

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

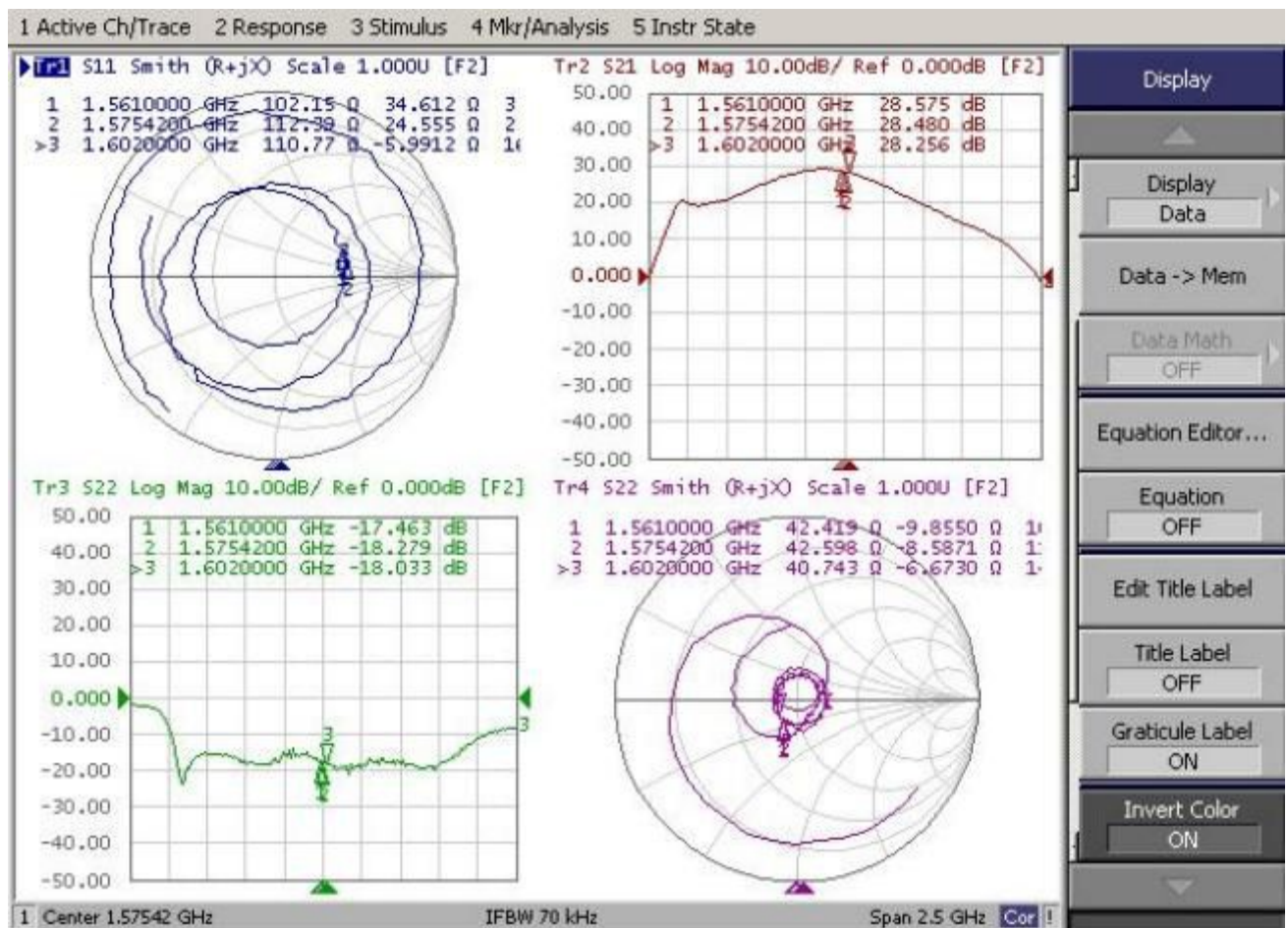
Picture



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

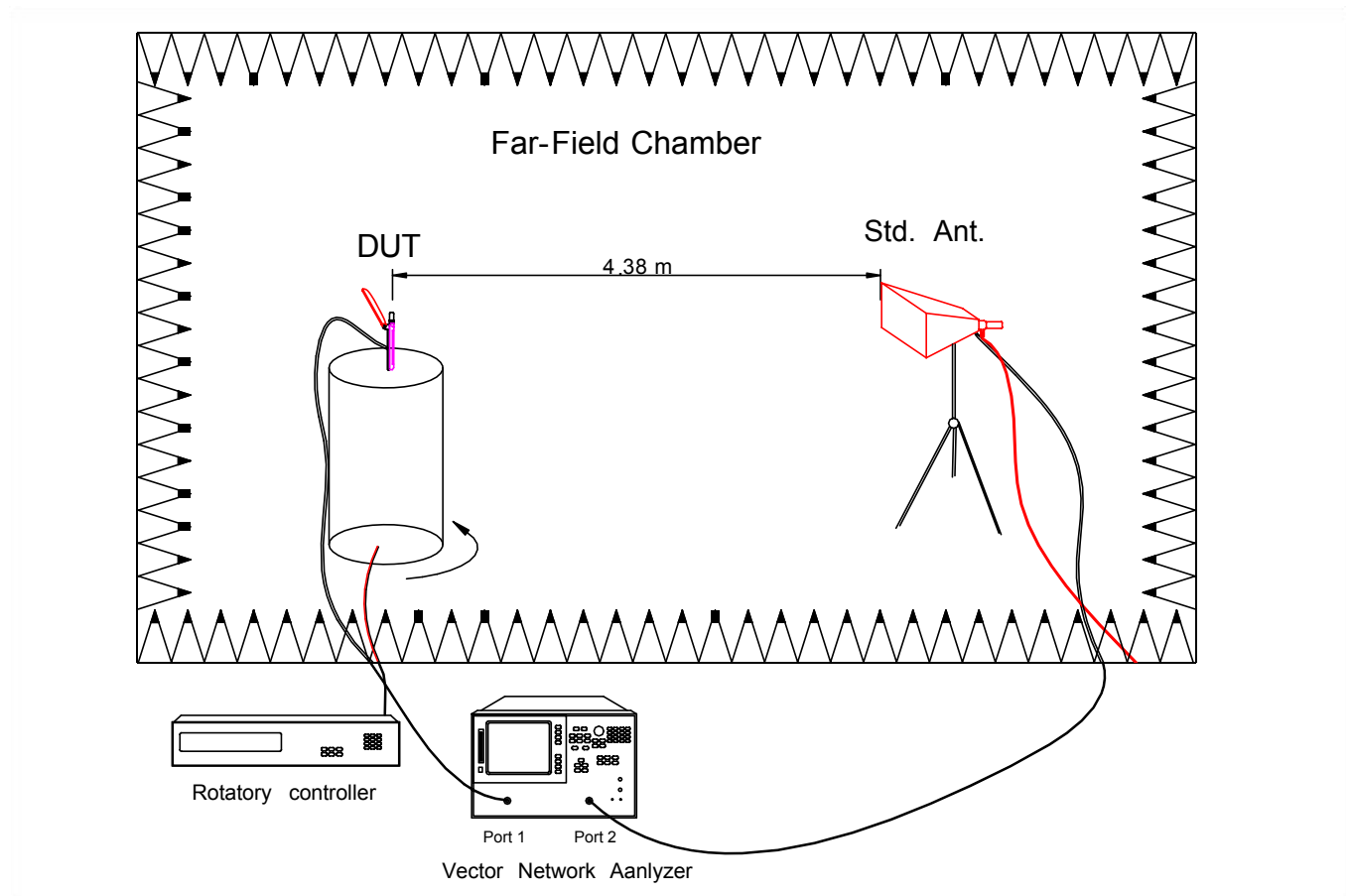


2-5. Efficiency and Gain

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 quiet 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)

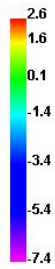
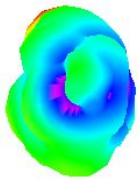
2-5-3 Efficiency and Gain/WIFI antenna

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

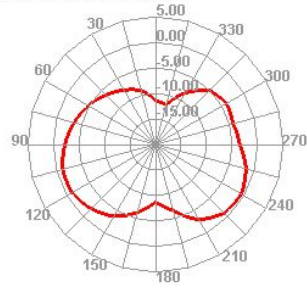
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	31.53	-5.01	0.86
5200	28.91	-5.39	-0.02
5250	25.07	-6.01	-0.44
5300	21.09	-6.76	-1.08
5350	31.78	-4.98	1.11
5400	33.78	-4.71	1.76
5450	32.49	-4.88	0.97
5500	29.41	-5.31	1.18
5550	25.15	-5.99	0.17
5600	24.3	-6.14	0.32
5650	31.86	-4.97	0.37
5700	32.32	-4.91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

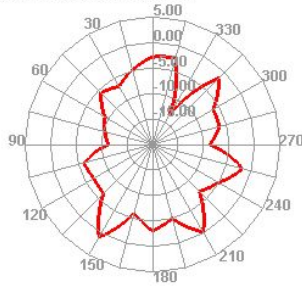
2400.000MHz



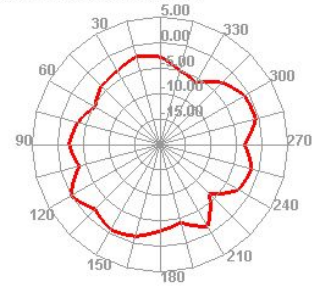
2400.000MHz H



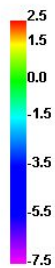
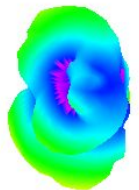
2400.000MHz E1



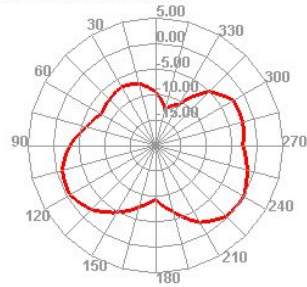
2400.000MHz E2



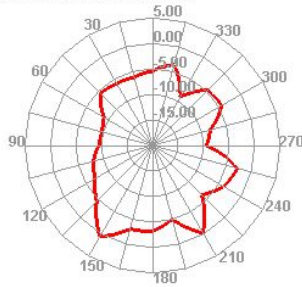
2450.000MHz



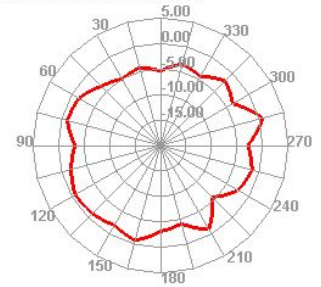
2450.000MHz H



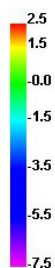
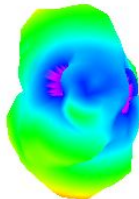
2450.000MHz E1



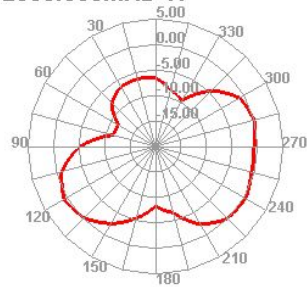
2450.000MHz E2



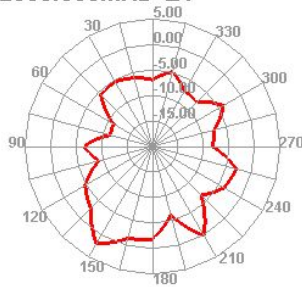
2500.000MHz



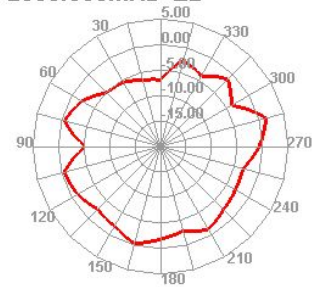
2500.000MHz H



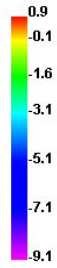
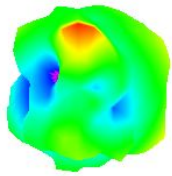
2500.000MHz E1



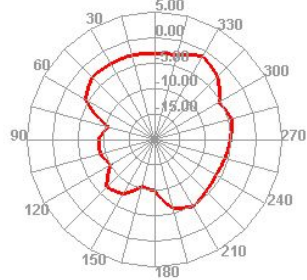
2500.000MHz E2



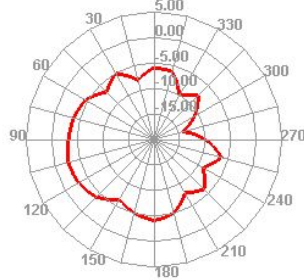
5150.000MHz



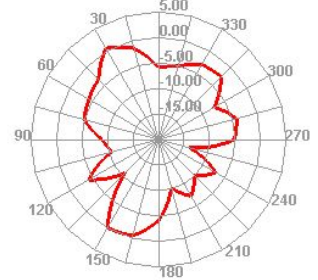
5150.000MHz H



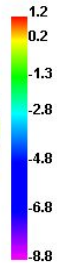
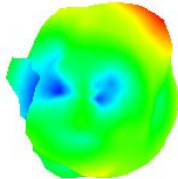
5150.000MHz E1



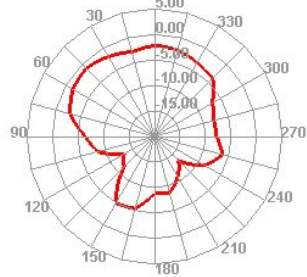
5150.000MHz E2



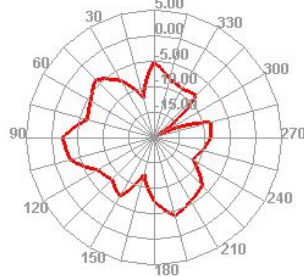
5500.000MHz



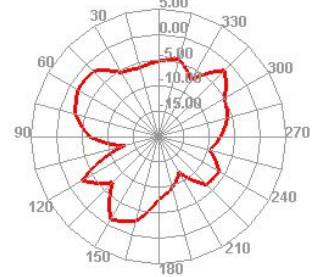
5500.000MHz H



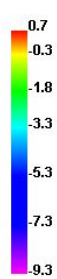
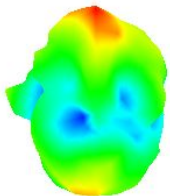
5500.000MHz E1



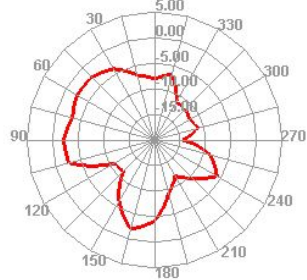
5500.000MHz E2



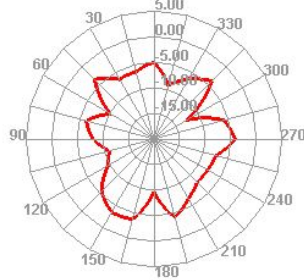
5850.000MHz



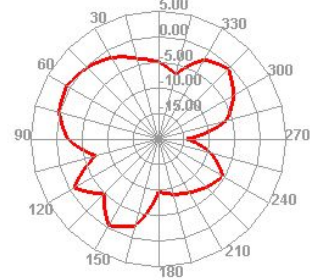
5850.000MHz H



5850.000MHz E1



5850.000MHz E2

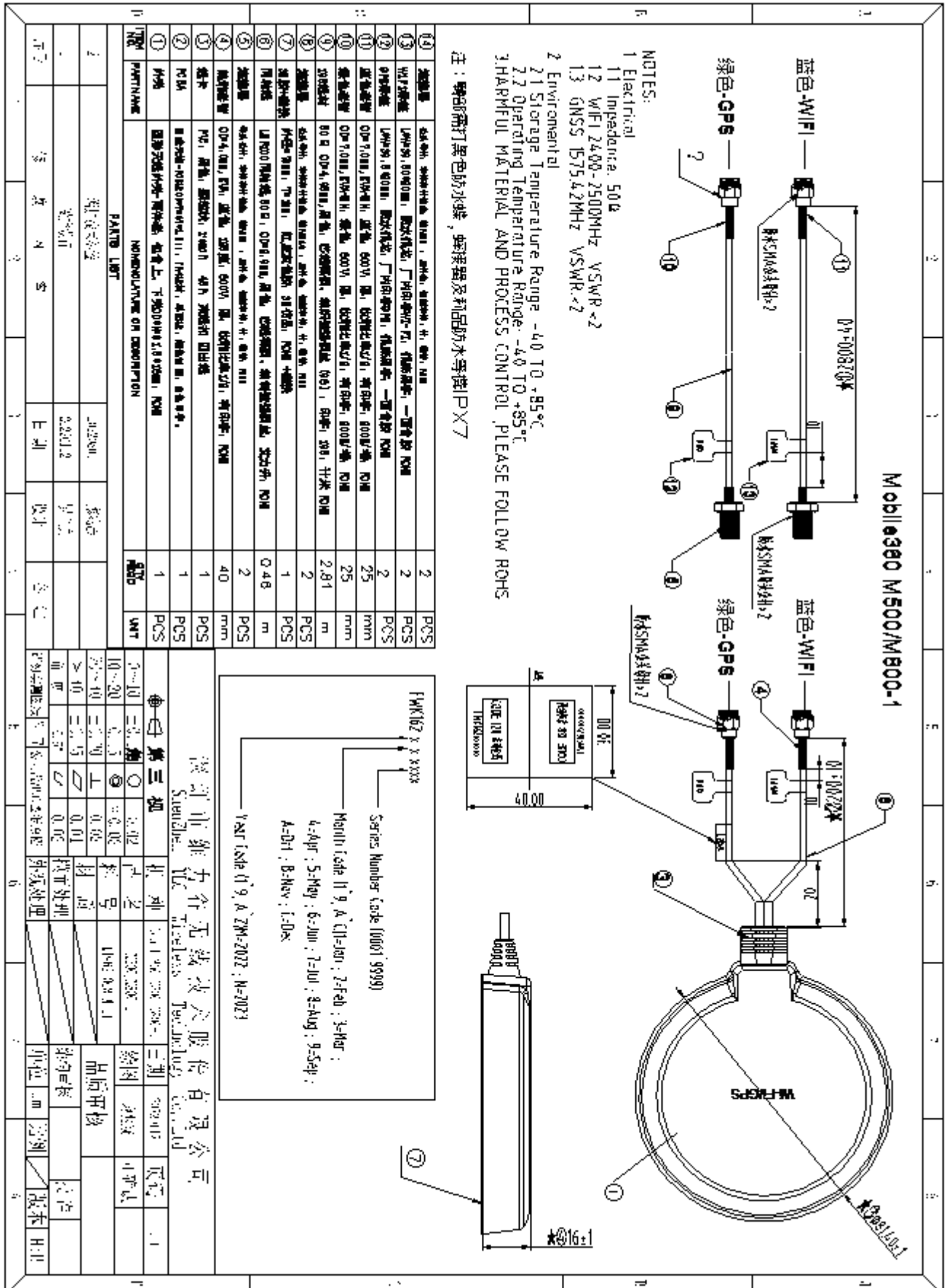


H=XY
E1=XZ
E2=YZ

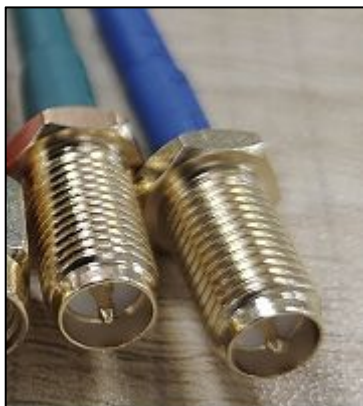
3. Mechanical Specification:

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

CODE 128 条码区域

FWK162xxxxxx

二、 Bar code coding :

A BB CC D E F GGGG

Series Number Code (0001~9999)

Month Code (1~9, A~C) 1=Jan ; 2=Feb ; 3=Mar ;
4=Apr ; 5=May ; 6=Jun ; 7=Jul ; 8=Aug ; 9=Sep ;
A=Oct ; B=Nov ; C=Dec

Year Code (1~9, A~Z) M=2022 ; N=2023

Model code(1~9,A~Z)

Parts Code (00~ZZ)

00=Systeme ; 01=Main Board ; 02=I/O Board ; 03=Board Module ; 04=RAM
Module ; 05= Storage ; 06=WLAN ; 07=Touch Panel ; 08=Panel Inverter
09=AC Adapter ; 10=ATX Power Supply(PSU) ; 11=Fan module; 12=3G
module; 13=LCD Panel; 14=Touch Sensor
15=camera;16=antenna;17=sensor;18=speaker;

三、Boxing :

- A. Transfer 1pcs products and 2pcs to the wire
(blue, green Each 1pcspu 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.

