

SPECIFICATION

Part No.	:	GA.108.201111
Product Name	:	Magnetic Telematic Penta-band antenna
Feature	:	Delivers high performance for all 2G/3G/3.5 networks worldwide. 800MHz to 2200MHz. Magnetic mount Custom cables and connectors available RoHS



1. Introduction

The GA.108 magnetic cellular band antenna delivers marked improvements in efficiency and gain across all common frequencies in use for cellular bands today. Now one antenna can be used in place of multiple part numbers.

Small enough to be used indoors and outdoors, the antenna performance has been designed to take advantage of any metal plate (ground-plane) it attaches to deliver best of class performance. The antenna has a maximum Magnetic pull-force of 0.16 kilogram-force (kgf).

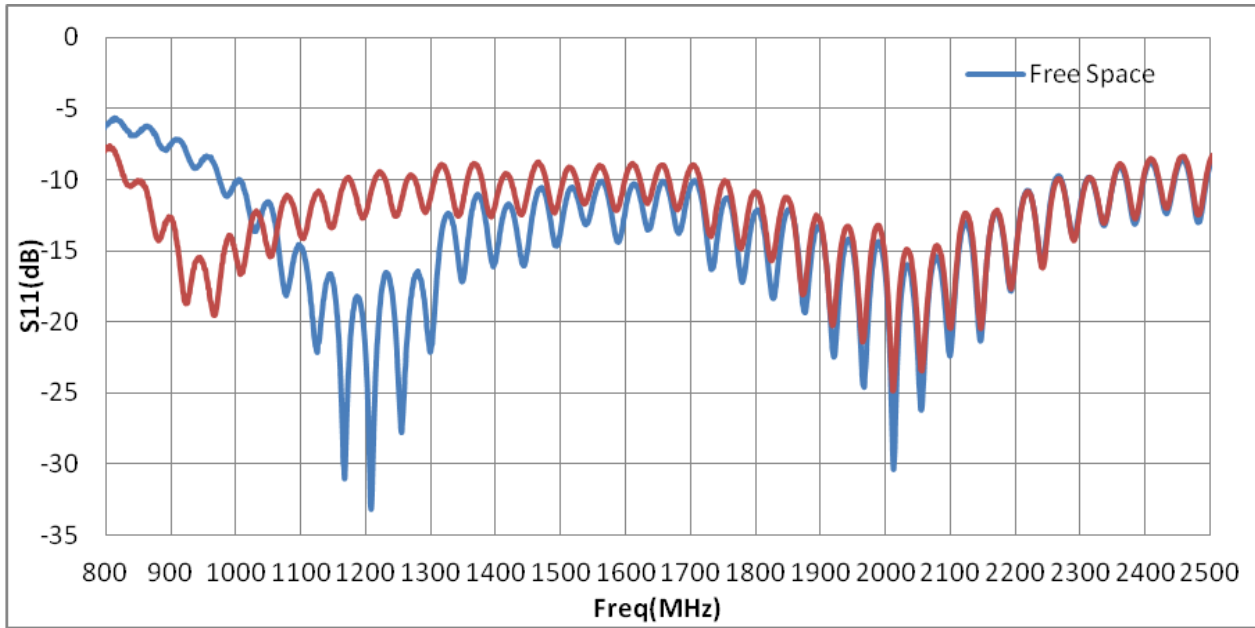
A reliable return loss of <10dB when mounted on a metal plate ensures it complies with the industry standards set by module makers and networks worldwide.

2. Specification

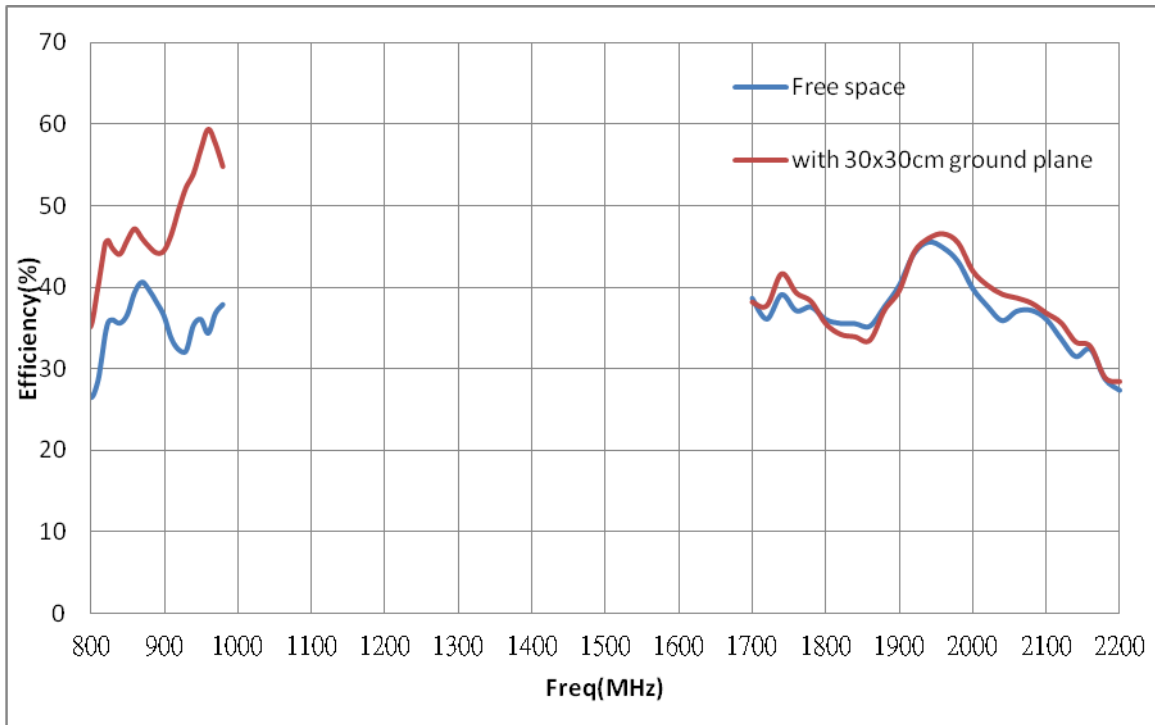
CELLULAR					
Frequency (MHz)	824 ~ 896	880 ~ 960	1710~1880	1850 ~ 1990	1990 ~ 2170
Peak Gain (dBi)					
Free Space	> -0	> -1.0	> -1.5	> -0.5	> -1.0
With metal Ground	> -0.5	> 1.0	> 1.0	> 1.5	> 0.0
Efficiency					
Free Space	35%	35%	35%	40%	35%
With metal Ground	45%	50%	35%	40%	35%
Impedance	50Ω				
Polarization	Linear				
Radiation Pattern	Omni				
Input Power	50 W				
MECHANICAL					
Dimensions	Length 122mm,Φ6.5mm				
Cable type	RG-174				
Cable length	2000mm				
Pull Force	0.16 kgf Max.				
Casing	ABS				
Connector	SMA Male				
ENVIRONMENTAL					
Temperature Range	-40°C to 85°C				
Humidity	Non-condensing 65°C 95% RH				

3. Antenna Characteristics

3.1 Return loss



3.2 Antenna Efficiency



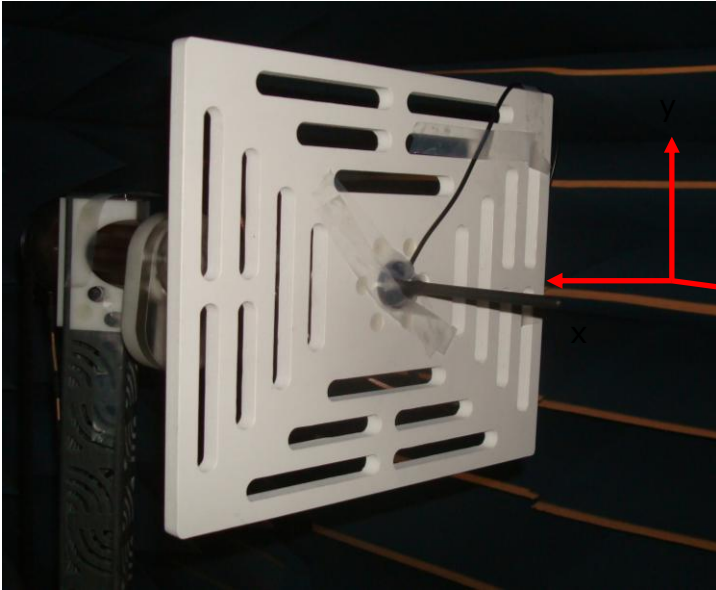
3.3 Peak Gain



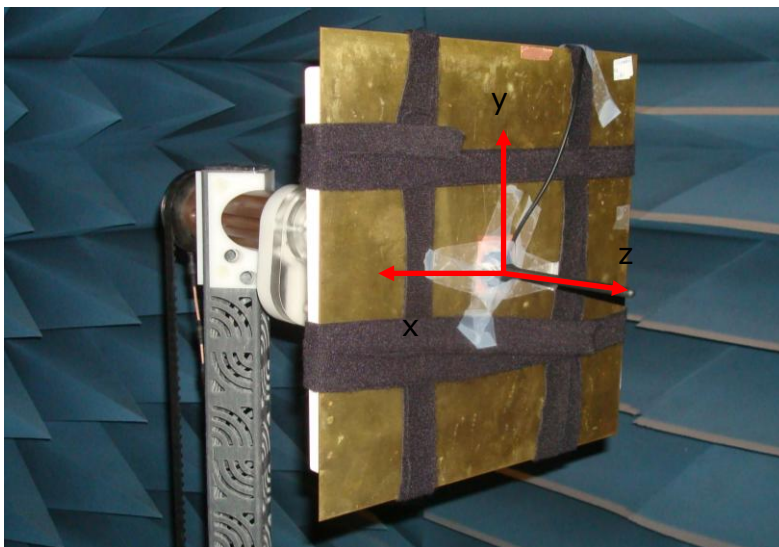
4. Antenna Radiation Pattern

4.1 Antenna Stand Alone

4.1.1 Free Space

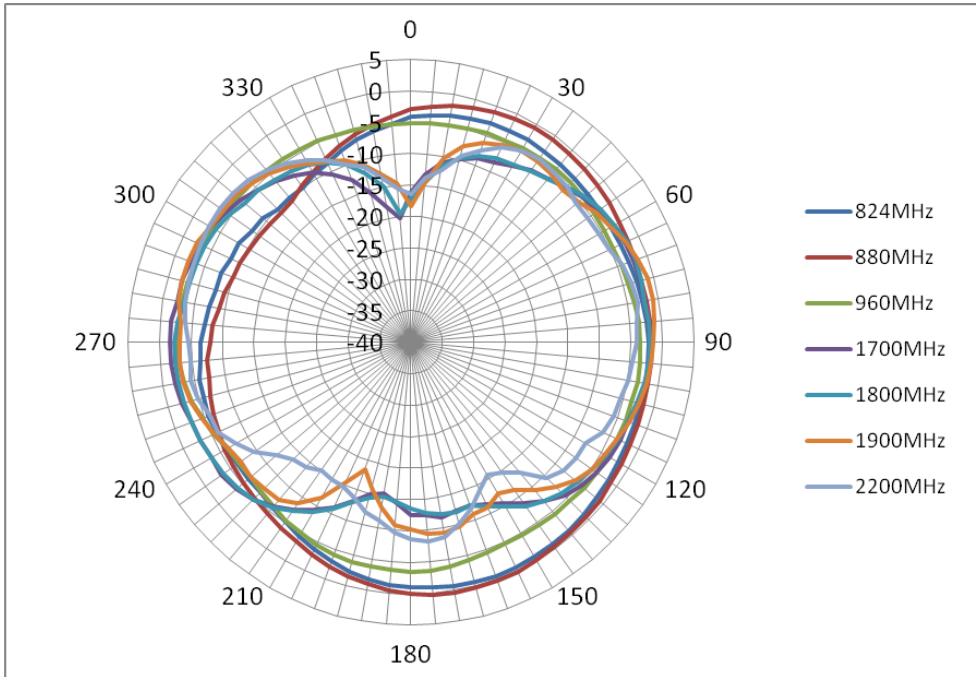


4.1.2 With metal Ground (300x300mm)

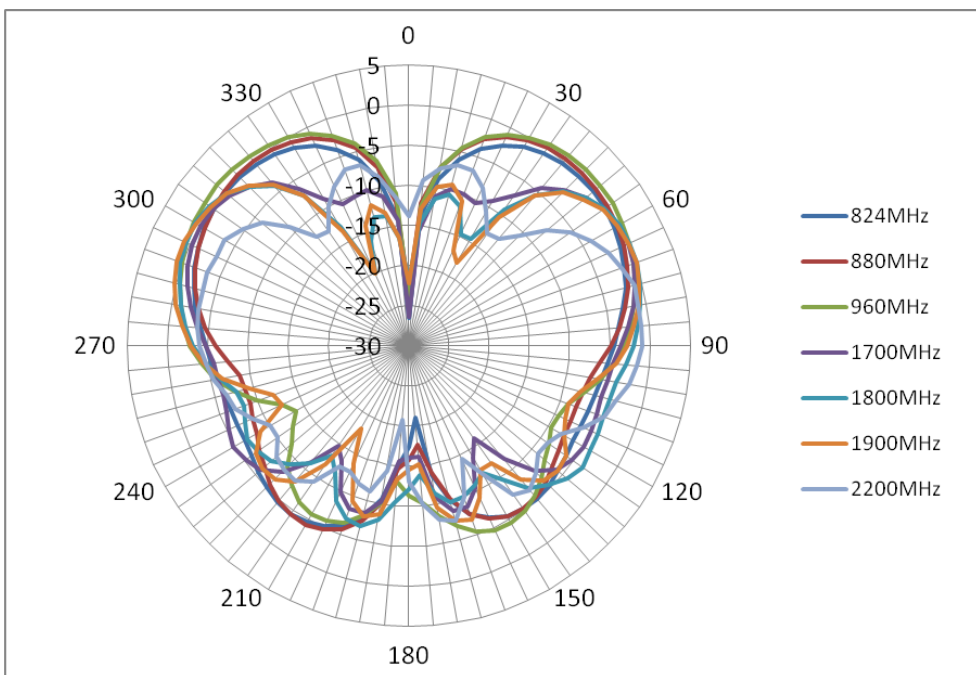


4.2 XZ –plane

4.2.1 Free space

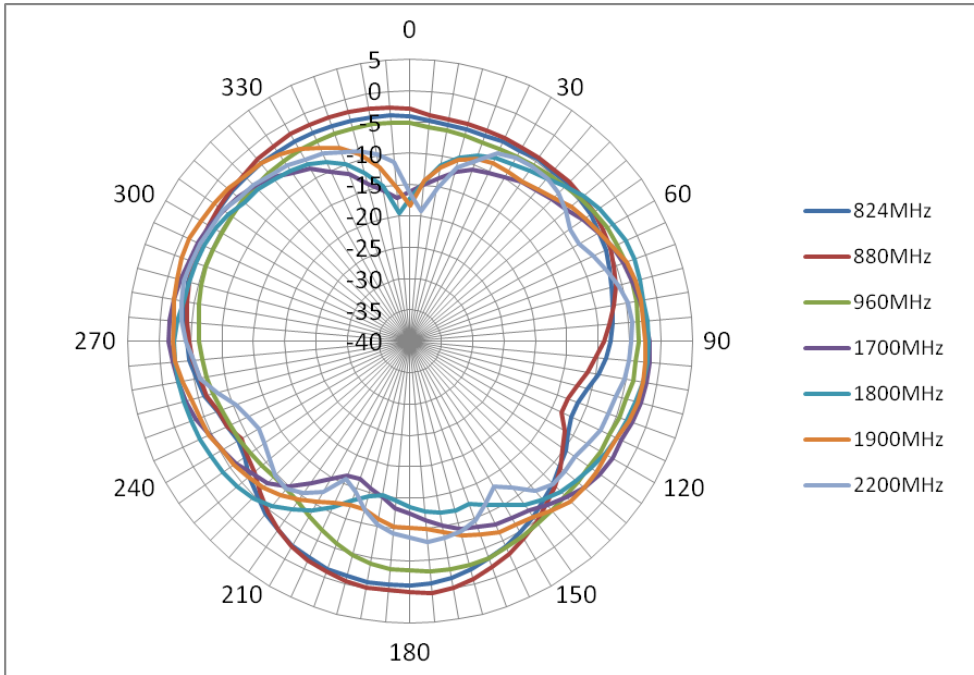


4.2.2 With metal ground (300X300mm)

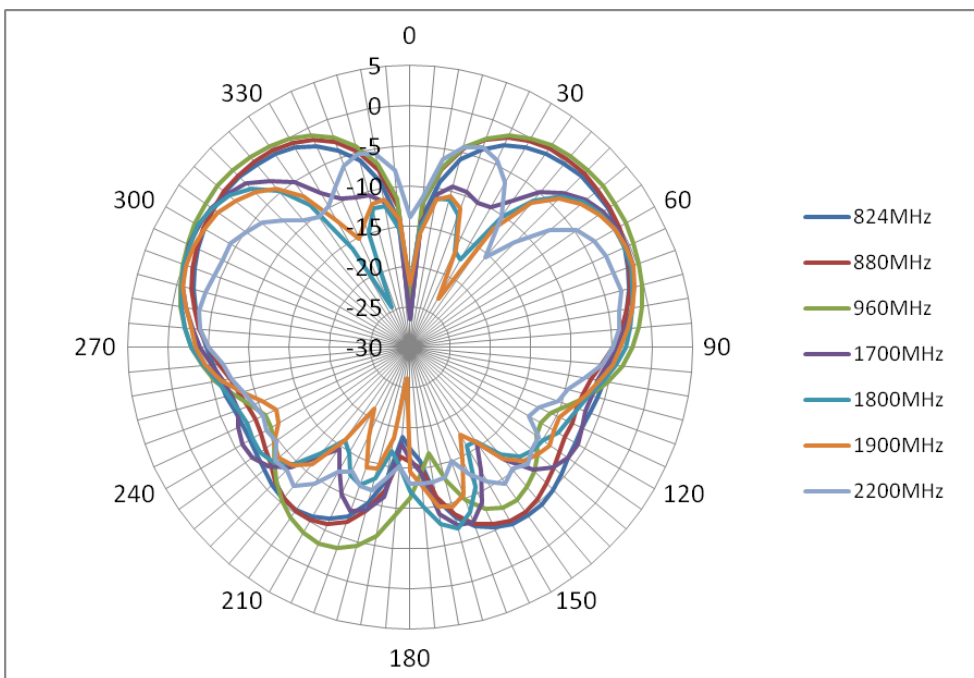


4.3 YZ -plane

4.3.1 Free space

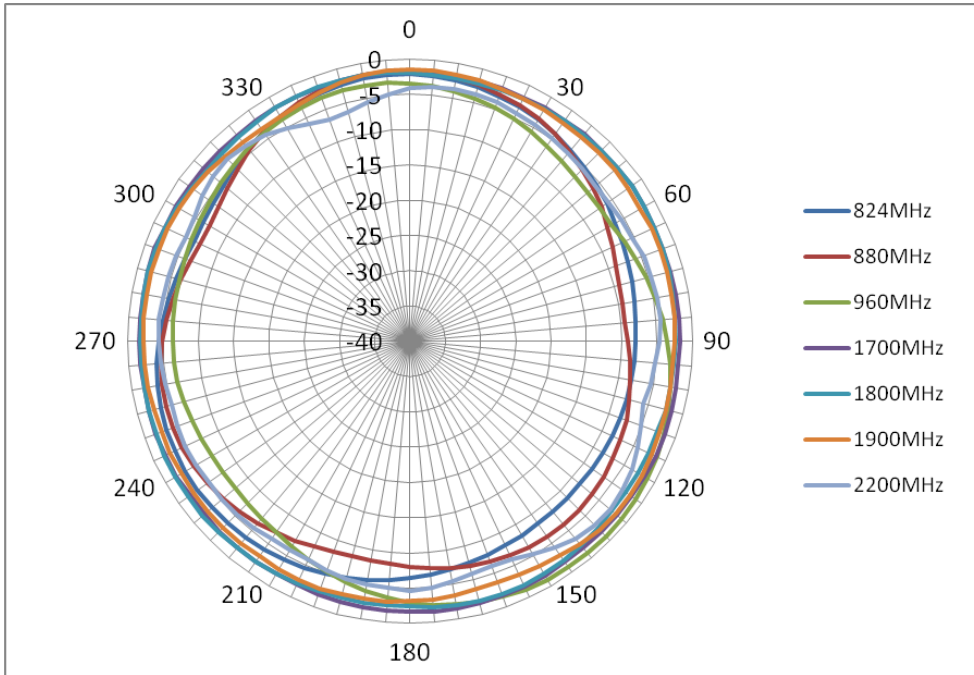


4.3.2 With metal ground (300X300mm)

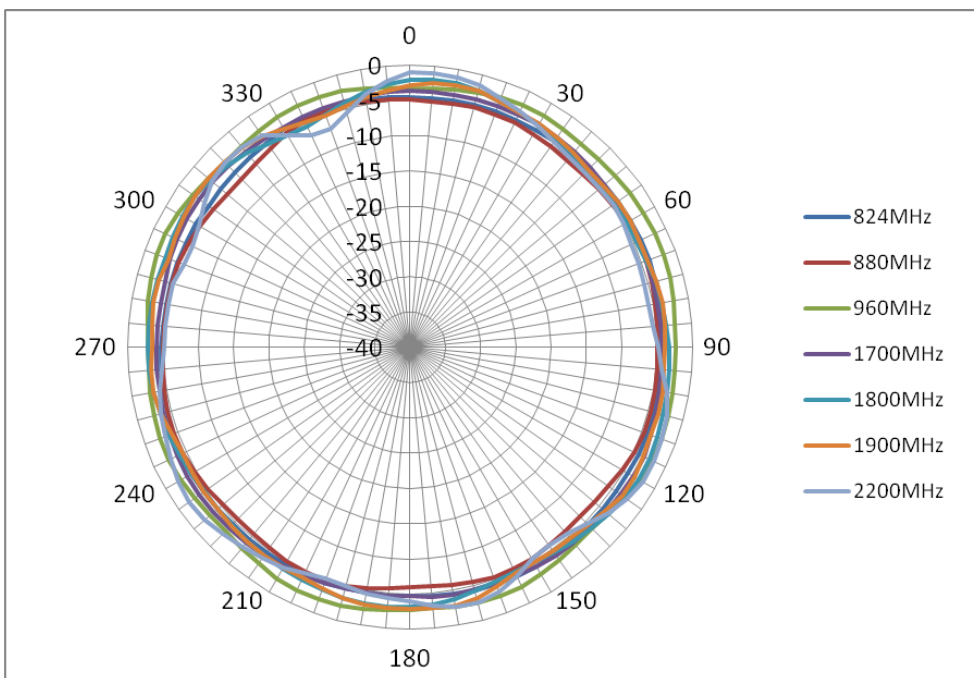


4.4 XY -plane

4.4.1 Free space

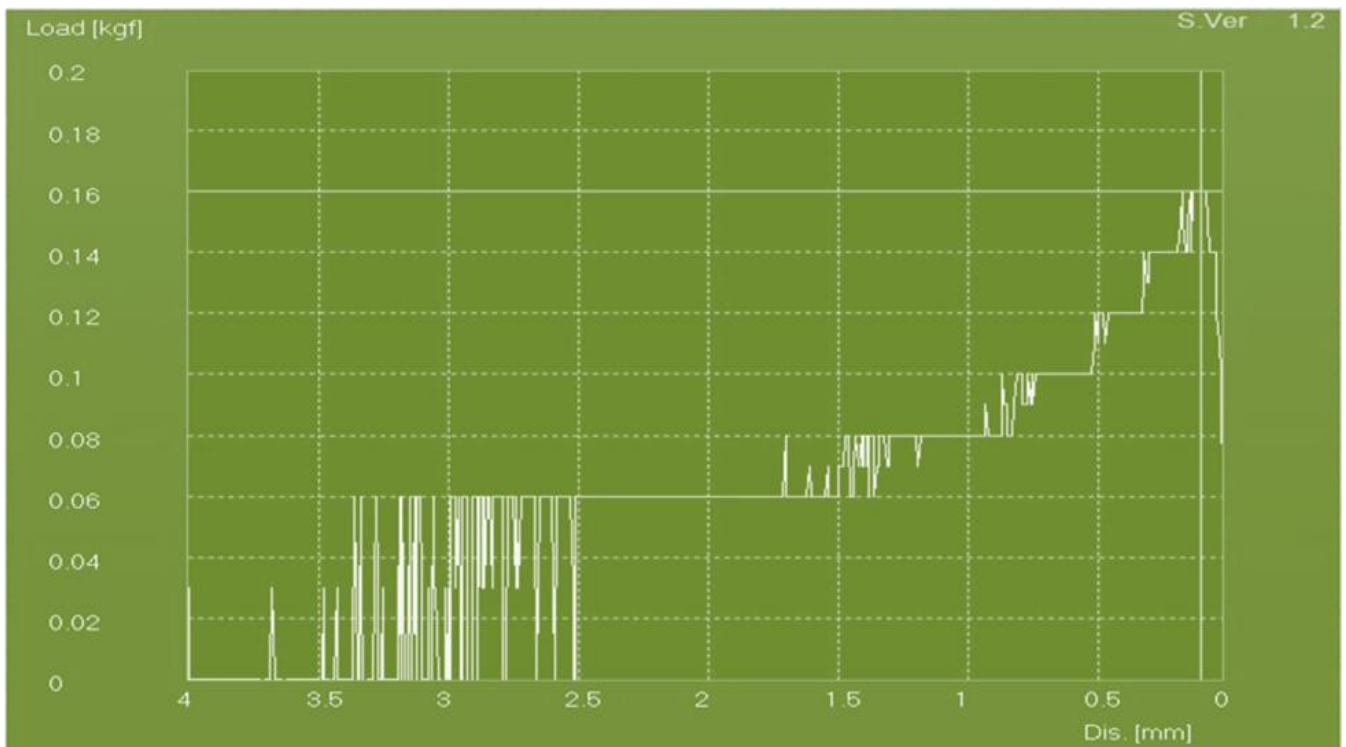


4.4.2 With metal ground (300X300mm)

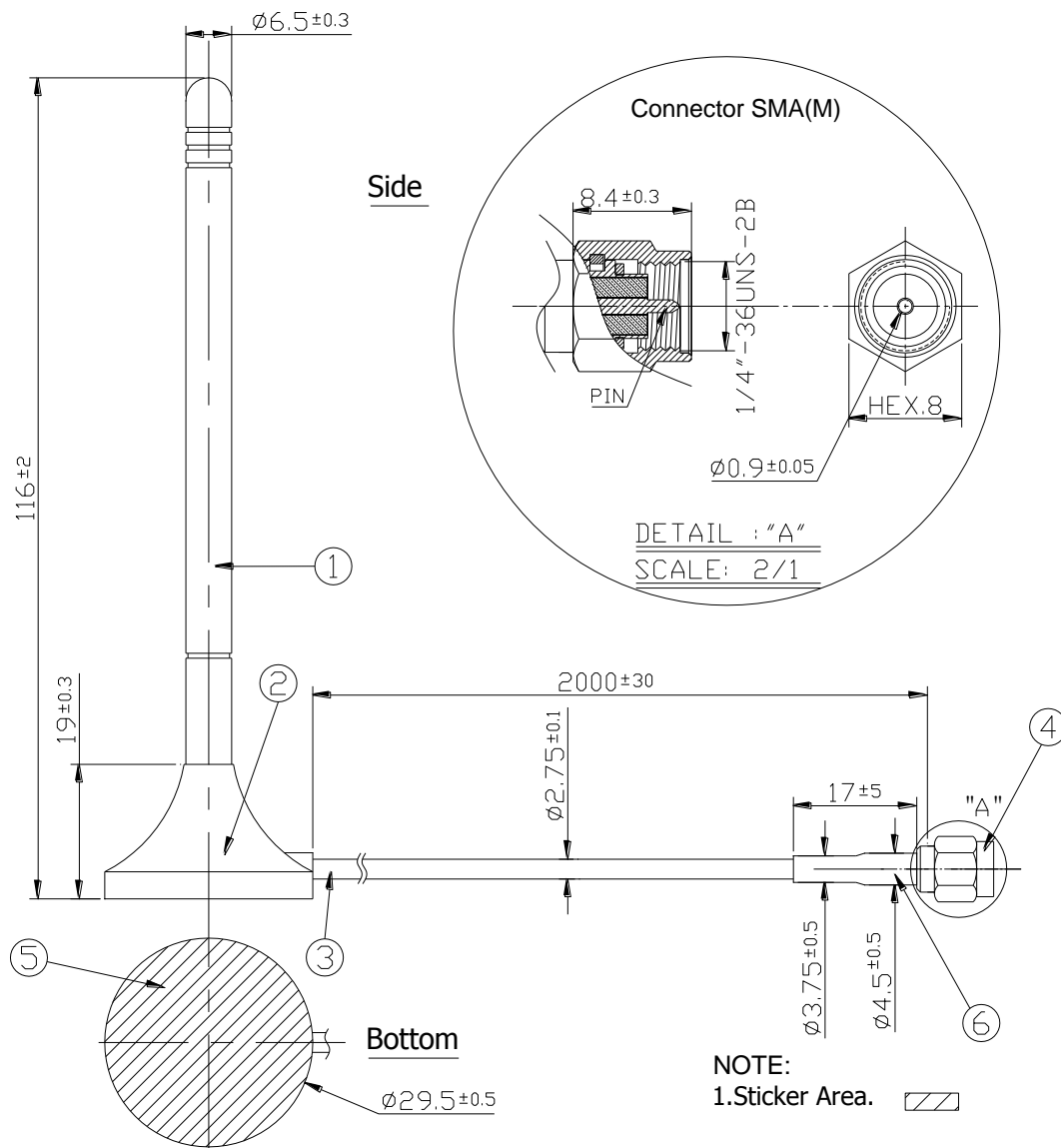


5. Magnetic Pull Force (kilogram-force (kgf))

Distance(mm)	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
Pull force(kgf)	0	0.16	0.14	0.14	0.12	0.11	0.1	0.1	0.1	0.08	0.08
Distance(mm)	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1
Pull force(kgf)	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Distance(mm)	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3	3.1	3.2
Pull force(kgf)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.03	0.03
Distance(mm)	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4			
Pull force(kgf)	0	0	0	0	0	0	0	0			



6. Drawing



	Name	P/N	Material	Finish	QTY
1	GA.107 Antenna Housing	000111J0400XXA	TPU	Black	1
2	Holder	000111J0500XXA	ABS	Black	1
3	RG174	301311F0000XXA	PVC	Black	1
4	SMA(M)	200211J000002A	Brass	Gold	1
5	Sticker	001011J1300XXA	Polyester	White	1
6	Strain Relief Bushing	001311J0300XXA	PE	Black	1

7. Packaging

