DV6076Z WIFI A Antenna information

Record for version modification

Date	Revision	Modify Content	Author
2022-9-23	V1.0	1st Version	Tan Zhigang

Shenzhen Everything Communication Co. , Ltd.

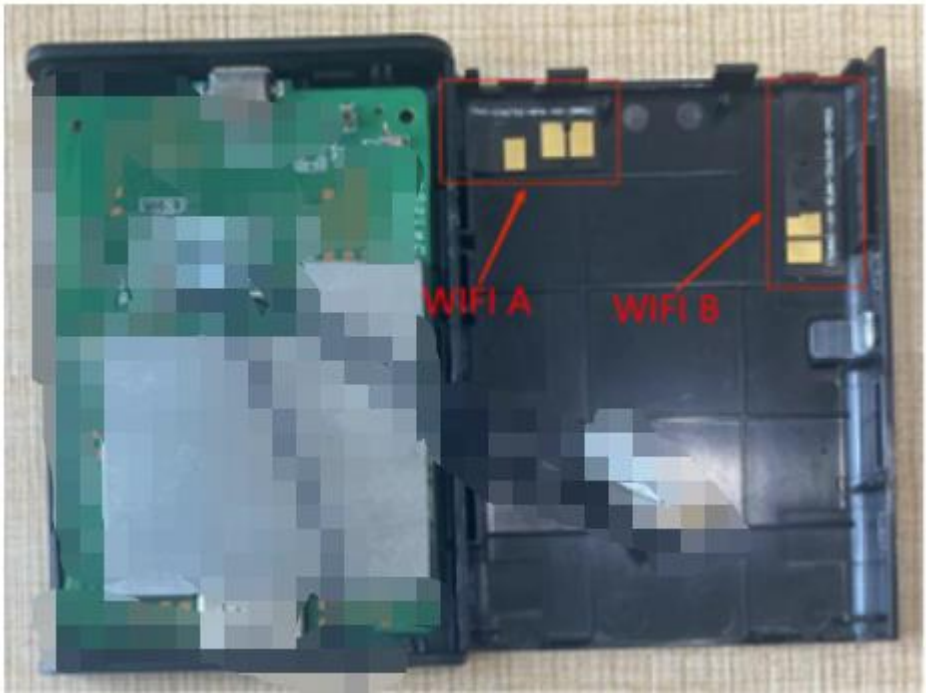
Address： Room 1101, Building T4, Fangdacheng, Taoyuan Street, Nanshan District, Shenzhen
Mobile： 17607477971
Website：

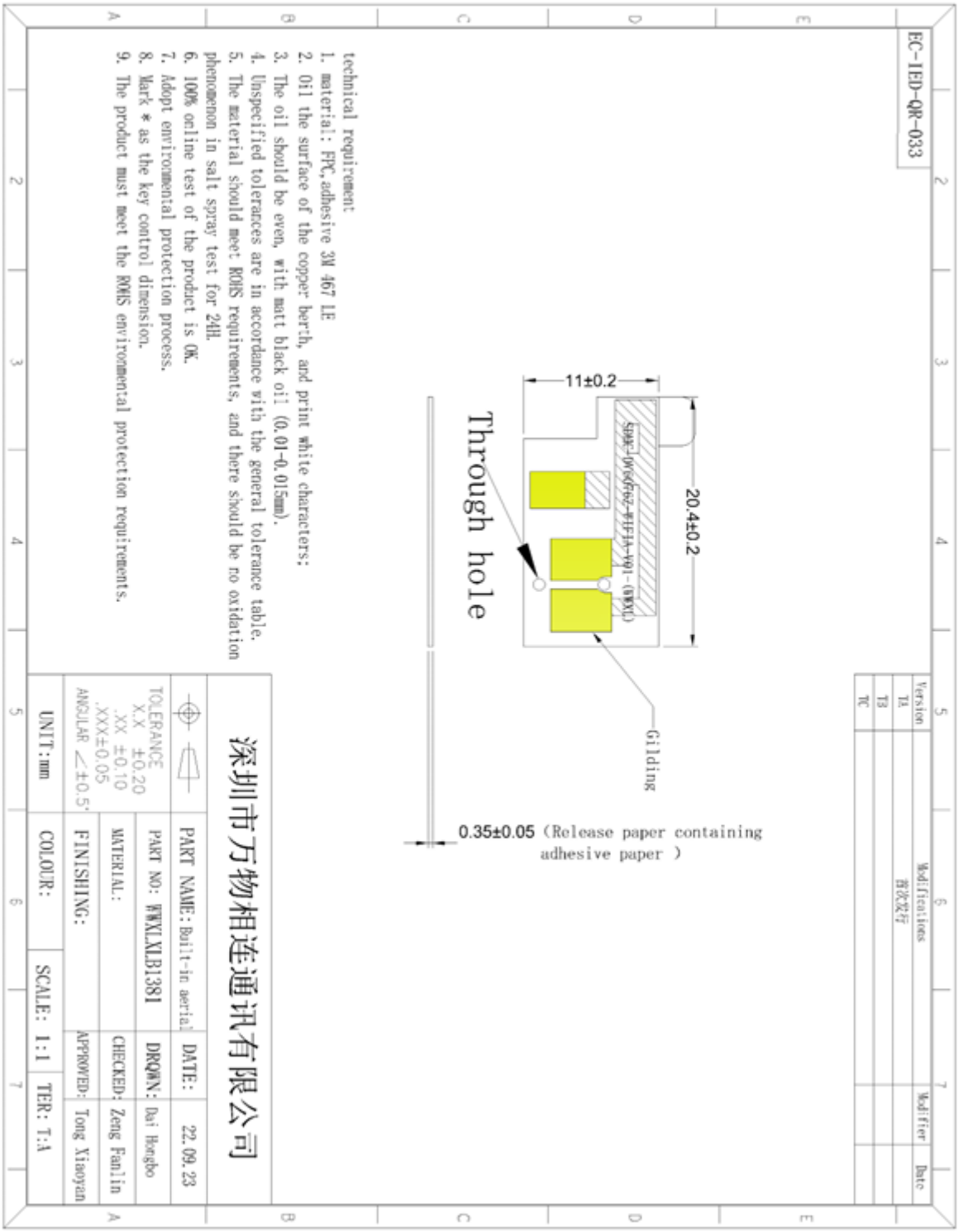
Contents

1. Project information

Model No.	DV6076Z
HW Version	V1
SW Version	
Antenna type	FPC
Installation mode	
WIFI Model	
Antenna supplier	
Tester	Tan Zhigang
Acceptance	
Reviewer	
Date	2022/9/23

2. Appearance and specification





3. Performance parameter

3.1 Antenna passive test

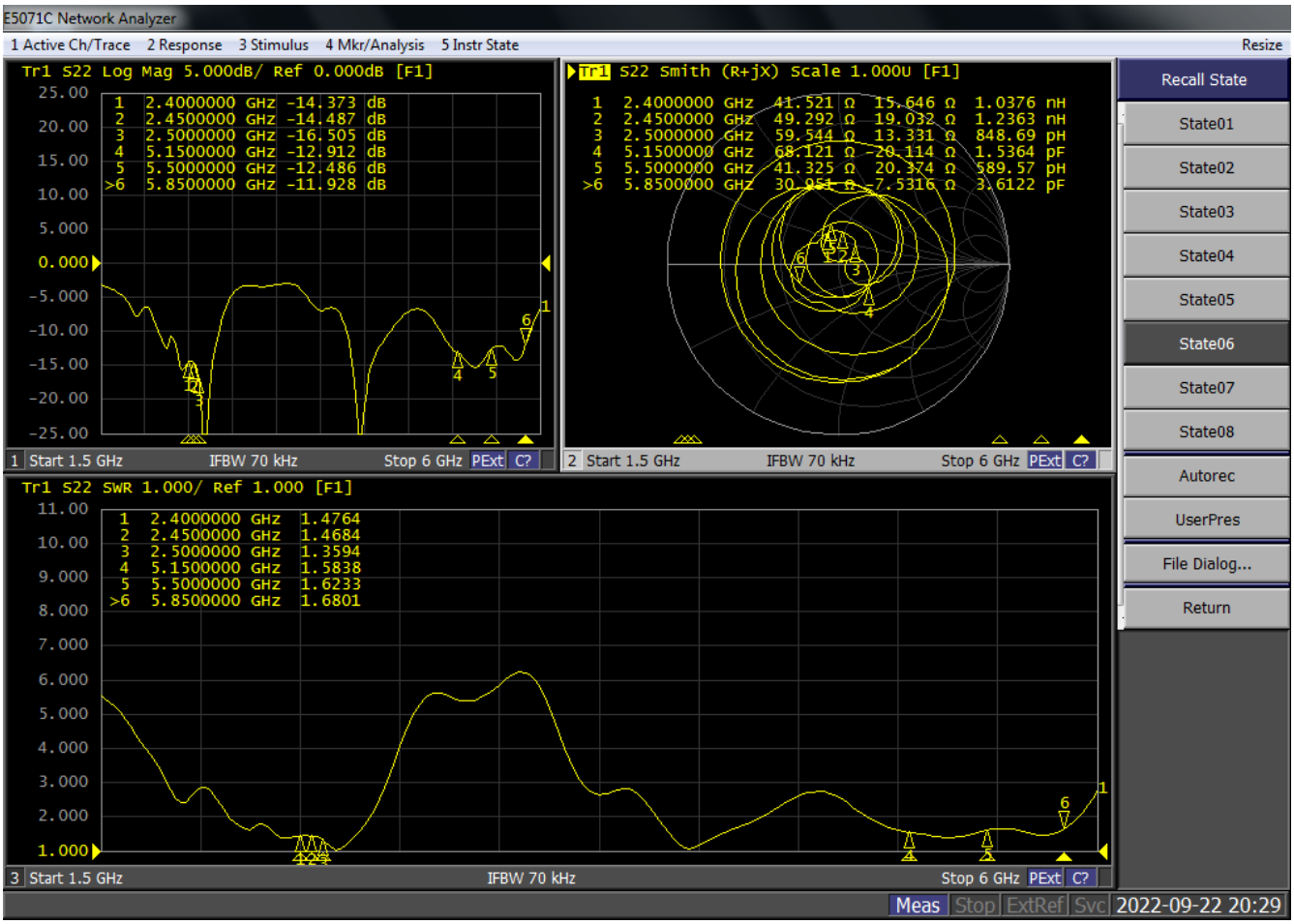
Frequency	2400Mhz～2483.5Mhz/5150Mhz～5850Mhz
Impedance	50Ω
Max Antenna Gain	2.4G Antenna A: 2.51Bi;
	5G Antenna A: 3.19dBi;
Power capacity	<12w
Radiation	Omni-directional

3.1.1 Reflection loss&V.S.W.R

Test tools: network analyzer

Standard: Reflection loss≤-10db V.S.W.R≤2

Antenna-WIFI A



V.S.W.R

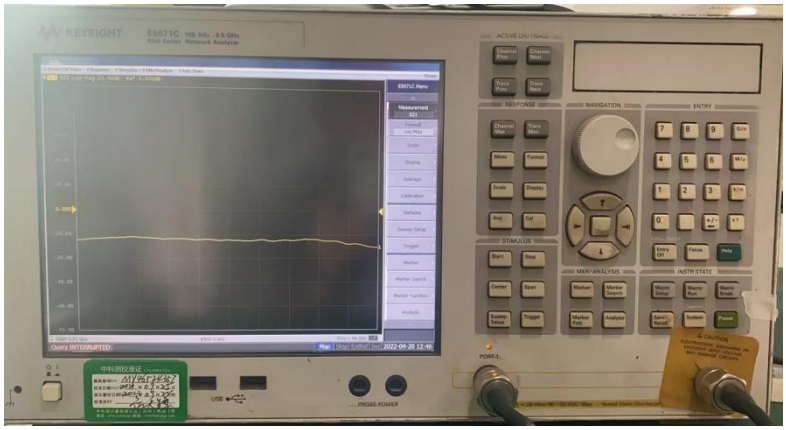
Freq/GHz	2.4	2.45	2.5	5.15	5.5	5.85
VSWR	1.4	1.4	1.3	1.5	1.6	1.6

3.1.2 Gain & Efficiency

Test tools: Microwave Anechoic Chamber+Agiilent Technologies E5071C

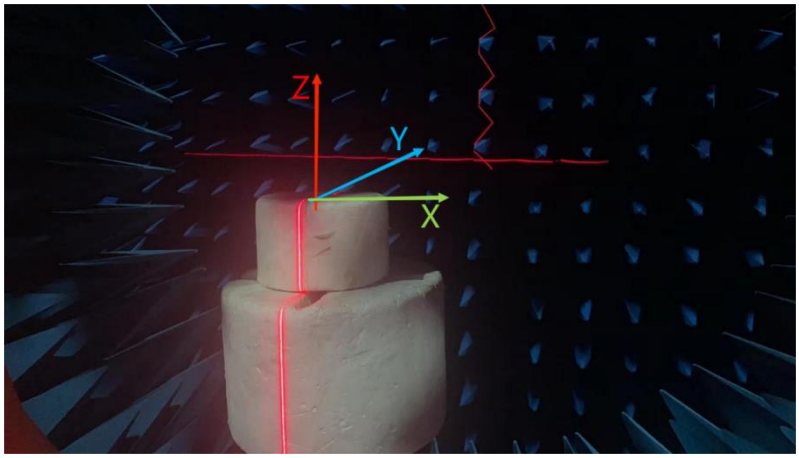
Standard: 2.4G 1.5dBi≤Gain≤6dBi Efficiency≥50%
5G 1.7dBi≤Gain≤6dBi Efficiency≥50%

Testing Environment: As shown in the figure

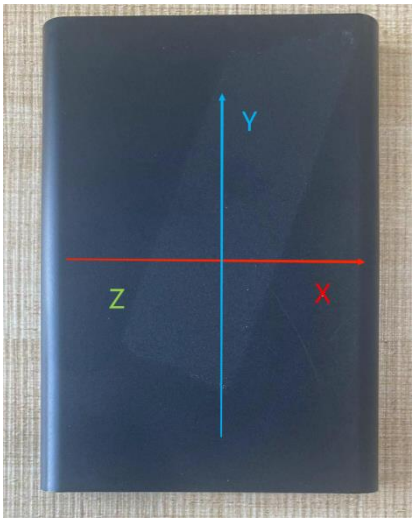


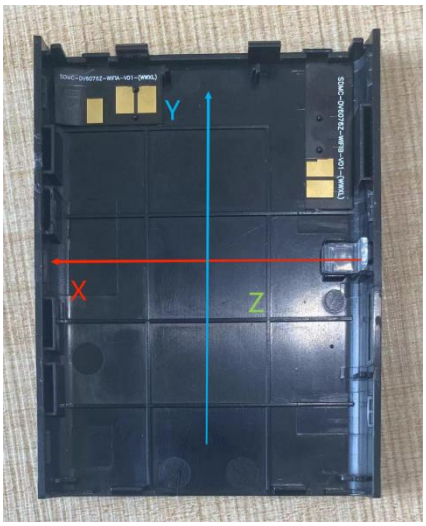
Agiilent Technologies E5071C

ROHDE&SCHWARZ CMW500



Microwave Anechoic Chamber


Y
Z
X


Y
X
Z

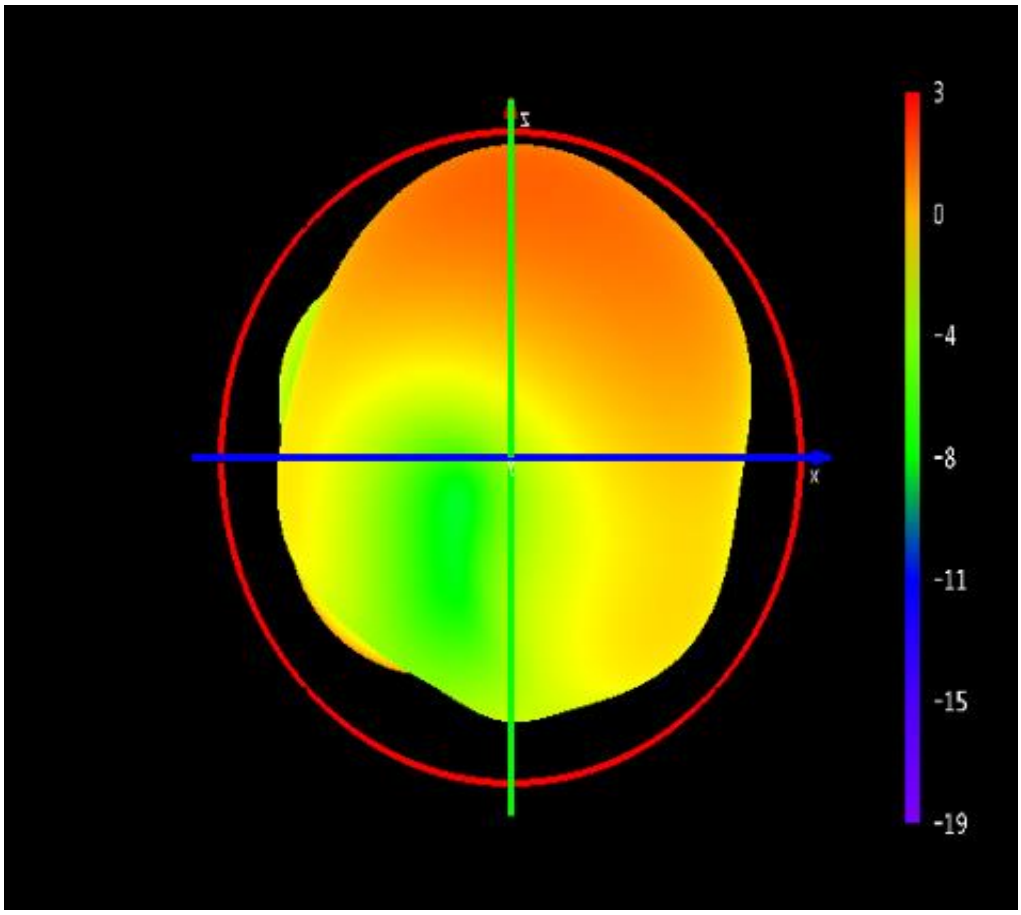
Antenna test data
Unit: dBi

WIFI-A					
2.4G			5G		
Frequency / MHz	Gain/ dBi	Efficiency / %	Frequency / MHz	Gain/ dBi	Efficiency / %
2400	2	44.87	5150	2.91	52.4
2410	2.03	43.99	5200	3.19	53.5
2420	2.16	44.06	5250	3.11	52.82
2430	2.26	44.19	5300	3.11	52.97
2440	2.35	44.46	5350	3.08	53.54
2450	2.41	44.7	5400	2.94	53.25
2460	2.46	45.14	5450	2.84	52.65
2470	2.45	45.35	5500	2.75	52.47
2480	2.46	45.42	5550	2.76	51.75
2490	2.47	45.82	5600	2.71	50.49
2500	2.51	45.89	5650	2.74	50.17
			5700	2.74	49.38
			5750	2.56	48.05
			5800	2.35	47.14
			5850	2.16	46.64

3D directional diagram (maximum)

2500MHz

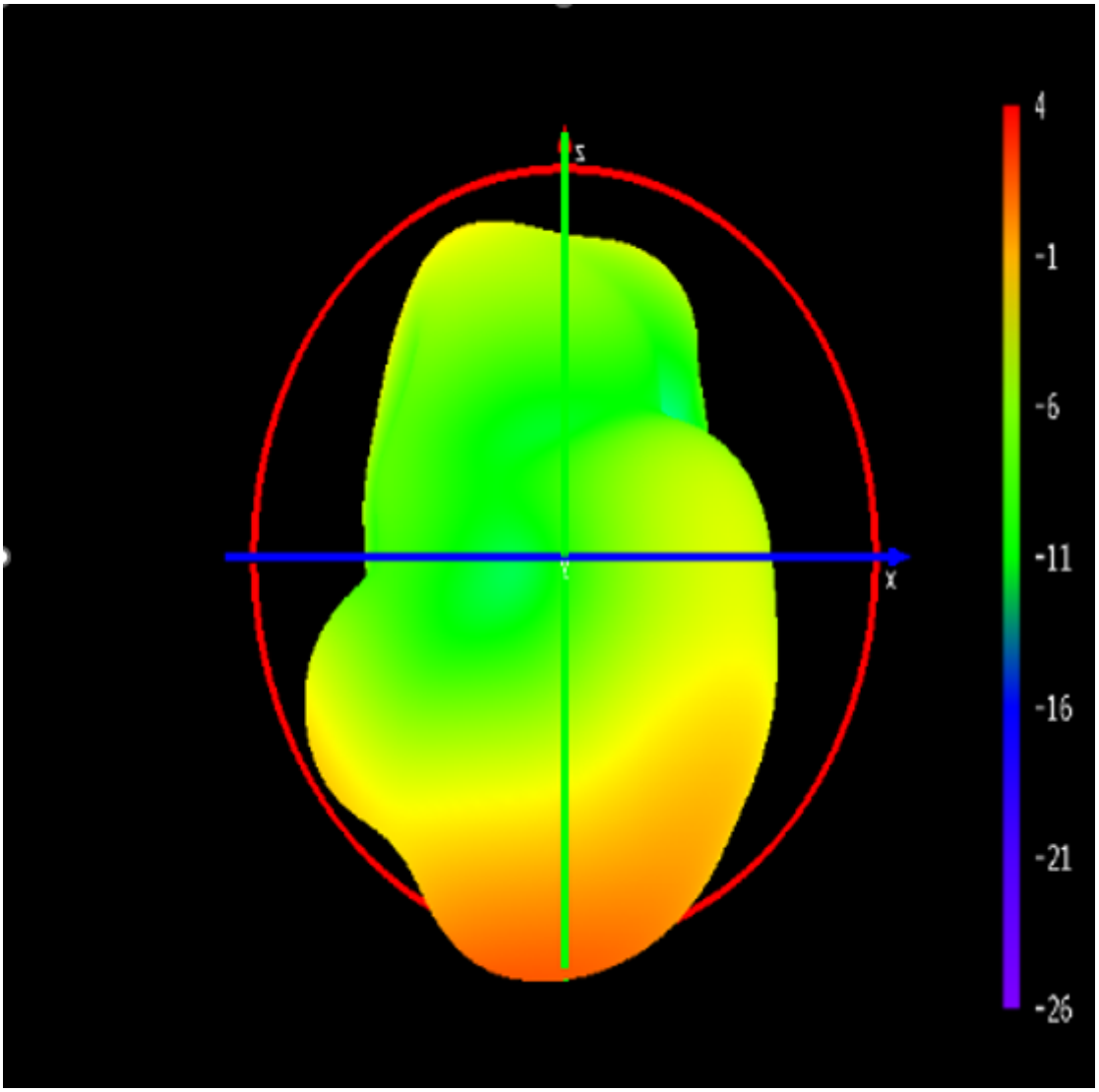
Unit: dBi



3D directional diagram (maximum)

5200MHz

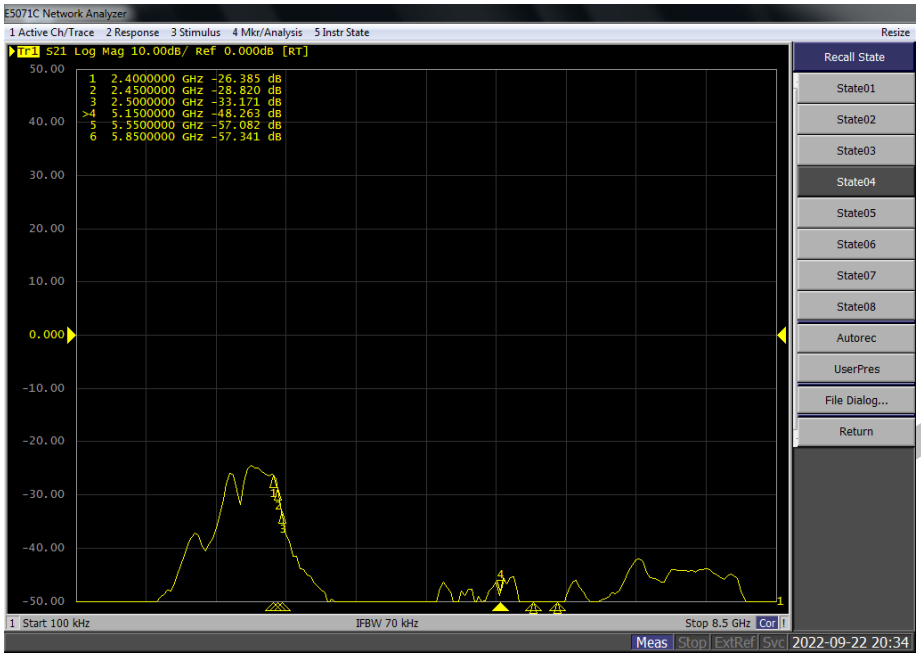
Unit：dBi



3.1.3 Antenna isolation

Test tools: network analyzer

Standard: Isolation≤-20dB



Isolation of antenna A and antenna B(2.4G+5.8G)

3.2 Antenna active test

Test tools: Microwave Anechoic Chamber+ROHDE&SCHWARZ CMW 500

Standard: As shown in the table

Testing Environment: Same as passive test

Test mode：802.11b 11Mbps BW 20M

Standard: TRP≥10dbm TIS≤-60dbm

Test	Wifi 2G TRP		
CH	1	6	11
Frequency (MHz)	2412	2437	2462
TRP(dBm)	14.02	15.01	15.83

Test	Wifi 2G TIS		
CH	1	6	11
Frequency (MHz)	2412	2437	2462
TIS(dBm)	-79.89	-82.4	-78.87

Test mode：802.11g 54Mbps BW 20M

Standard: TRP≥10dbm TIS≤-60dbm

Test	Wifi 2G TRP		
CH	1	6	11
Frequency (MHz)	2412	2437	2462
TRP(dBm)	12.59	13.92	14.14

Test	Wifi 2G TIS		
CH	1	6	11
Frequency (MHz)	2412	2437	2462
TIS(dBm)	-72.12	-72.63	-71.61

Test mode：802.11a 54Mbps BW 20M

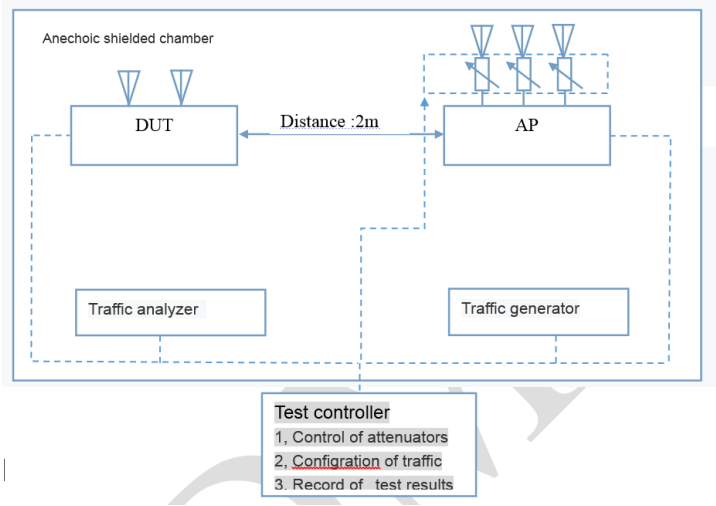
Standard: TRP≥10dbm TIS≤-60dbm

Test	Wifi 5G TRP			
CH	36	48	149	161
Frequency (MHz)	5180	5240	5745	5805
TRP(dBm)	11.09	11.09	16.2	16.12

Test	Wifi 5G TIS			
CH	36	48	149	161
Frequency (MHz)	5180	5240	5745	5805
TIS(dBm)	-78.12	-77.86	-74.23	-77.15

4.Throughput Test

4.1 Test Setup(根据自己实际情况，描述下组网情况)



1. The test setup SHALL locate in the anechoic shielded chamber.

2. A Traffic Generator/Analyzer, sending the Ethernet packets, connects to the LAN interface of the AP. The peer AP antenna is located in 2 meter to the DUT.

3. Additional attenuation is added in each RF chain of AP to simulate the incremental distance.

4. The host SHALL send the Ethernet packet at the maximum rate which the DUT can achieve theoretically.

5. TCP connection SHALL be used for Ethernet packet transmission in the test.

4.2 Testing Environment(附环境照片)