Shenzhen Yimingyuan Technology Co., Ltd

APPROVAL SHEET

catalog

Customer	Linkward	Specs	A02
Part Number	AW028-A02-021-A0	Frequency Band	2.4G WIFI
Color	black	Edition	REV:A
Salesperson	Lu Liangliang	Design	Lei Yaobo
Structure	Qin Yunlin	Confirm	
Date	2022/03/25	Signing Date	
Customer confirmation:			
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Manufacturer: shenzhenshiyangminglingbashangmaoyouxiangongsi

Address: 1-1903 Tianjiantianjiao 30 Shangbao Rd, Futian District, Shenzhen, China

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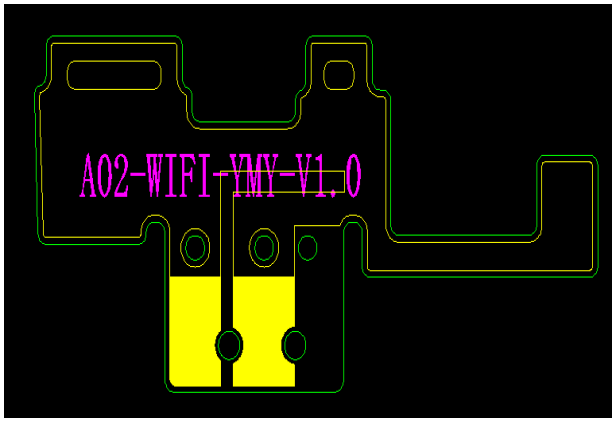
一、 Product specifications

The report mainly provides parameter testing of A02 antenna performance. A02 antenna is a WIFI antenna。（As shown in Figure 1 below）

Figure 1 A02 antenna



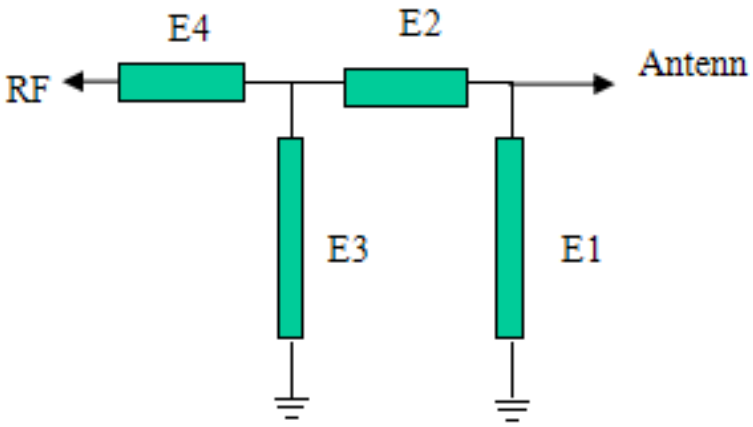
二、 Electrical performance

1.Specification standards

The A02 antenna operates in the frequency range of 2400~2500MHz, where resonance occurs。

2.Matching circuit of antenna

The structure of the antenna： FPC



三、Parameter testing

1.Test settings

VSWR The connection of the testing device in sequence is：

E5071B → 50 Cable → 110mmLong copper tube → Test fixture

Handling of testing fixtures：

Use a hard cable to lead out the SMA-J connector from the 50 ohm test point of the antenna on the battery PCB, connect it to the copper tube with a choke coil, and then connect other devices in sequence。

2.test result

Ok.

四、Settings for active testing

The active testing device is sequentially connected as follows:：

Agilent8960→50 Cable→Satimo SG16→Equipment to be tested

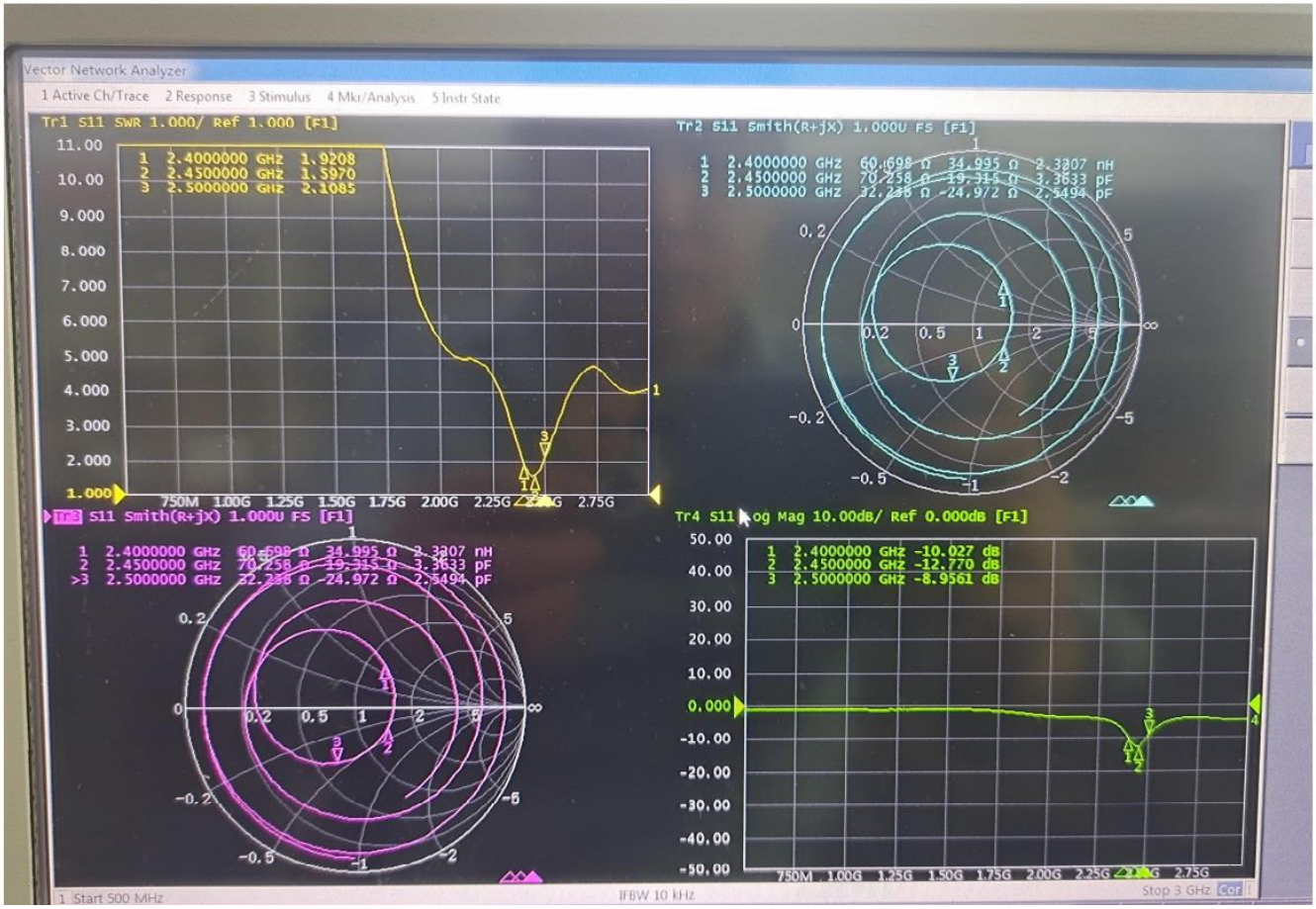
1.Testing site

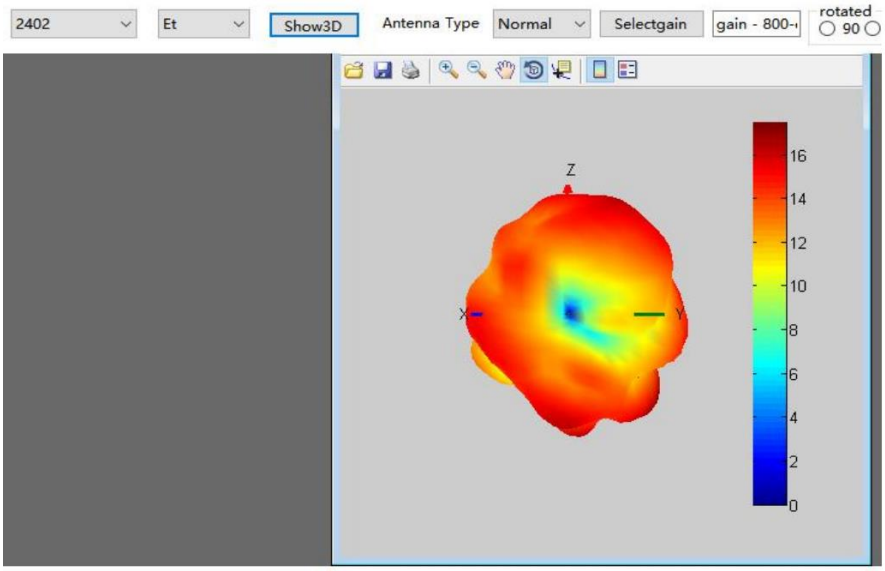
AW microwave anechoic chamber: The testing frequency range is 400MHz-6GHz, the quiet zone range is 40cm circumference, and the reflectivity is less than -90 dB.

2.test result

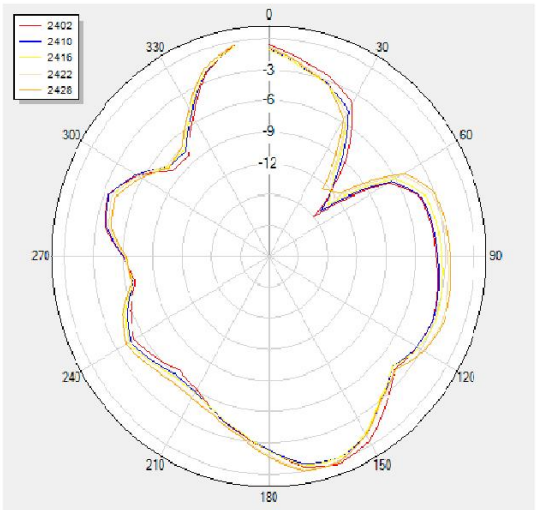
The maximum radiated power and maximum receiving sensitivity reflect the maximum power radiation value and optimal receiving performance of the antenna in the entire radiation space. TRP and TIS reflect the average radiated power and average receiving sensitivity of the antenna, which reflects the overall receiving performance of the antenna. The following are the active test results of A02 antenna:

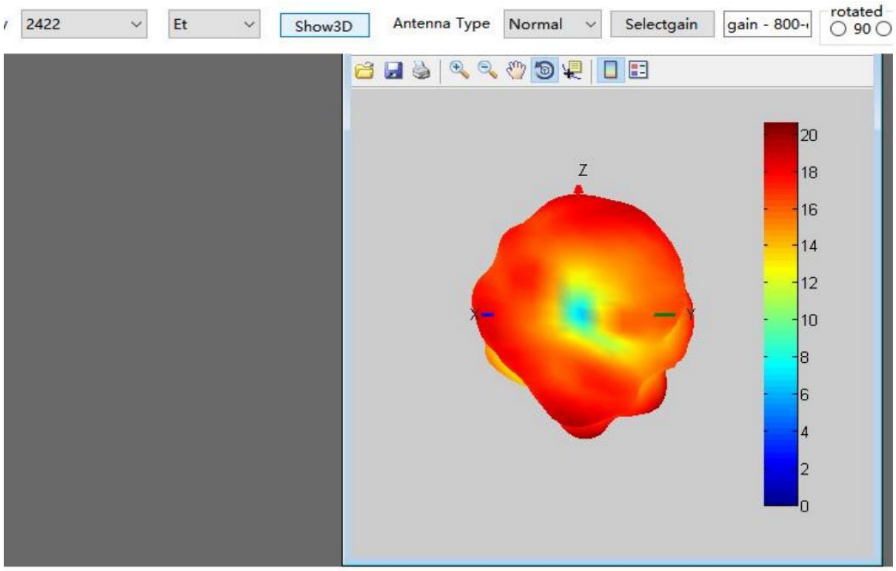
BAND	2.4GWIFI					
CHANNEL	low	medium	high			
TRP(dBm)	15.7	16.2	16.6			
TIS (dBm)	-82.3	-82.4	-83.2			


Vector Network Analyzer
1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State
Tr1 S11 SWR 1.000/ Ref 1.000 [F1]
1 2.4000000 GHz 1.9208
2 2.4500000 GHz 1.5970
3 2.5000000 GHz 2.1085
Tr2 S11 Smith(R+jX) 1.000U FS [F1]
1 2.4000000 GHz 60.698 Ω 34.995 Ω 2.3307 nH
2 2.4500000 GHz 70.258 Ω 19.315 Ω 3.3633 pF
3 2.5000000 GHz 32.238 Ω -24.972 Ω 2.5494 pF
Tr3 S11 Smith(R+jX) 1.000U FS [F1]
Tr4 S11 Log Mag 10.00dB/ Ref 0.000dB [F1]
1 2.4000000 GHz -10.027 dB
2 2.4500000 GHz -12.770 dB
3 2.5000000 GHz -8.9561 dB
1 Start 500 MHz
IFBW 10 kHz
Stop 3 GHz

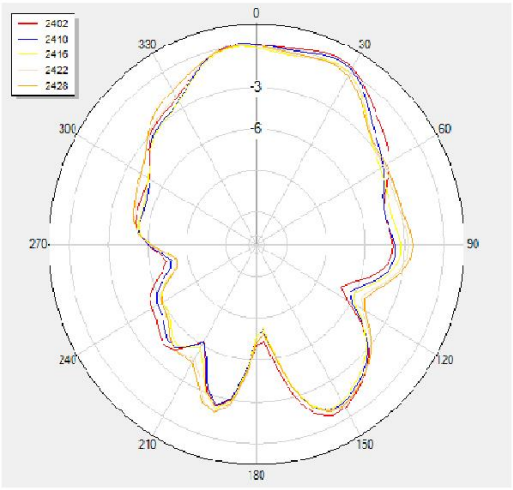

2402
Et
Show3D
Antenna Type
Normal
Selectgain
gain - 800-
rotated
90
Z
X
Y

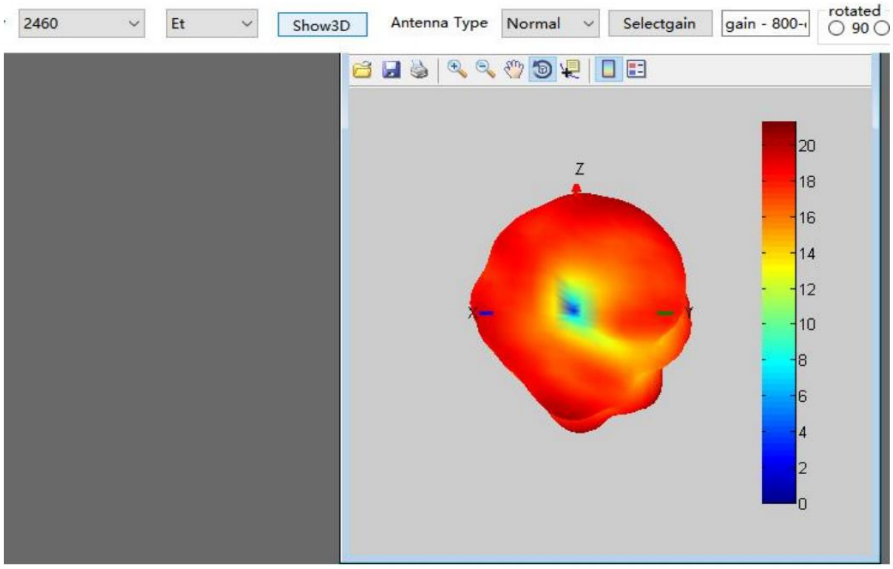
H Theta=90


2402
2410
2416
2422
2428

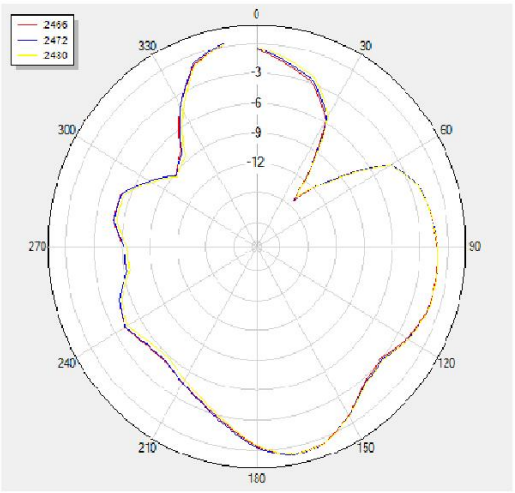


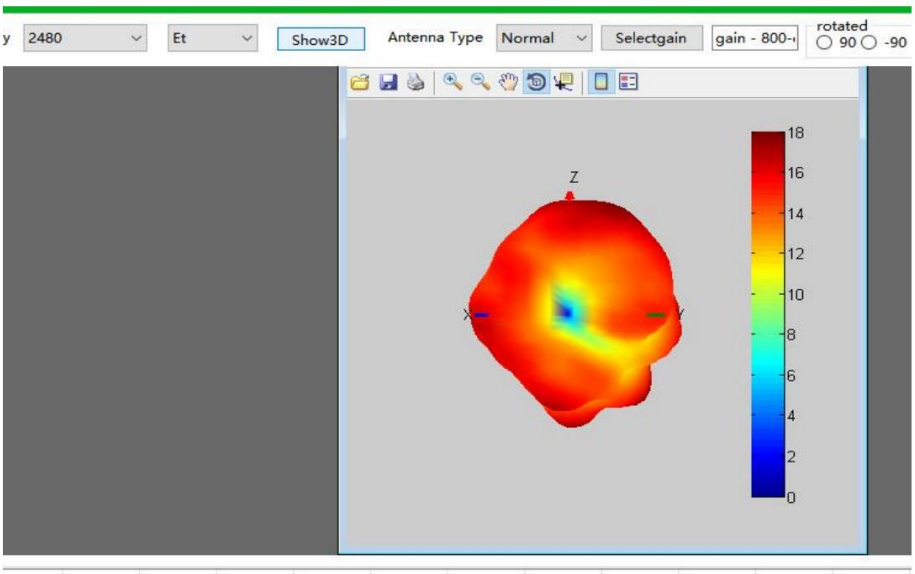
V Phi=90



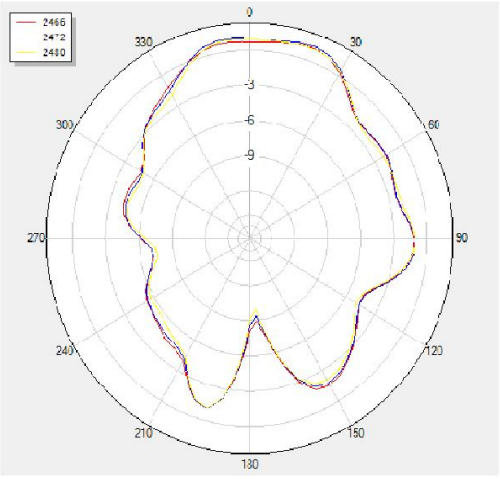


H Theta=90





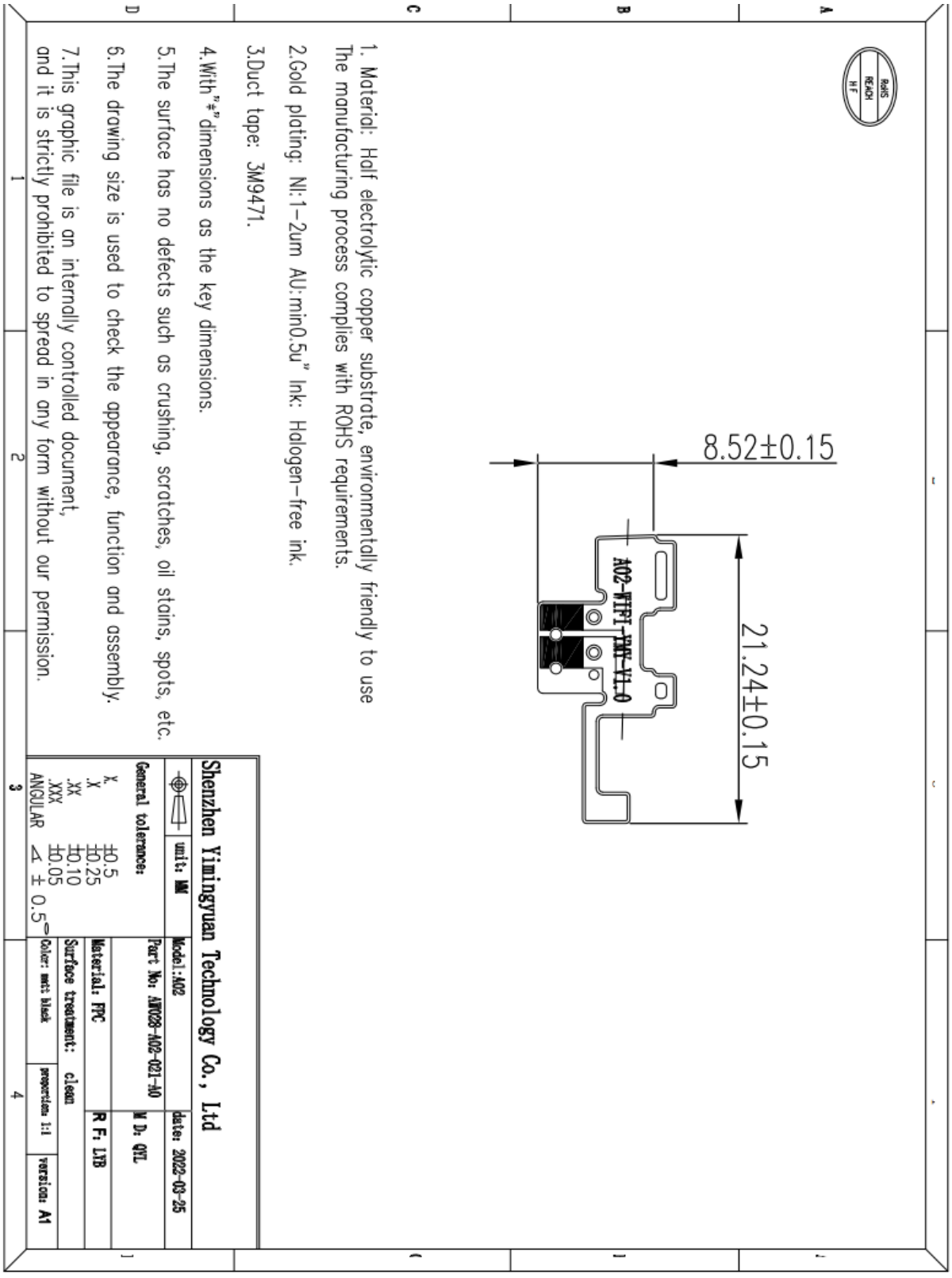
V Phi=90



五、Efficiency & Gain

Frequency (MHz) （工作频段）	Efficiency (%) （效率）	Peak Gain (dBi) （增益）
2400	60.90	1.88
2410	60.08	1.84
2420	60.85	1.79
2430	57.66	1.51
2440	55.80	1.59
2450	57.22	2.00
2460	55.98	2.16
2470	55.28	2.23
2480	57.12	2.34
2490	58.46	2.28
2500	60.28	2.38

六、structural drawings



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