

Antenna Design for P1861三合一天线 V6.0

Document Number	DZZ-20241111
3st Released Date	11/11/2024
Author	Bo Bian
Review By	Huiping Feng

Specification

Rough description	三合一 ant
Item	Initial Specification
Impedance	50Ω
Frequency range	1575.42MHz&2400~2500MHz&5100~5900MHz
Antenna Type	Dipole
Peak Gain	1575.42MHz 2dBi; 2400~2500MHz 3dbi 5100~5900MHz 3dbi
Radiation	Omni
Polarization	Linear
Connector Type	NONE
Cable Length	NONE

1. Test enviroment

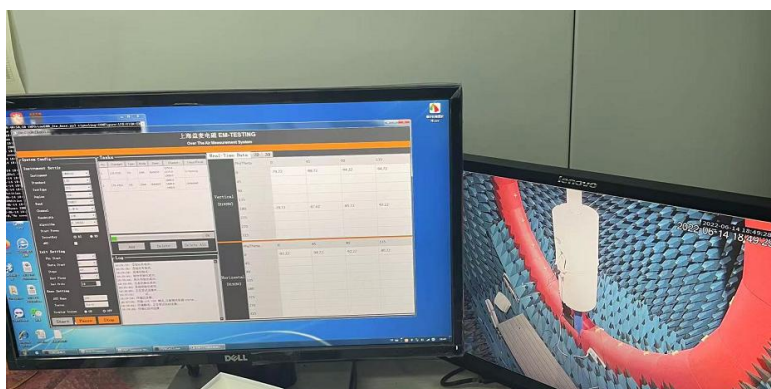
Satimo 24探头



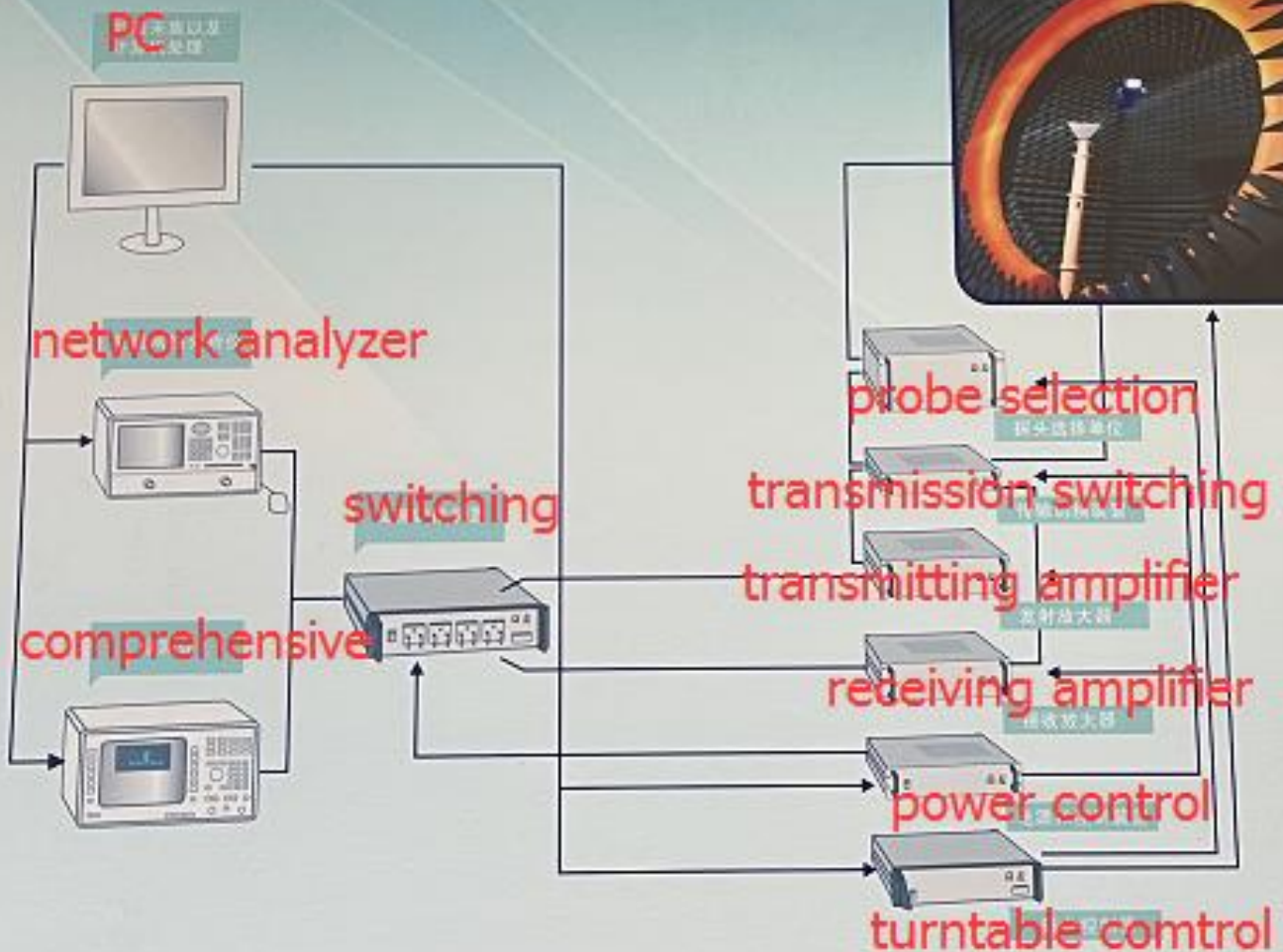
CMW500



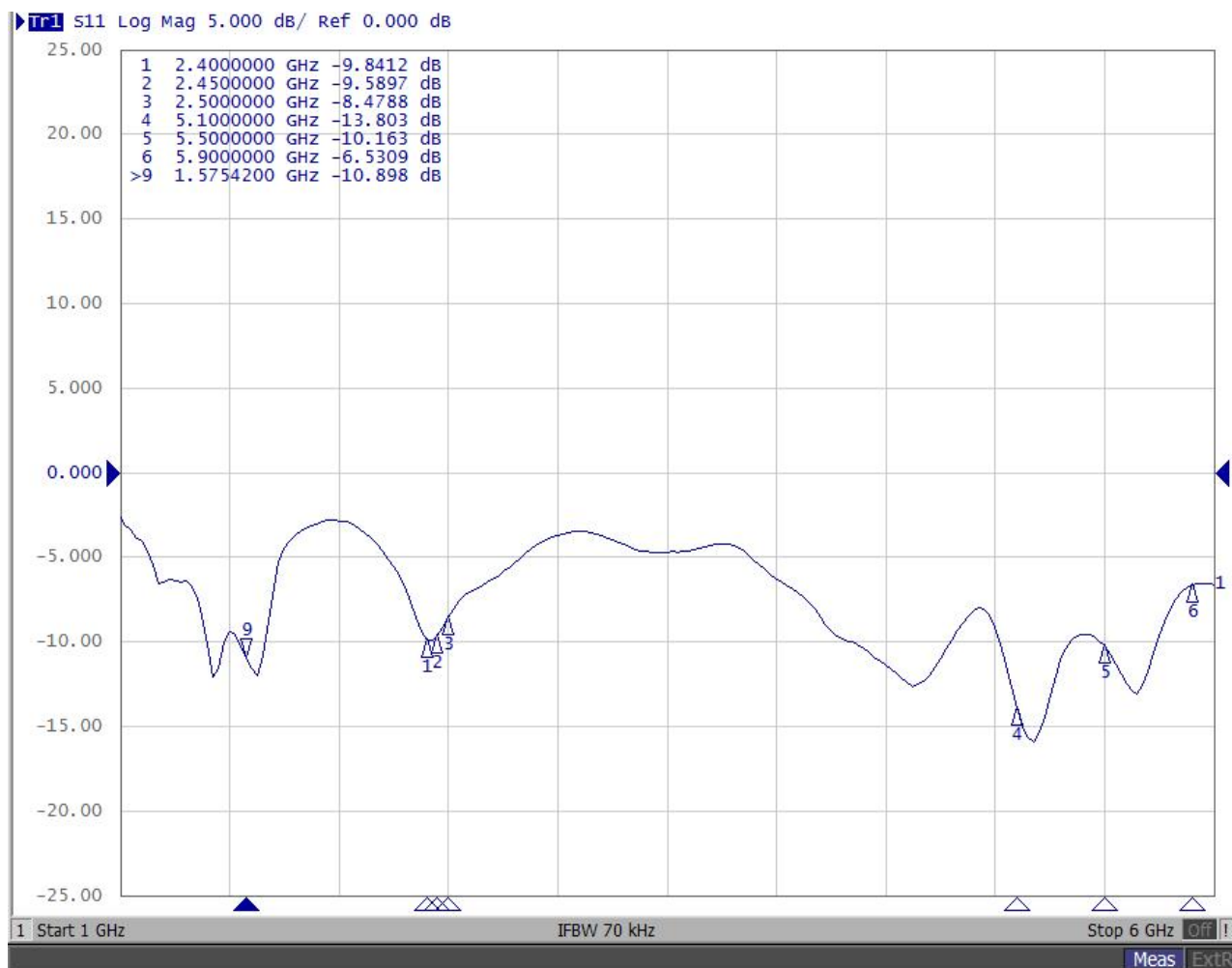
PC



益麦电磁
EM-Testing



Ant S11 passive test results



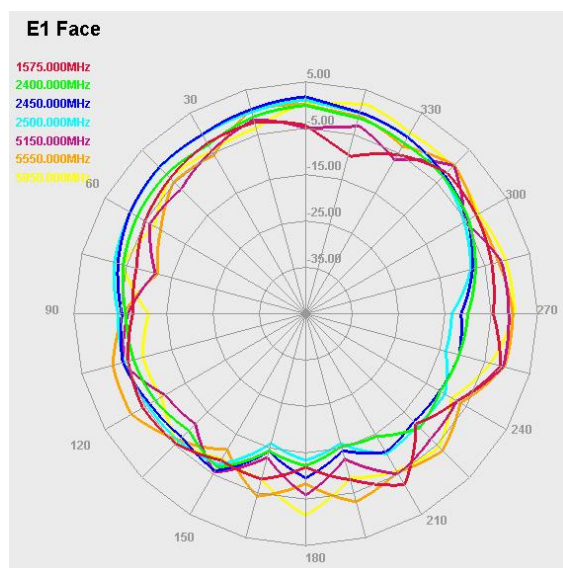
3.1 Peak Gain & Efficiency

Freq (MHz)	Gain (dBi)	Effi (dB)	Effi (%)
1565	0.25	-4.57	34.92
1570	0.16	-4.65	34.26
1575	0.15	-4.73	33.69
1580	0.16	-4.91	32.32
1585	0.04	-5.05	31.26

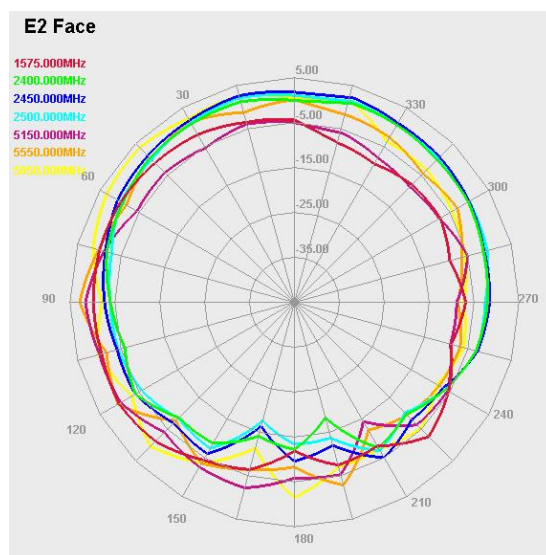
Freq (MHz)	Freq (MHz)	Effi (dB)	Effi (%)
2400	1.2	-3.68	42.8916
2410	2.09	-3.43	45.3476
2420	2.22	-3.20	47.8997
2430	2.38	-3.06	49.3997
2440	2.55	-3.13	48.6467
2450	2.63	-3.14	48.5811
2460	2.85	-2.97	50.4915
2470	2.57	-3.18	48.0516
2480	2.59	-3.15	48.4009
2490	2.26	-3.29	46.9334
2500	2.13	-3.31	46.6393

Freq (MHz)	Freq (MHz)	Effi (dB)	Effi (%)
5100	1.55	-4.23	37.7568
5200	1.27	-4.31	37.1008
5300	2.4	-4.11	38.7821
5400	2.1	-4.15	38.4356
5500	2.83	-4.08	39.115
5600	2.28	-3.97	40.1124
5700	2.31	-3.78	41.8921
5800	2.69	-3.89	40.8144
5900	1.55	-3.98	39.9606

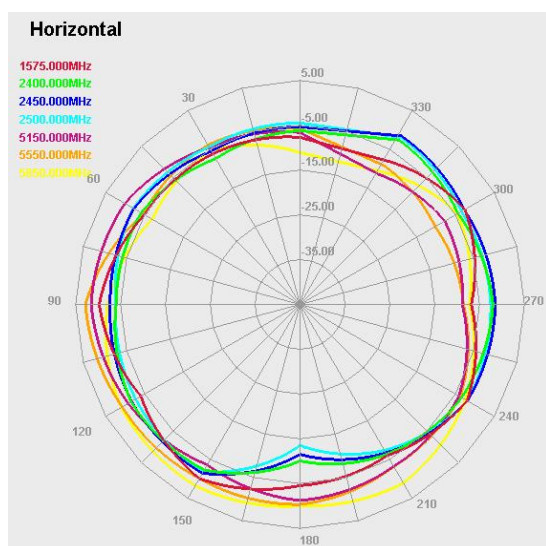
2D



X-Z

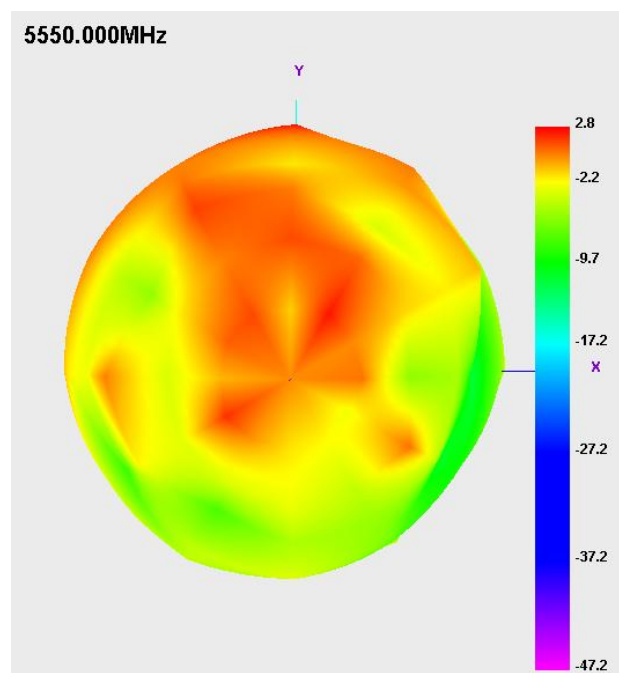
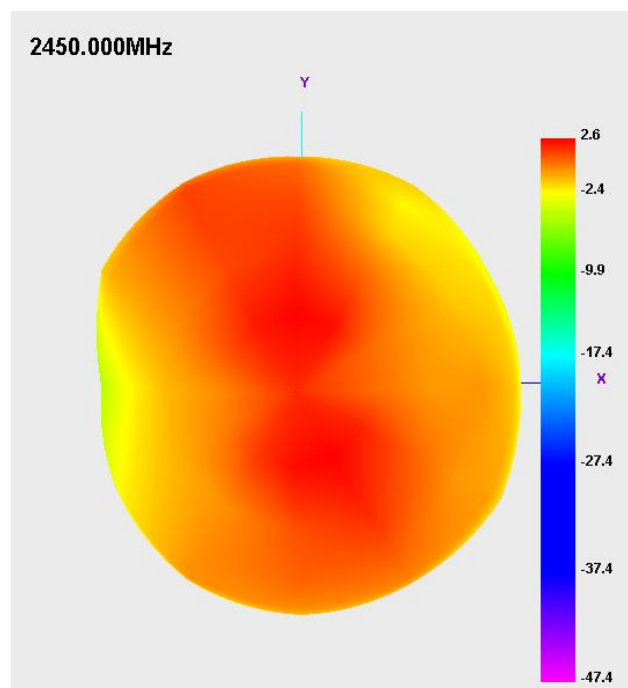
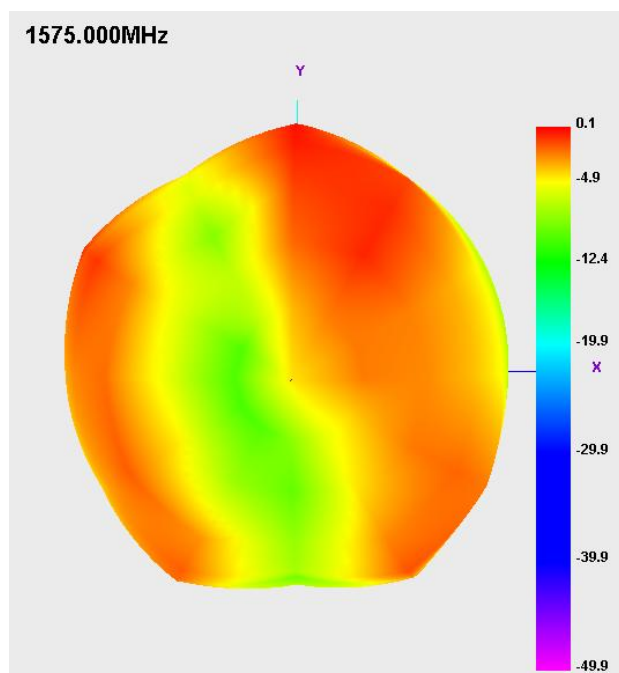


Y-Z



X-Y

3D



OTA

wifi	channels	TRP (dBm)	TIS (dBm)
2.4G 11b 11M	1	15.43	-86.67
	7	15.26	-86.58
	13	15.26	-86.31
5G 11a 54M	36	10.53	-75.4
	149	12.12	-76.09
	165	11.76	-76

[illegible]

由 Autodesk 教育版产品制作

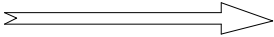
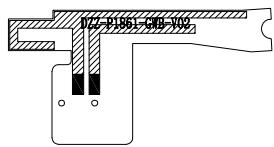
产品包装规范

日期：2023.11.13

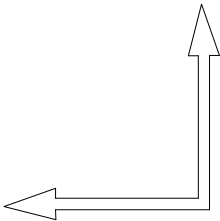
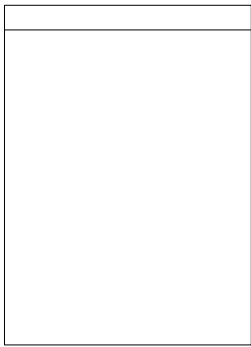
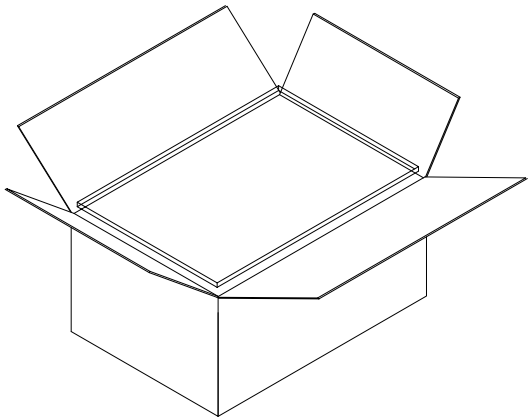
page: 1 of 1

成品类型：P1861天线	版本：A

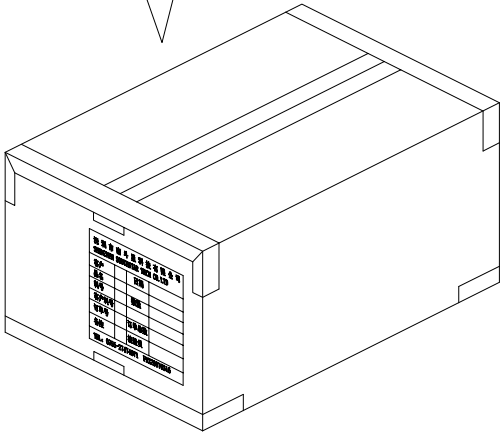
一：成品天线



二：用PE袋整版包装，一袋装1000pcs。



三：装一箱，一箱装12000PCS（以实际包装为准）



四：封箱, 外箱贴我司生产标签和 ROHS标签.

批准：_____

确认：_____

拟制：_____

田进