

SPECIFICATION FOR APPROVAL

DESCRIBE: HY Innovations Co., LTD (T8026)

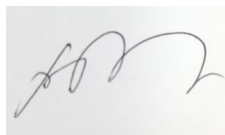
Customer NO:

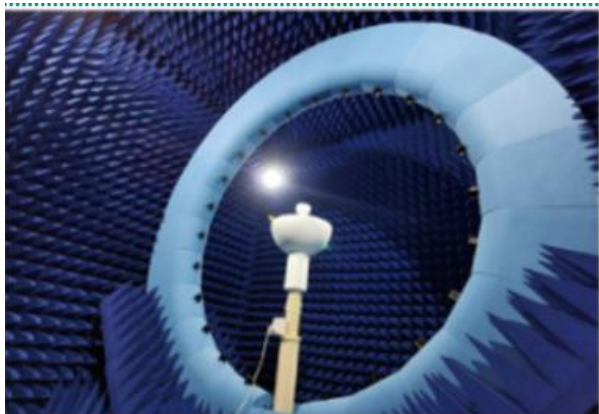
PART NO: ATC1516-HY104B70RA

Antenna type: WIFI-Ant FPC +Cable(Black)

DATE: 2025.08.15

PROVIDER: AT&C Technology (Shenzhen) Co.
201, Building C, Chuangwei Innovation Valley, No.1 Tangtou Road,
Shiyan Street, Bao'an District, Shenzhen, China

Customer Admit	confirm	ID Department	Test department	Structure section	Quality department
Supplier Admit	confirm	confirm	Proofreading	To examine	Approval
		ziyehui	zhouhao	Xuliying	



We have RF equipments as below

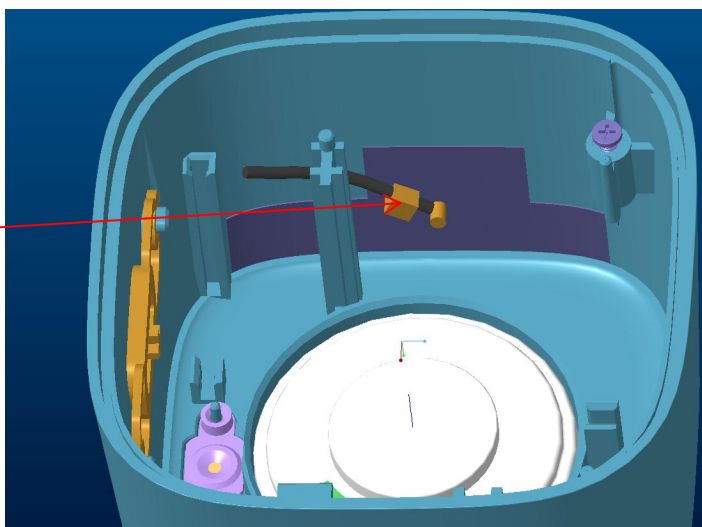
Anechoic Chambe

- Satimo 1ea
- SY24 1ea
- SAR 1ea
- KSS 2ea

Measurement

- 2G, 3G, 4G
- GPS
- Wifi
- Bluetooth(3.0) OTA
- NFC & WPC

WIFI antenna



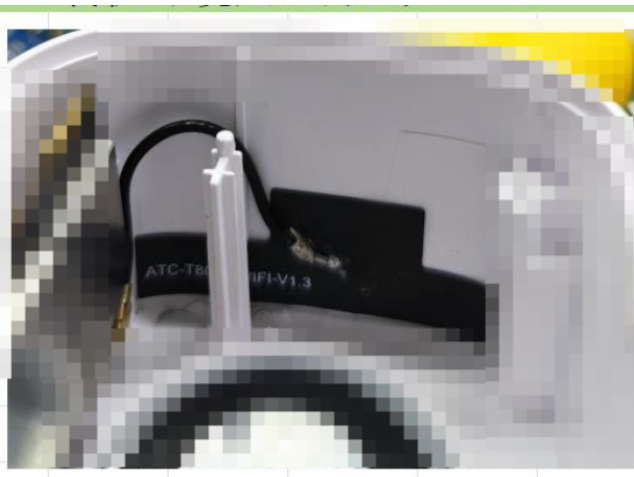


BOM

Customer	HY	Written By	ZYH	Orig. Date	2025.08.15
Part Number	ATC1516-HY104B70RA	Revised By	SHIN	Revised Date	2025.08.15
Description	WIFI ANT	Approved By	HJ	Approved Date	2025.08.15

Customer number	ATC number	Part name
	ATC1516-HY104B70RA	35.3*13.87*0.12, PI+CU, black coaxial cable, wire diameter 1.13, wire length 45mm, equipped with first-generation terminal

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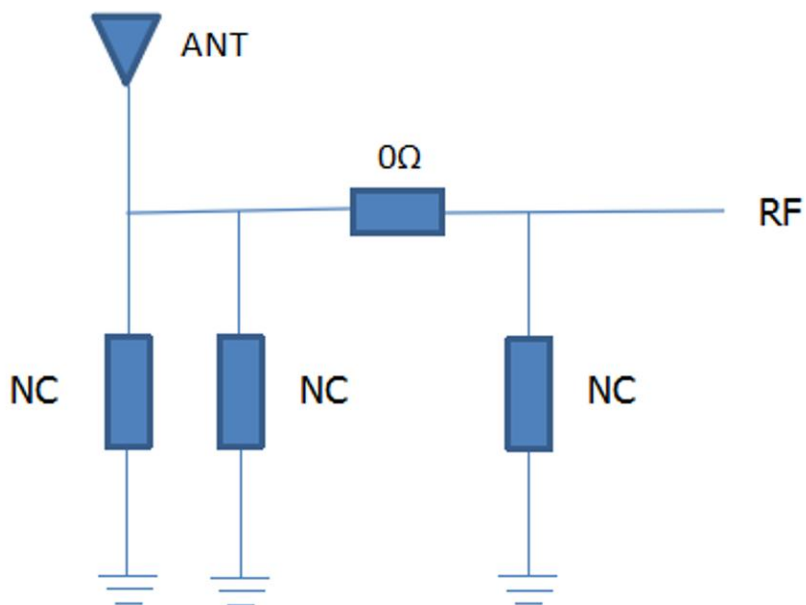


The antenna mounting picture is shown in the figure. Please refer to the bone position pillar on the left for mounting

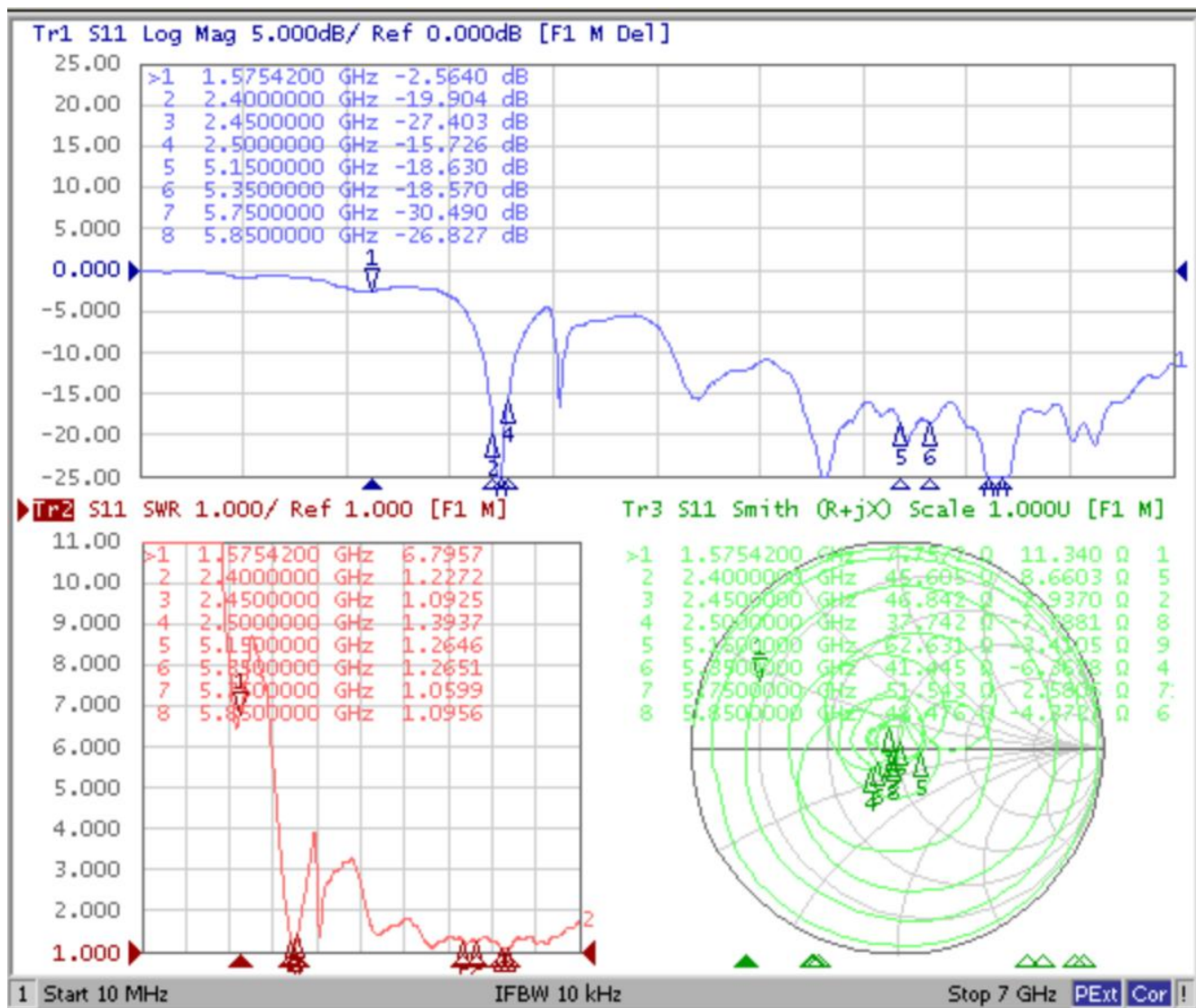
Impedance Matching

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1. No changes made



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Antenna *Efficiency

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2.4G Passive Test Results

Frequency (MHz)	Efficiency (%)	Max Gain (dBi)
2400	48.74%	2.02
2420	49.06%	1.86
2440	51.48%	1.41
2450	53.14%	1.41
2460	52.91%	1.45
2480	52.64%	1.77
2500	52.90%	1.35
AVG:	51.55%	1.61



Antenna *Efficiency

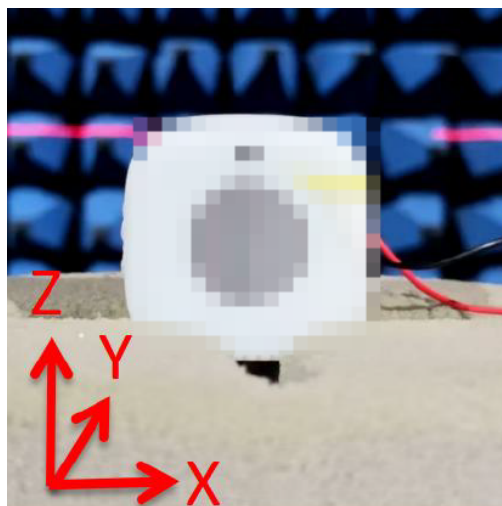
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5G Passive Test Results

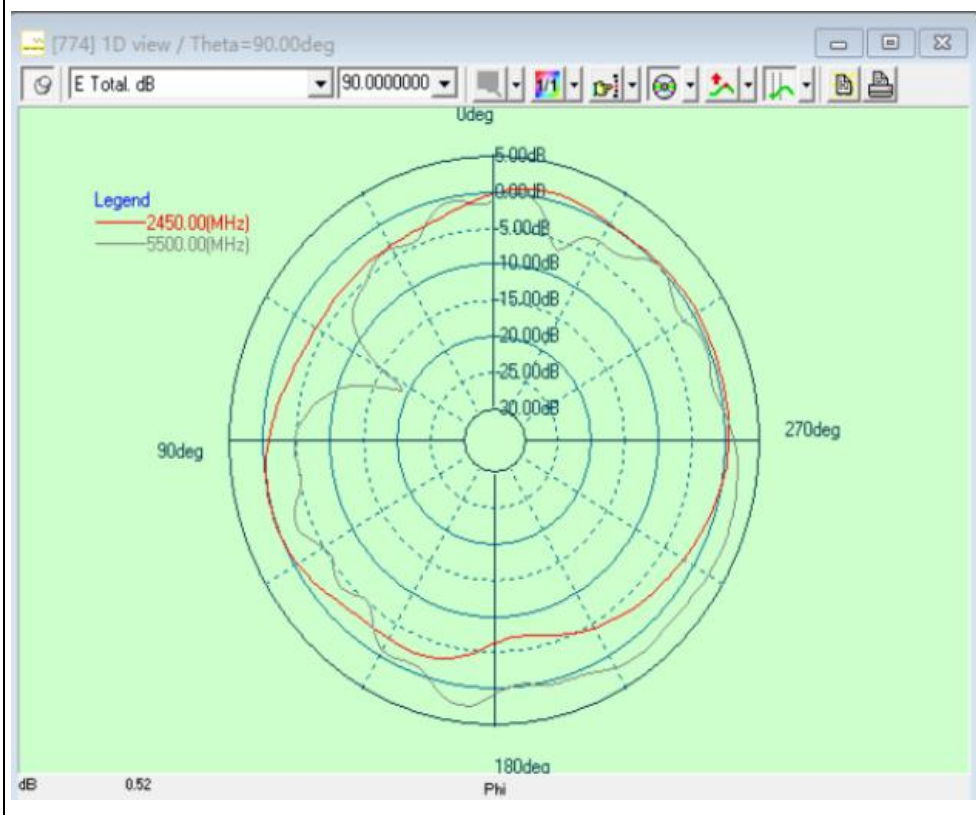
Frequency (MHz)	Efficiency (%)	Max Gain (dBi)
5150	56.38%	3.72
5200	59.41%	3.88
5250	61.99%	3.93
5300	61.61%	3.94
5350	62.85%	4.09
5400	65.05%	4.27
5450	60.30%	3.97
5500	59.70%	3.93
5550	60.50%	4.01
5600	59.31%	3.86
5650	64.38%	4.14
5700	65.09%	4.17
5750	67.02%	4.31
5800	66.52%	4.20
5850	65.62%	4.50
AVG:	62.38%	4.06

2D Radiation Pattern

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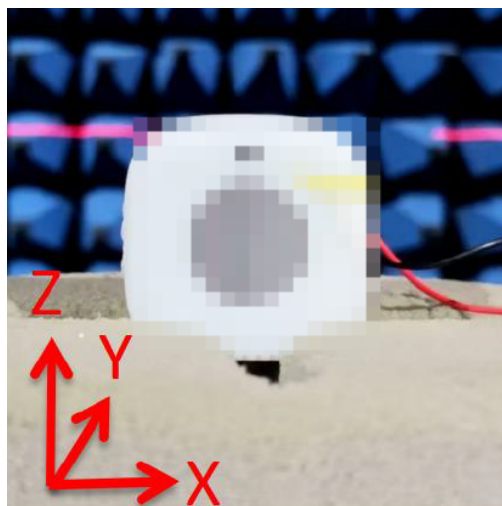


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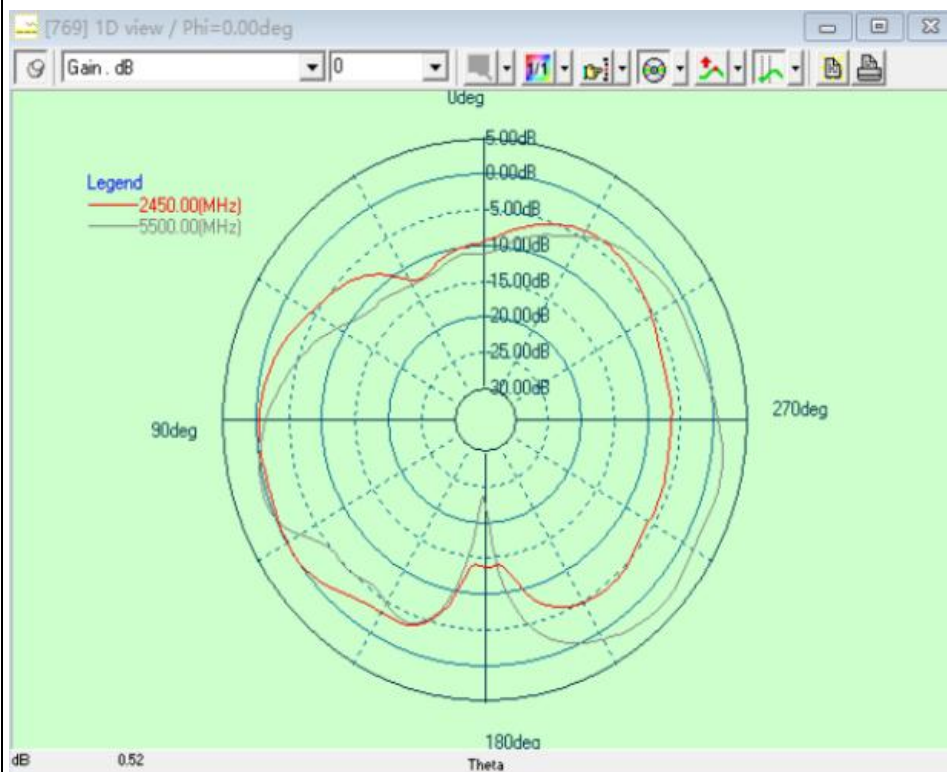


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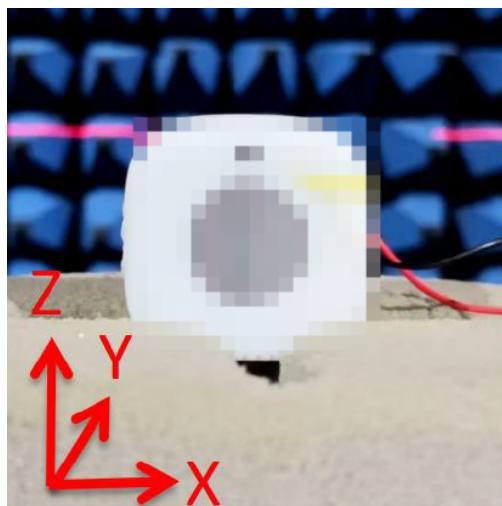


E1

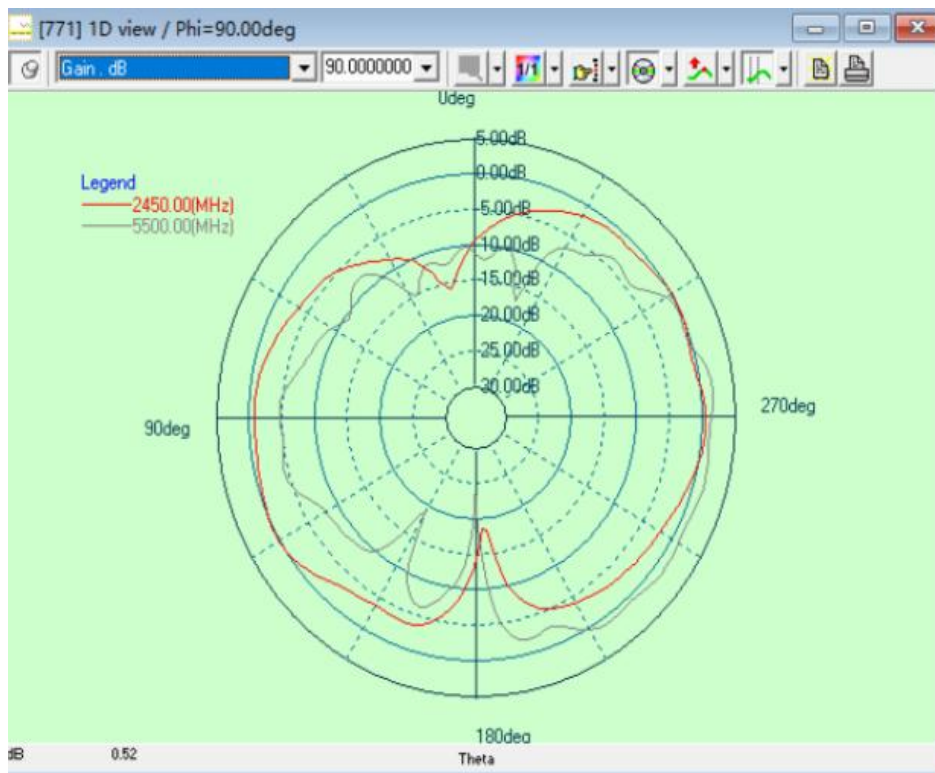


2D Radiation Pattern

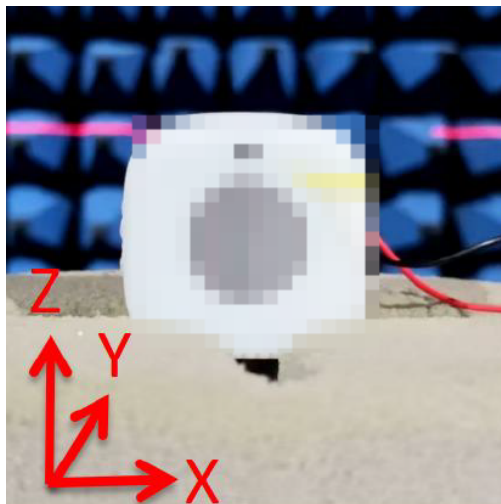
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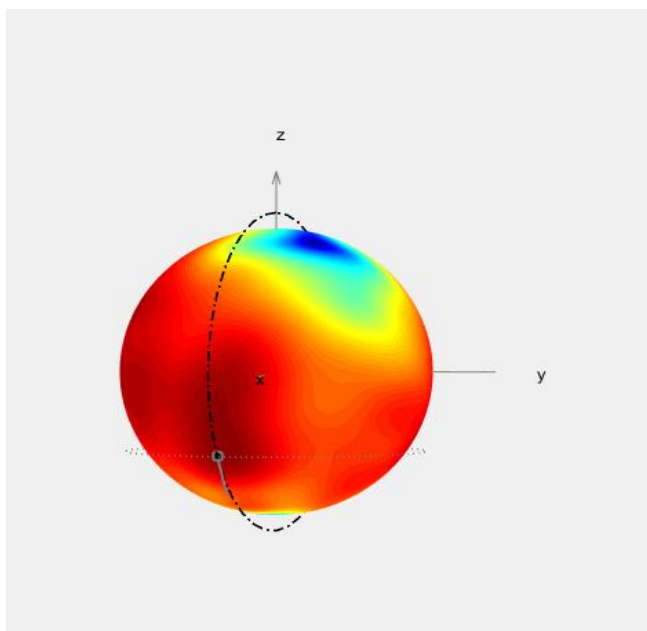
E2



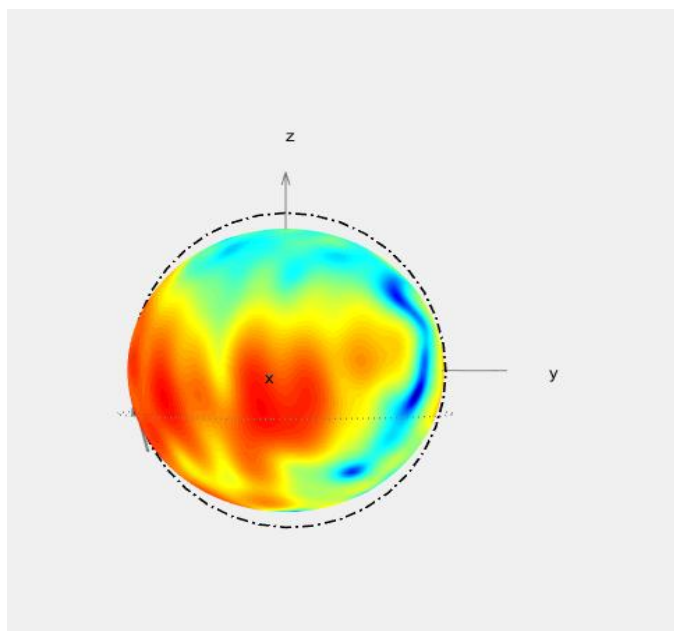
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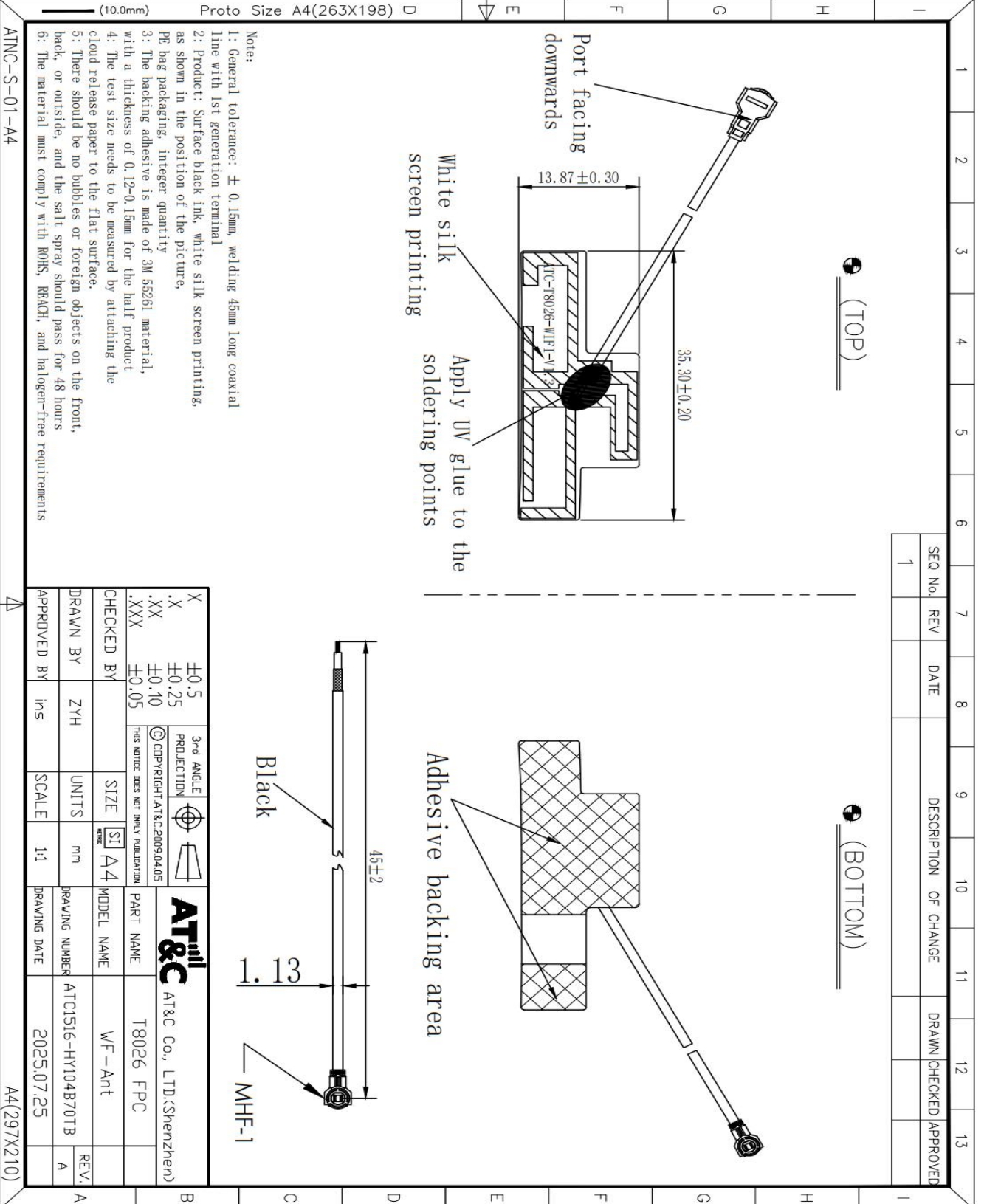
2450



5500



Ant Draw





Salt spray test report

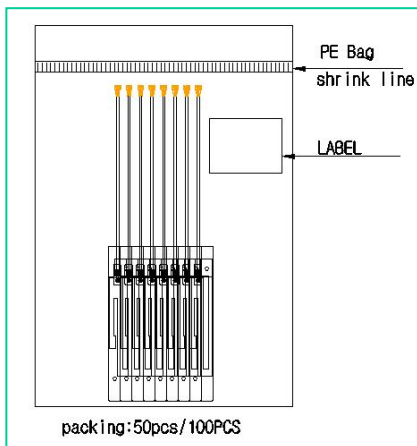
Customer Name	HY (T8026)	Specification and	ATC1516-HY104B70RA
Sample situation	Sample quantity: 3PCS		
	Substrate: PI		Coating: OSP
Test start and end time	June 5, 2025 10:00 to June 7, 2025 10:00 48 hours		
Test type	☒ NSS	☐ ASS	☐ CASS
Test conditions	Salt solution ratio: 5% ± 1%		PH:6.5~7.2
	Temperature inside the box: 35 ° C		Relative humidity: 85% ± 2%
	Spray mode: ☒ Continuous ☐ Intermittent		Compressed air pressure: 1kg/cm ²
	Spray volume: 1.0 ~ 2.0ML/80CM2/H		Test object placement angle: 30 degrees+/-10 degrees
	Test cycle: __ cycles		Spray time: 48 h
			Placement time: 2 hours
Judgment criteria	Appearance: intact and undamaged, with no significant changes. Coating: No oxidation, rust, discoloration, or corrosion spots. Screen printing: No shedding or bubbles.		
Test results	Appearance after test: The appearance is intact and undamaged, with no significant changes. Coating: No peeling or rusting Surface spraying and screen printing: no peeling or bubbles.		
Explanation: 1. The salt spray test operation standard shall be executed in accordance with the national standard GB/T2423.1 7-2008 of the People's Republic of China 2. The criteria for determining test specimen results shall be in accordance with the national standard GB/T6461-02 of the People's Republic of China			
Tester: Zhang Luo		Reviewed by: Liang Houbo	

Antenna Component Production Process Flow

No	Process Name	Using equipment, fixtures, and tooling	Inspection items	Control factor	Reference standards	Inspection frequency
1	FPC incoming materials	Animer or caliper	critical dimension		Reference drawings	1
			Common appearance defects of FPC components		Refer to relevant inspection standards	AQL0.65
			Peel off of adhesive backing		≥5Kg/f	2
			Material model, RoHS compliance		Reference drawings	Once
2	Same axis incoming material	Animer or caliper	critical dimension		Reference drawings	1
			Common appearance defects of coaxial components		Refer to relevant inspection standards	AQL0.65
			Wire head welding		Easy to weld, no oxidation, poor welding quality, etc	2
			Material model, RoHS compliance		Reference drawings	Once
3	Coaxial welding	Soldering iron, tin wire	Soldering iron welding	welding temperature	320±10℃	1
			Welding appearance		Do not short-circuit, solder, or burn the wire skin	100% self inspection
					No false welding or virtual welding allowed	100% self inspection
					Solder joints cannot have less solder, and more solder (solder joints are large)	100% self inspection
4	Point UV glue	UV lamp	Glue appearance		No leakage point, not dried up	100% self inspection
5	Network segmentation testing	network analyzer Test fixture	Test waveform compliance	Network segmentation parameters	The waveform parameters of the product test are consistent with the set waveform parameters, and if "PASS" is displayed, it is considered qualified	100%
6	100% visual inspection And packaging	Carton, pallet, label, to be packaged finished product	appearance		Refer to Phoebe antenna inspection specifications	100%
			Packaging quantity		Reference packaging guidance	100%
			Correct labeling		Correct product name, quantity, and related information	Once
7	OQC shipment inspection	Animer/caliper	Key dimensions and positional accuracy of the antenna		Refer to product drawings	Once
		3M adhesive	Coating thickness and adhesion report		Refer to product drawings and Phoebe antenna inspection specifications	Once
			Coaxial Pulling Force Test		Reference Product Pulling Force Test Standard	Once
			Salt spray test		Reference product salt spray testing standard	Monthly/time
			Antenna appearance, packaging, and labeling		Refer to Phoebe antenna inspection specifications	AQL0.65

Packaging method

PE bag packaging, product emission neat, uniform quantity



PART LIST

*The packaging diagram is a schematic diagram and does not represent the actual product

NO	DESCRIPTION	Q'TY	MATERIAL	REMARKS	REV.
1	ANTENNA	1/1000		N/A	A
2	PAD OUT	1/4	SW A골 5T	N/A	A
4	CARTOON BOX	-	SW A골 5T	N/A	A
5	PACKING TAPE	-	PP	N/A	A