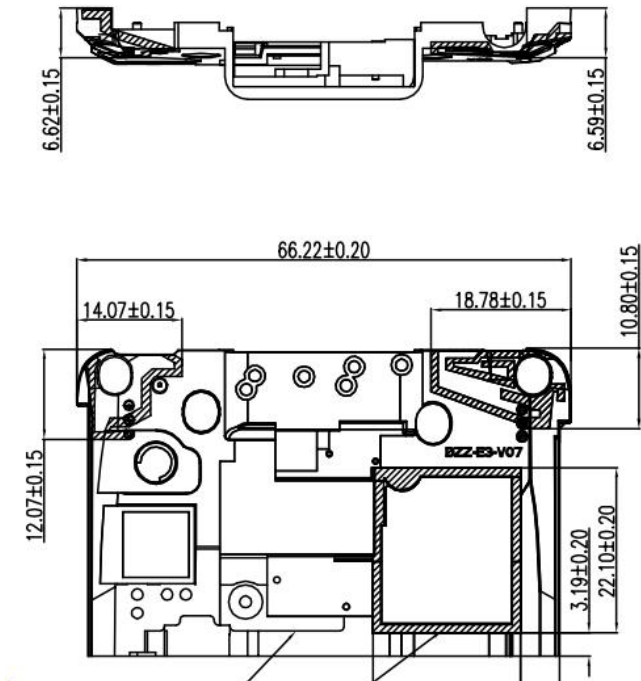


3-in-1 antenna specification

General information

Manufacturer	Be-comfortable
Model Name	T1522-GPS&WIFI&BT ant
Date	2023-08.29
Version	1.0
Vendor address	Building C6, Hengfeng Industrial City, Zhoushi Road, Xixiang Town, Baoan District, Shenzhen

Antenna Appearance



Technical Specifications

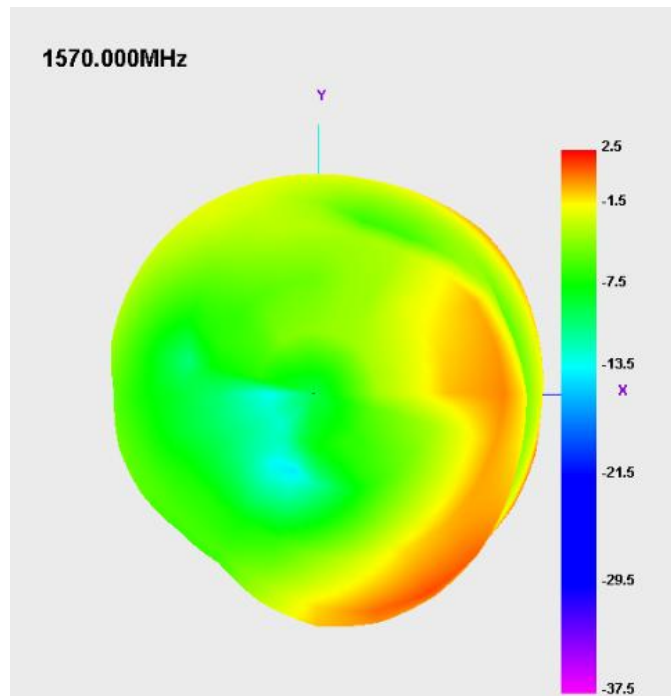
Frequency Range	1575.42MHZ+2400-2500MHZ~5150-5850MHZ
Antenna Type	PIFA
Dimensions	14.07*12.07*6.62mm
Impedance	50 ohm
Maximum Gain	2.81dbi
VSWR	≤3
.....	

Efficiency and gain

Frequency (MHz)	Gain (dB)	Efficiency (%)
1540	1.66	37.79
1550	1.84	39.92
1560	2.09	41.58
1570	2.51	42.5
1580	2.12	40.84
1590	1.81	40.98
1600	1.64	39.03

Frequency (MHz)	Gain (dB)	Efficiency (%)	Frequency (MHz)	Gain (dB)	Efficiency (%)
2400	0.47	33.13	5100	1.26	39.75
2410	0.56	34.44	5200	2.58	44.88
2420	0.67	35.12	5300	1.79	40.71
2430	0.64	38.38	5400	1.93	41.95
2440	0.87	41.13	5500	2.81	40.54
2450	0.94	43.89	5600	1.88	38.99
2460	0.83	40.03	5700	1.73	32.08
2470	0.92	37.63	5800	1.11	30.48
2480	0.72	35.42	5900	1.29	30.71
2490	0.58	32.69			
2500	0.38	32.84			

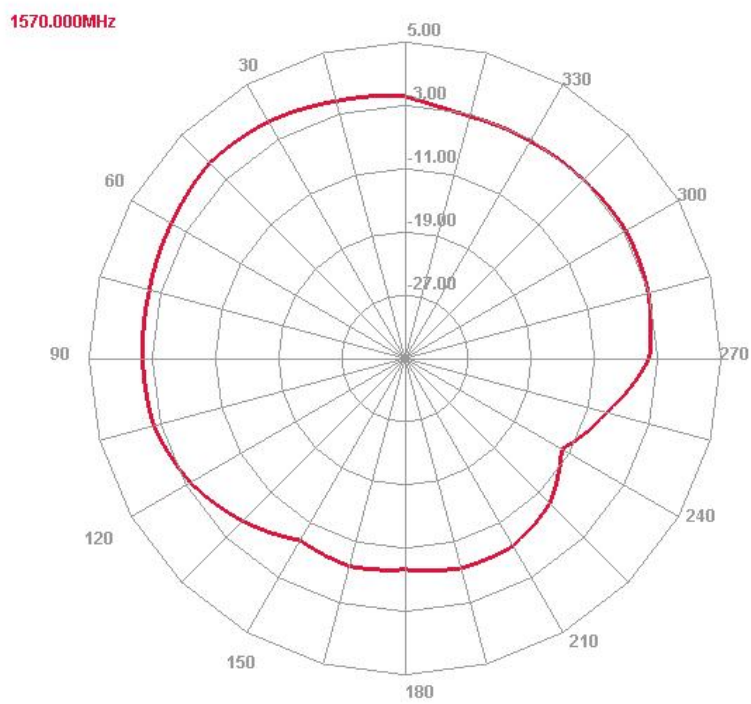
Free space 3D radiation pattern



Free space 2D radiation pattern

X-Y Plane
H Theta=90

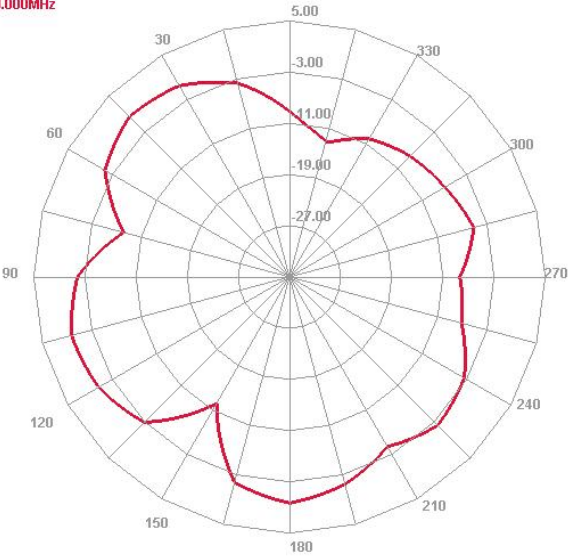
Horizontal



**X-Z Plane
V Phi=0**

E1 Face

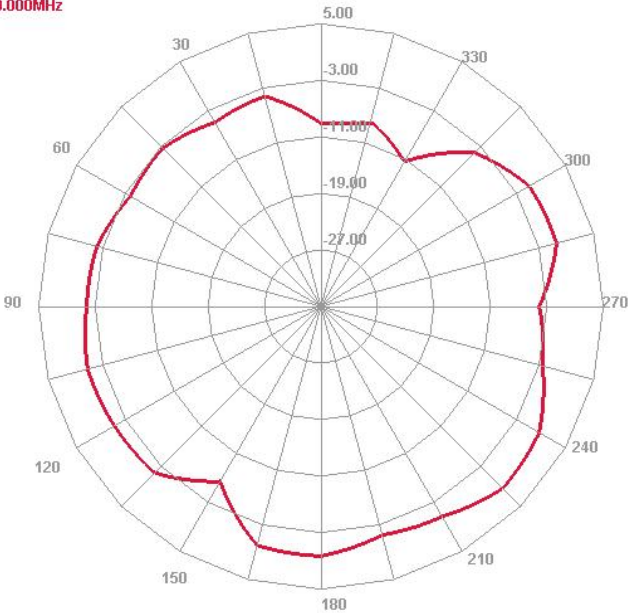
1570.000MHz



**Y-Z Plane
V Phi=90**

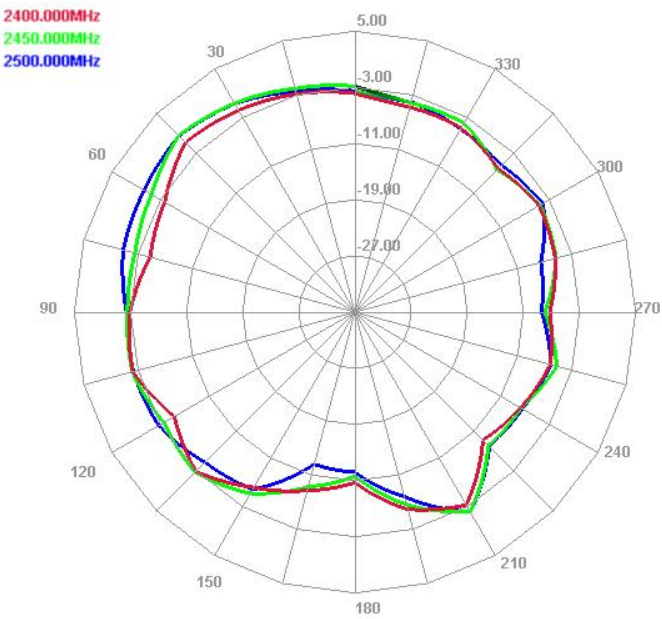
E2 Face

1570.000MHz



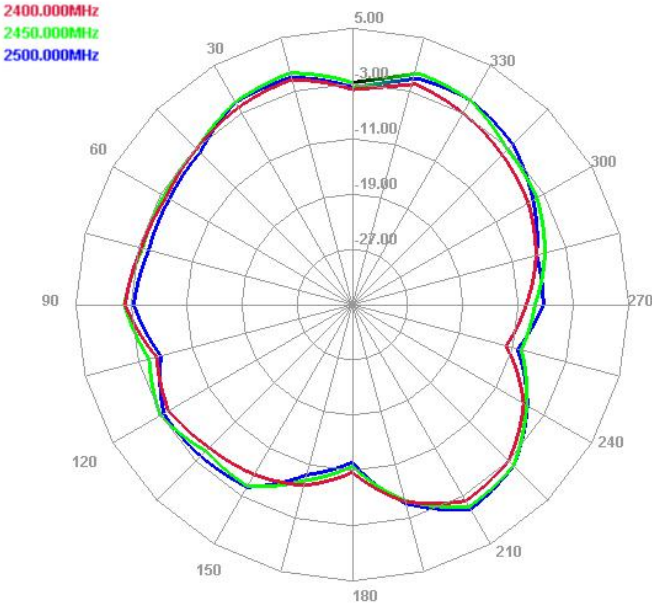
**X-Z Plane
V Phi=0**

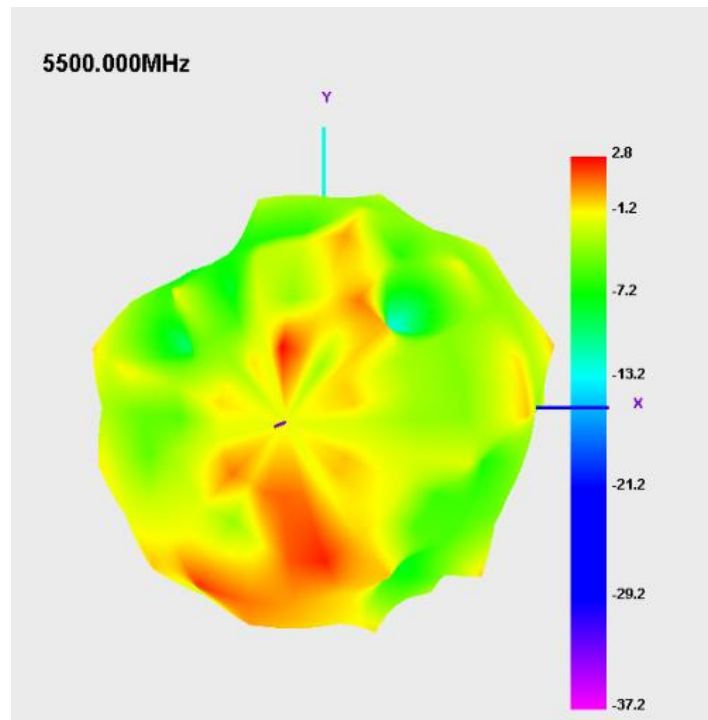
E1 Face



**Y-Z Plane
V Phi=90**

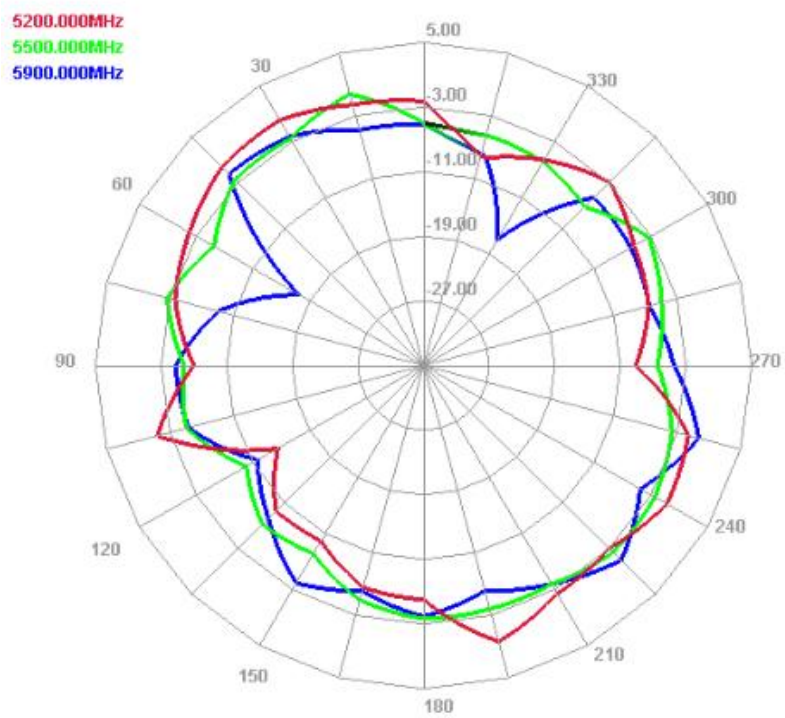
E2 Face





X-Y Plane
H Theta=90

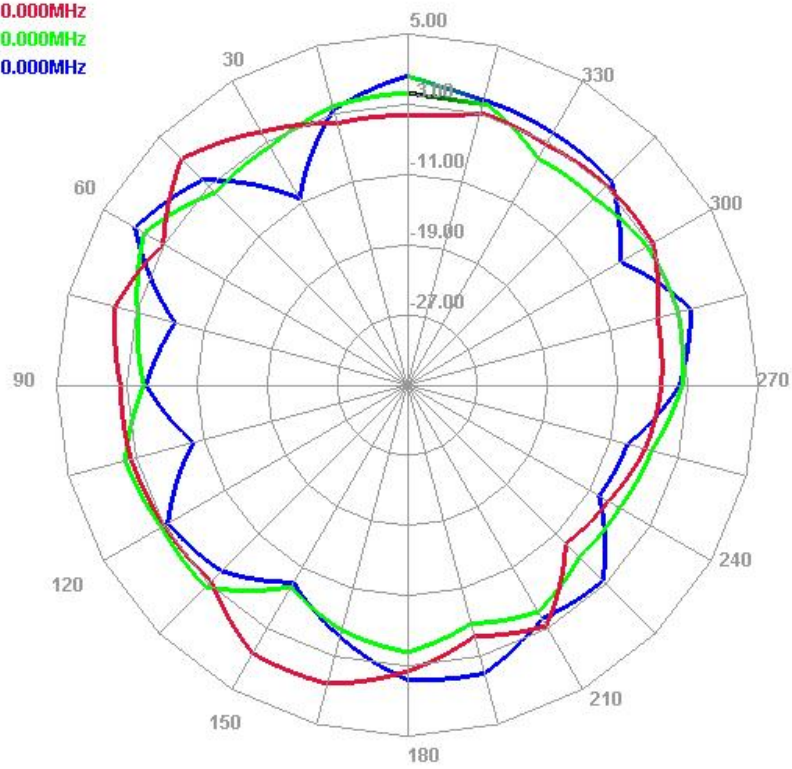
Horizontal



**X-Z Plane
V Phi=0**

E1 Face

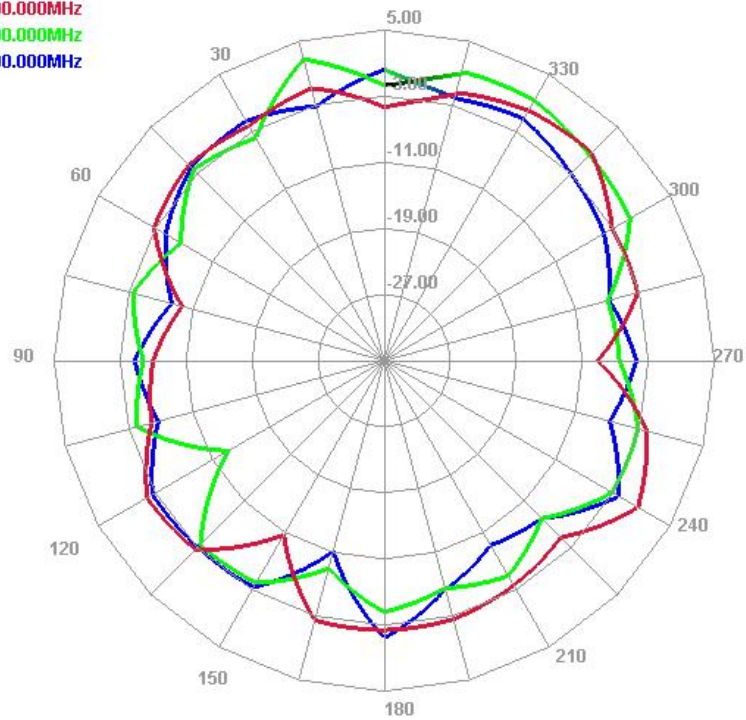
5200.000MHz
5500.000MHz
5900.000MHz



**Y-Z Plane
V Phi=90**

E2 Face

5200.000MHz
5500.000MHz
5900.000MHz

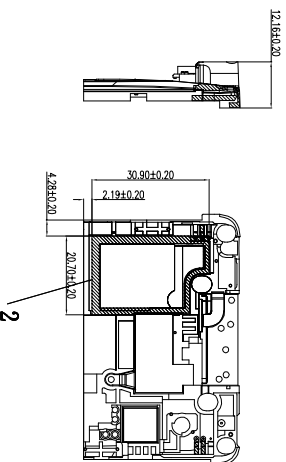
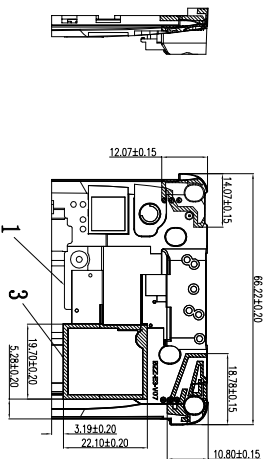
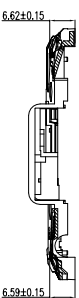
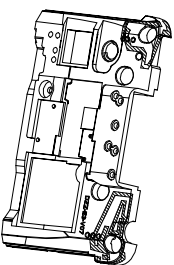
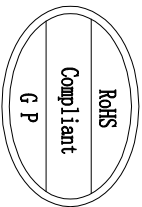


OTA (TRP TIS)

WIFI OTA		WIFI OTA test	
Test frequency	Channel	TRP	TIS
WIFI 11b (11M)	1	14.35	-84.58
	7	14.59	-84.82
	13	14.5	-84.33
WIFI 11a (54M)	36	10.34	-73.51
	149	11.12	-72.49
	165	11.05	-72.79

YGPS					
SATEL LITES CNR	SATEL LITES LOC	INFOR MATIO N	NMEA LOG	GPS TEST	MPE STATUS
G:GPS R:GLN B:BD E:GAL Q:QZS L:L1S I:IRNSS S:SBAS					
Average CNR					
G:33.1/-/-/-/- R:28.9/-/-/-/- B:29.7/-/-/-/- E:-/-/-/-/- Q:24.3/-/-/-/- L:-/-/-/-/- I:-/-/-/-/- S:32.0/-/-/-/-					
☐ Show in single page					
SVID	Fq	CNR	Elevation	Azimuth	
10 L1		41.1	35.00	321.00	
12 L1		22.1	26.00	130.00	
13 L1		0.0	2.00	69.00	
15 L1		33.5	34.00	66.00	
18 L1		34.4	0.00	0.00	
23 L1		42.4	73.00	345.00	
24 L1		44.2	63.00	42.00	
25 L1		22.7	13.00	169.00	
32 L1		24.6	15.00	278.00	
65 L1		30.3	36.00	330.00	
71 L1		0.0	13.00	89.00	
72 L1		29.9	45.00	47.00	
73 L1		0.0	6.00	27.00	
74 L1		29.4	43.00	52.00	
75 L1		27.2	53.00	145.00	
76 L1		28.3	7.00	187.00	
81 L1		0.0	8.00	338.00	

YGPS					
SATEL LITES CNR	SATEL LITES LOC	INFOR MATIO N	NMEA LOG	GPS TEST	MPE STATUS
G:GPS R:GLN B:BD E:GAL Q:QZS L:L1S I:IRNSS S:SBAS					
Average CNR					
G:29.4/-/-/-/- R:20.4/-/-/-/- B:25.7/-/-/-/- E:-/-/-/-/- Q:38.3/-/-/-/- L:-/-/-/-/- I:-/-/-/-/- S:-/-/-/-/-					
☐ Show in single page					
SVID	Fq	CNR	Elevation	Azimuth	
1 L1		25.9	47.00	140.00	
2 L1		27.3	37.00	238.00	
3 L1		26.1	53.00	201.00	
6 L1		24.4	63.00	253.00	
8 L1		26.6	85.00	176.00	
13 L1		27.3	80.00	294.00	
16 L1		27.8	67.00	261.00	
19 L1		23.1	16.00	304.00	
20 L1		27.8	57.00	342.00	
30 L1		16.1	6.00	207.00	
32 L1		24.7	45.00	83.00	
37 L1		31.5	63.00	107.00	
46 L1		0.0	32.00	190.00	
2 L1		41.0	30.00	138.00	
3 L1		39.0	21.00	176.00	
4 L1		35.0	0.00	0.00	



备注:

1. 标注“*”为重点尺寸, 未标公差尺寸按照 ± 0.15 检测
2. 未标注尺寸请依图纸。
3. 符合ROHS

3	分集天线泡沫棉	扬声器泡沫棉2	黑色		1	
2	分集天线泡沫棉	扬声器泡沫棉1	黑色		1	
1	分集天线	E3 分集支架	黑色		1	

No.	Name	Material	Color	Treatment	Amount	Remark
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深圳得自在科技有限公司
SHEN ZHEN Be Comfortable CO., LTD

Third Angle	Project	T1522-E3	Date	2023.8.21
0~10° ±0.02	Part Name	E3 分集天线	Designed by	
10~18° ±0.03	Part No.	N12-7385-R0A	MD	田进
18~30° ±0.04	Material	N/A	Checked by	毛惠涛
30~40° ±0.05	Customer Part NO	K5521000132LA	Approved by	
40~ ±0.05	location	N/A	Unit mm	
			Scale 1:1	Rev A

Rev	Description	Date	Remark
1	New drawing		