

Approval Sheet

Customer Name FLH

Specification AI HUB

Customer P/N _____

O/I _____

Delivery date 2026-3-6

Frequency band	2.4GHz + 5.8GHz (Wi-Fi + BT)		
Version	A		
RF Engineering	Chen	Approval	Kong
Mechanical Engineering	Yang		
Customer Approval			
Date			

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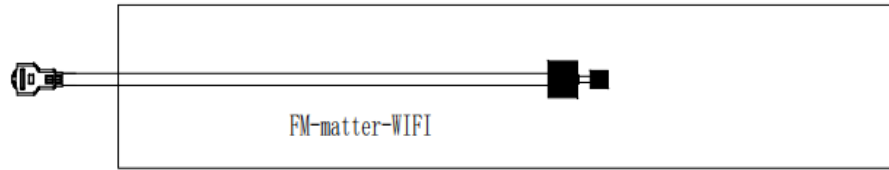
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1. Project Photos (For Reference Only)

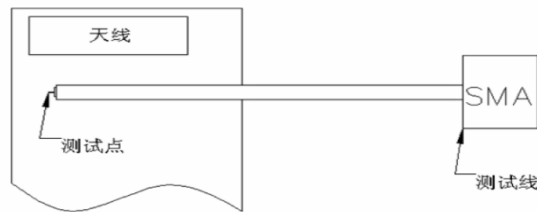


Wi-Fi BT Antenna

2. Passive Test

Objective: Measure the antenna's passive parameters as accurately as possible.

Method: This fixture uses a 50-ohm coaxial cable. One end is connected to the test point located after the matching circuit on the phone's mainboard (before the RF test hole), and the other end is connected to an SMA connector. Detailed as shown below:



Fixture Schematic Diagram

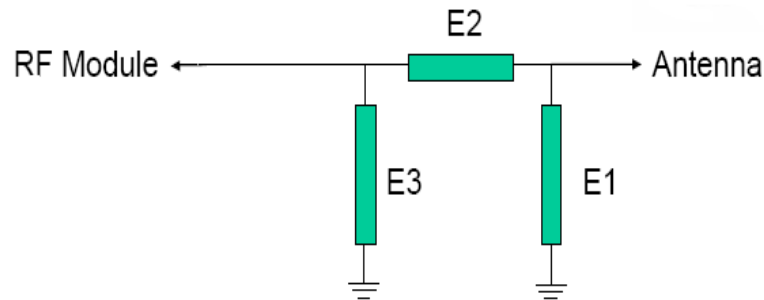
The table below lists the performance specifications for the mass production antennas of the FLH AI HUB:

Wi-Fi Antenna Performance Indicators				
Band	TX Frequency (MHz)	TX VSWR	RX Frequency (MHz)	RX VSWR
2.4G Wi-Fi / BT	2400-2550	≤3.0	2400-2550	≤3.0
5.8G Wi-Fi	5150-5850	≤3.0	5150-5850	≤3.0

3. Matching Circuit

Main Antenna (No changes to matching)

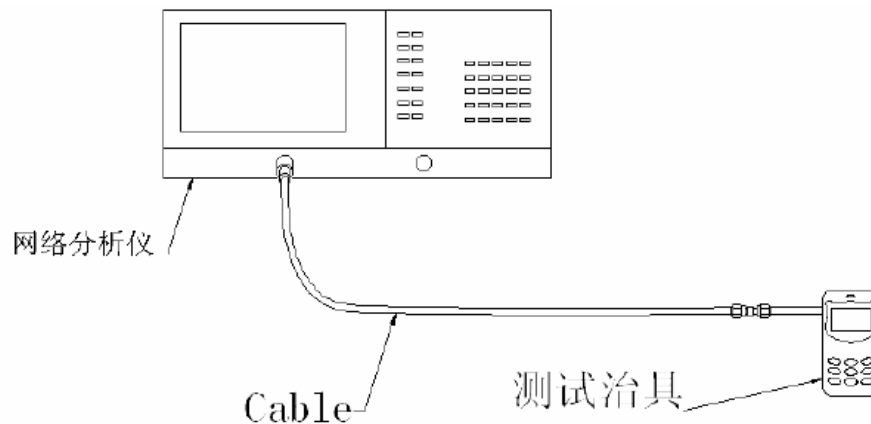
Element	Value
E1(0201)	[N/A]
E2(0201)	[N/A]
E3(0201)	[N/A]



4. S11 Test

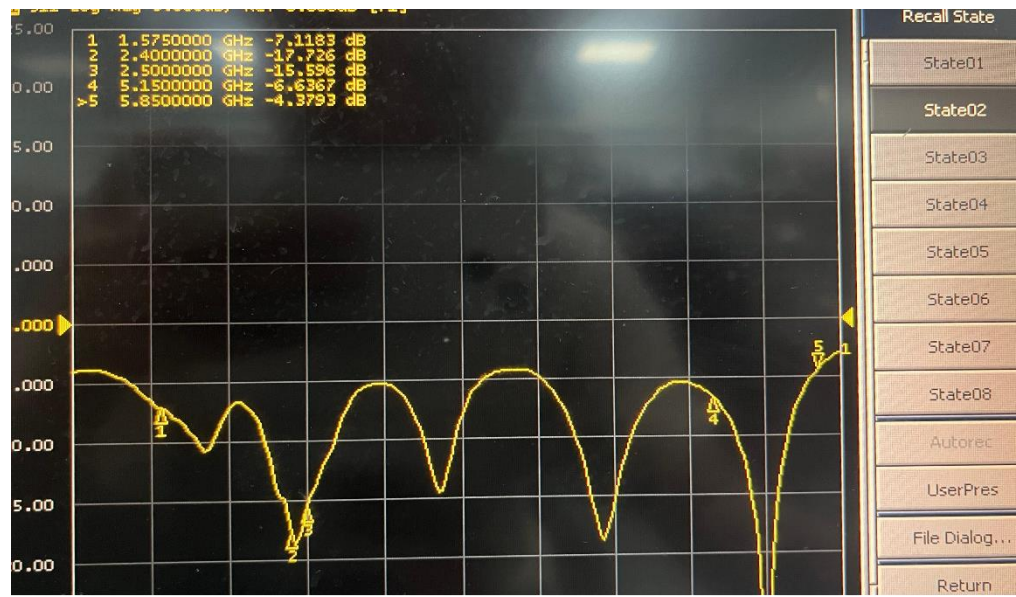
4.1 S11 Test Method Description & Specifications

- VSWR Test Setup Connection Order:
HDS10K753ES Network Analyzer → 50-ohm Coaxial Cable → 120mm Copper Tube → Test Fixture.
- Test Fixture Preparation:
An SMA-J connector is routed out using a semi-rigid cable from the 50-ohm antenna test point on the phone PCB. It is connected to the copper tube fitted with a choke ring, and then the remaining devices are connected in sequence.



Test Setup Diagram

4.2 S11 Parameter Curves



5. Active Power and Sensitivity Test

5.1 Test Data

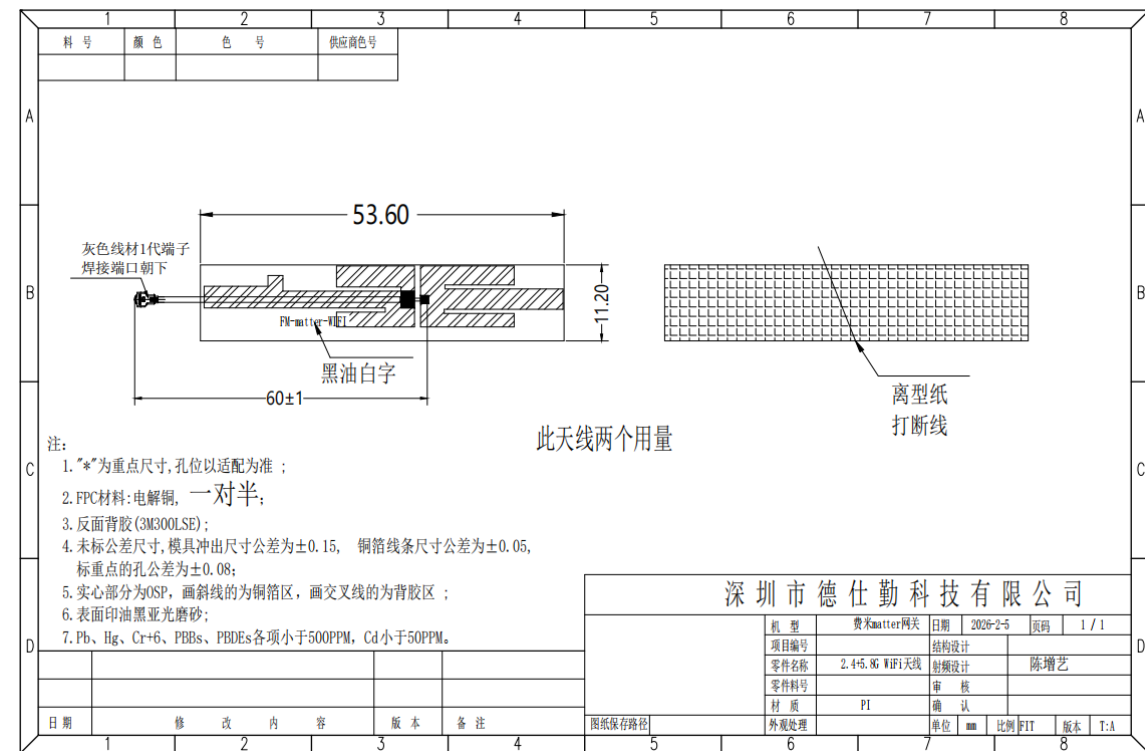
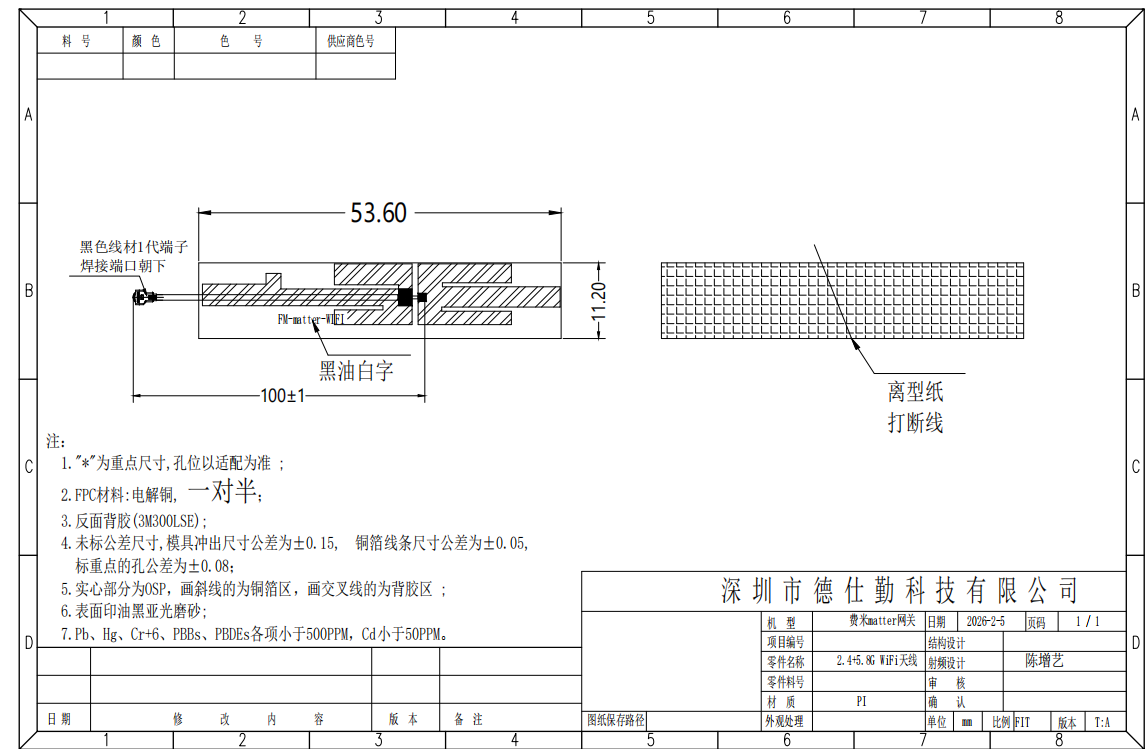
Model: 2.4G/5.8G-WIFI			
2.4G	11B(11M)		
	CH1	CH6	CH11
TRP	14.89	14.92	14.88
TIS	-83.21	-83.22	-83.35

5.8G	11A(54M)		
	CH36	CH60	CH165
TRP	12.88	12.65	12.67
TIS	-72.1	-72.26	-72.47

5.2 Passive Efficiency

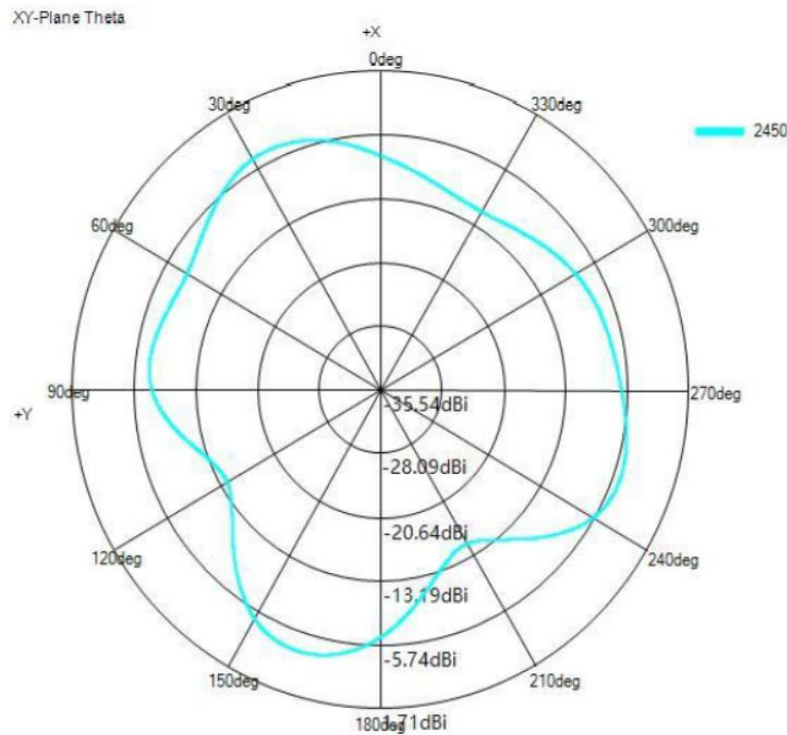
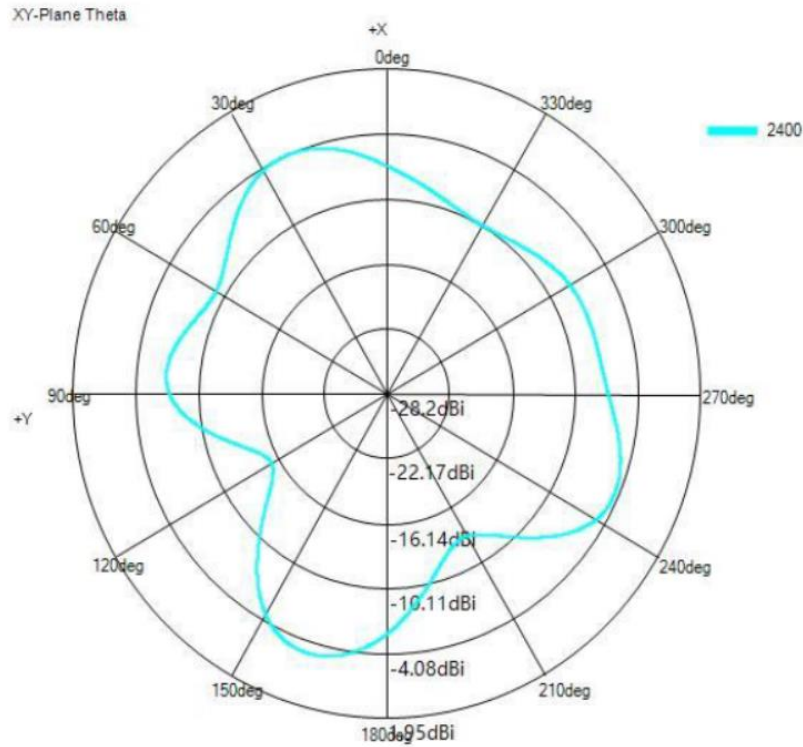
Passive Test For 2400-2500			Passive Test For WIFI5.8		
Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
2400	48.35	-3.15	5150	59.05	-2.283
2410	46.69	-3.30	5200	54.64	-2.6
2420	49.13	-3.08	5250	54.33	-2.64
2430	48.00	-3.18	5300	48.25	-3.16
2440	47.89	-3.19	5350	52.98	-2.75
2450	49.67	-3.03	5400	55.61	-2.54
2460	50.36	-2.97	5450	53.941	-2.68
2470	49.84	-3.02	5500	49.21	-3.07
2480	49.37	-3.06	5550	55.08	-2.58
2490	47.59	-3.2	5600	59.71	-2.23
2500	48.54	-3.13	5650	57.40	-2.41
			5700	58.11	-2.35
			5750	56.11	-2.50
			5800	57.56	-2.39
			5850	58.09	-2.35

6. Mechanical Drawings

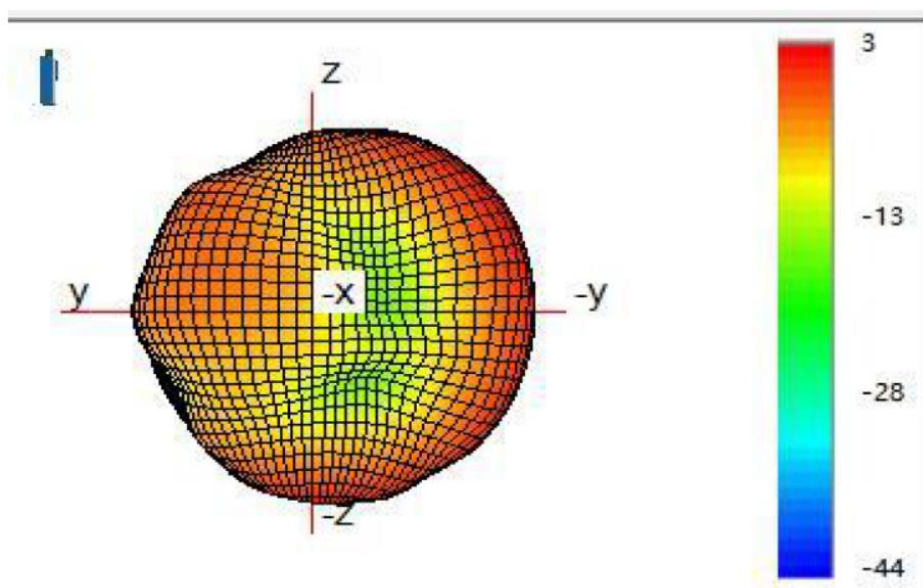
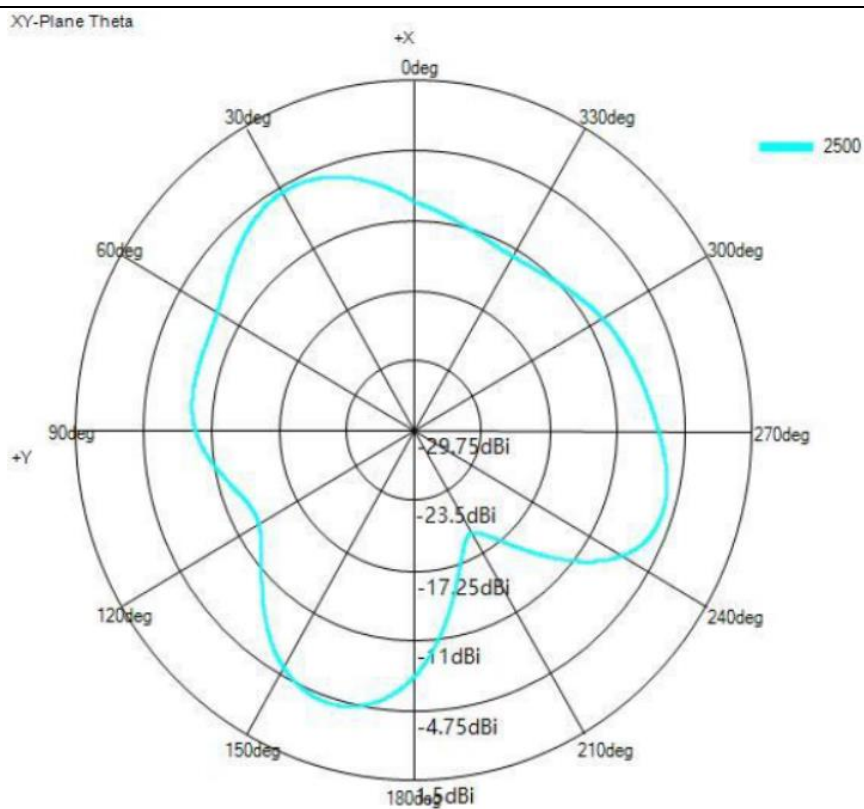


7. Radiation Pattern

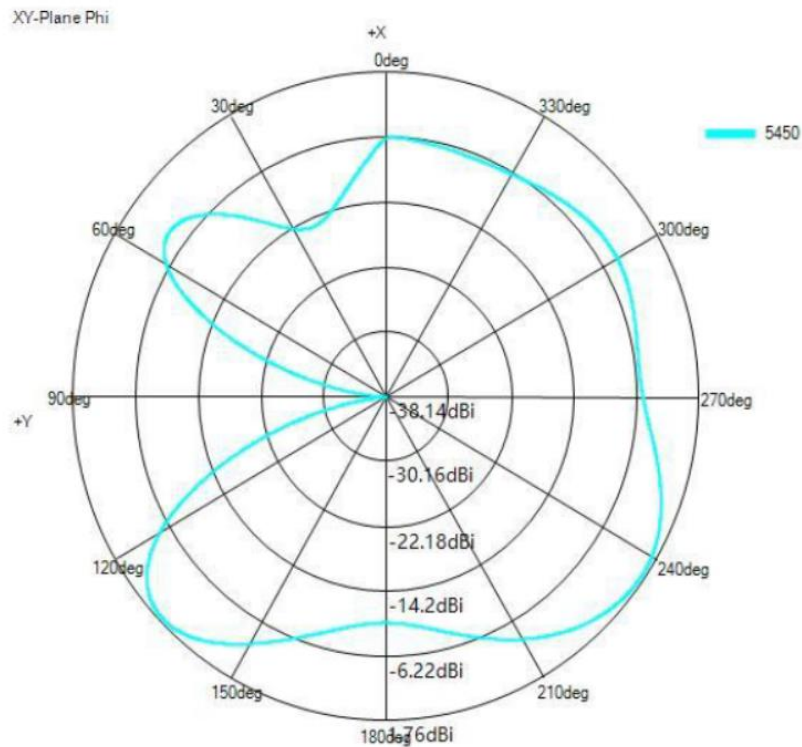
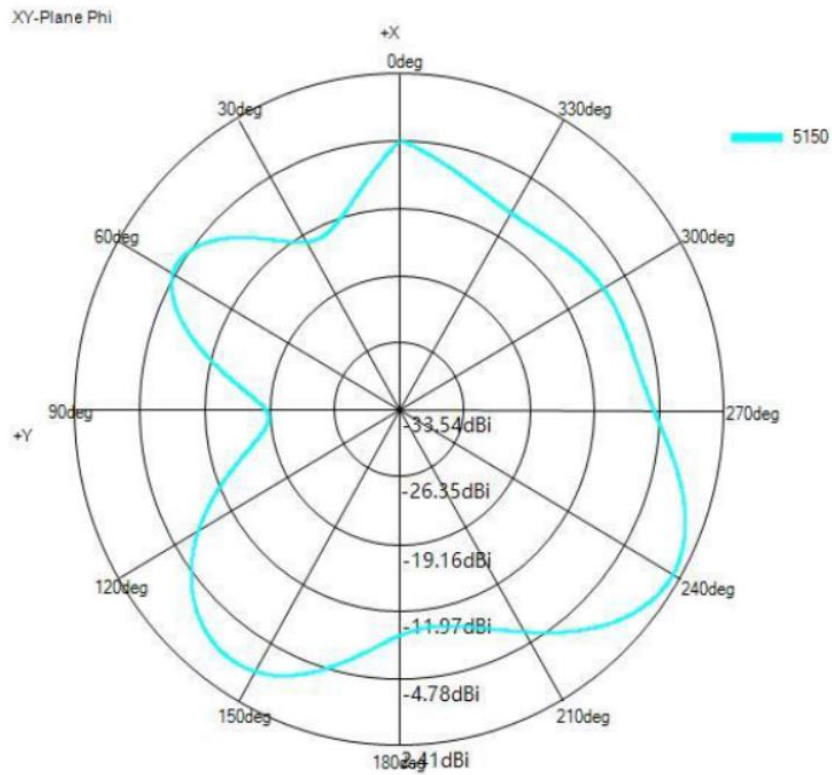
7.1 2.4GHz



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7.2 5.8GHz



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