

# 三合一天线规格书

## 3-in-1 antenna specification

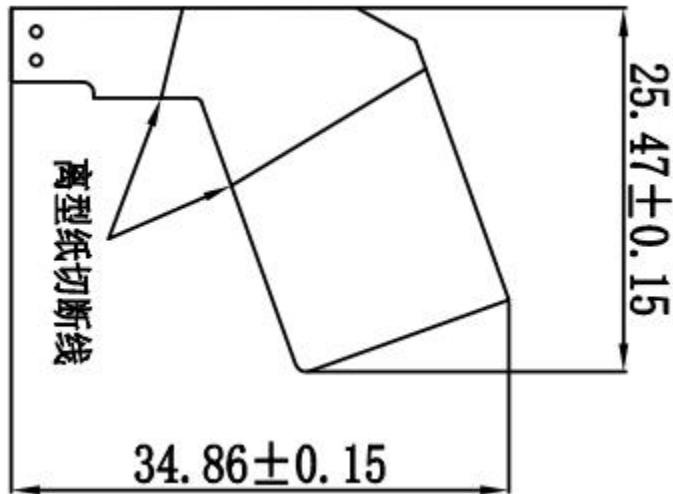
### 基本信息

#### General information

制造商 Manufacturer	Shenzhen be-comfortable Technology Co. Ltd.
地址 Address	No.1606,Build C6,HengFeng industrial city,xixiang street, baoan district,Shenzhen.
天线型号 Model Name	P1311-GPS&WIFI&BT ant
日期 Date	2023-10-19
版本 Version	1.0

### 天线外观

#### Antenna Appearance



### 技术规格

#### Technical Specifications

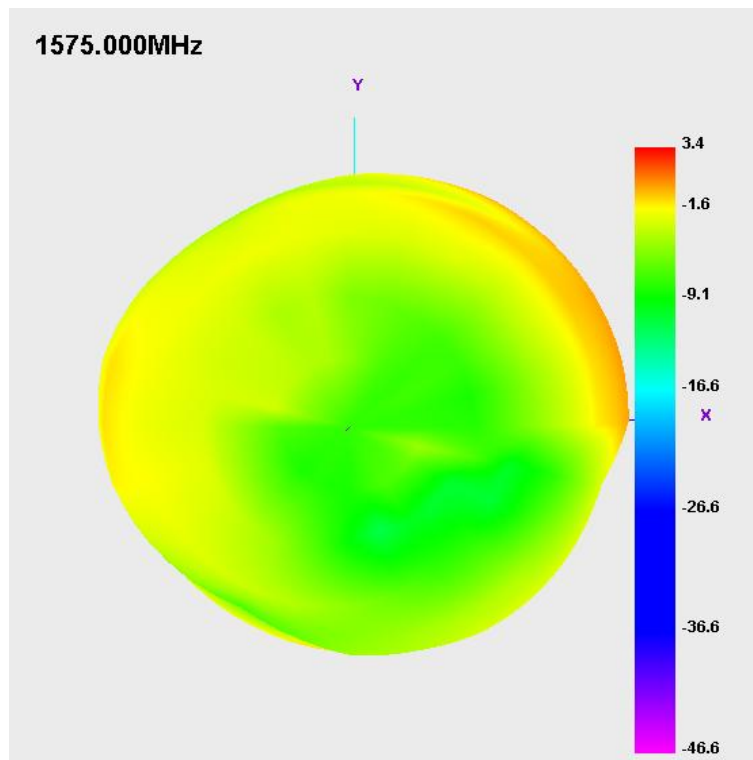
频率范围 Frequency Range	1575.42MHZ+2400-2500MHZ~5150-5850MHZ
天线类型 Antenna Type	Monopole
尺寸 Dimensions	34.86mm*25.47mm*0.12mm
阻抗 Impedance	50 ohm
最大增益 Maximum Gain	5dbi
驻波比 VSWR	$\leq 3$
.....	.....

### Efficiency and gain

Frequency (MHz)	Efficiency (%)	Gain (dB)
1571	58.54	3.98
1572	58.30	3.92
1573	56.88	3.79
1574	54.83	3.66
1575	52.41	3.41
1576	50.27	3.27
1577	48.61	3.11
1578	47.46	2.95
1579	47.03	2.94
1580	47.26	2.87

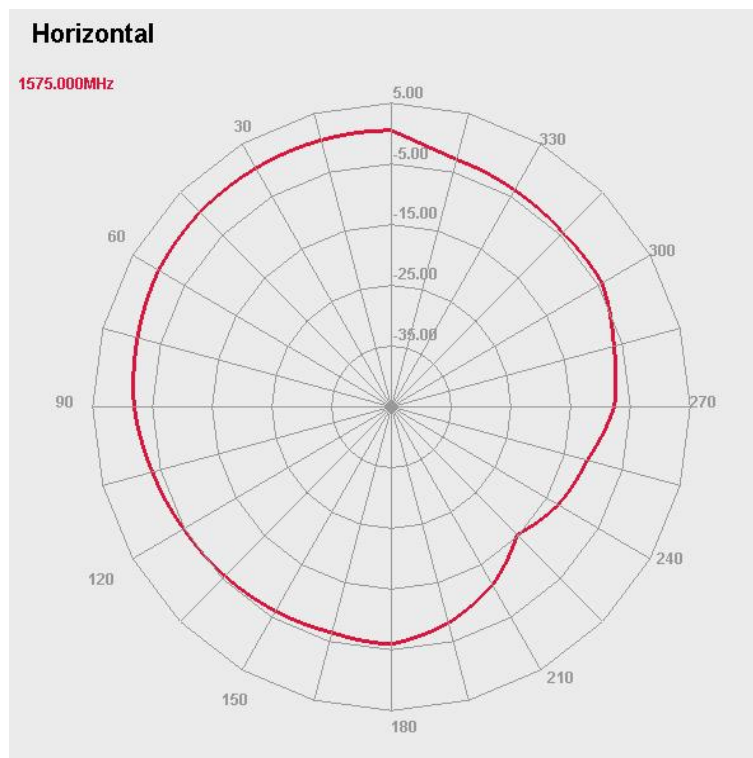
Frequency (MHz)	Efficiency (%)	Gain (dB)	Frequency (MHz)	Efficiency (%)	Gain (dB)
2400	49.77	0.83	5100	59.55	3.13
2410	51.64	1.03	5200	55.67	3.45
2420	57.10	1.65	5300	41.03	2.14
2430	59.45	1.98	5400	47.47	3.91
2440	60.05	1.96	5500	54.90	4.53
2450	61.35	2.14	5600	62.28	3.68
2460	61.21	2.23	5700	78.71	4.91
2470	57.71	2.16	5800	62.55	4.53
2480	59.01	2.20	5900	77.50	4.99
2490	57.52	2.13			
2500	57.32	1.72			

## Free space 3D radiation pattern

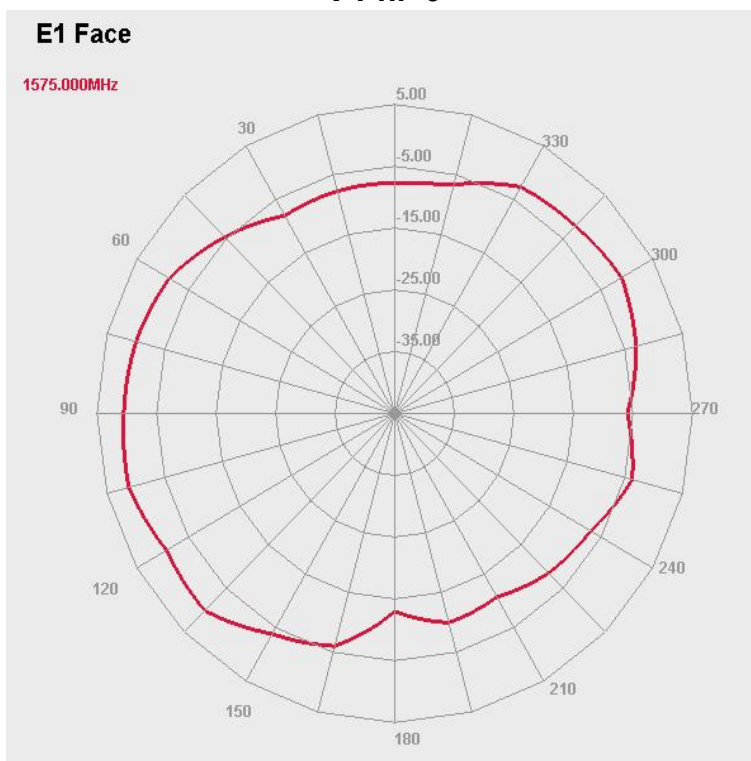


## Free space 2D radiation pattern

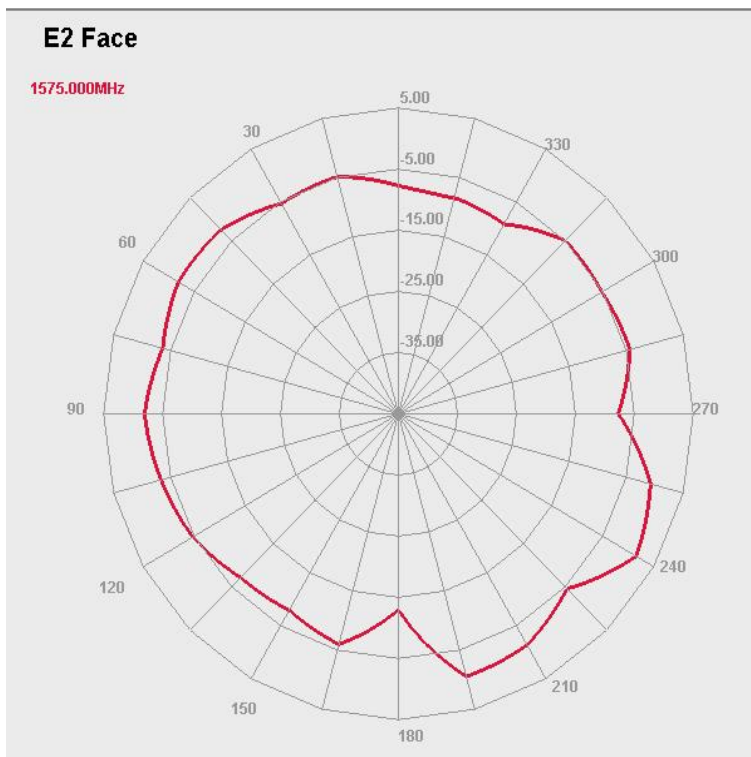
X-Y Plane  
H Theta=90

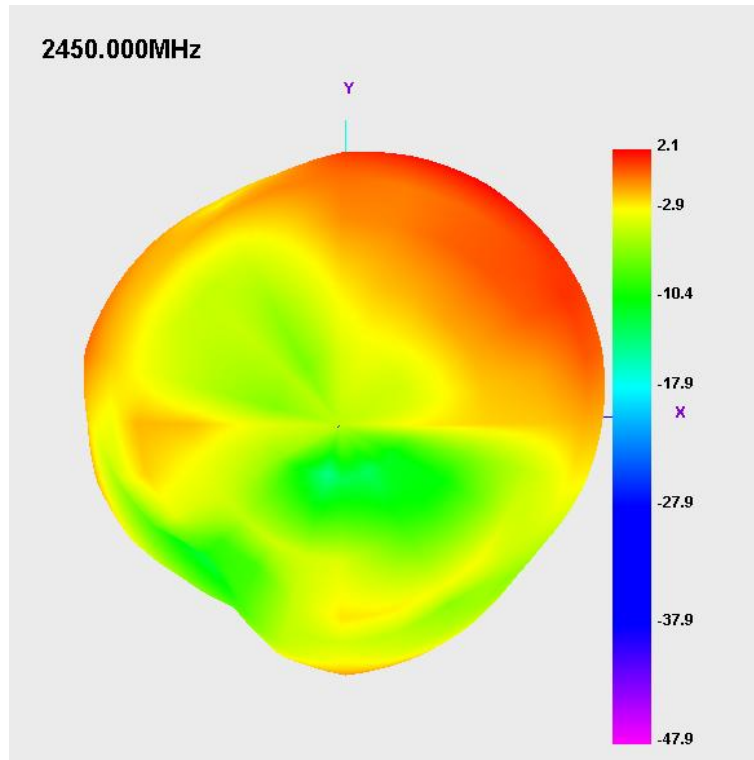


### X-Z Plane V Phi=0

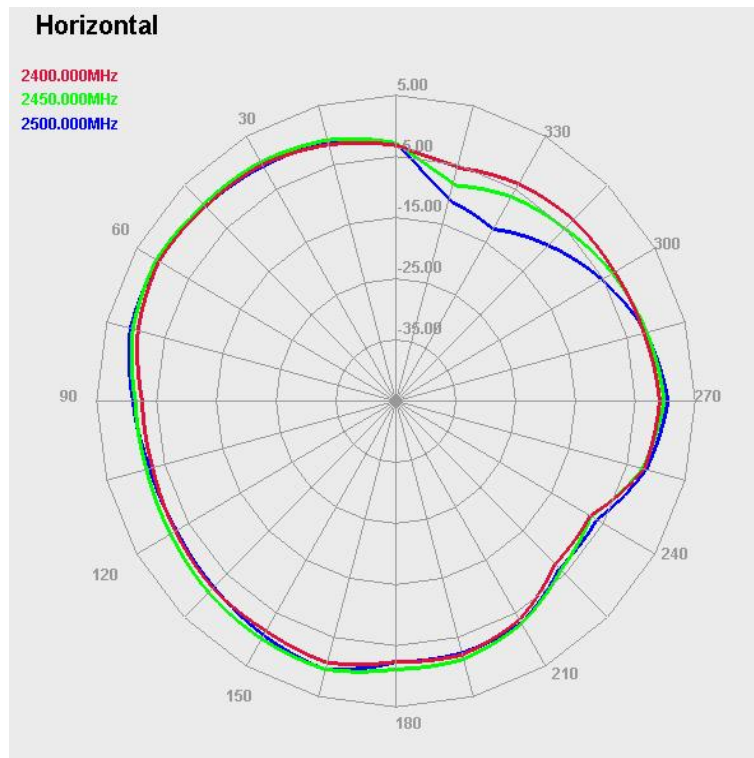


### Y-Z Plane V Phi=90

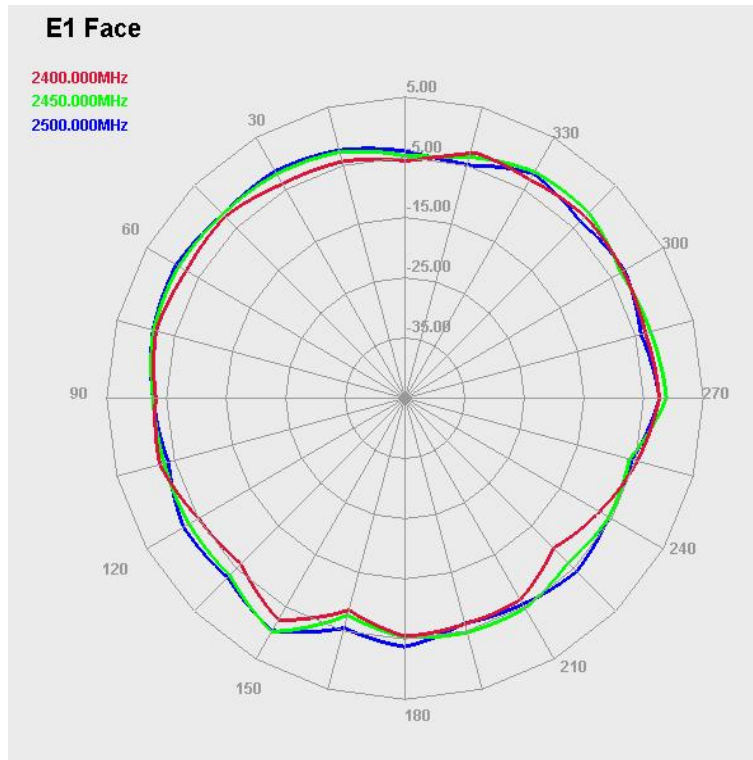




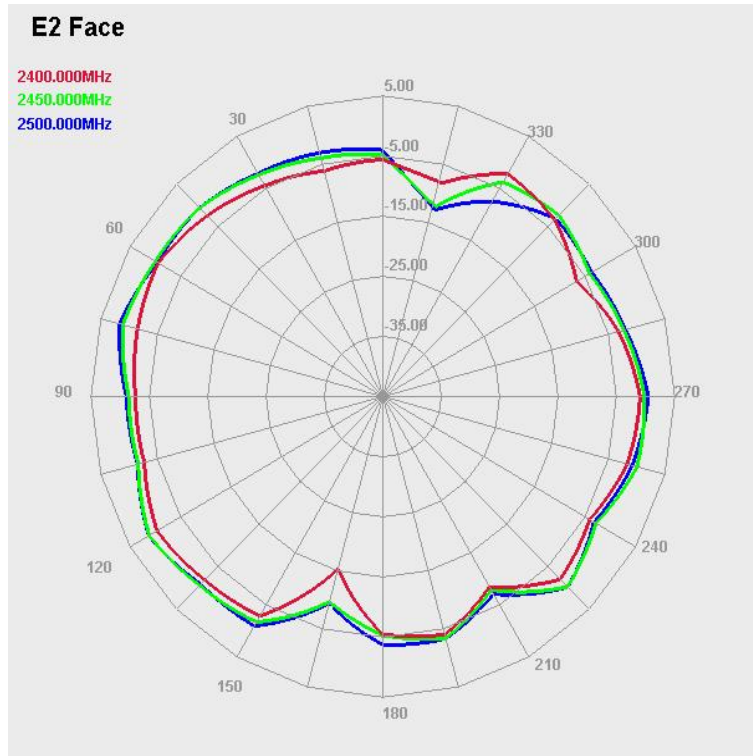
**X-Y Plane  
H Theta=90**

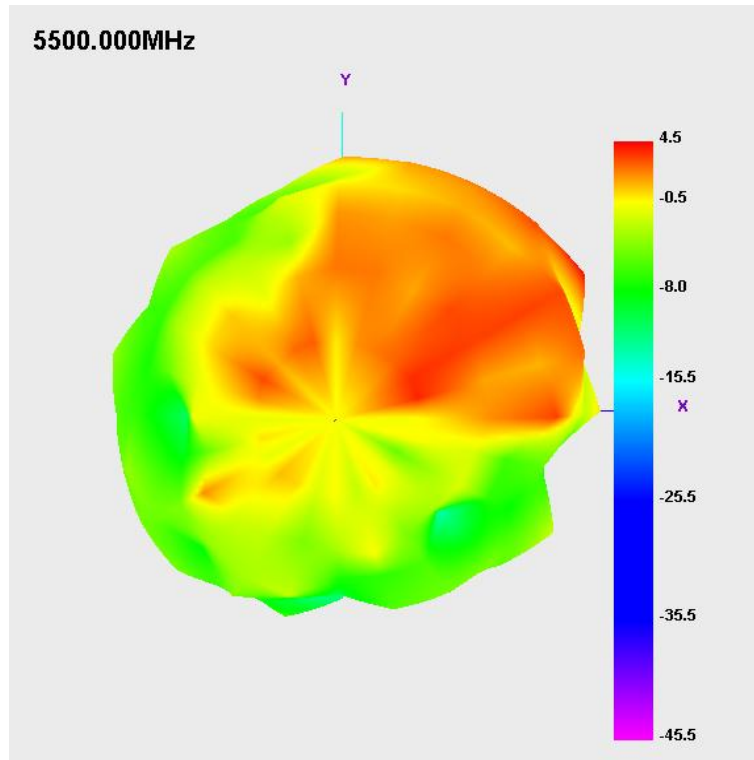


## X-Z Plane V Phi=0

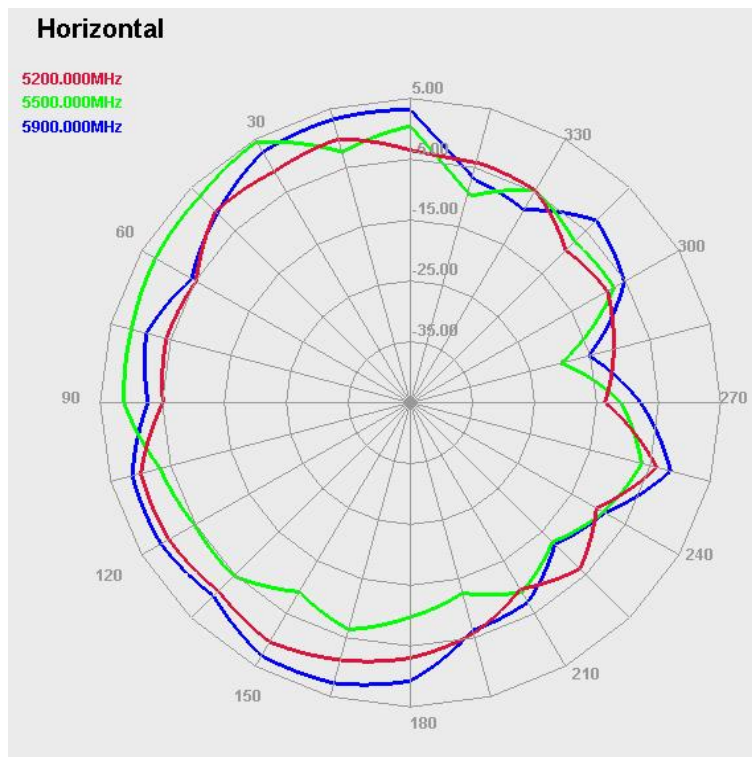


## Y-Z Plane V Phi=90

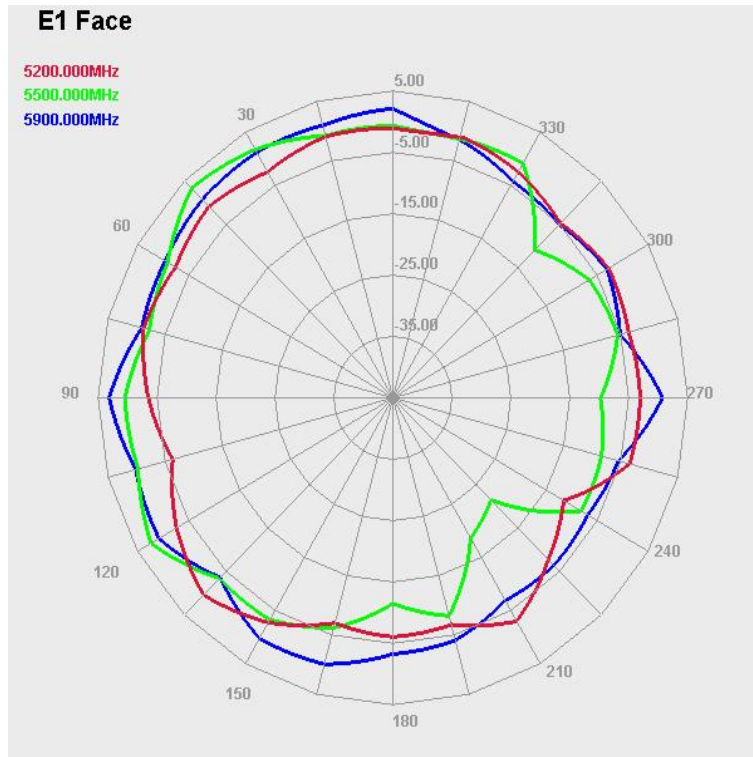




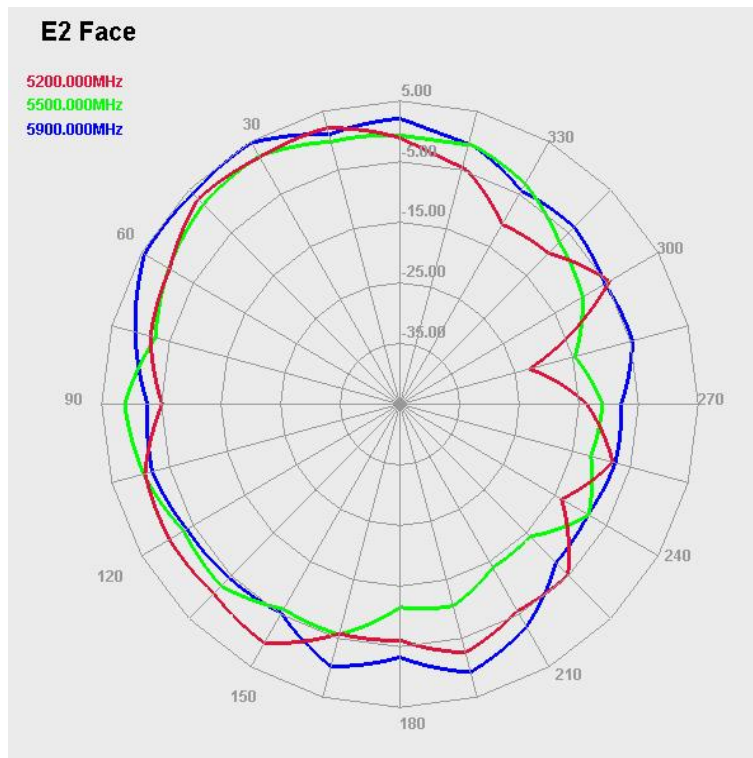
**X-Y Plane  
H Theta=90**



### X-Z Plane V Phi=0



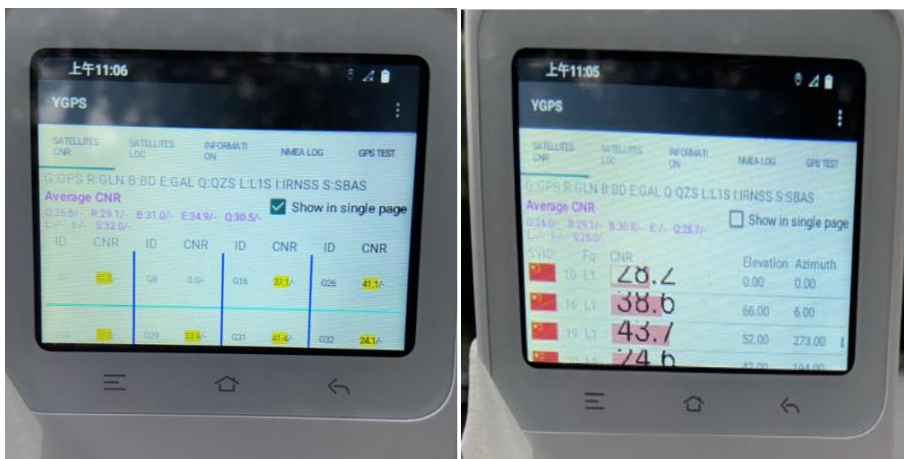
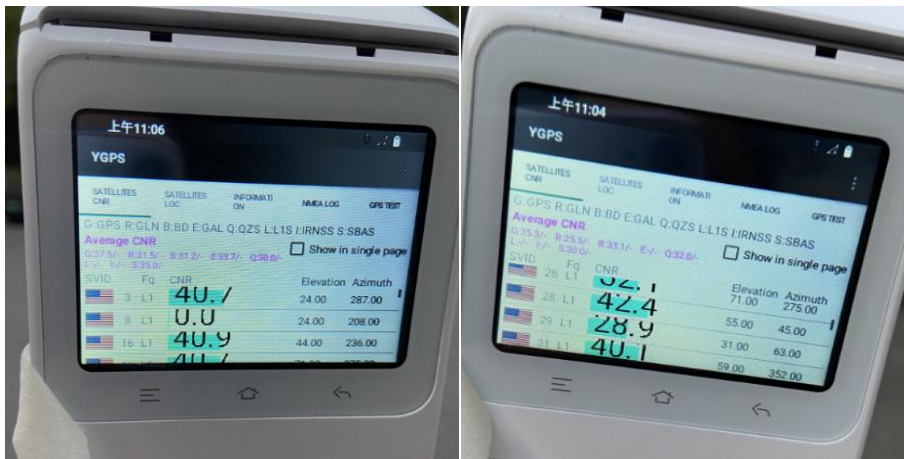
### Y-Z Plane V Phi=90

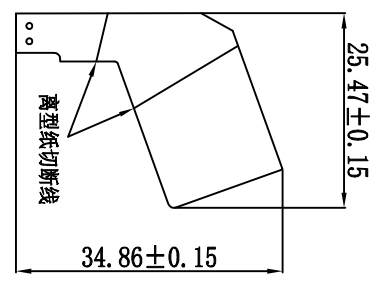
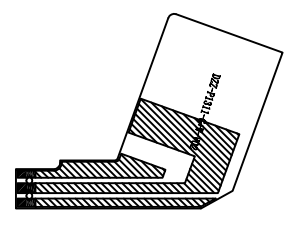
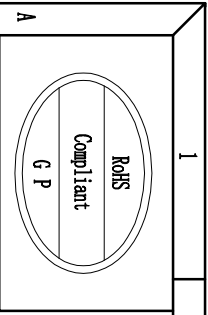




有源数据  
OTA (TRP TIS)

WIFI OTA测试		WIFI OTA test	
测试频段 Test frequency	信道 Channel	TRP	TIS
WIFI 11b ( 11M)	1	15.05	-86.31
	6	14.75	-85.69
	11	14.93	-85.19
WIFI 11a ( 54M )	36	11.31	-76.18
	157	11.77	-75.36
	165	9.45	-74.13





备注:

1. FPC材料: 0.5oz电解铜, 0.5MLI PI 材质
2. 镀点处理: 镀金
3. 表面处理: 黑色油墨.
4. 背胶: 3M467 包装方式: 整版出货
5. 丝印字体: 白色
6. 未标公差尺寸, 模具冲出尺寸公差为±0.1, 铜箔线条尺寸公差为±0.05, 标重点的孔公差为±0.05.
7. 涂▨为铜箔线路, 涂▩为穿孔. 涂▪的为镀点区域. 涂□的为基材区域
8. 安规要求: ROHS六项
9. 品质要求按照得自在《IQC进料检验规范》执行

Rev	Description	Date	Remark
A	New drawing		
1			

深 圳 得 自 在 科 技 有 限 公 司 SHEN ZHEN Be Comfortable CO., LTD		Project P1311 Part Name 三合一 Part No. F01-7119-ROA Material FPC Customer Part NO		Date 2023.9.20 Designed by MD 田进 Checked by RF 沈桂香 Approved by	
0~10 ±0.05 10~18 ±0.10 18~30 ±0.12 30~40 ±0.15 40~ ±0.20	Third Angle 0.02 0.03 0.02 0.04 ±0.5°	0.02 0.03 0.02 0.04 ±0.5°	Location 5	6	7 Unit: mm Scale 1:1 Rev A

