



Hisense

MWH658B
Antenna Test Report

2025.04.20

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Wi-Fi	
Antenna Type	PCB Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz/5.15~5.85GHz
Return Loss	2.4GHz~2.5GHz: S11≤-6dB 5.15GHz~5.85GHz: S11≤-7dB.
Peak Gain	3.11dBi@2.4~2.5GHz , 3.75dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz≥46%(Avg) , 5.15~5.85GHz≥60%(Avg)

BT	
Antenna Type	PCB Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz
Return Loss	S11≤-6dB
Peak Gain	3.70dBi
Efficiency	≥55%(Avg)

Wi-Fi	CH	Gain/dBi	Efficiency/%
2.4G	L	2.37	43
	M	3.11	47
	H	2.32	47
5G	L	3.75	60
	M	3.68	62
	H	3.07	51

BT	CH	Gain/dBi	Efficiency/%
2.4G	L	2.12	44
	M	3.70	58
	H	3.48	68

ANT Directivity Pattern

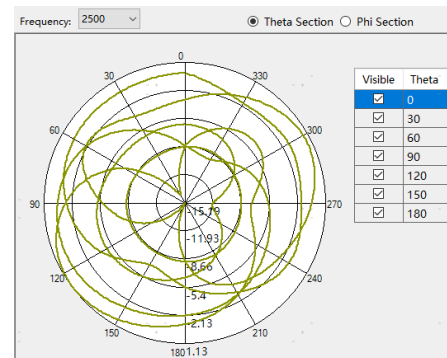
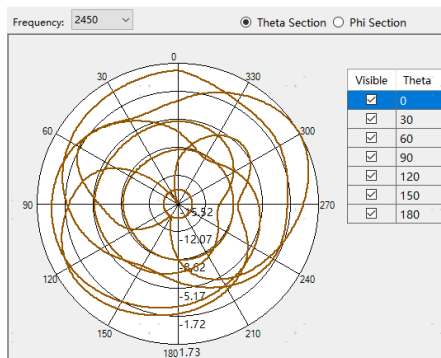
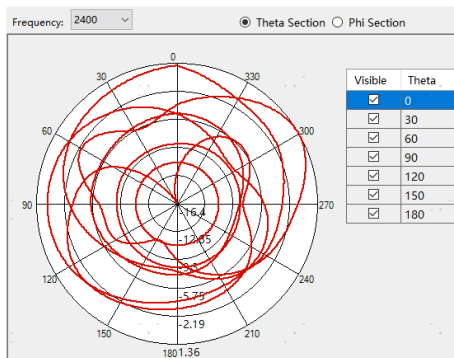
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Wi-Fi 2.4G: L Band

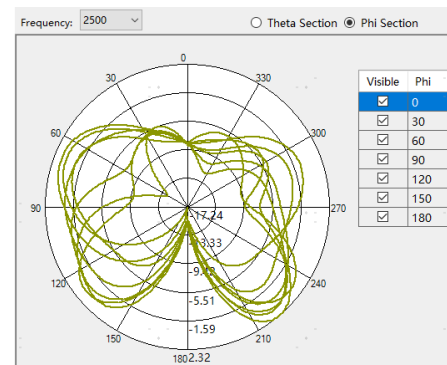
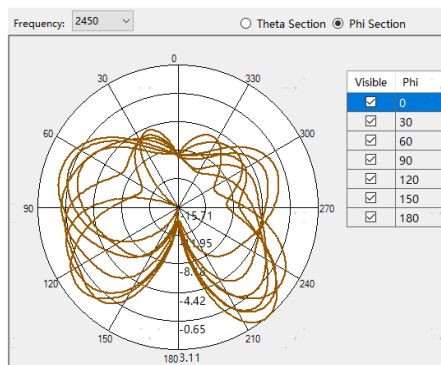
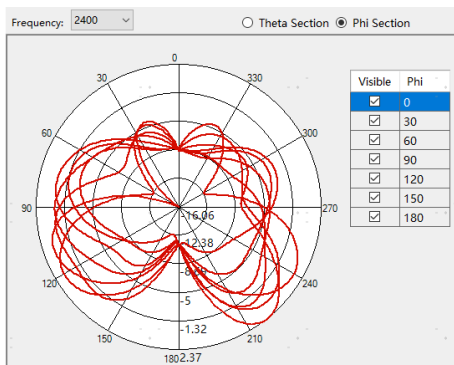
M Band

H Band

Theta
Section



Phi
Section



ANT Directivity Pattern

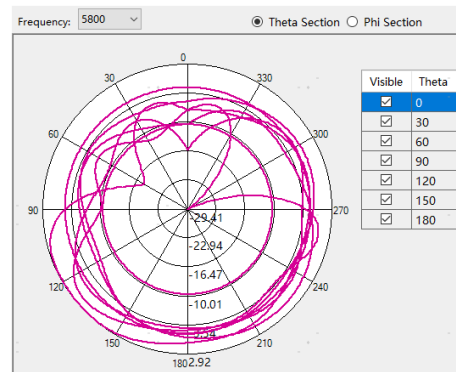
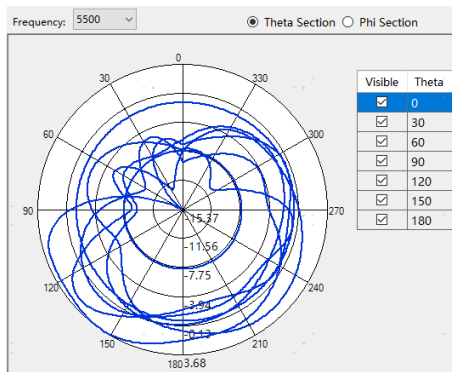
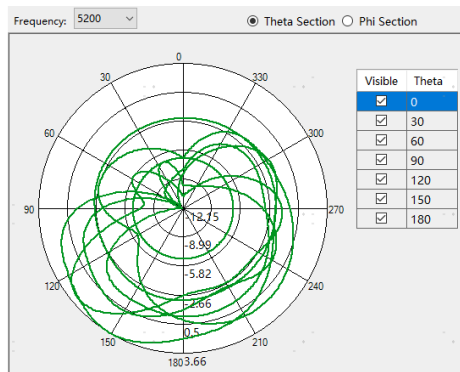
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Wi-Fi 5G: L Band

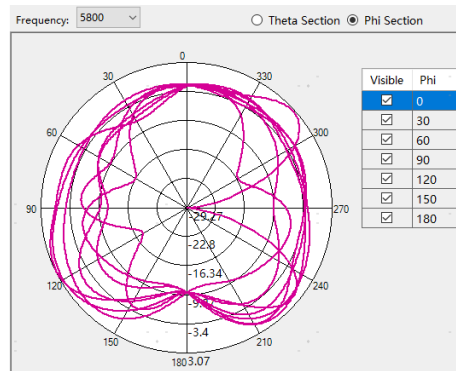
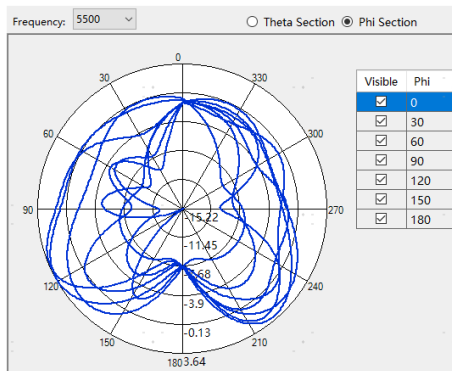
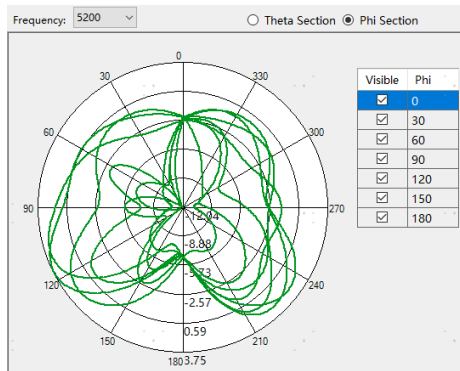
M Band

H Band

Theta
Section



Phi
Section



ANT Directivity Pattern

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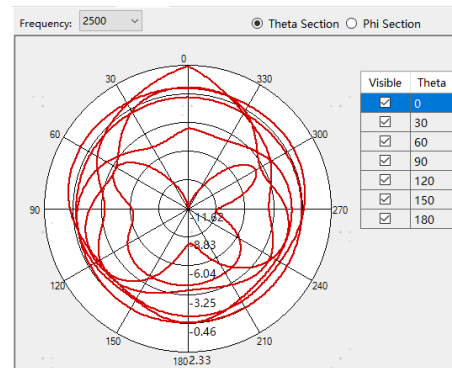
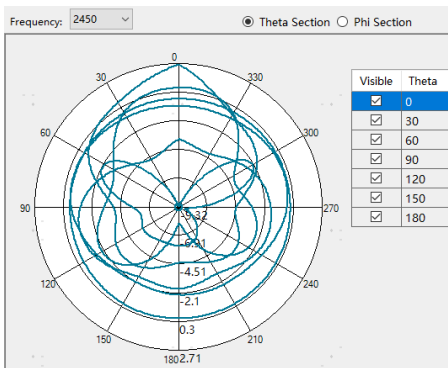
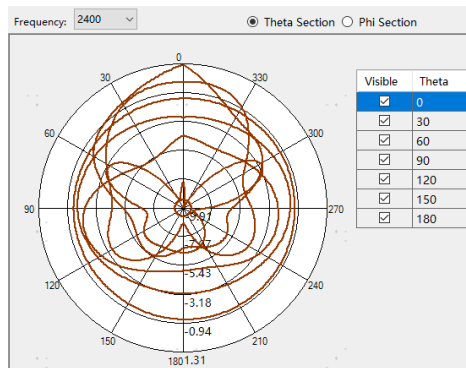
BT 2.4G:

L Band

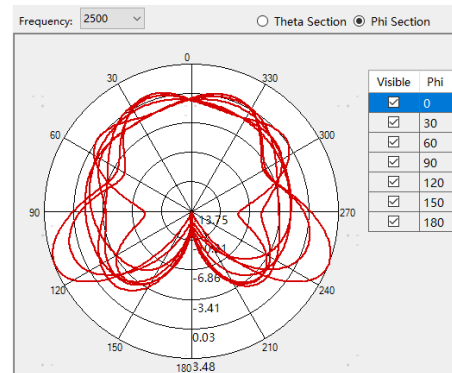
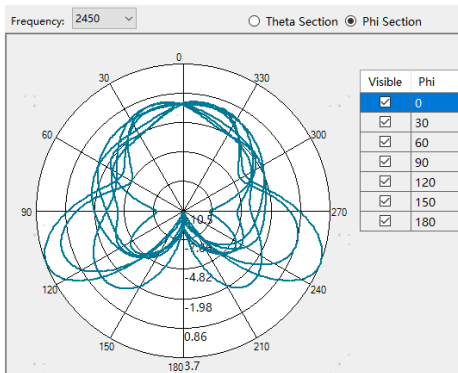
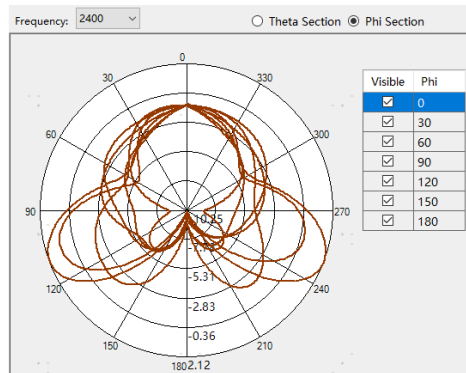
M Band

H Band

Theta
Section



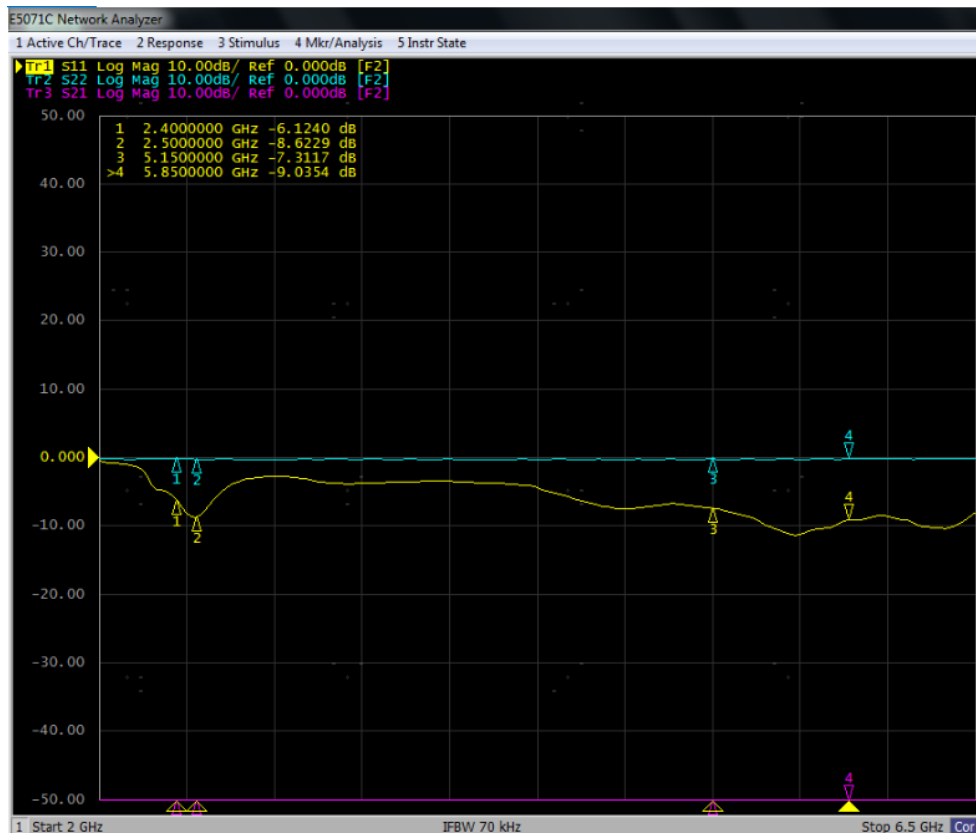
Phi
Section



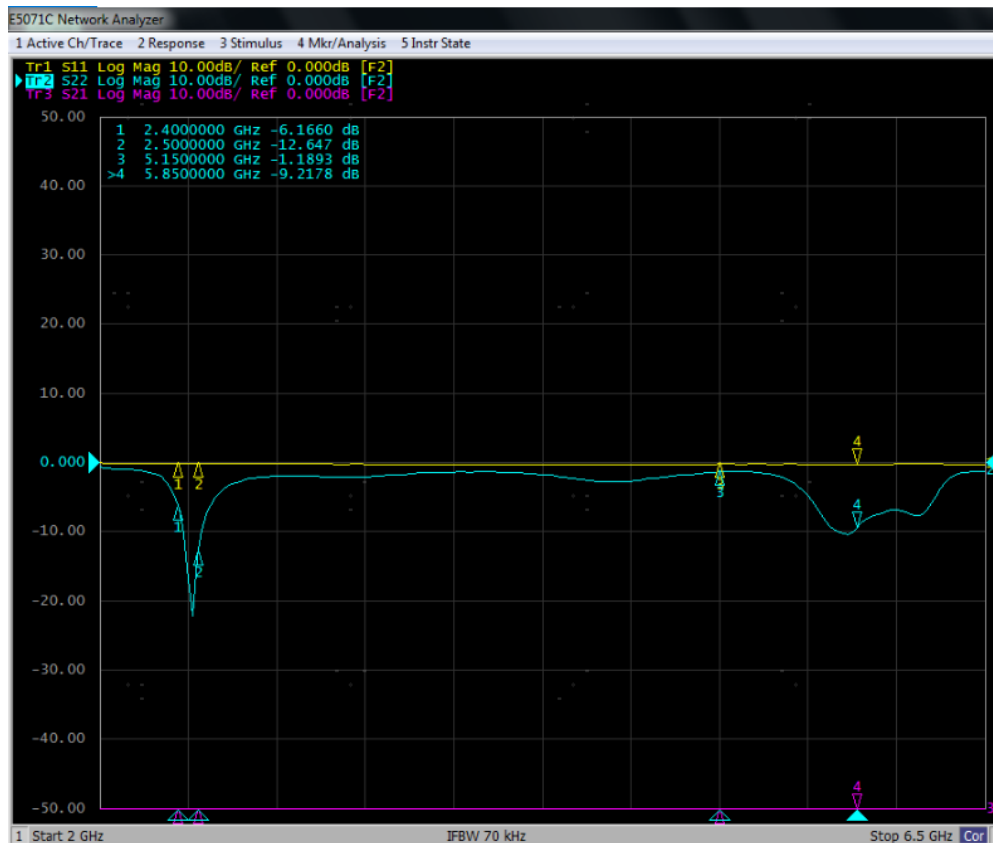
Wi-Fi Antenna

2.4-2.5GHz: $S_{11} < -6\text{dB}$

5.15-5.85GHz: $S_{11} < -7\text{dB}$



BT Antenna
2.4-2.5GHz: $S_{11} < -6\text{dB}$



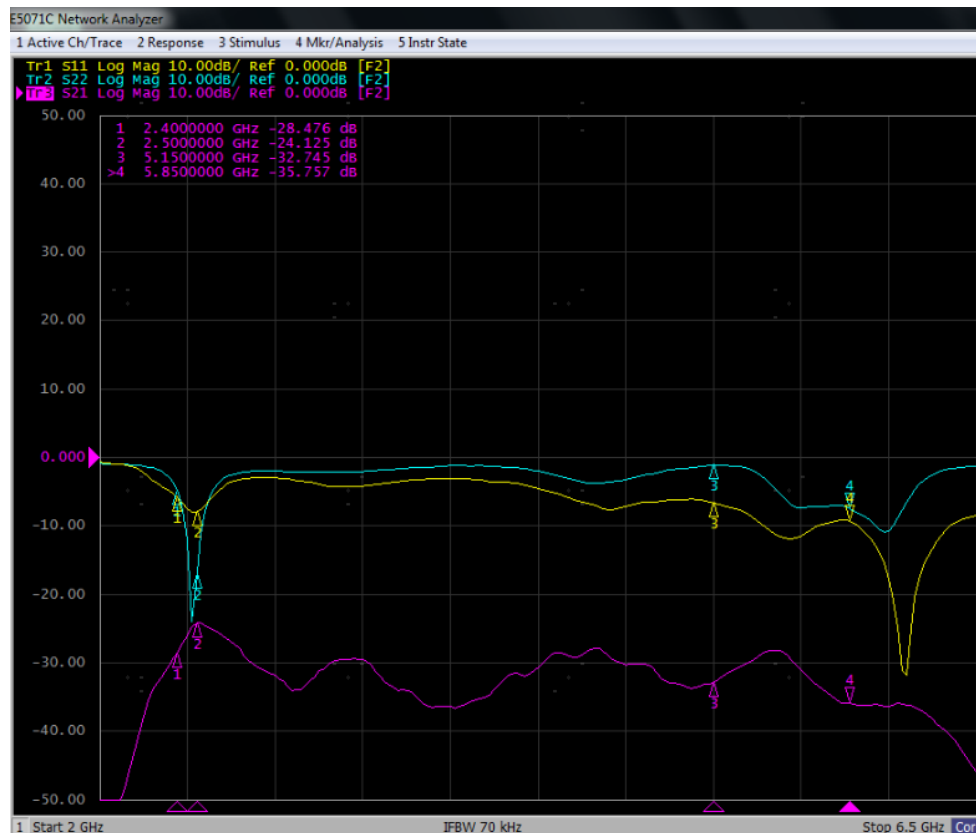
Isolation between
Wi-Fi and BT

2.4-2.5G:

Low band: -28dB

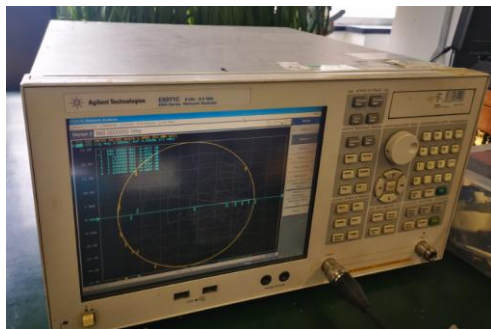
Middle band:-26dB

High band:-24dB



ANT Test Device

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Device Name	Vector network analyzer	Microwave anechoic chamber
Device Model	5071C	Rayzone 1800
Calibration Time	2024.06.11	2024.08.05
Test Time	2025.04.20	2025.04.20
Tester	Hu Wang	Hu Wang

- **Manufacturer:** Qingdao Intelligent & Precise Electronics Co., Ltd.
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