

SHENZHEN DIBITONG TELECOMMUNICATION TECHNOLOGY CO.,LTD.

WIFI antenna
Product design and manufacturing specifications

◆ Customer:

◆ Project: V701

◆ Name: 5.8G WIFI Antenna

◆ Antenna materials: FPC+Cable+EVA

◆ Part no:

◆ Designer:

◆ Check:

◆ Approved:

Rm505, 8th building, Yungu 2nd period, pingshan No.1 Road, Xili Town, Nanshan District, ShenZhen , China

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List:

1. Antenna 2D diagram

2. Technical target

3. S11 SWR/ Impedance test results

4. Dynamic test instruction

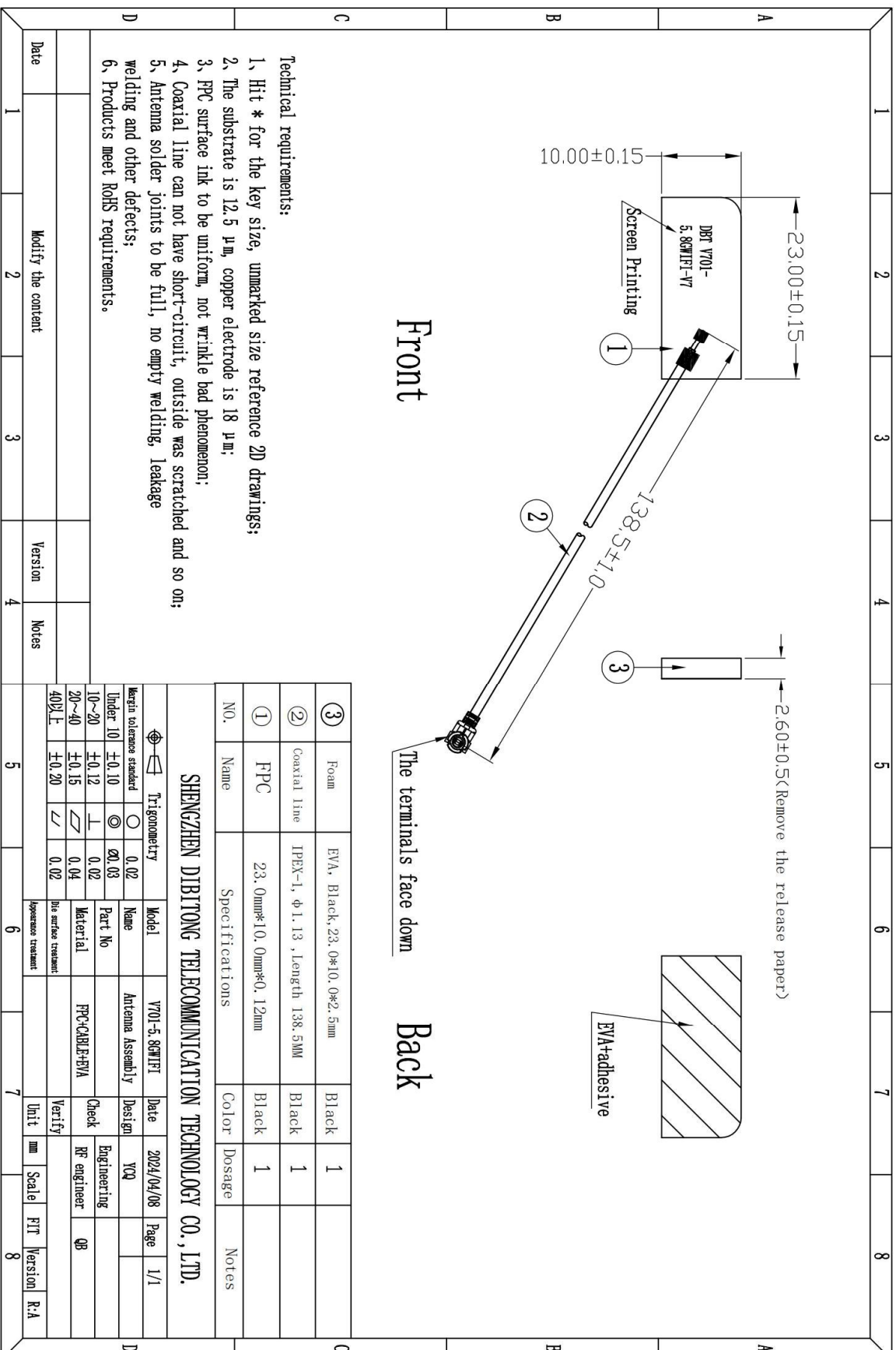
5. Matching Circuit

6. Antenna test report

7. Environmental treatment

8. Packing method

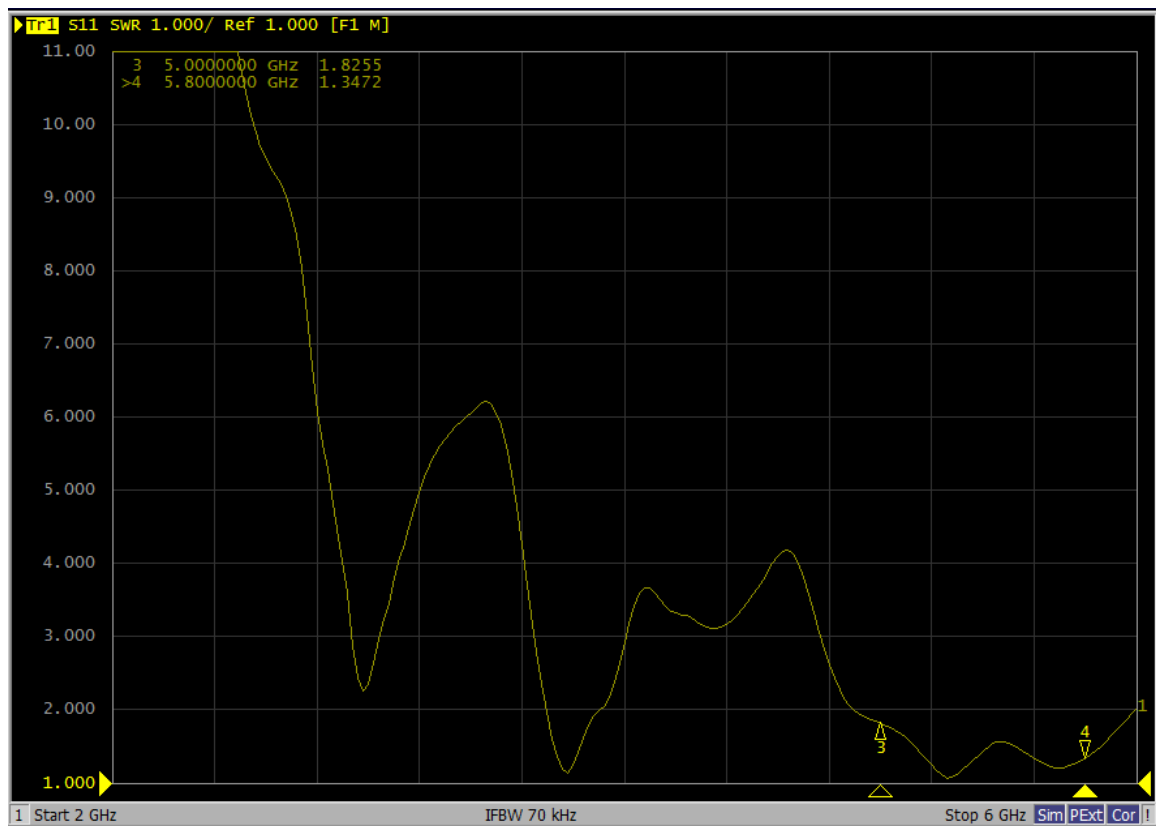
1. Antenna 2D diagram



2. Technical target

A. Electrical Parameter	
Frequency Range	5000~5900 MHz
VSWR	5000~5900 MHz: ≤ 2.5
Gain (Max)	5000~5900 MHz: 3.26 dBi
Average radiation efficiency	5000~5900 MHz : 44.4%
Input Impedance	50 ohm
B. Material	
FPC+Cable+EVA	
C. Environmental Science	
Working Temperature	- 30°C ~ + 85 °C
Storage temperature	- 30°C ~ + 85 °C

3.S11 SWR/ Impedance test results

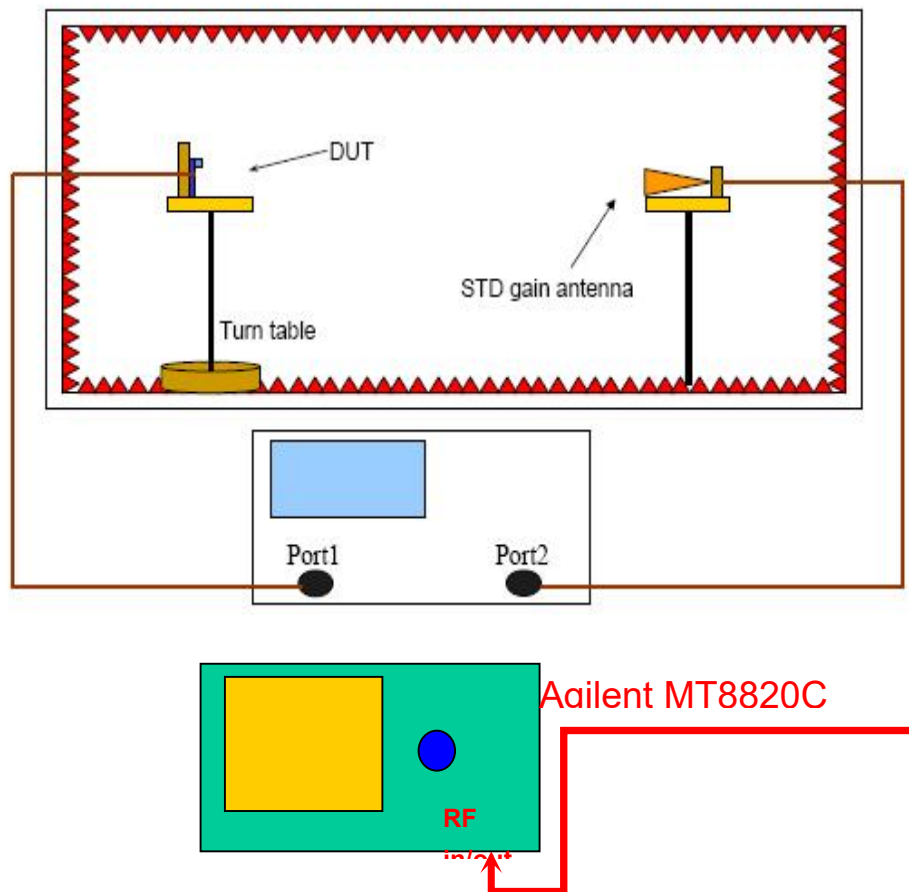


VSWR: 5000-5900MHz $\leq$ 2.5

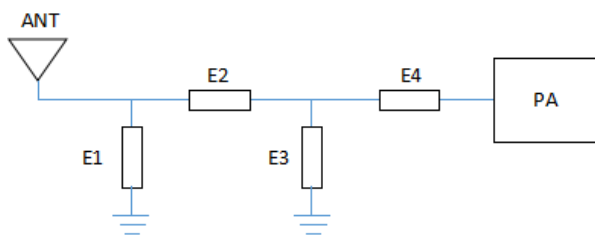
Input Impedance: 50 Ohm

4. Dynamic test instructions - Antennas are placed in electronic scales

Testing instrument : **Anrits CMW500+ Anechoic Chamber 6X4X3m(3D-OTA)**



5. Matching Circuit



Element	2.4G	5.8G		
E1	N/C	N/C		
E2	0Ω	0Ω		
E3	N/C	N/C		
E4		0Ω		

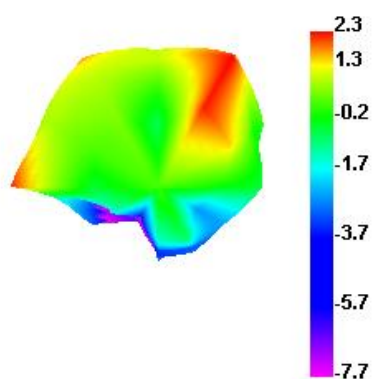
(The match has not changed)

6. Antenna test report

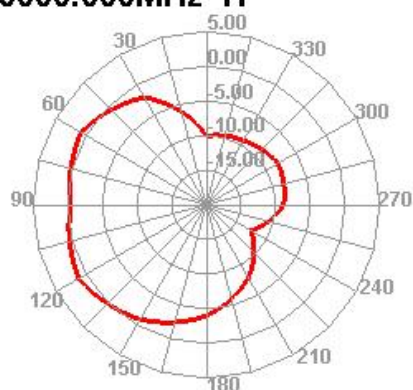
Passive Efficiency/Gain/Pattern

Freq (MHz)	Effi (%)	Gain (dBi)
5000	47.35	2.33
5100	48.13	3.26
5200	47.12	3.24
5300	39.08	0.98
5400	40.11	1.01
5500	43.73	1.97
5600	49.78	2.69
5700	41.48	1.5
5800	43.01	1.9
5900	44.62	2.14

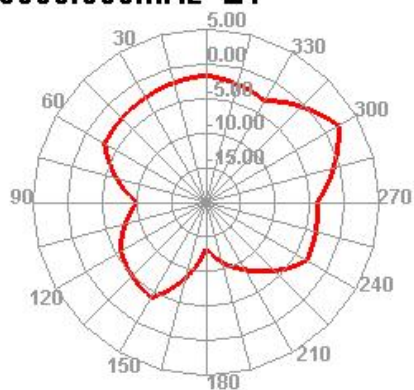
5000.000MHz



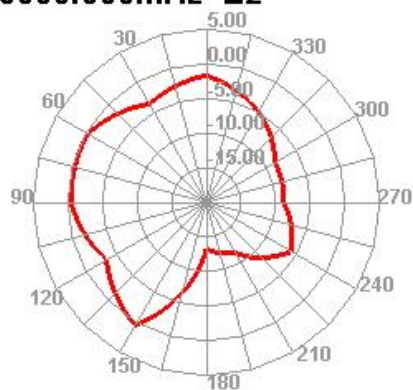
5000.000MHz H



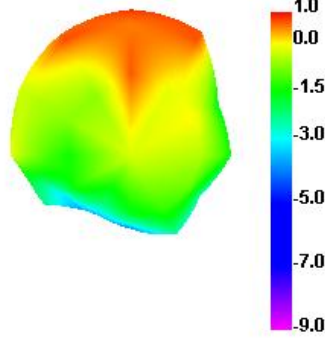
5000.000MHz E1



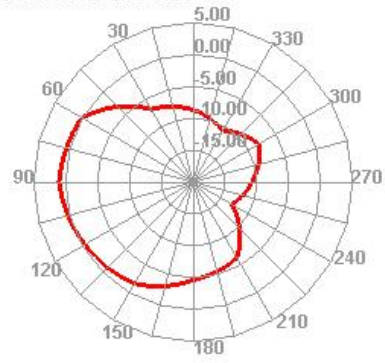
5000.000MHz E2



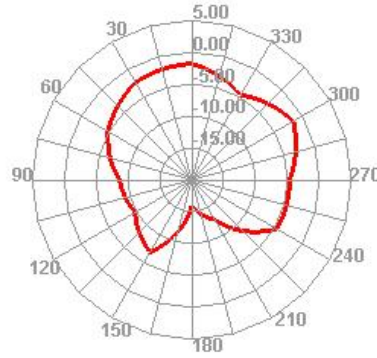
5400.000MHz



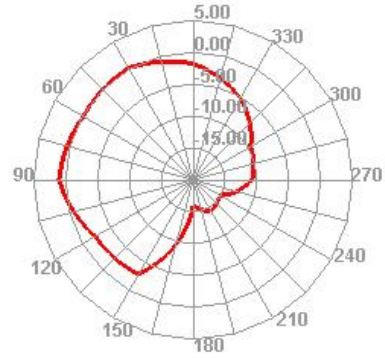
5400.000MHz H



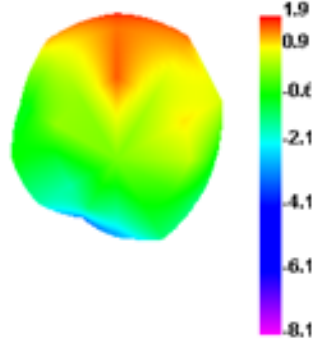
5400.000MHz E1



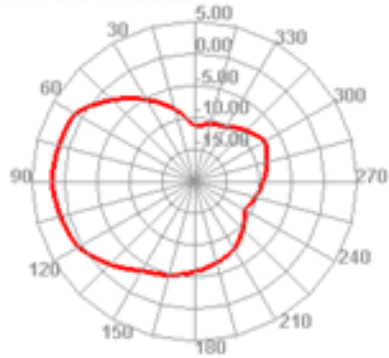
5400.000MHz E2



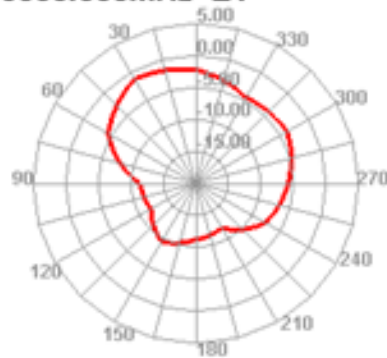
5800.000MHz



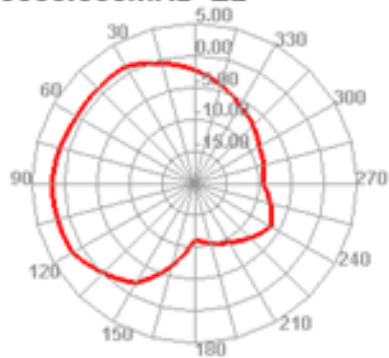
5800.000MHz H



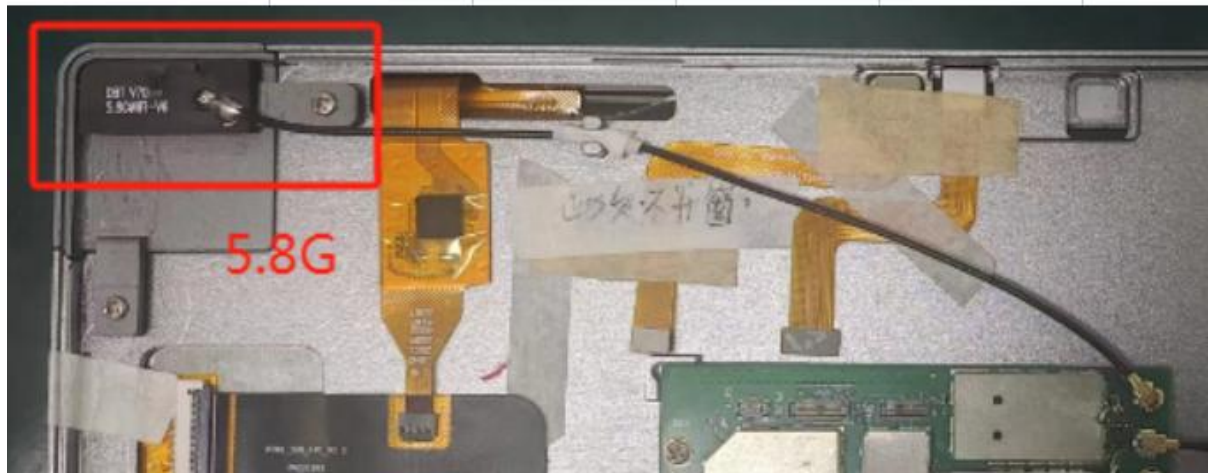
5800.000MHz E1



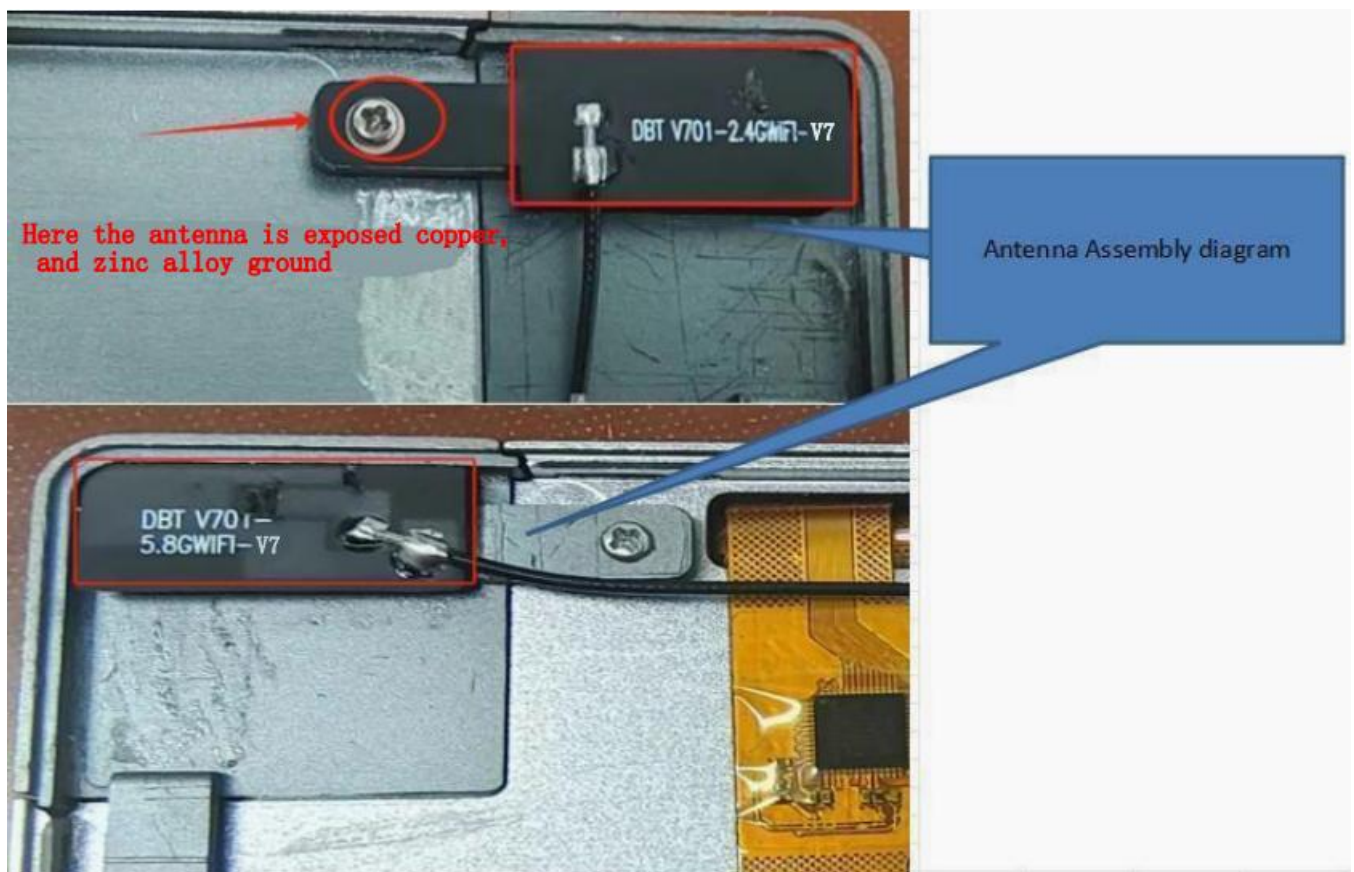
5800.000MHz E2



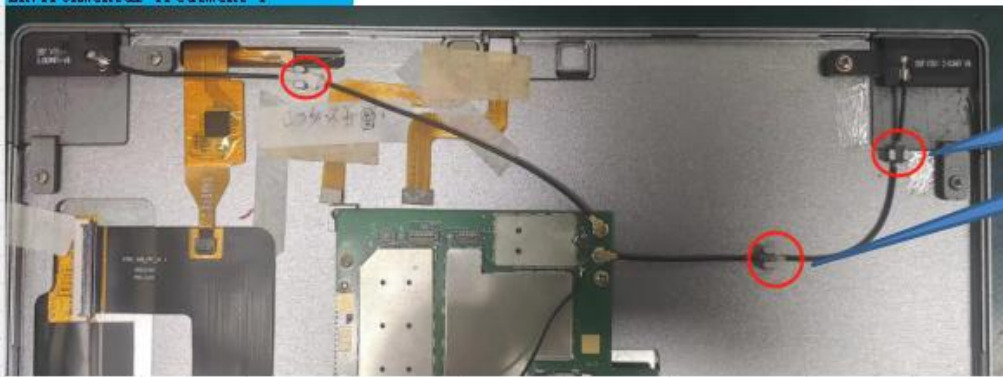
7.Environmental treatment



(Antenna position)



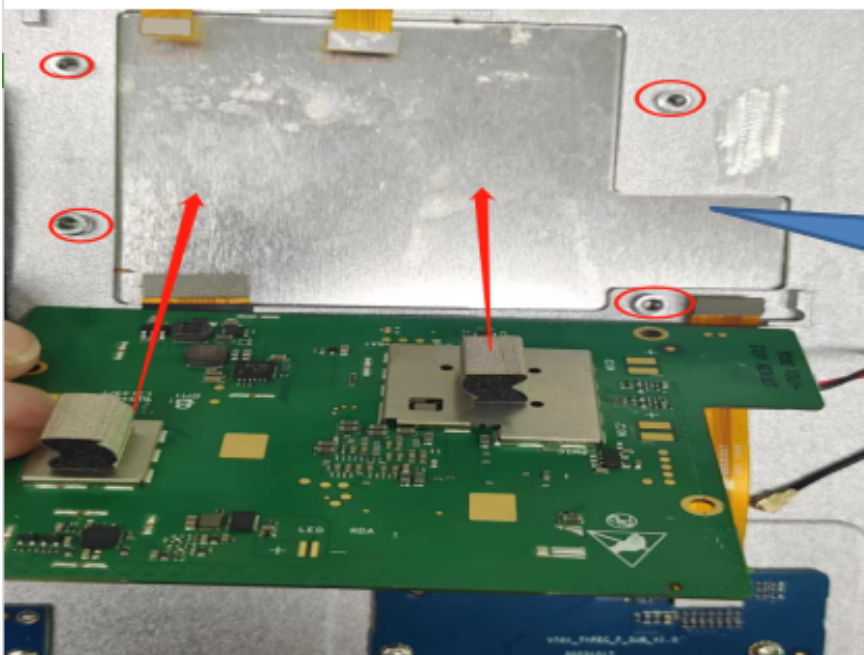
Environmental Treatment 1



2.4 G coaxial line ground in two slot positions

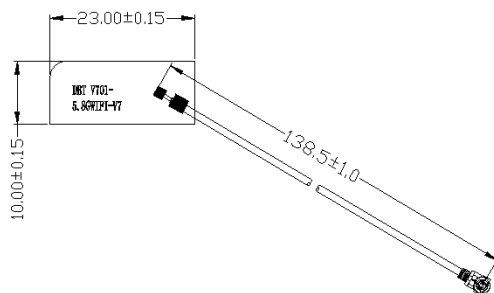
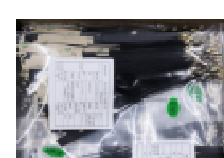
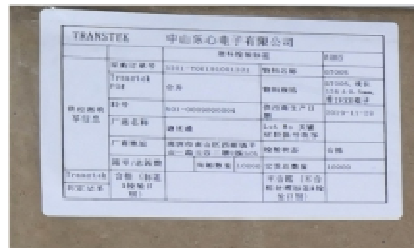
Three clamp location to narrow (coaxial line diameter 1.13 mm), currently unable to fix coaxial line. To do narrow slot after the radium carving, for coaxial line ground fenestration. Currently only 2.4 G coaxial grounding, reducing the coaxial line effect

Environmental Treatment 2



Zinc alloy screw bit laser grounding motherboard motherboard grounding screen

8.Packing method

1.2D drawing of the product		The product material number	
		Product name	V701_2.4GWIFI
		Product version	V7
2.Photos of all stacked layers in the box	3. Photo of the whole case after sealing		
		Number of full pages	200PCS
		Remarks: the quantity of each box shall be actual, the picture on the left side shall be for reference, and the actual goods shall be regarded as standard.	
4. A whole pack of photos	5.A photograph of the label on the surface of the entire case	Storage conditions:between-10 ° to 30 ° , humidity 70% Rh below the indoor.	
			
Note: the picture in the picture above is only used for packing standard demonstration, not for final data audit.			
Confirmer	Yang Xiaoping	Date	2024-4-8