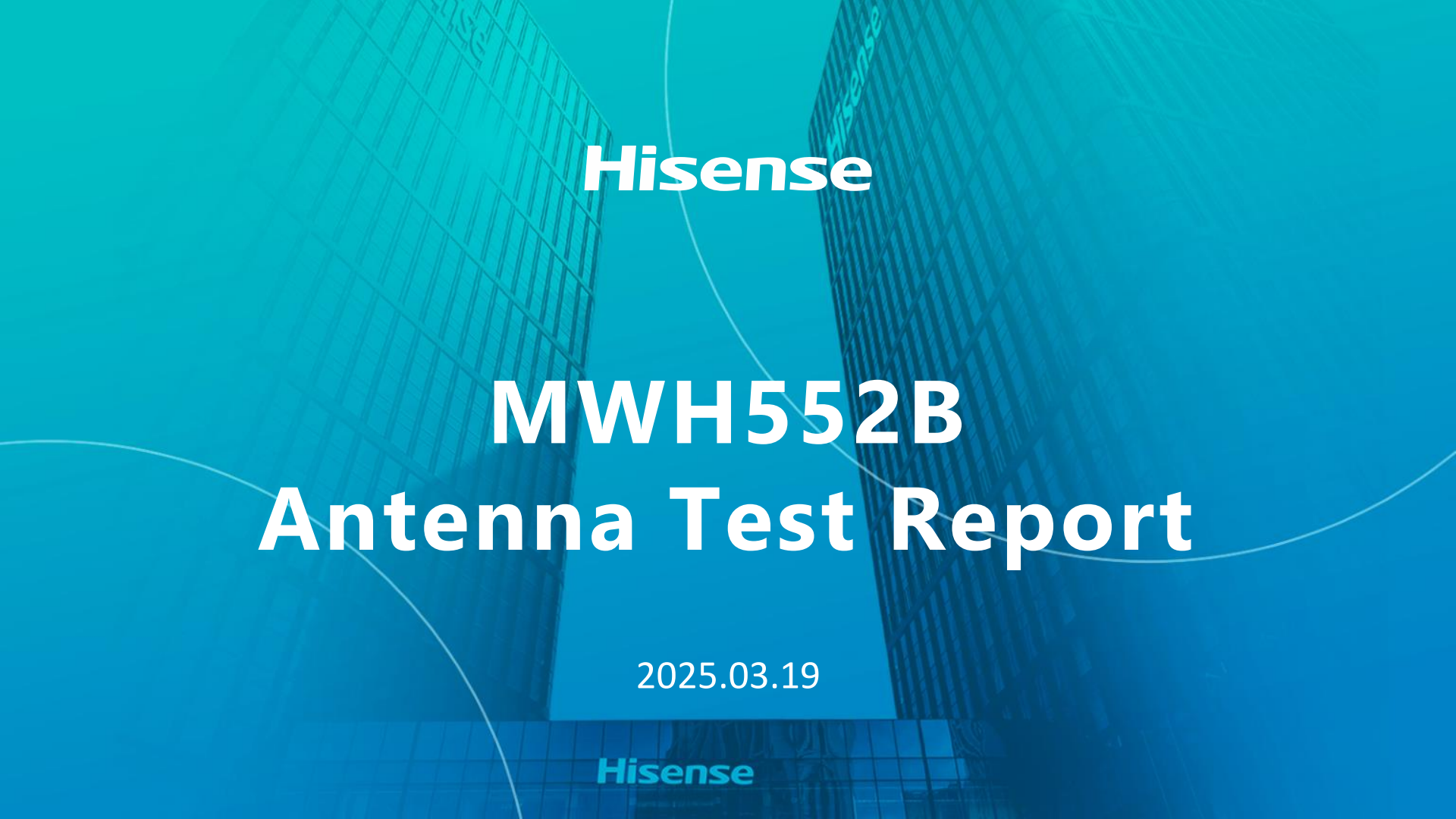




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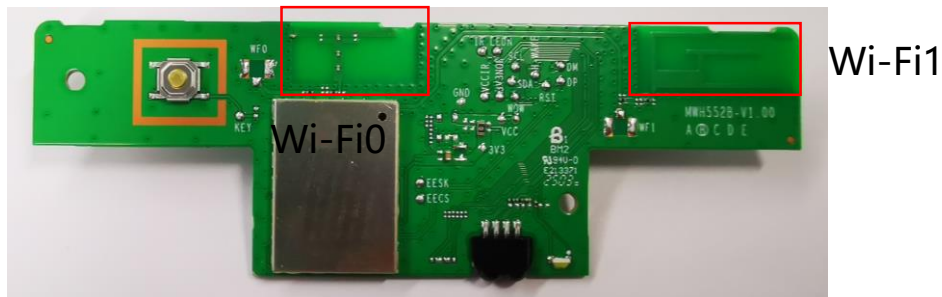
MWH552B
Antenna Test Report

2025.03.19

Hisense

Wi-Fi0	
Antenna Type	Inverted F PCB Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz/5.15~5.85GHz
Return Loss	2.4GHz~2.5GHz: $S_{11} \leq -8\text{dB}$ 5.15GHz~5.85GHz: $S_{11} \leq -8\text{dB}$.
Peak Gain	2.32dBi@2.4~2.5GHz , 4.26dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz $\geq 53\%$ (Avg) , 5.15~5.85GHz $\geq 65\%$ (Avg)

Wi-Fi1	
Antenna Type	Inverted F PCB Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz/5.15~5.85GHz
Return Loss	2.4GHz~2.5GHz: $S_{11} \leq -5\text{dB}$ 5.15GHz~5.85GHz: $S_{11} \leq -5\text{dB}$
Peak Gain	2.93dBi@2.4~2.5GHz , 4.63dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz $\geq 50\%$ (Avg) , 5.15~5.85GHz $\geq 45\%$ (Avg)



Wi-Fi0	CH	Gain/dBi	Efficiency/%
2.4G	L	1.76	51
	M	2.23	59
	H	2.32	57
5G	L	4.26	73
	M	3.55	67
	H	2.85	55

Wi-Fi1	CH	Gain/dBi	Efficiency/%
2.4G	L	1.94	49
	M	2.69	53
	H	2.93	52
5G	L	3.21	40
	M	3.73	44
	H	4.63	55

ANT Directivity Pattern

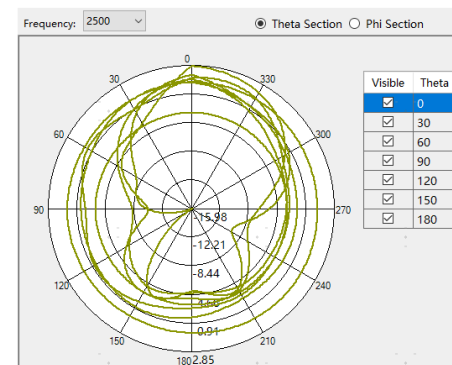
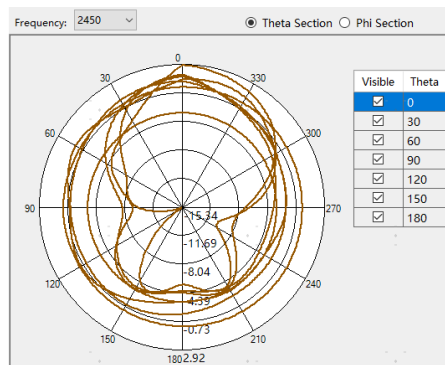
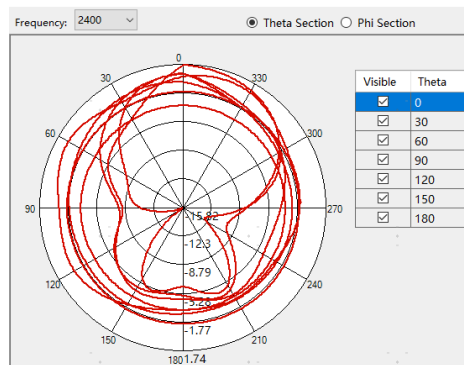
Hisense

Wi-Fi0 2.4G: L Band

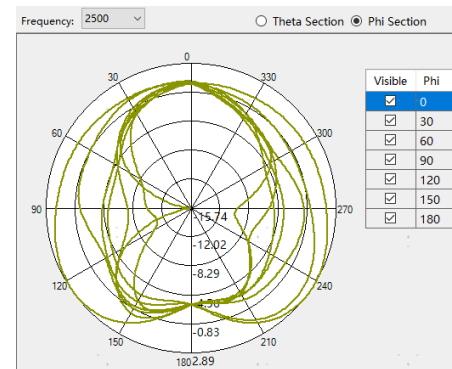
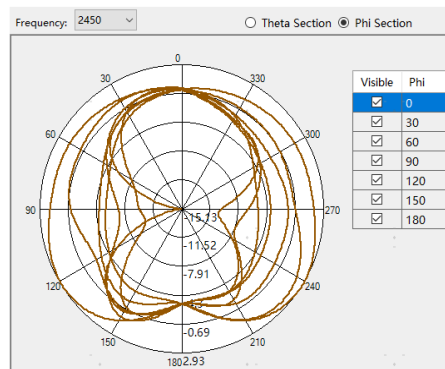
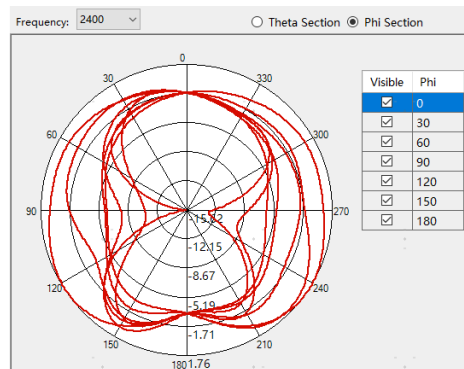
M Band

H Band

Theta
Section



Phi
Section



ANT Directivity Pattern

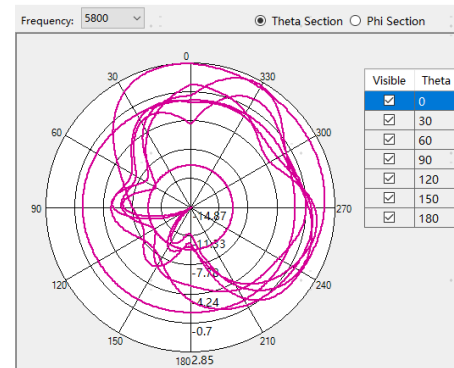
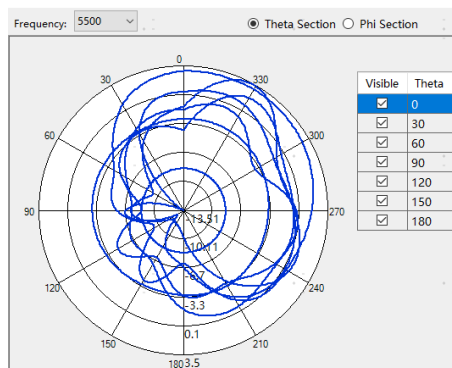
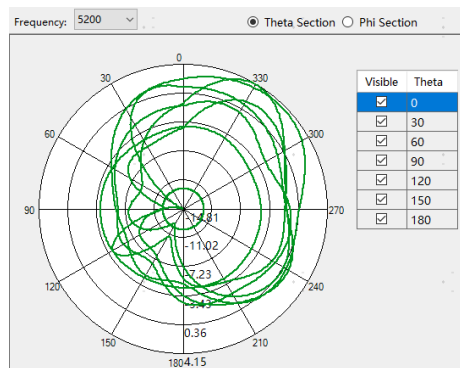
Hisense

Wi-Fi0 5G: L Band

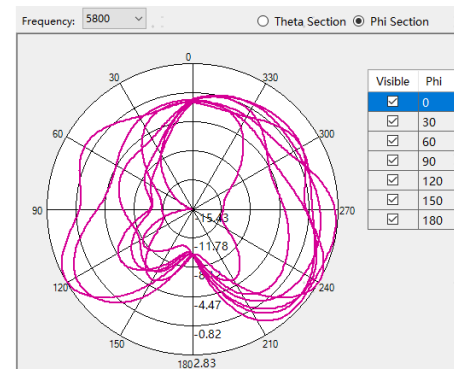
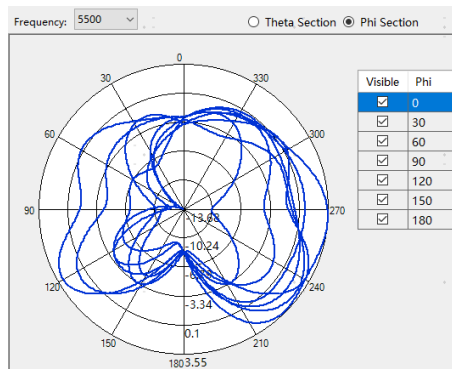
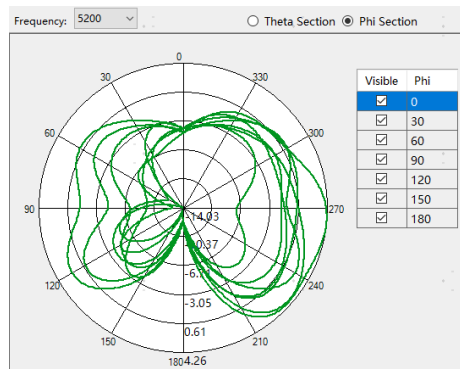
M Band

H Band

Theta
Section



Phi
Section



ANT Directivity Pattern

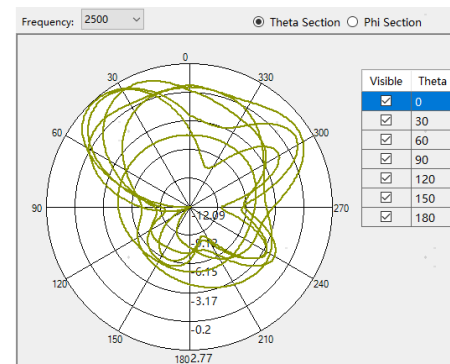
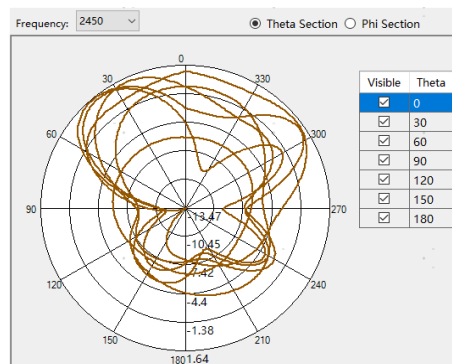
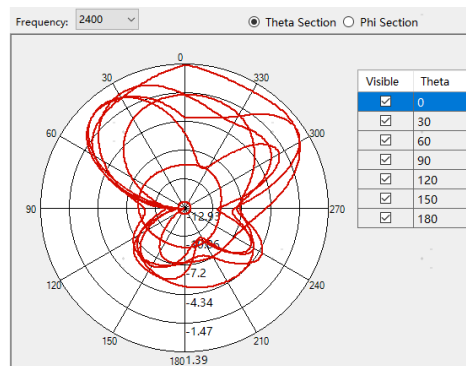
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Wi-Fi1 2.4G: L Band

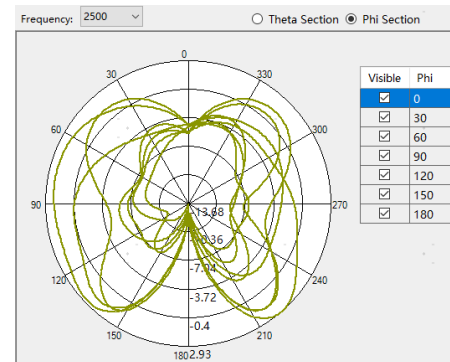
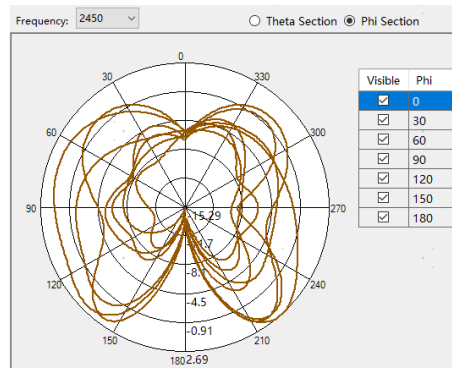
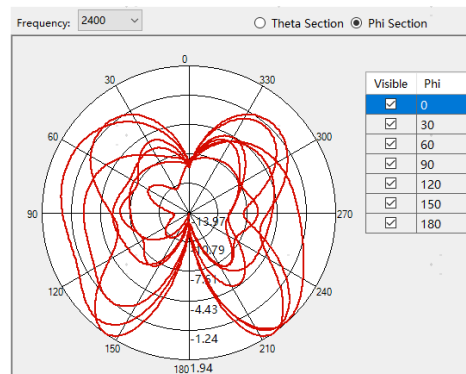
M Band

H Band

Theta
Section



Phi
Section



ANT Directivity Pattern

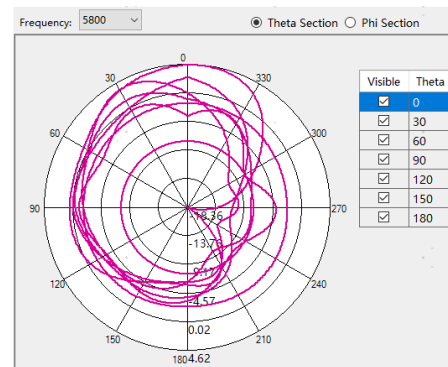
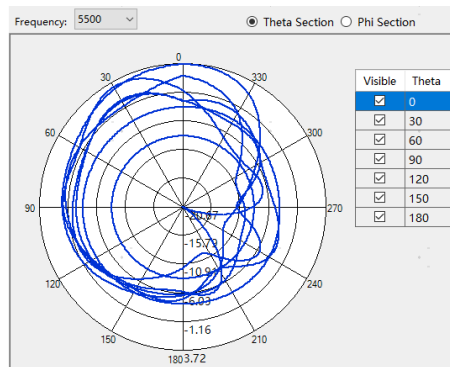
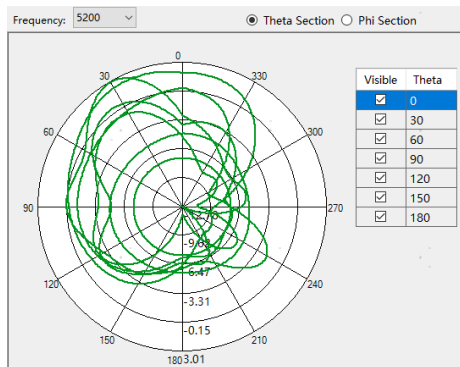
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Wi-Fi1 5G: L Band

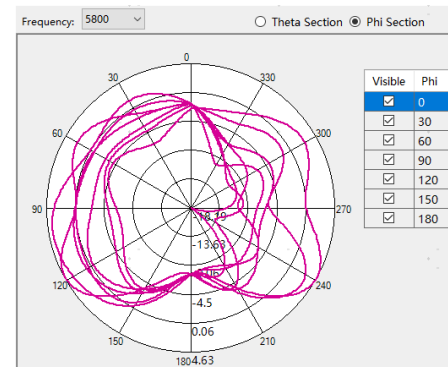
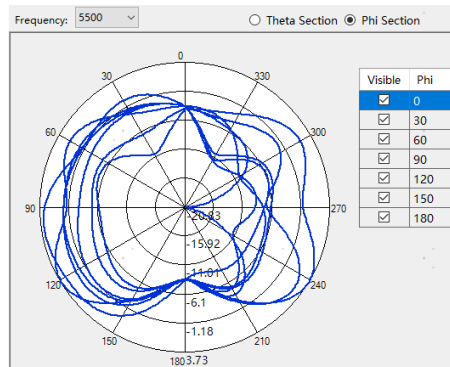
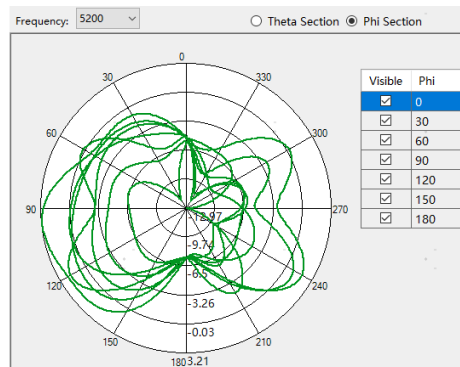
M Band

H Band

Theta
Section



Phi
Section

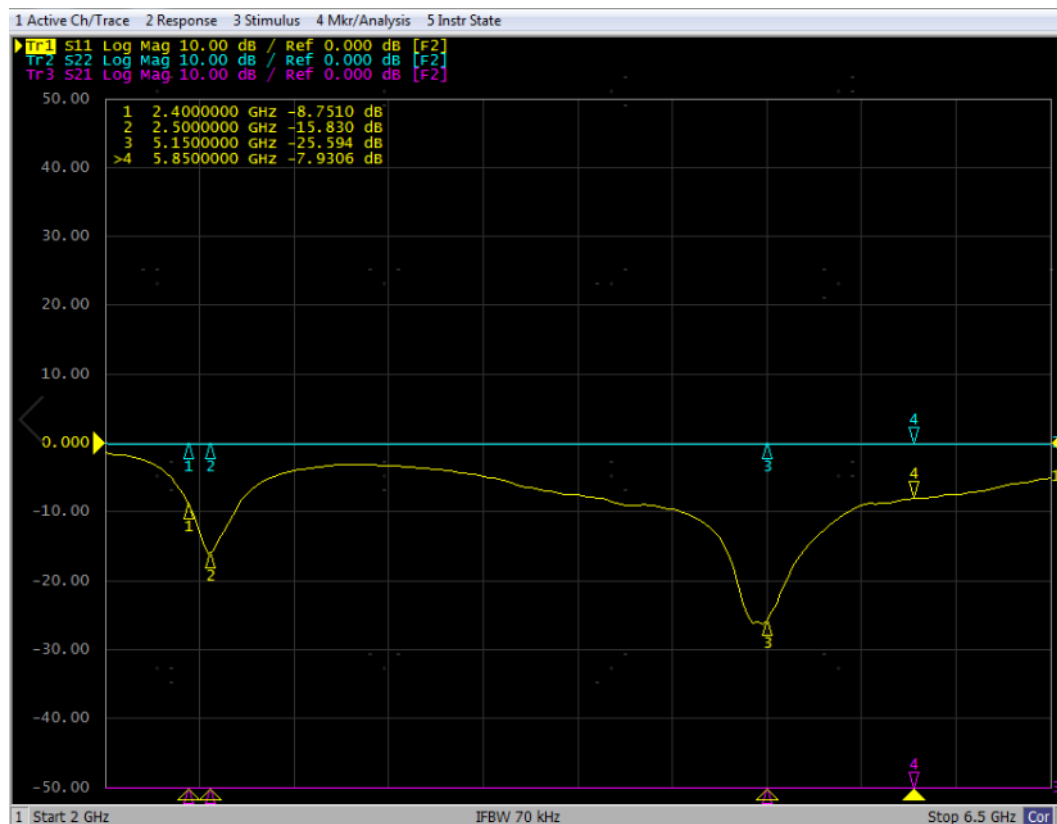


ANT Return Loss

Wi-Fi0 Antenna

2.4-2.5GHz: S11 < -8dB

5.15-5.85GHz: S11 < -8dB

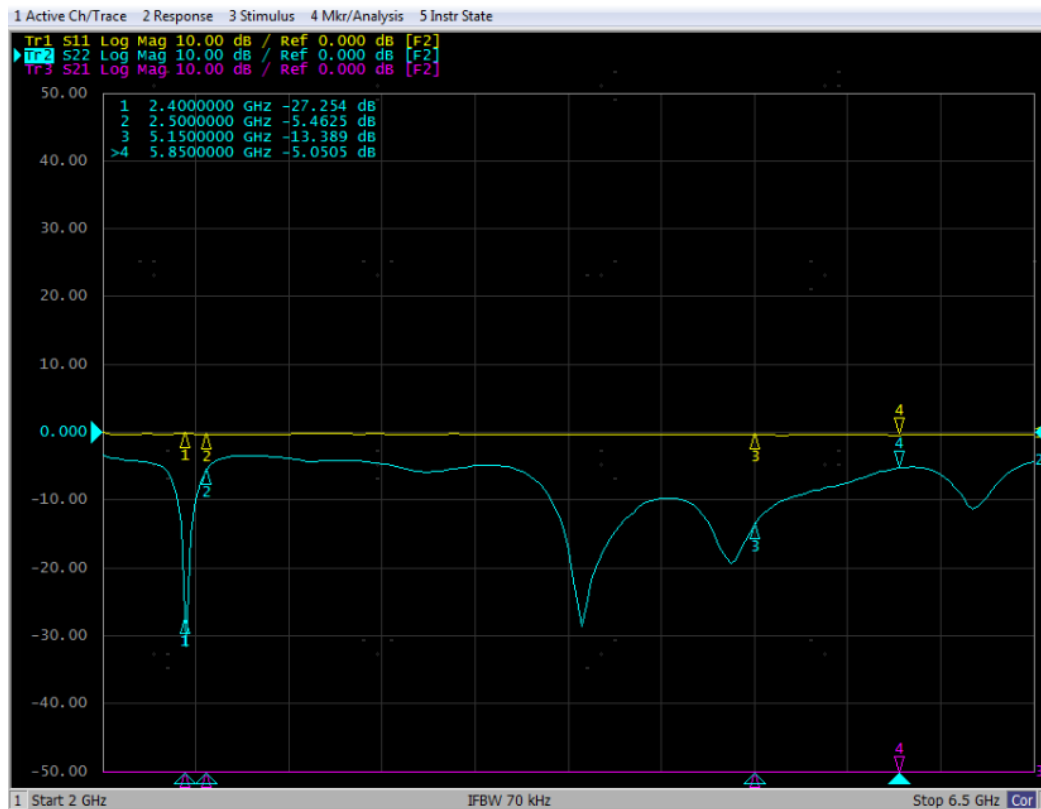


ANT Return Loss

Wi-Fi1 Antenna

2.4-2.5GHz: $S_{11} < -5\text{dB}$

5.15-5.85GHz: $S_{11} < -5\text{dB}$



Isolation between
Wi-Fi0 and Wi-Fi1

2.4-2.5G:

Low band: -30dB

Middle band:-25dB

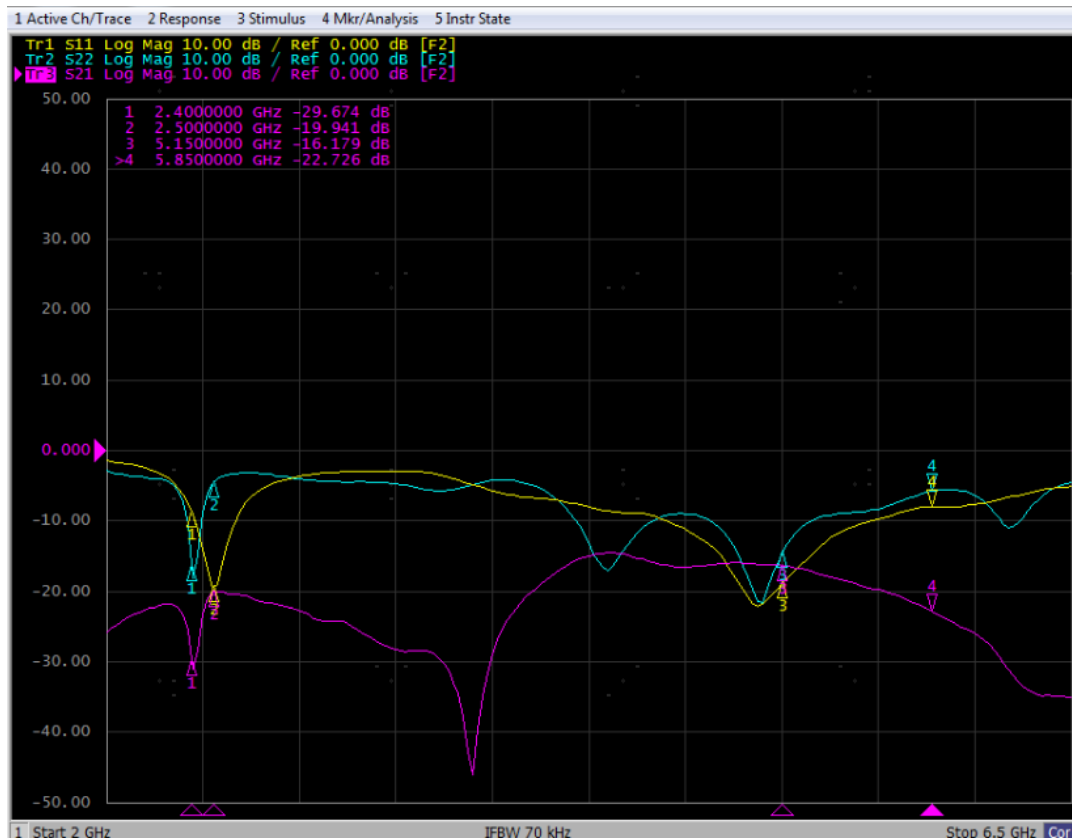
High band:-20dB

5.15-5.85G:

Low band:-16dB

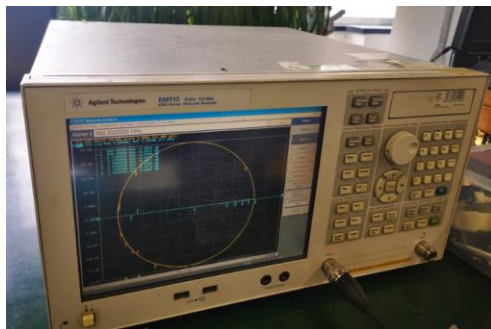
Middle band:-19dB

High band:-22dB



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	2025.03.19	2025.03.19
Tester	Hu Wang	Hu Wang

- **Manufacturer:** Qingdao Intelligent & Precise Electronics Co., Ltd.
- **Address:** Building 1, No. 218 Qianwangang Road,
Qingdao Economic and Technological Development Zone,
Shandong Province,
CHINA
- **Contact:** Jin-hui Zhai
- **Email:** zhaijinhui@hisense.com

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谢谢