1. Application:

This application shall apply for antenna unit which shall be used such as automotive, conventional communications, smart home, etc. .

2. Electrical Specification:

Those specifications were specially defined for customer's model, and all characteristics were measured under the model's handset testing jig .

2-1. Frequency Band:

Frequency Band	MHz
WIFI+GNSS	WIFI: 2400-2500/5150-5850 GNSS: 1561/ 1575.42

2-2. Impedance

50 ohm nominal

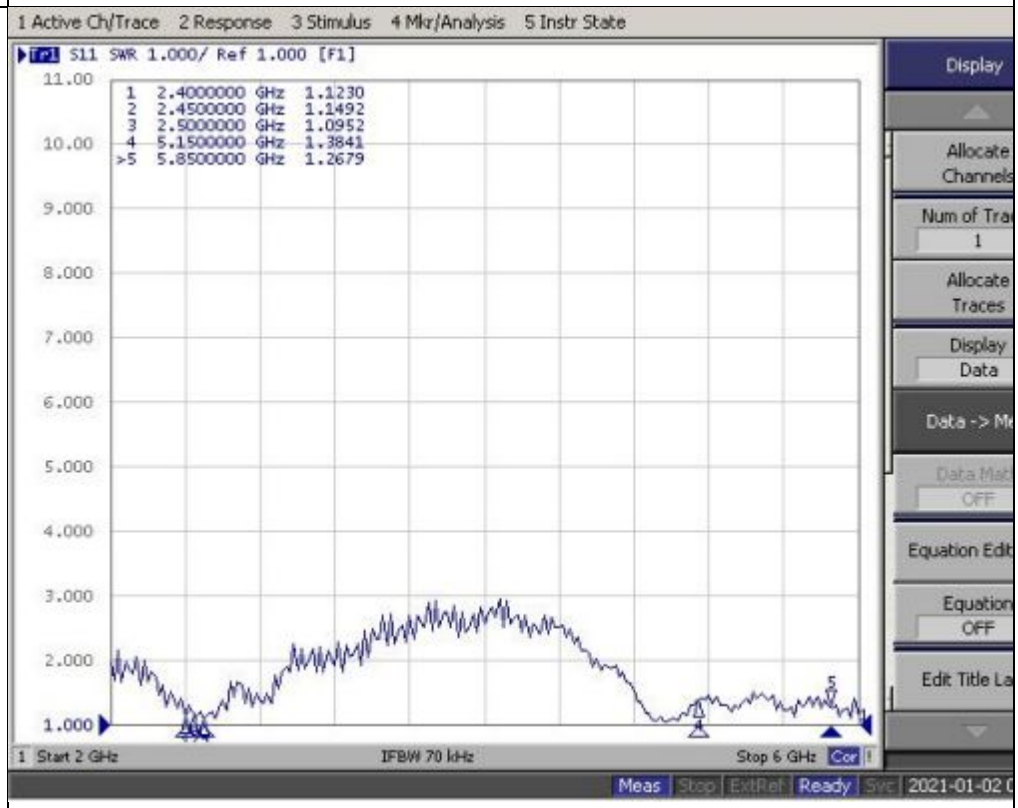
2-3.Waterproof grade

IP67

2-4. VSWR

WIFI antenna

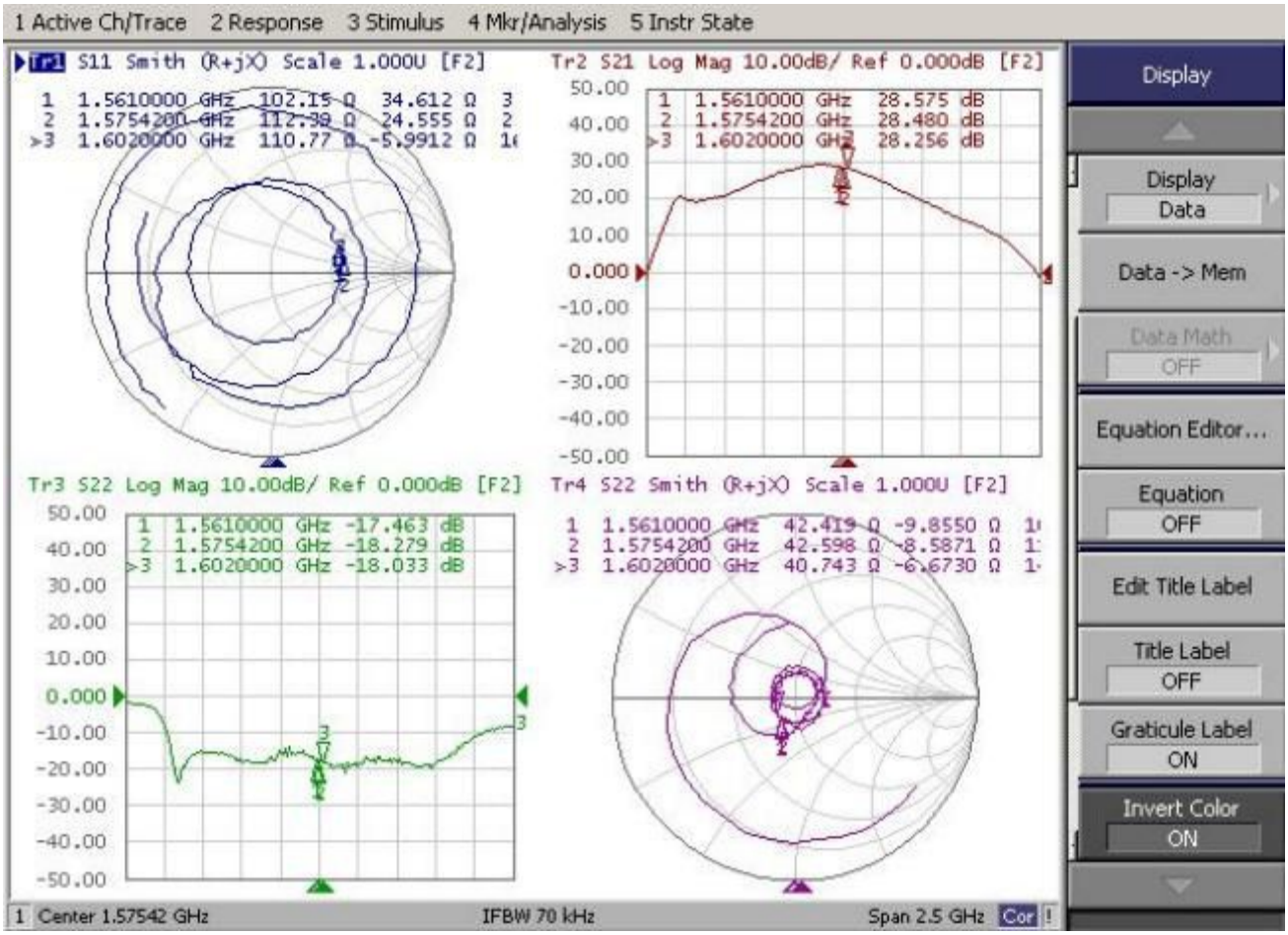
Frequency Band(MHz)	2400	2450	2500	5150	5850
Typical Value:	1. 12	1. 14	1.09	1.38	1.26

Measuring Method	1. A 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR. 2. Keeping this jig away from metal at least 20 cm
Picture	

2-4. VSWR

GNSS LNA

Characteristics	Specification
Frequency Range	1560MHz~ 1602MHz
Gain	28±3 dB
Noise Figure	2 0 dB typ
Output V.S.W.R	2.0 max
Operation Voltage	3.3~5 V
Current	10~25 mA

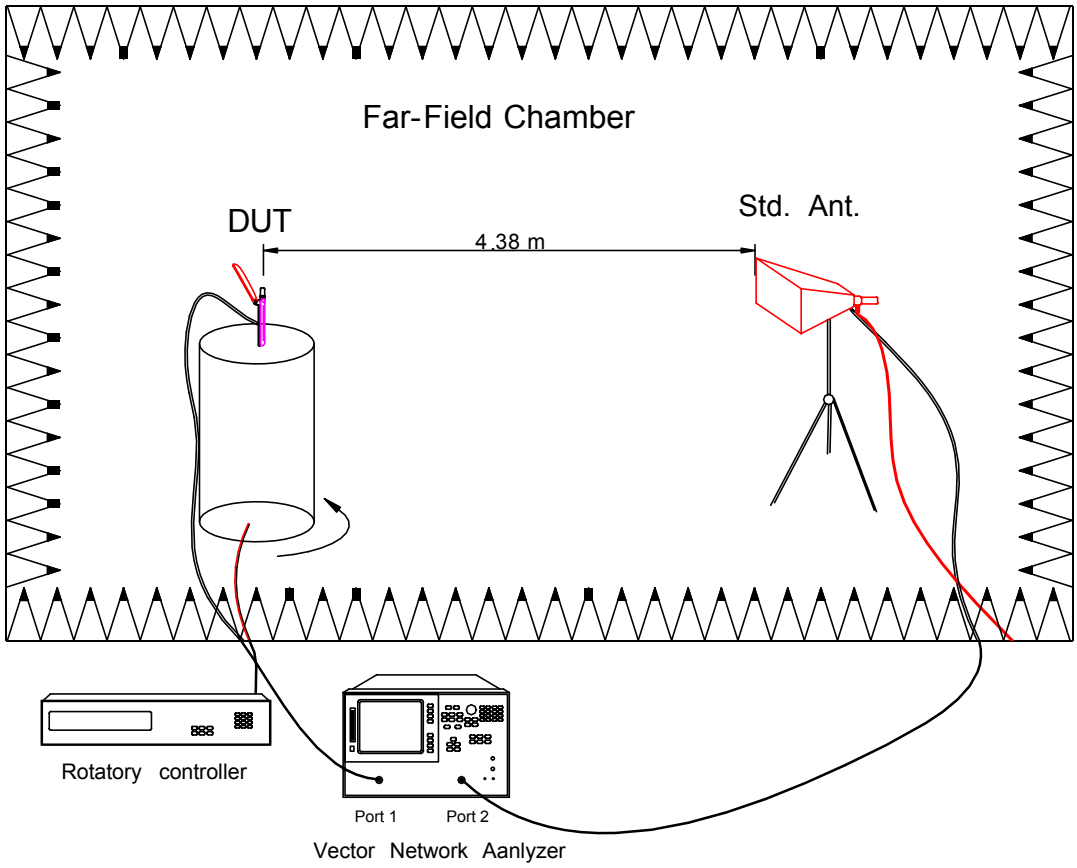


2-5. Efficiency and Gain

2-5.1 Measure method

1. Using a low loss coaxial cable to link a standard handset jig
2. Fixed this handset jig on chamber's rotator plane
3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
4. Using another standard gain horn antenna to calibrated those data

2-5.2 Chamber definition



1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quite room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF 600MHz ~6GHz)

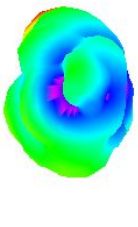
2-5-3 Efficiency and Gain/WIFI antenna

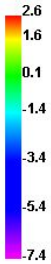
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	46.46	-3.33	2.6
2410	59.66	-2.24	3.7
2420	44.02	-3.56	2.4
2430	49.62	-3.04	2.84
2440	52.21	-2.82	2.61
2450	47.99	-3.19	2.52
2460	49.27	-3.07	2.7
2470	52.82	-2.77	2.65
2480	51.34	-2.9	2.92
2490	52.84	-2.77	3.1
2500	50.88	-2.93	2.46

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	31.53	-5.01	0.86
5200	28.91	-5.39	-0.02
5250	25.07	-6.01	-0.44
5300	21.09	-6.76	-1.08
5350	31.78	-4.98	1.11
5400	33.78	-4.71	1.76
5450	32.49	-4.88	0.97
5500	29.41	-5.31	1.18
5550	25.15	-5.99	0.17
5600	24.3	-6.14	0.32
5650	31.86	-4.97	0.37
5700	32.32	-4.91	0.65
5750	28.89	-5.39	-0.23
5800	39.06	-4.08	1.05
5850	33.03	-4.81	0.74

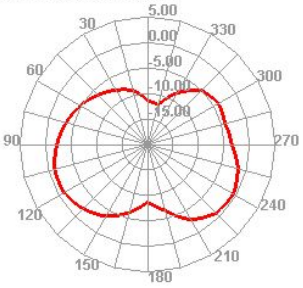
2-6 3D Date

2400.000MHz

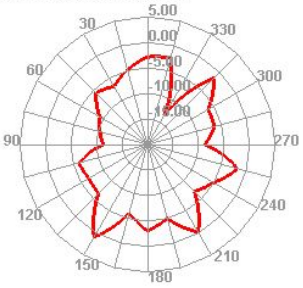




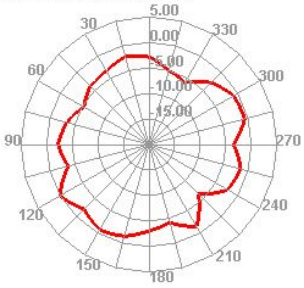
2400.000MHz H



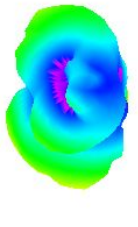
2400.000MHz E1

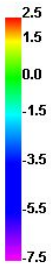


2400.000MHz E2

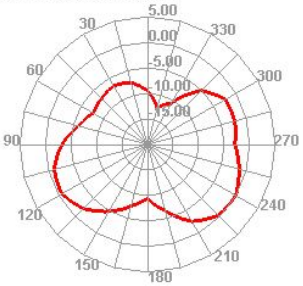


2450.000MHz

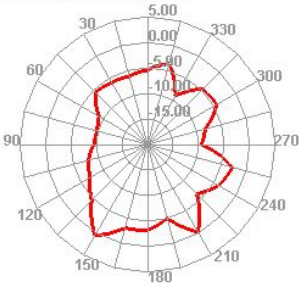




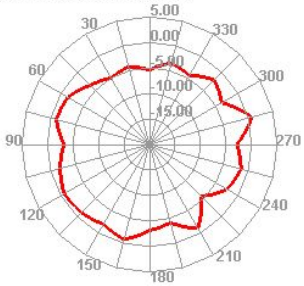
2450.000MHz H



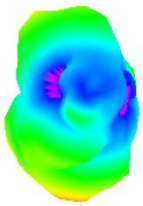
2450.000MHz E1

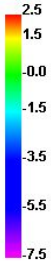


2450.000MHz E2

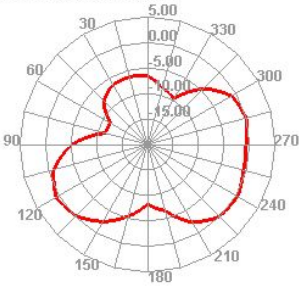


2500.000MHz

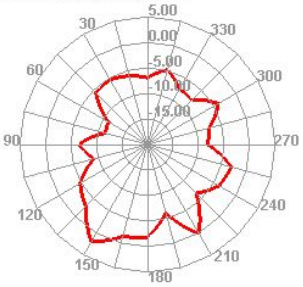




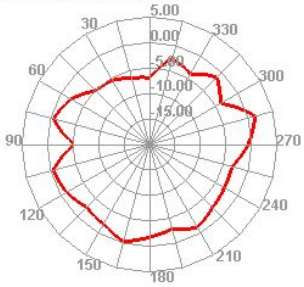
2500.000MHz H



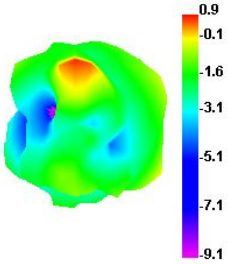
2500.000MHz E1



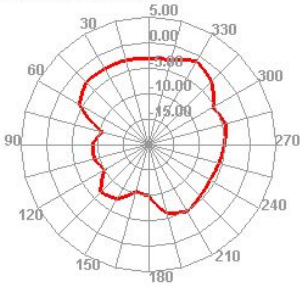
2500.000MHz E2



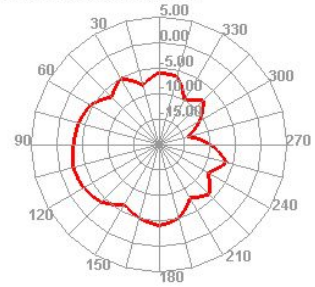
5150.000MHz



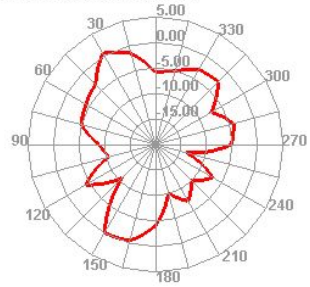
5150.000MHz H



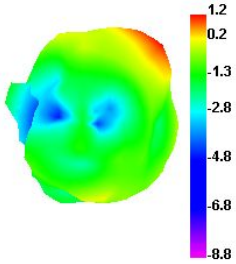
5150.000MHz E1



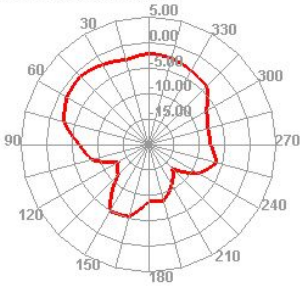
5150.000MHz E2



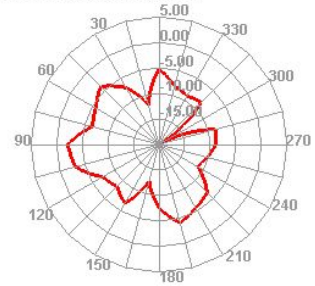
5500.000MHz



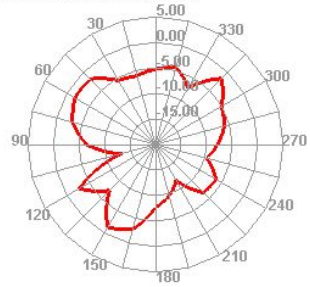
5500.000MHz H



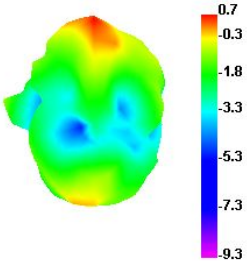
5500.000MHz E1



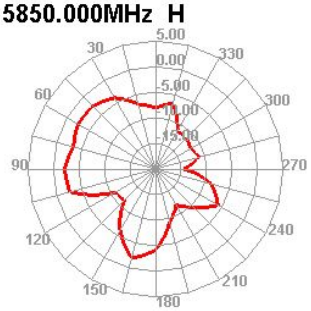
5500.000MHz E2



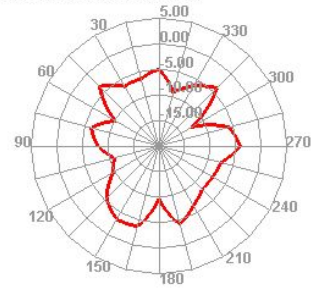
5850.000MHz



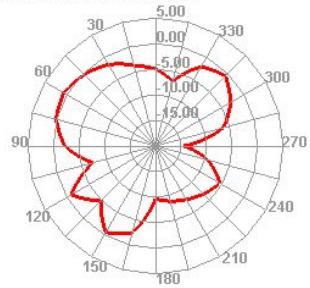
5850.000MHz H



5850.000MHz E1



5850.000MHz E2

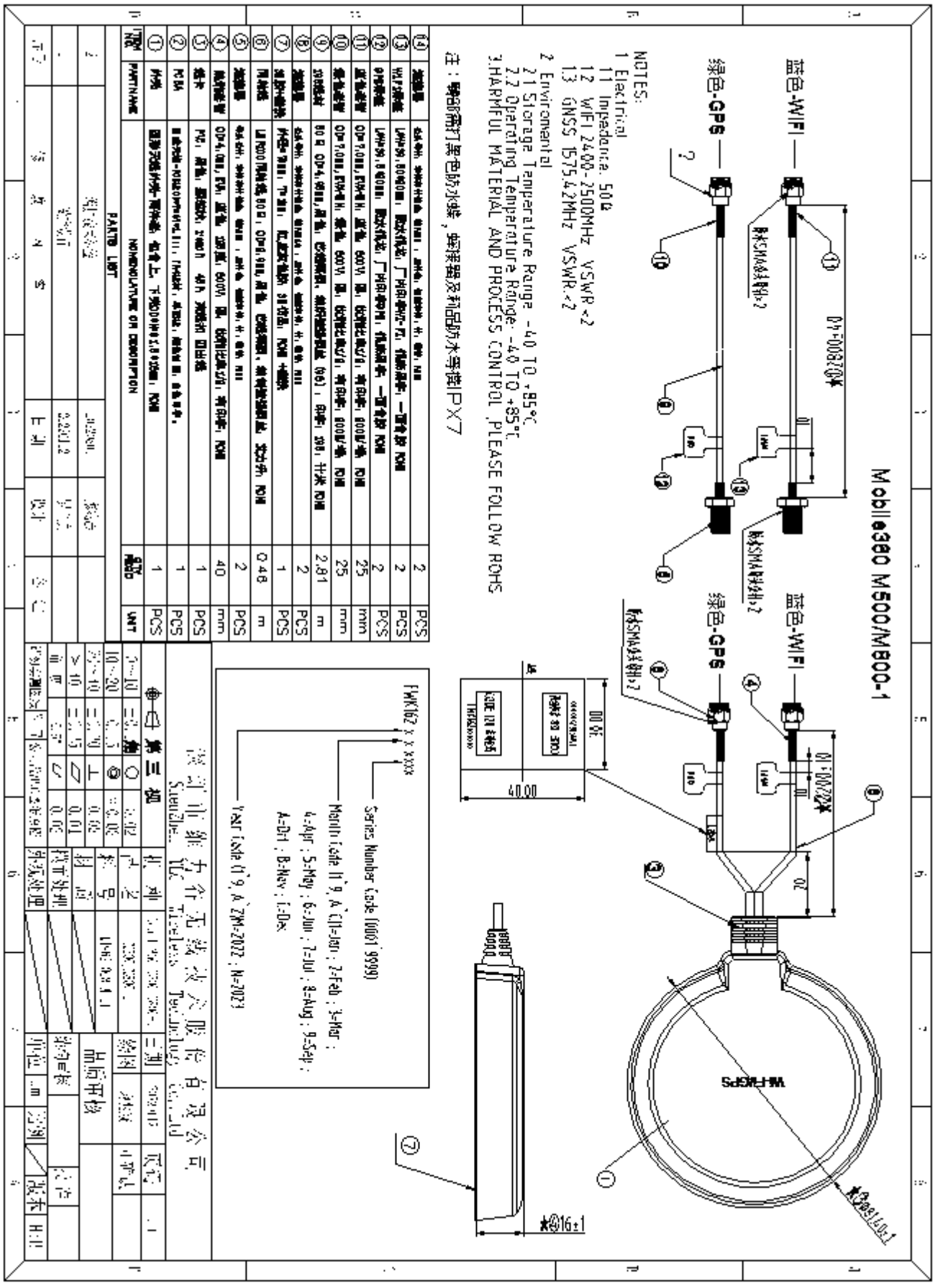


H=XY
E1=XZ
E2=YZ

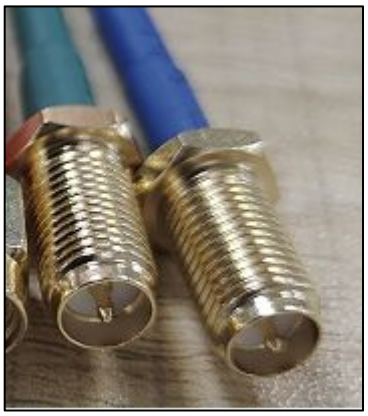
3. Mechanical Specification:

3-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing



3-2. Connector appearance: SMA PLUG



4 .Packaging specification：

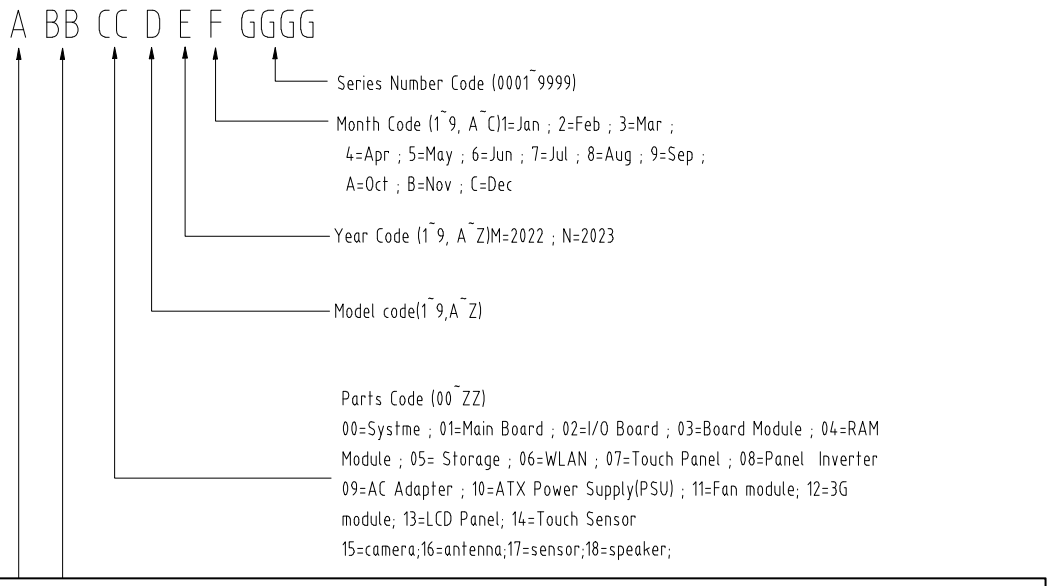
一、Label requirements：

威盛料号：99G26-13103T-01 VIA PART NO.	订货号：V1962-008-A-01 NO.：
品名：Mobile360 M500/M800 Wi-Fi/GPS antenna NAME.	
规格：SMA 2-in-1 antenna for Wi-Fi/GPS SPEC.	
订单号：按订单填写 PO.	
日期：填实际日期 Y/M/D	数量：填实际数量 QTY.

CODE 128 条码区域

FWK162xxxxxx

二、Bar code coding：



三、Boxing：

A. Transfer 1pcs products and 2pcs to the wire
(blue, green Each 1pcsput in PE bags and sealed。

B. 40pcs of the PE bags will be packed in cartons.
Seal the box and post the outside box label.