

SHENZHEN DIBITONG TELECOMMUNICATION TECHNOLOGY CO.,LTD.

WIFI antenna Product design and manufacturing specifications

◆ Customer:

◆ Project: V701

◆ Name: 2.4G 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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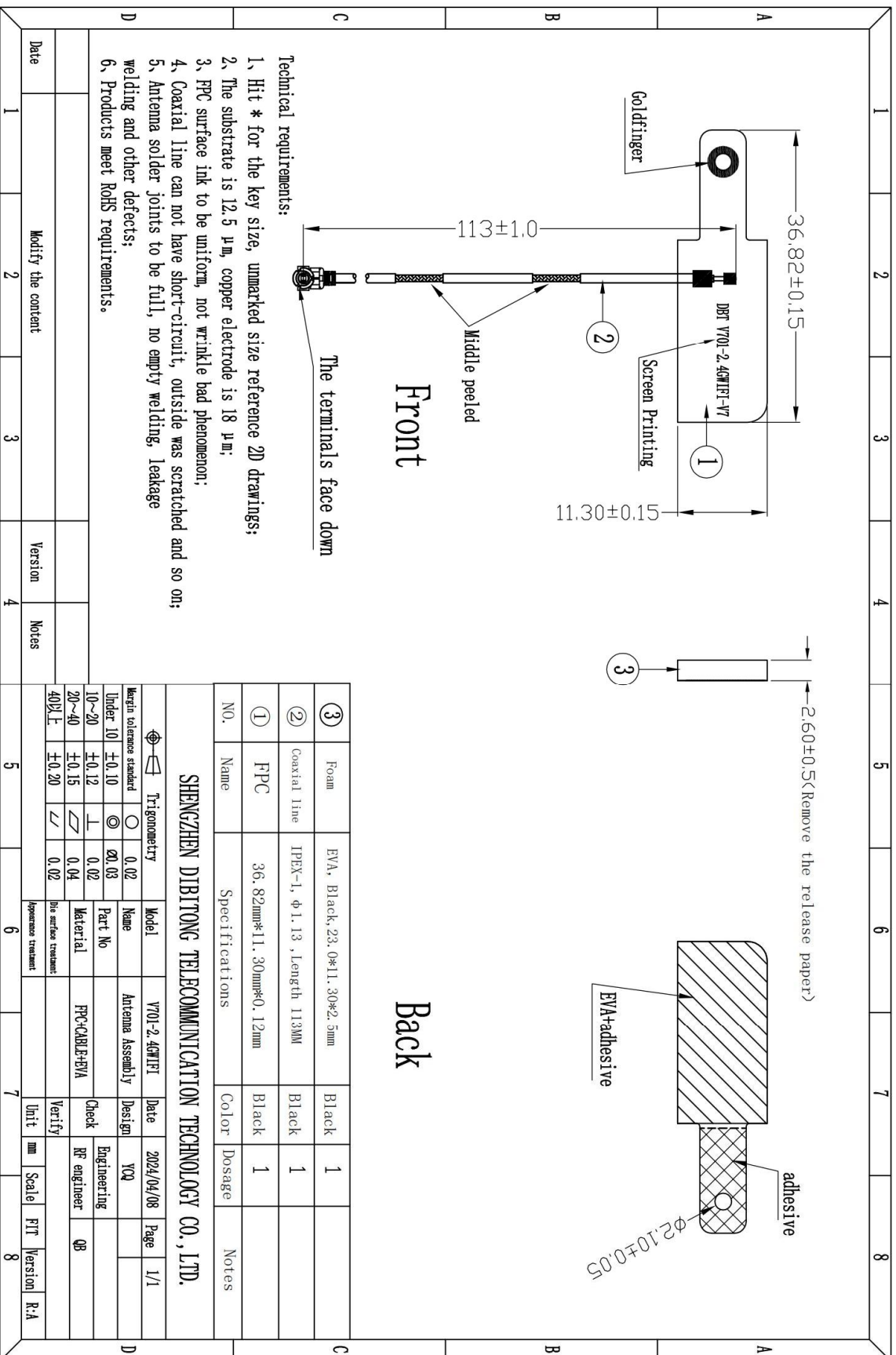
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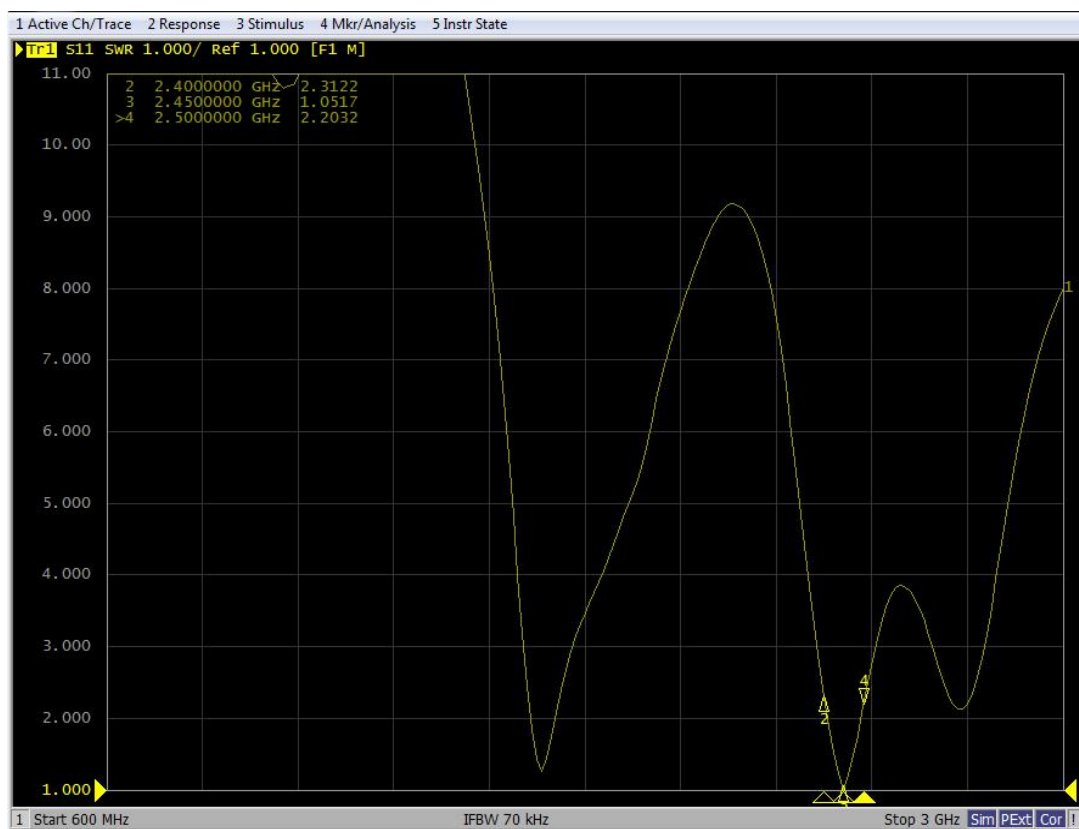
1. Antenna 2D diagram



2. Technical target

A. Electrical Parameter	
Frequency Range	2400~2500 MHz
VSWR	2400~2500 MHz: ≤ 2.5
Gain (Max)	2400~2500 MHz: 2.47 dBi
Average radiation efficiency	2400~2500 MHz : 44%
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

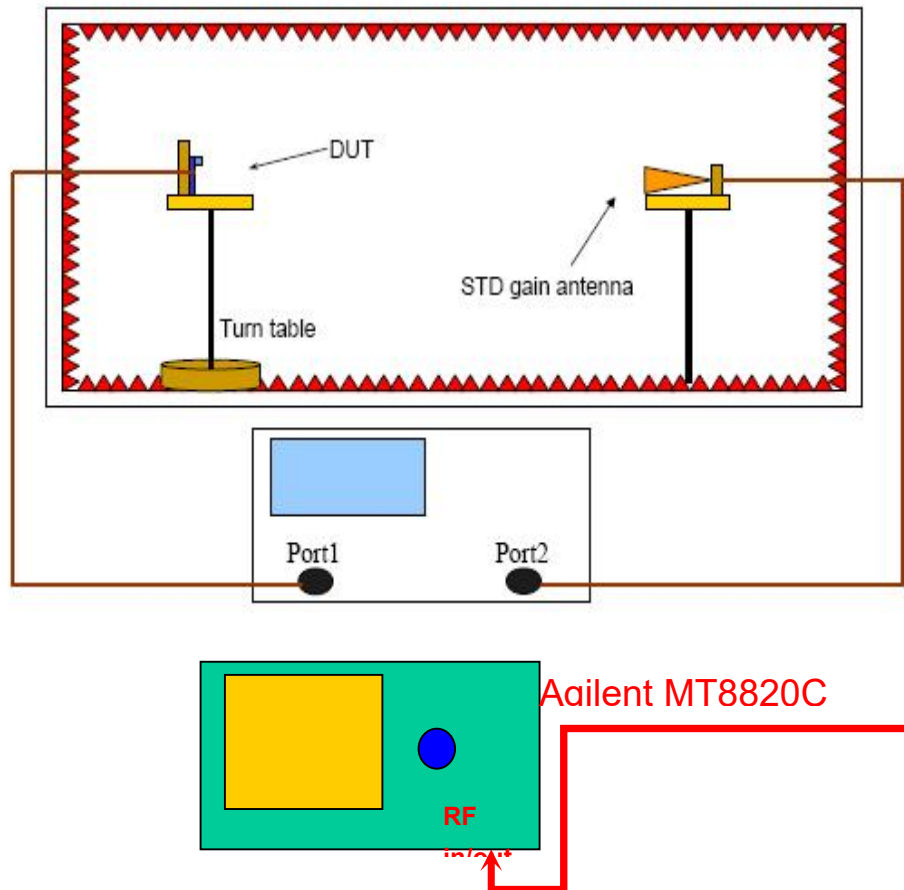


VSWR: 2400-2500MHz $\leq$ 2.5

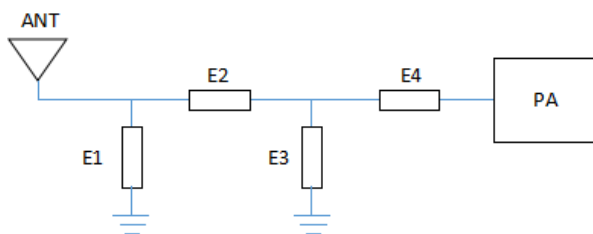
Input Impedance: 50 Ohm

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		

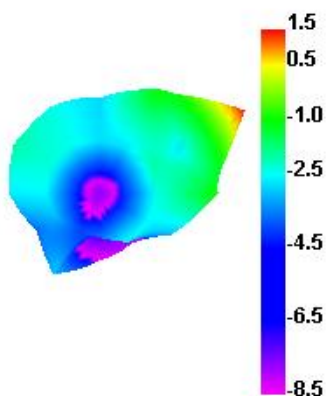
(The match has not changed)

6. Antenna test report

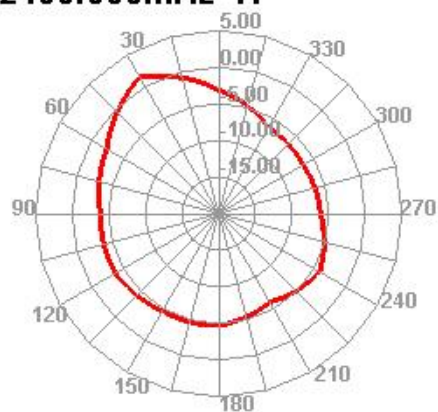
Passive Efficiency/Gain/Pattern

Freq (MHz)	Effi (%)	Gain (dBi)
2400	41.66	1.52
2410	39.02	1.27
2420	43.6	1.96
2430	45.08	2.07
2440	48.22	2.38
2450	49.29	2.47
2460	44.11	1.82
2470	46.25	1.97
2480	44.82	1.95
2490	41.43	1.58
2500	40.61	1.73

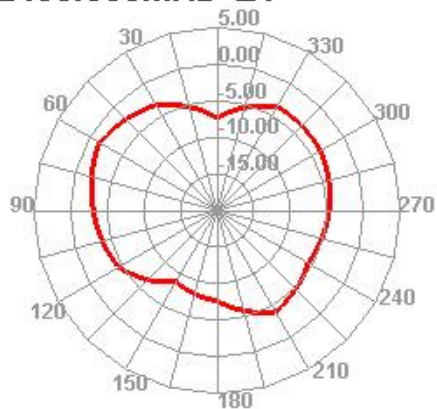
2400.000MHz



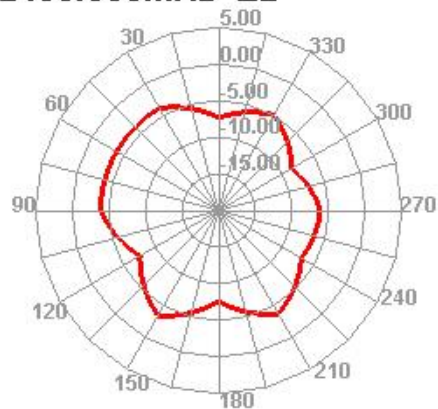
2400.000MHz H



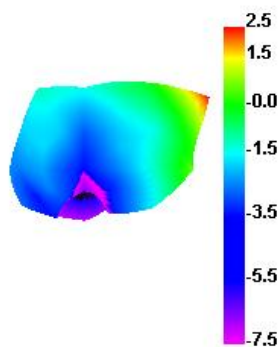
2400.000MHz E1



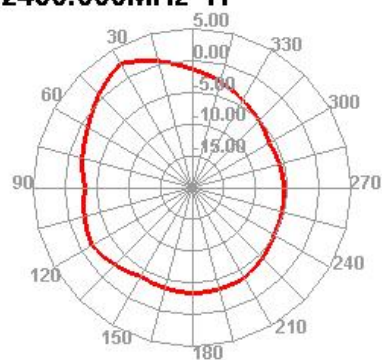
2400.000MHz E2



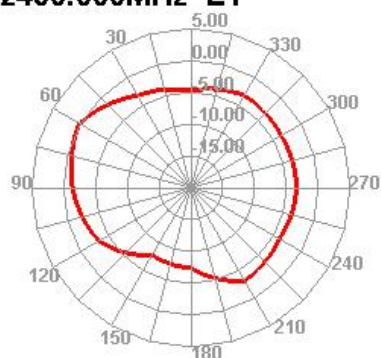
2450.000MHz



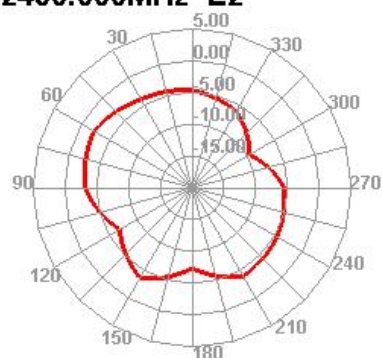
2450.000MHz H



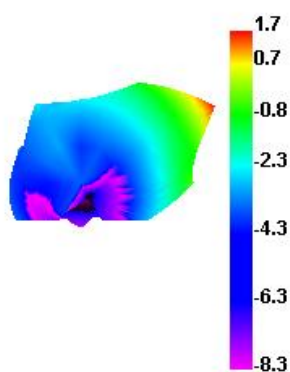
2450.000MHz E1



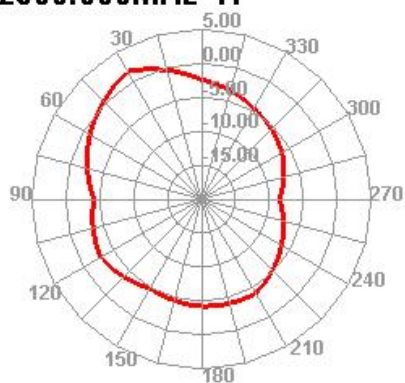
2450.000MHz E2



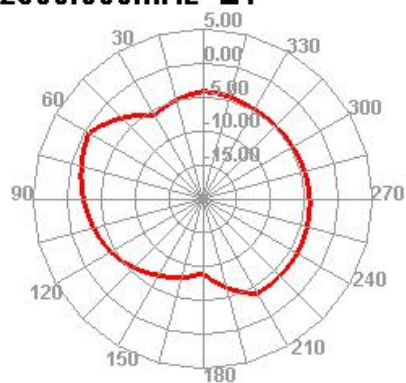
2500.000MHz



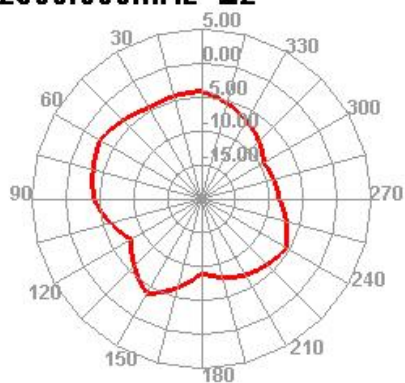
2500.000MHz H



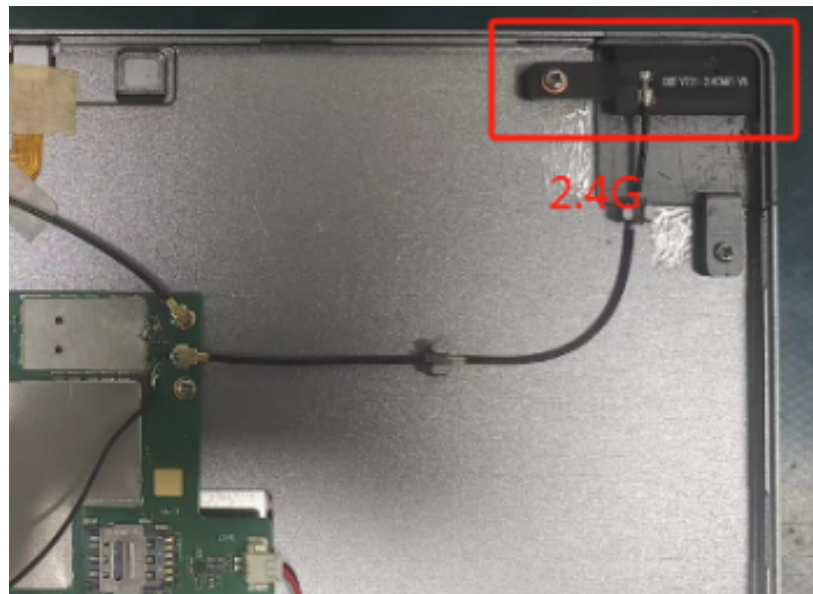
2500.000MHz E1



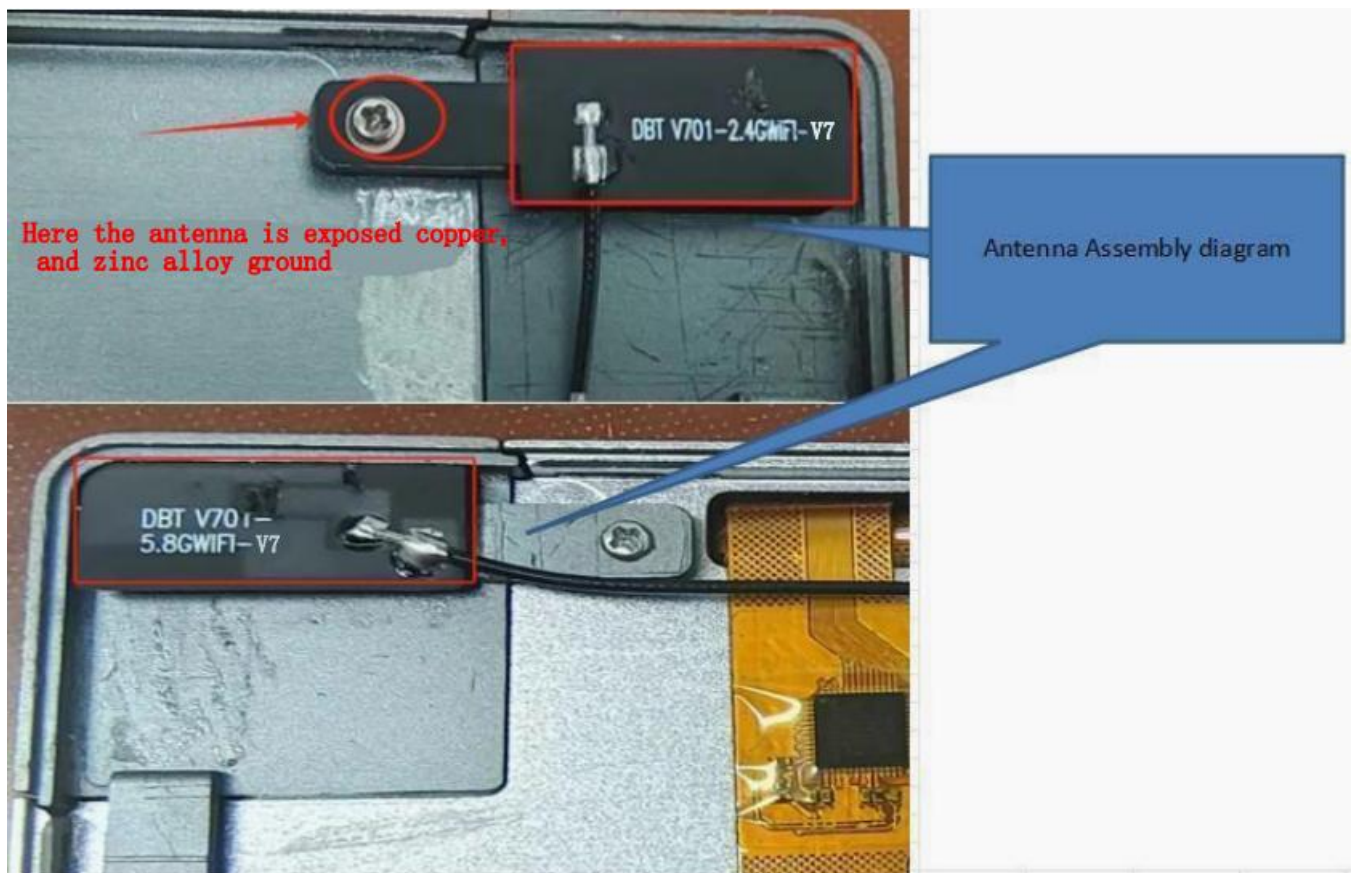
2500.000MHz E2



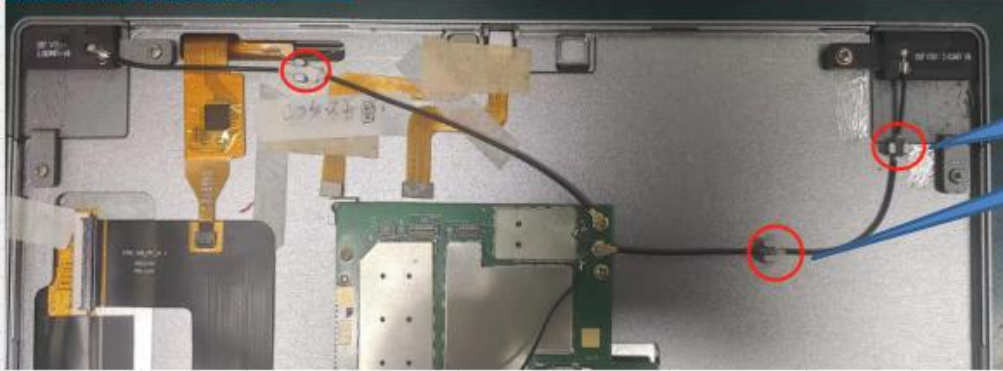
7.Environmental treatment



(Antenna position)



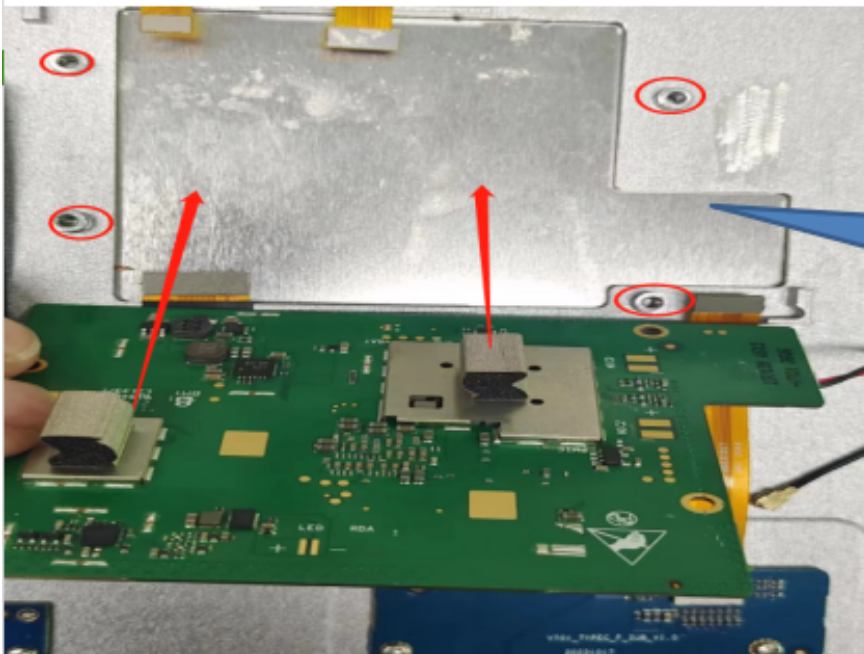
Environmental Treatment 1



2.4 G coaxial line ground in two slot positions

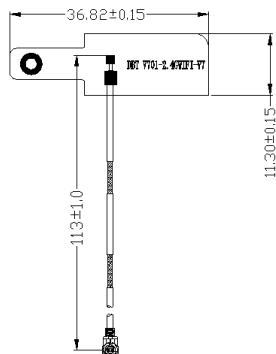
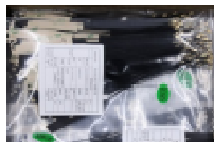
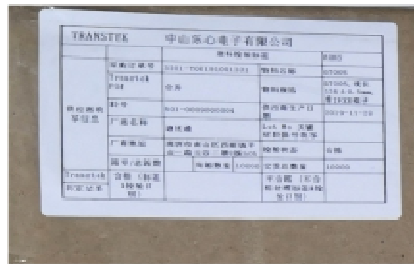
Three clamp location to narrow (coaxial line diameter 1.13 mm), currently unable to fix coaxial line. To do narrow slot after the radius carving, for coaxial line ground fenestration. Currently only 2.4 G coaxial grounding, reducing the coaxial line effect

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