

Shenzhen Anwei Wireless Techonlogy Co. Ltd

APPROVAL SHEET

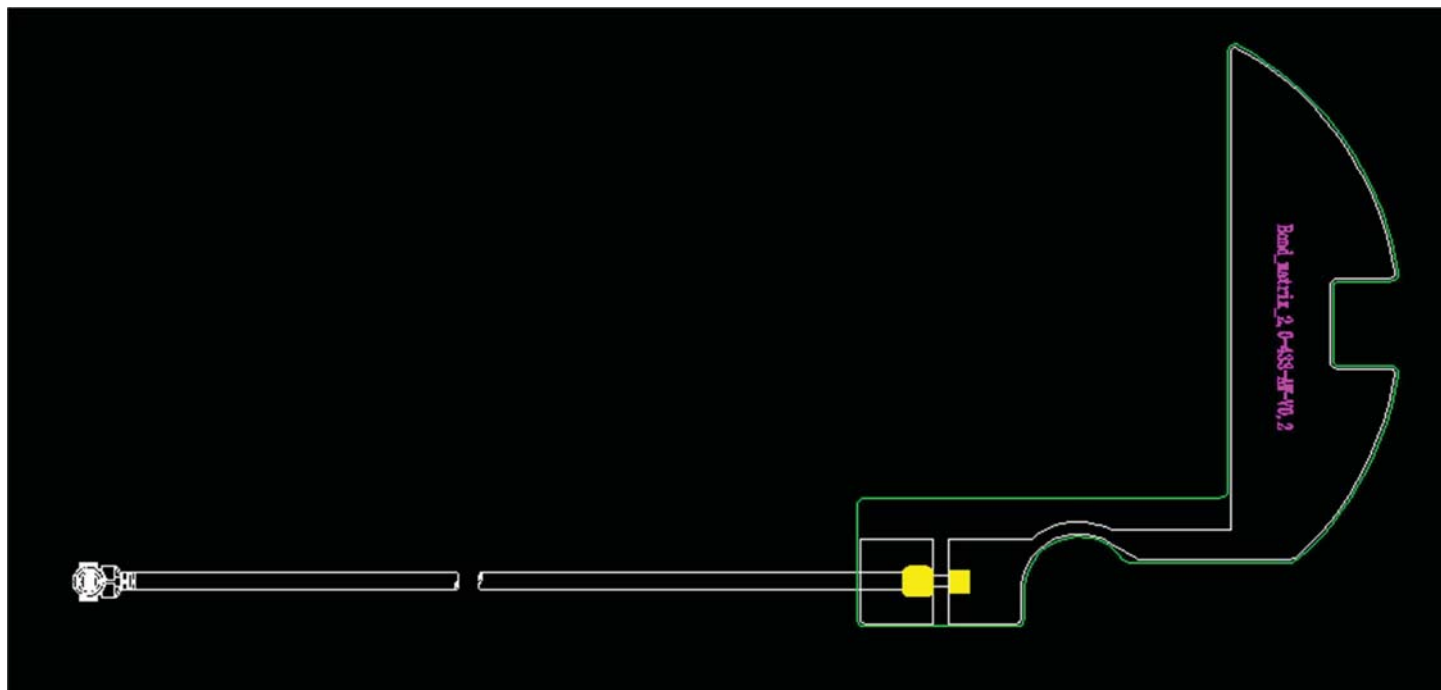
Customer	AIKS Technology	Specs	Bond-matrix-2.0
Part Number	AW006-Bond-021-A0 AW006-Bond-022-A0	Frequency Band	433 Antenna 2.4G WIFI/BT Antenna
Color	black	Edition	REV:A0
Salesperson	zhulixin	Design	Huanghe
Structure	QIN YUN LIN	Confirm	
Date	2025/11/12	Signing Date	
Customer confirmation:			
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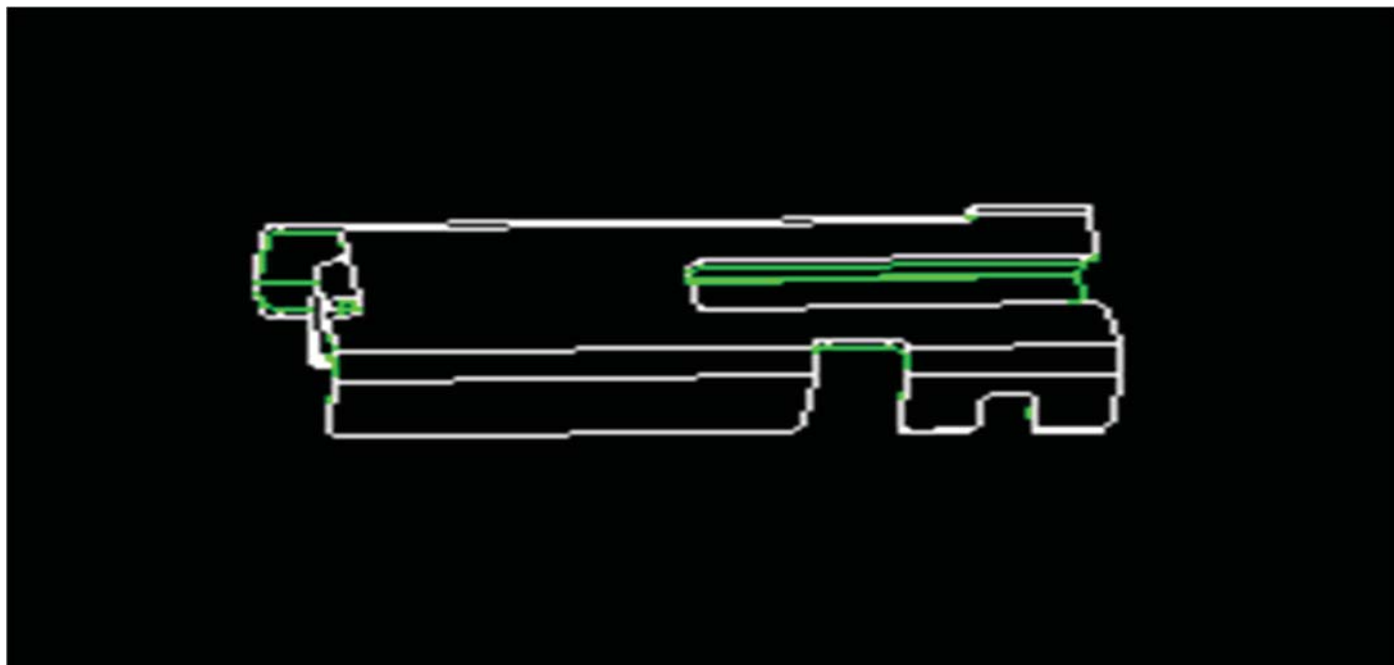
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一、Product specifications

The report mainly provides the parameter test of Bond-matrix-2.0 antenna performance. The Bond-matrix-2.0 antenna is a 433/2.4G WIFI antenna. (As shown in Figure below)



Bond-matrix-2.0 433 antenna



Bond-matrix-2.0 2.4G BT/WIFI antenna

二、Electrical performance

1. Specifications and standards

The bond-matrix-2.0 antenna operates in the frequency band of 2400- 2480 MHZ / 433 MHZ, where resonance occurs in this band.。

2 Antenna matching circuit

No changes made

Antenna structure: FPC + coaxial cable / Copper-zinc alloy

三、Parameter testing

1. Test setup

VSWR The test device is connected in sequence as follows:：

E5071B → Network analyzer → 50ohm coaxial Cable → 110mm long copper tube → Test fixture

Handling of test fixtures:

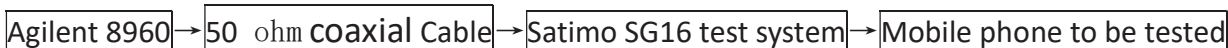
A SMA-J connector is pulled out from the 50-ohm test point of the antenna on the mobile phone PCB with a hard cable, connected to the copper tube with a choke, and then connected to other devices in turn.

2. Test results

Everything is normal.。

四、Active test setup

The active test device is connected in sequence as follows:



1. The test site

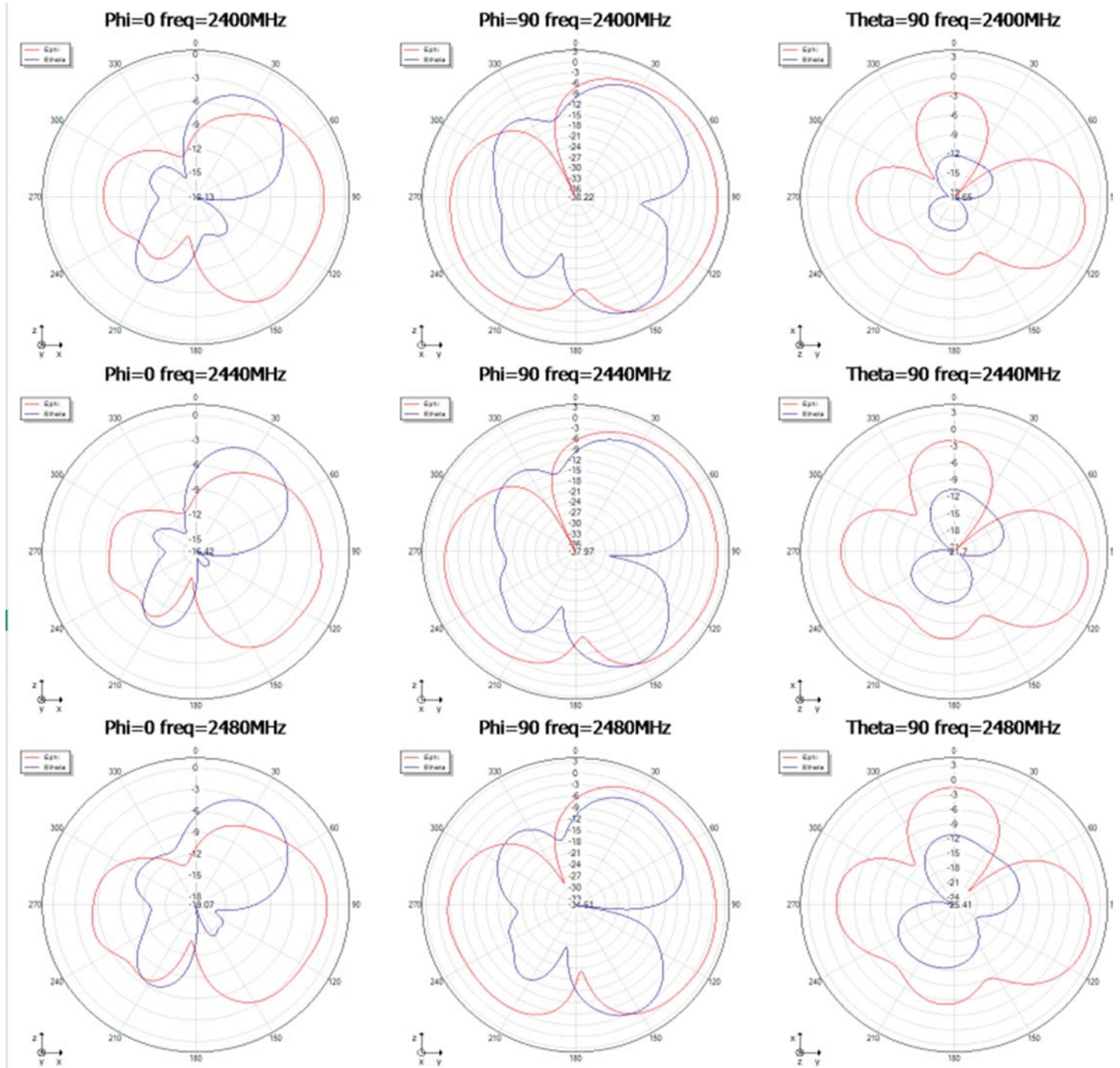
AW microwave anechoic chamber: The test frequency range is 400MHz-6GHz, the quiet zone is 40cm in diameter, and the reflectivity is less than -90 dB.

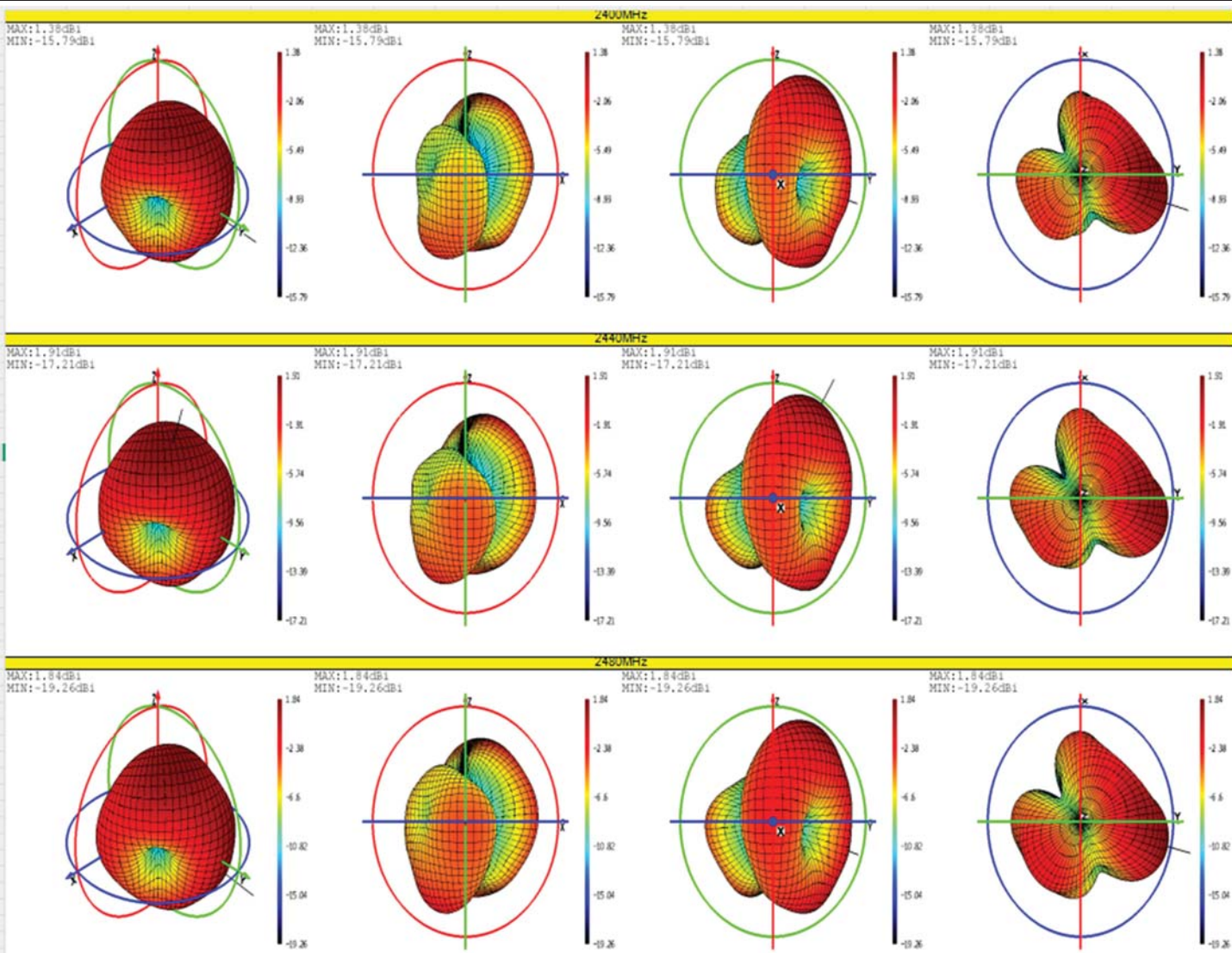
2. Test results

The maximum radiation power and maximum reception sensitivity reflect the maximum power radiation value and the best reception performance of the antenna in the entire radiation space. TRP and TIS reflect the average radiation power and average reception sensitivity of the antenna, that is, the overall reception performance of the antenna.

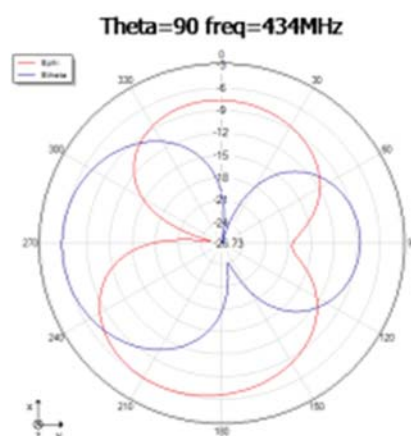
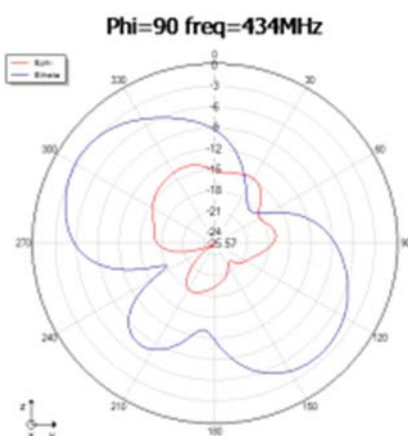
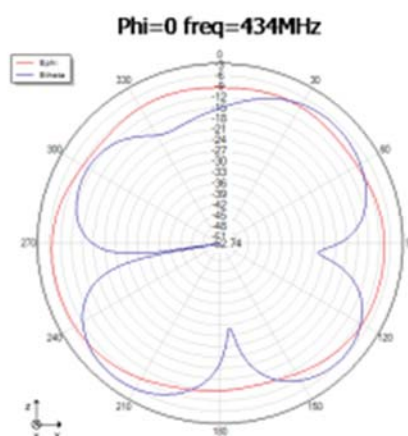
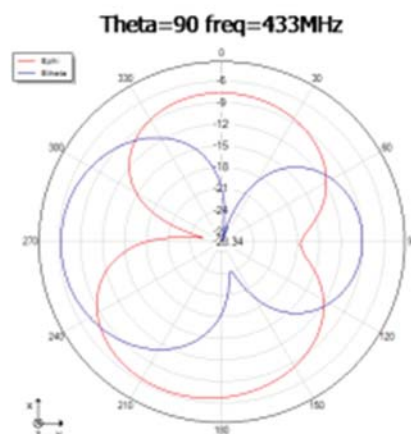
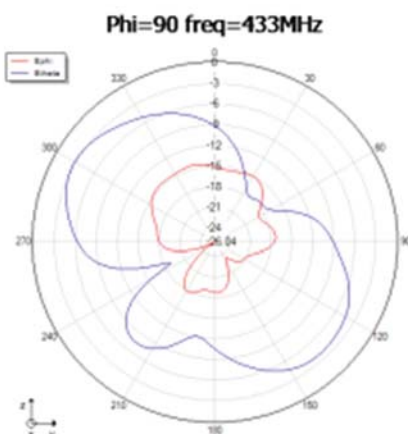
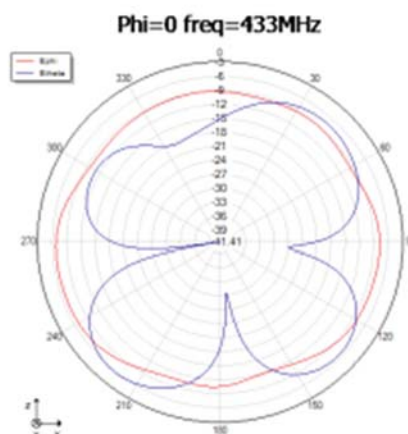
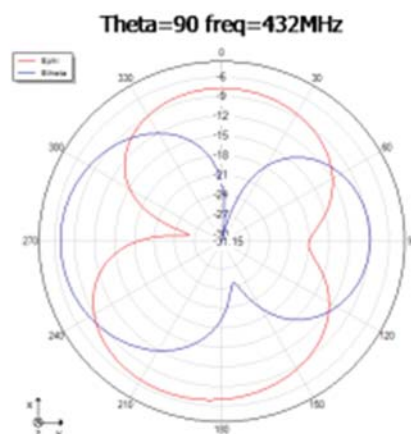
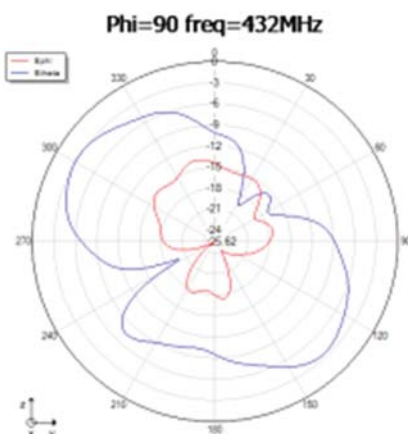
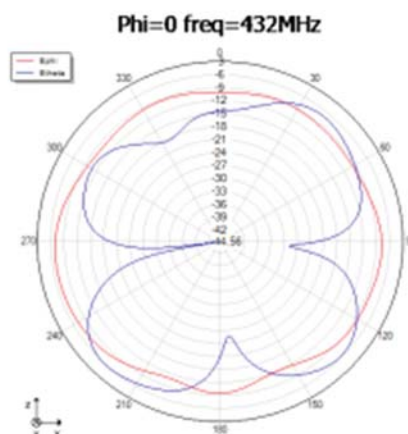
The following is the result of the Bond-matrix-2. 0 passive test:

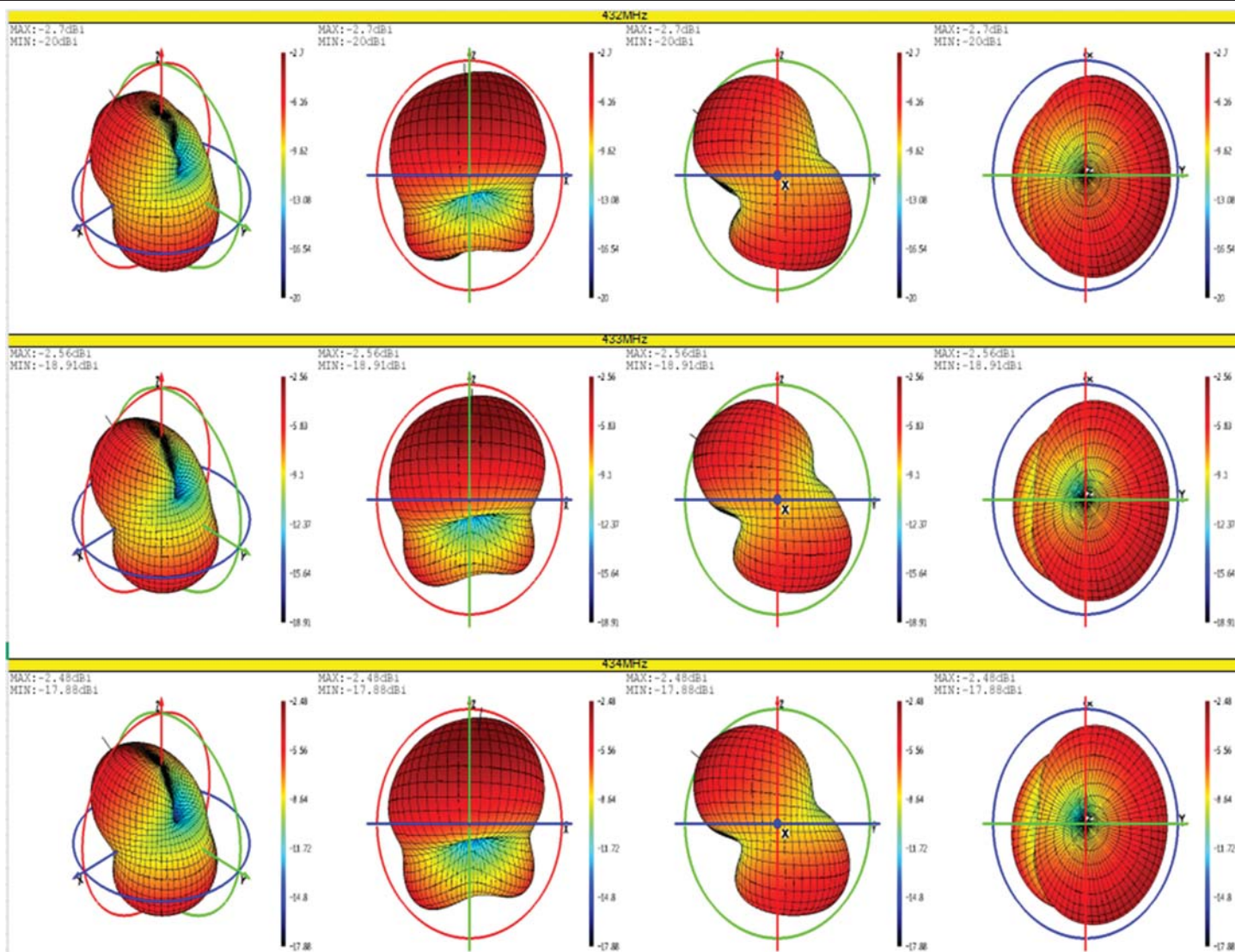
测试数据报告		地址：深圳市龙华区大浪街道颐丰华创新产业园5栋2楼									
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	1.38	1.71	1.70	1.87	1.91	2.25	2.23	2.02	1.84	1.85	1.74
Efficiency (dB)	-3.34	-2.97	-3.20	-3.06	-3.13	-2.99	-3.14	-3.34	-3.31	-3.26	-3.34
Efficiency (%)	46.36	50.52	47.84	49.47	48.62	50.19	48.53	46.37	46.70	47.20	46.36





测试数据报告		地址：深圳市龙华区大浪街道颐丰华创新产业园5栋2楼									
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	430	431	432	433	434	435	436	437	438	439	440
Gain (dBi)	-2.65	-2.46	-2.70	-2.56	-2.48	-2.14	-3.85	-4.88	-4.93	-4.05	-2.61
Efficiency (dB)	-7.03	-7.13	-7.08	-6.96	-6.77	-6.47	-8.24	-9.40	-9.51	-8.60	-7.12
Efficiency (%)	19.81	19.36	19.60	20.16	21.05	22.53	15.01	11.47	11.19	13.81	19.39

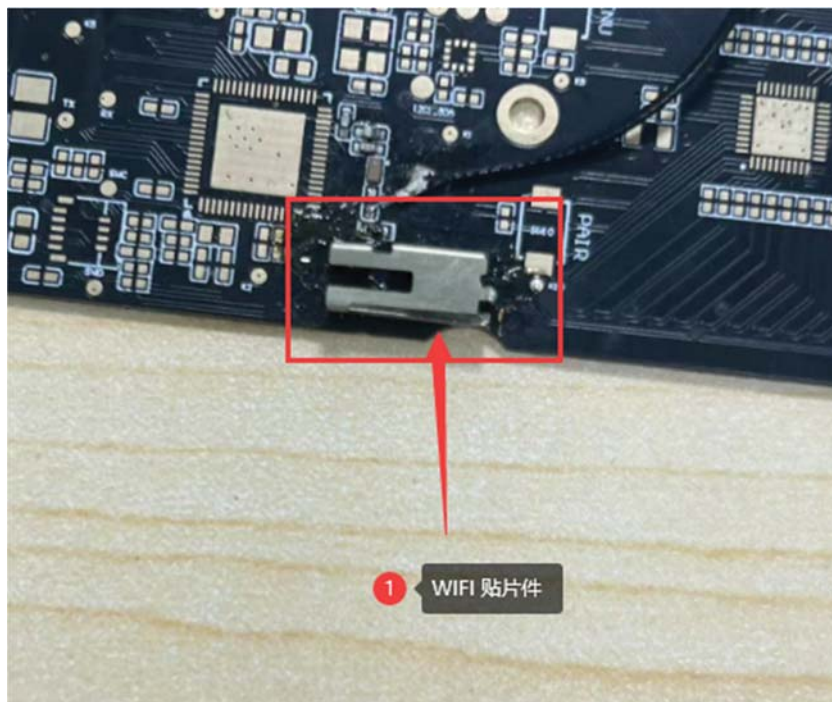




Antenna assembly method:



Bond-matrix-2.0 433 antenna



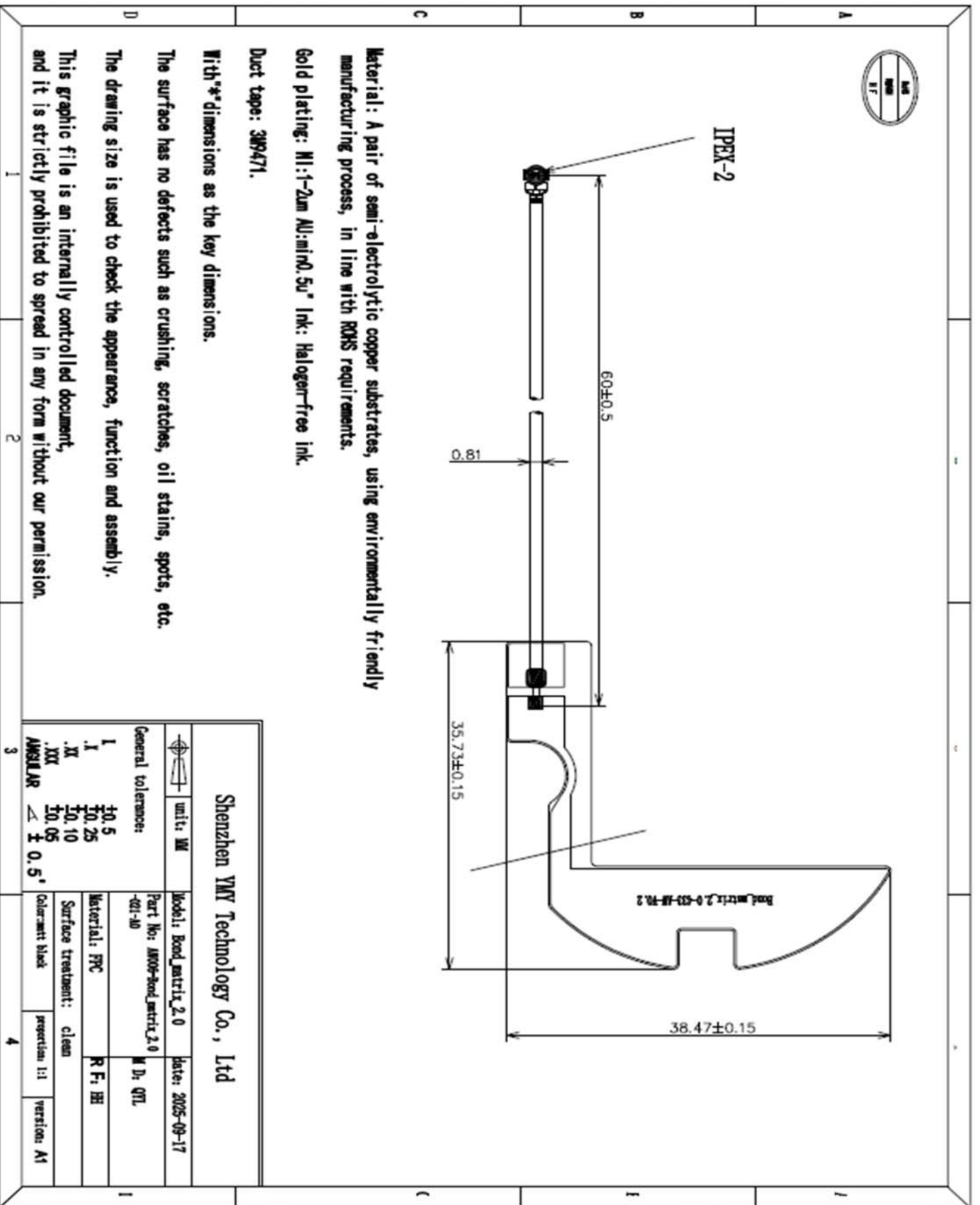
Bond-matrix-2.0 2.4G BT/WIFI antenna

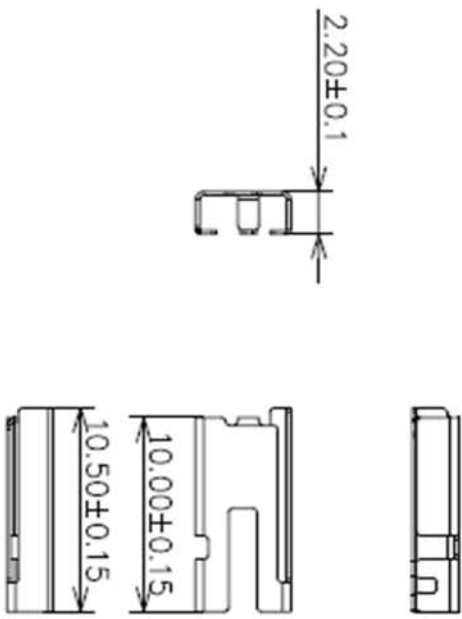
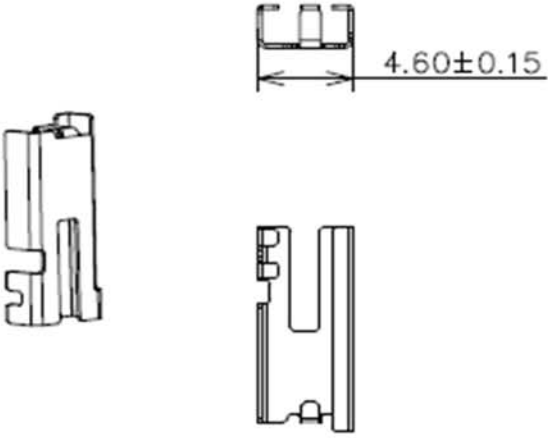
五、Recommendations and conclusions

This report is based on the antenna electrical performance measured by the machine provided by the customer, please review it carefully.。

六、Structural drawings

As shown in Figure below



 Technical Requirements: 1: Material: Copper-zinc alloy T: 0.2mm 2: The material must comply with ROHS requirements and needs to be cleaned. 3: The key dimensions are marked with “#”, and the actual dimensions are marked with “*”, which are not labeled. Please refer to the corresponding 3D for details on the dimensions. 4: The material of the shrapnel cannot be changed arbitrarily, and the direction of the pattern should be consistent with the bending direction of the contact foot. 5: The product must not deform, and there must be no black spots, sharp edges, or other defects on the surface. 6: Refer to the general tolerance table for unmarked tolerances.	 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="4" style="text-align: center;">Shenzhen YMY Technology Co., Ltd</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">unit: MM</td> <td style="text-align: center;">Model: Bond_matrix_2.0</td> <td style="text-align: center;">date: 2025-09-17</td> </tr> <tr> <td colspan="2" style="text-align: center;">General tolerance:</td> <td colspan="2" style="text-align: center;">Part No: AM09-Bond_matrix_2.0</td> </tr> <tr> <td style="text-align: center;">I</td> <td style="text-align: center;">±0.5</td> <td colspan="2" style="text-align: center;">M D: QTL</td> </tr> <tr> <td style="text-align: center;">.I</td> <td style="text-align: center;">±0.25</td> <td colspan="2"></td> </tr> <tr> <td style="text-align: center;">.II</td> <td style="text-align: center;">±0.10</td> <td colspan="2"></td> </tr> <tr> <td style="text-align: center;">.III</td> <td style="text-align: center;">±0.05</td> <td colspan="2"></td> </tr> <tr> <td colspan="2" style="text-align: center;">AMSILAR</td> <td colspan="2"></td> </tr> <tr> <td colspan="2" style="text-align: center;">± 0.5°</td> <td colspan="2"></td> </tr> <tr> <td colspan="2" style="text-align: center;">Material: Copper-nickel</td> <td colspan="2" style="text-align: center;">R F: HI</td> </tr> <tr> <td colspan="2" style="text-align: center;">Surface treatment: clean</td> <td colspan="2"></td> </tr> <tr> <td style="text-align: center;">Color: silver</td> <td style="text-align: center;">protection: 1:1</td> <td colspan="2" style="text-align: center;">version: A1</td> </tr> </table>	Shenzhen YMY Technology Co., Ltd					unit: MM	Model: Bond_matrix_2.0	date: 2025-09-17	General tolerance:		Part No: AM09-Bond_matrix_2.0		I	±0.5	M D: QTL		.I	±0.25			.II	±0.10			.III	±0.05			AMSILAR				± 0.5°				Material: Copper-nickel		R F: HI		Surface treatment: clean				Color: silver	protection: 1:1	version: A1	
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