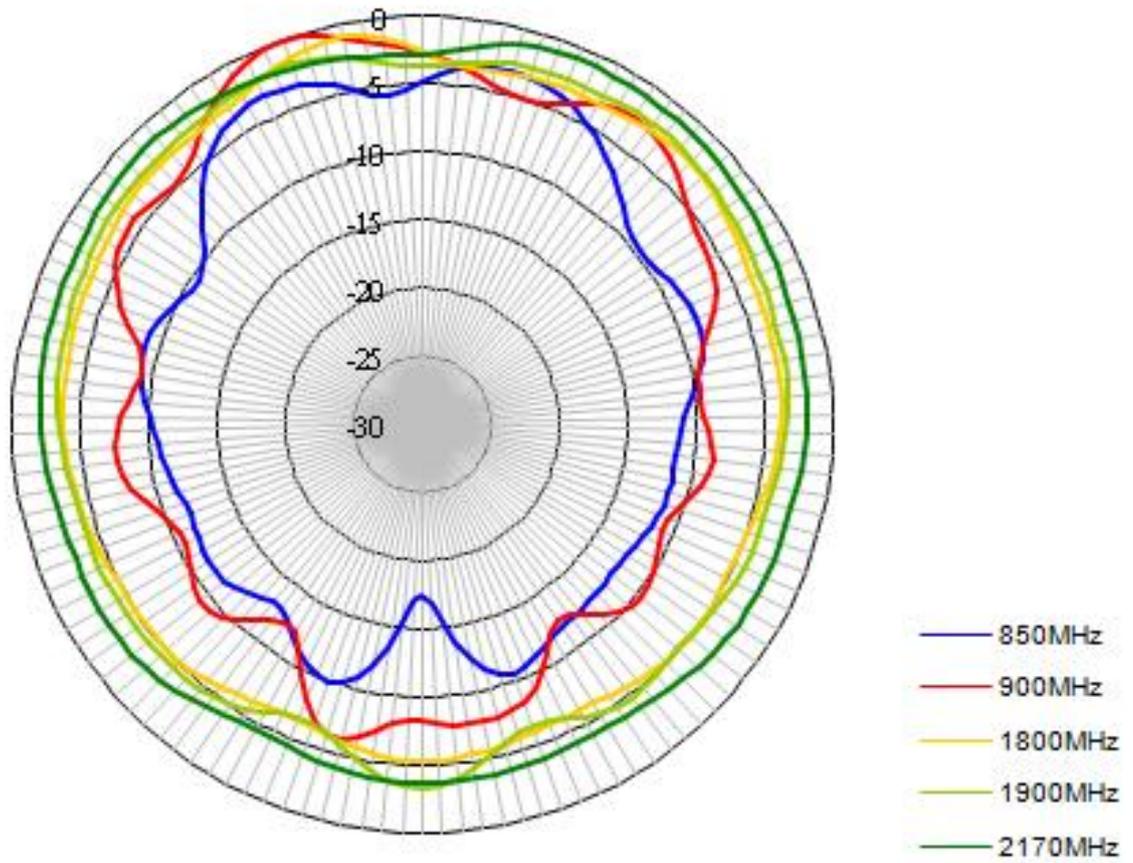


TG.22.0112	
Frequency	Efficiency
824	6.27%
836	8.09%
849	10.76%
869	14.60%
880	16.19%
894	16.45%
900	17.70%
915	18.58%
925	18.62%
940	18.21%
960	16.00%
1575	21.75%
1710	29.50%
1750	29.13%
1785	29.94%
1805	30.52%
1840	31.18%
1850	32.10%
1880	32.01%
1910	33.35%
1920	34.33%
1930	34.01%
1950	35.90%
1960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

3.3 Radiation Pattern Data

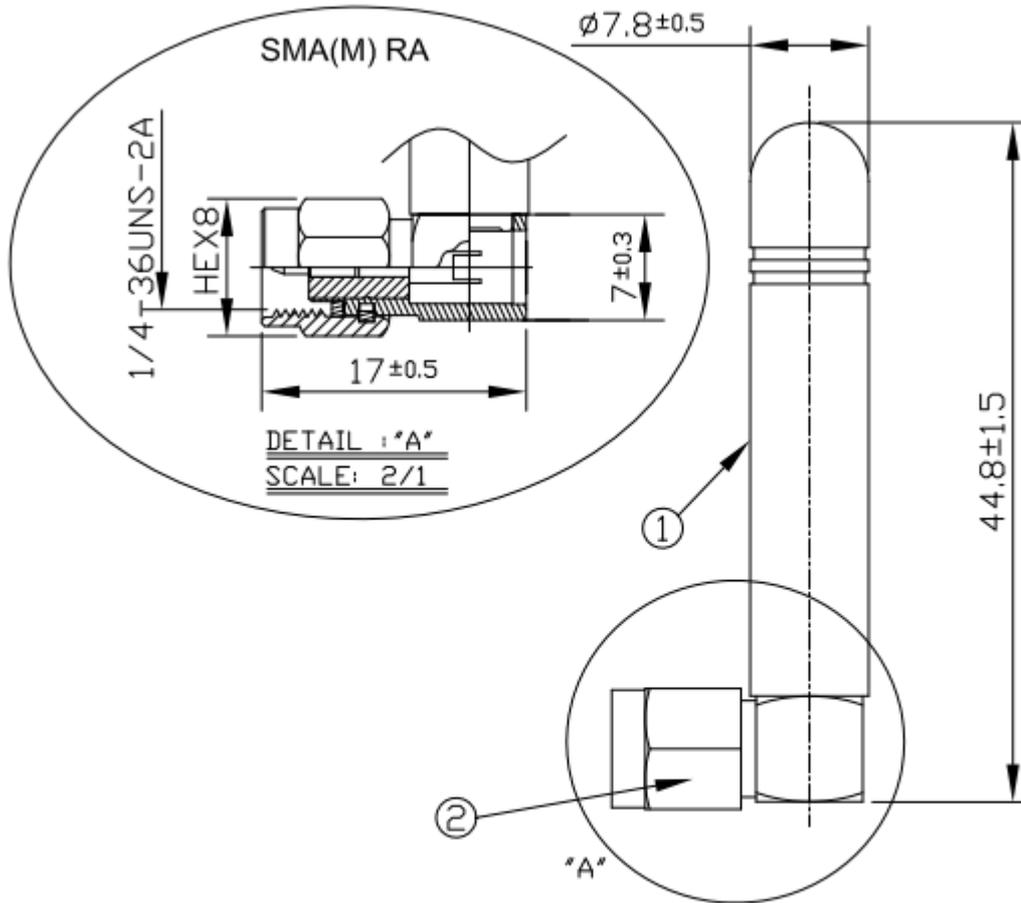


A. Radiation Pattern, Azimuth Plane (XY)



B. Radiation Pattern, Aligned at the Connector

4. Mechanical Drawing



	Name	Material	Finish	QTY
①	Antenna Housing	TPEE	Black	1
②	SMA(M) RA	Brass	Gold	1

unit:mm

5. 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.



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