



Hisense

54229

Antenna Test Report

2025.9.16

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Wi-Fi0	
Antenna Type	Inverted F Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz/5.15~5.85GHz
Return Loss	2.4GHz~2.5GHz: S11≤-2dB 5.15GHz~5.85GHz: S11≤-2dB.
Peak Gain	0.8dBi@2.4~2.5GHz , 3.59dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz≥50%(Avg) , 5.15~5.85GHz≥60%(Avg)

Wi-Fi1	
Antenna Type	Inverted F Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz/5.15~5.85GHz
Return Loss	2.4GHz~2.5GHz: S11≤-2dB 5.15GHz~5.85GHz: S11≤-2dB.
Peak Gain	2.7dBi@2.4~2.5GHz , 3.85dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz≥50%(Avg) , 5.15~5.85GHz≥50%(Avg)

BT	
Antenna Type	Loop Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz
Return Loss	2.4GHz~2.5GHz: S11≤-3dB
Peak Gain	-1.91dBi@2.4~2.5GHz
Efficiency	2.4~2.5GHz≥30%(Avg)

BT/WI-FI 0/WI-FI1

Antenna Location Diagram

---- See Appendix Antenna Location

Wi-Fi0	CH	Gain/dBi	Efficiency/%
2.4G	L	0.64	51.4
	M	0.8	53.51
	H	0.7	54.76
5G	L	3.09	62.84
	M	3.59	69.66
	H	3.08	69.07

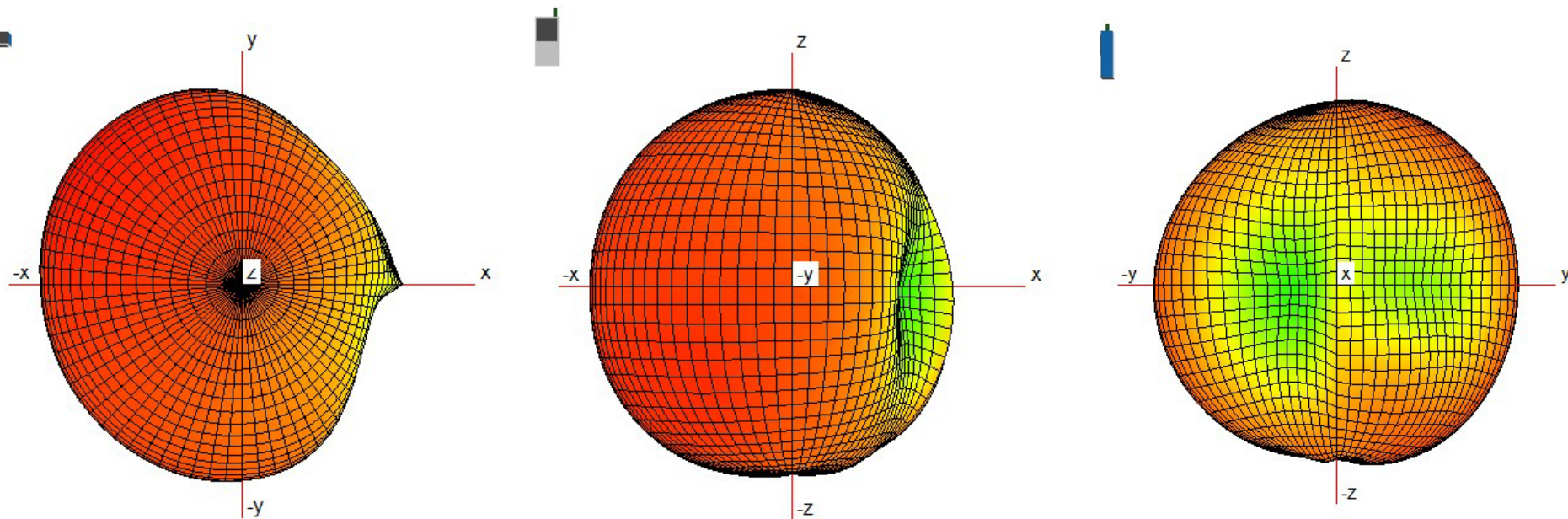
Wi-Fi1	CH	Gain/dBi	Efficiency/%
2.4G	L	2.53	50.87
	M	2.58	56.94
	H	2.7	59.99
5G	L	3.44	57.56
	M	3.85	63.83
	H	3.37	58.02

BT	CH	Gain/dBi	Efficiency/%
2.4G	L	-3.49	25.99
	M	-1.86	31.44
	H	-1.91	32.63

ANT Directivity Pattern

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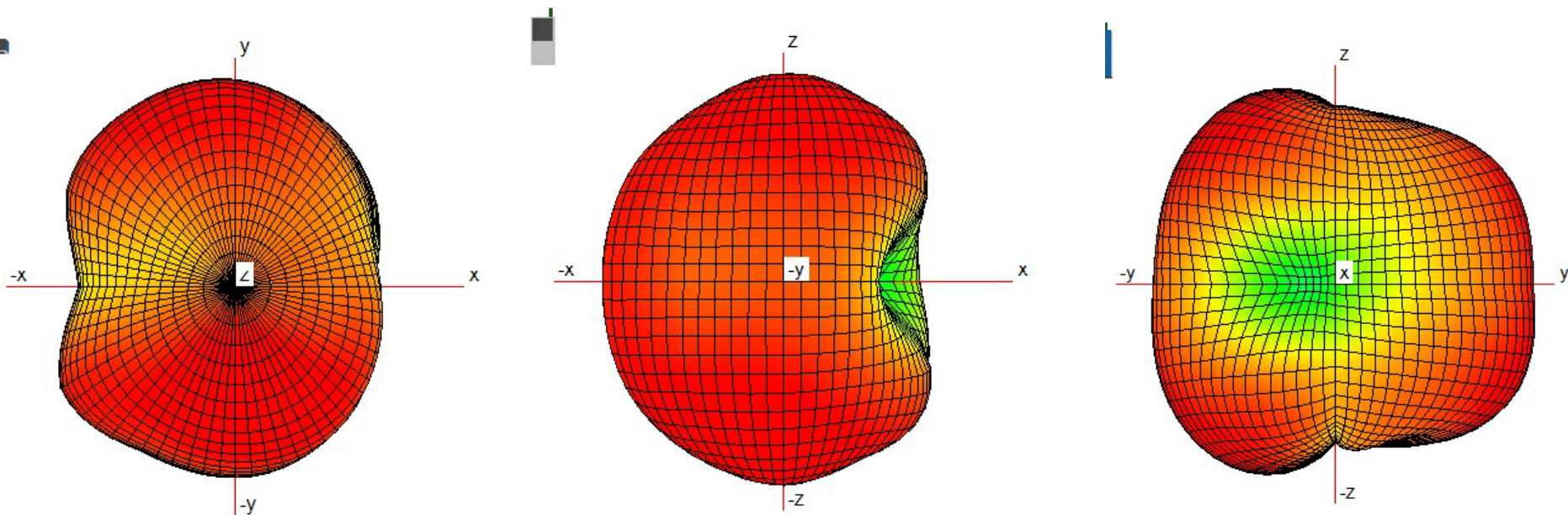
Wi-Fi0 2.4G:



ANT Directivity Pattern

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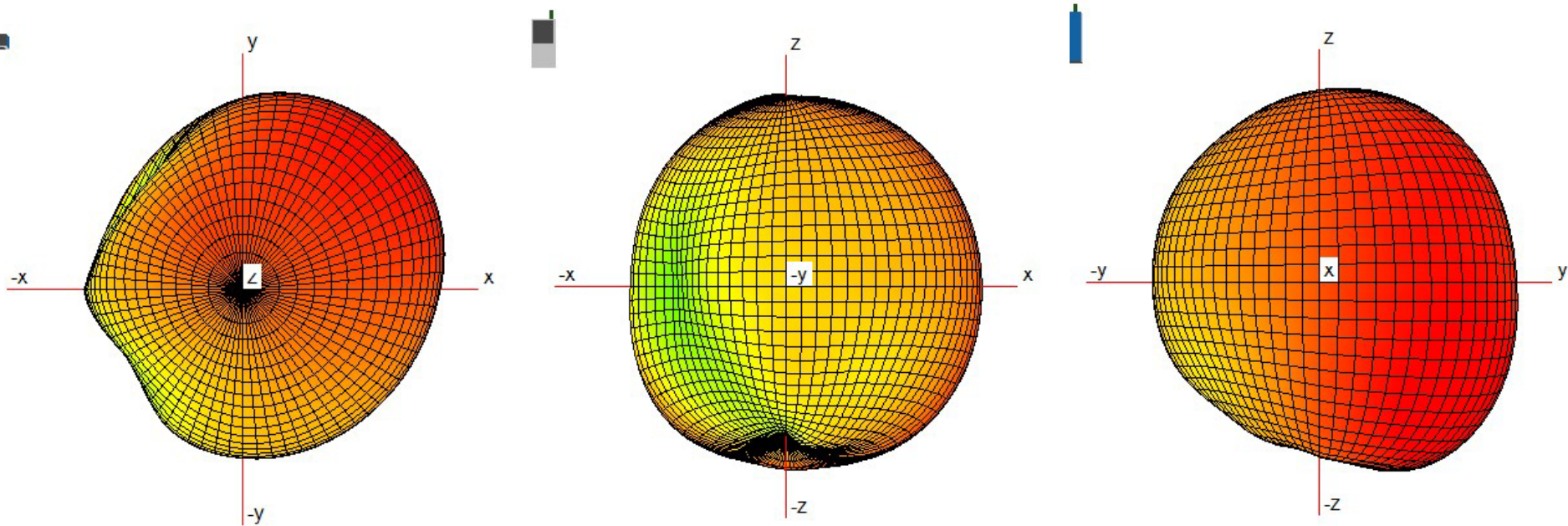
Wi-Fi0 5G:



ANT Directivity Pattern

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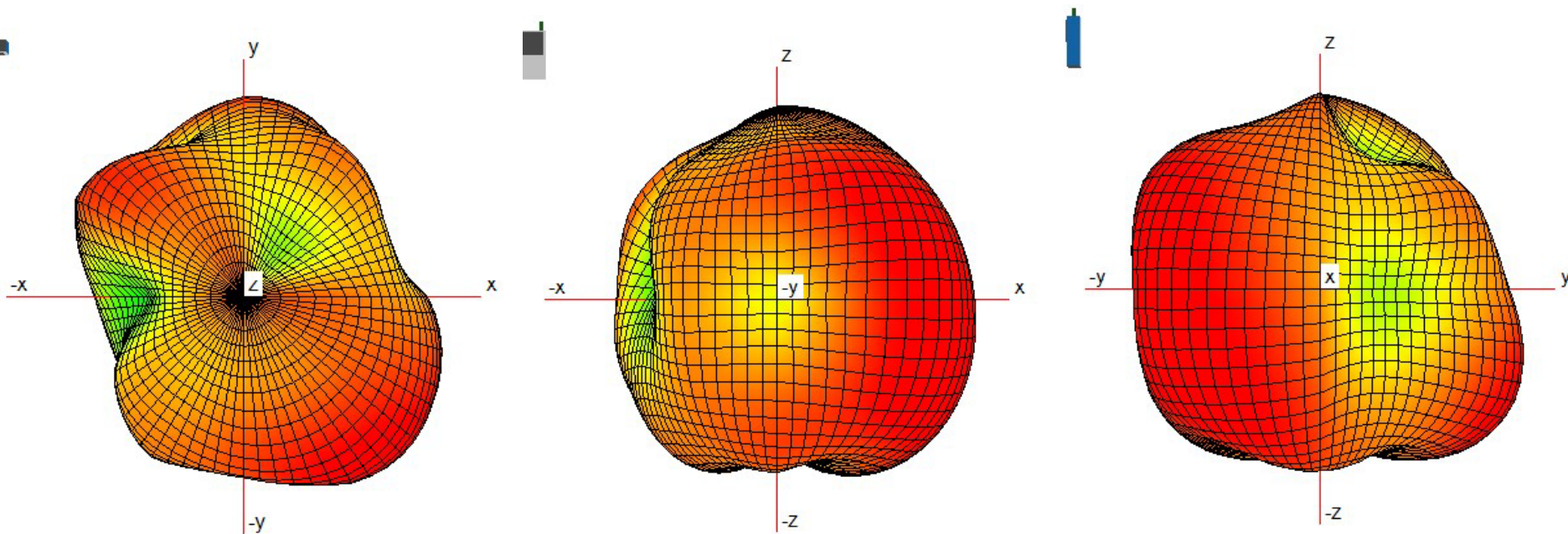
Wi-Fi1 2.4G:



ANT Directivity Pattern

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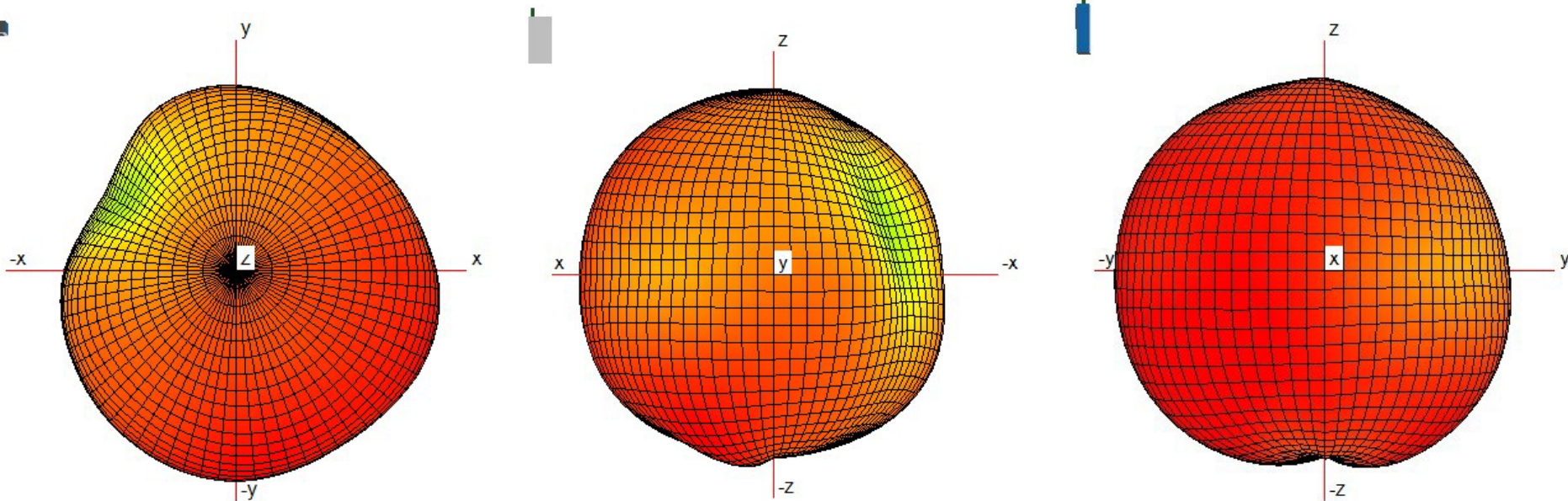
Wi-Fi1 5G:



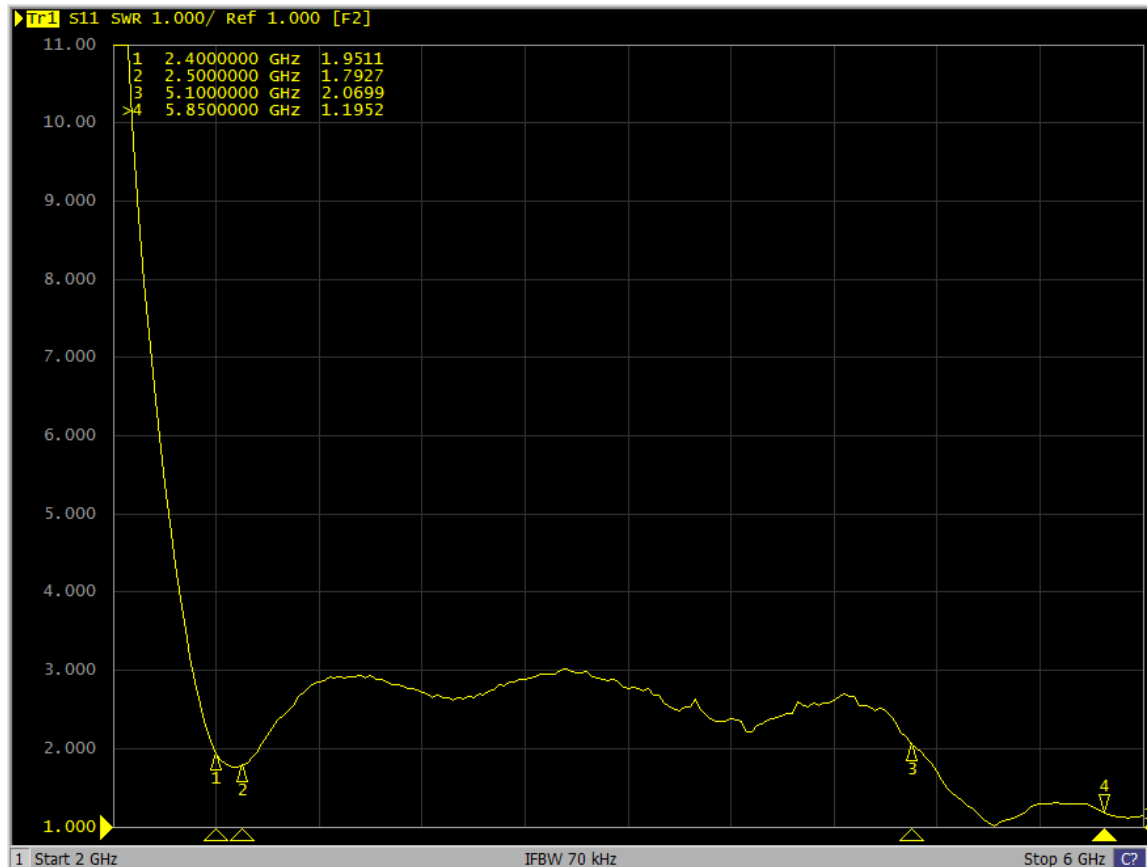
ANT Directivity Pattern

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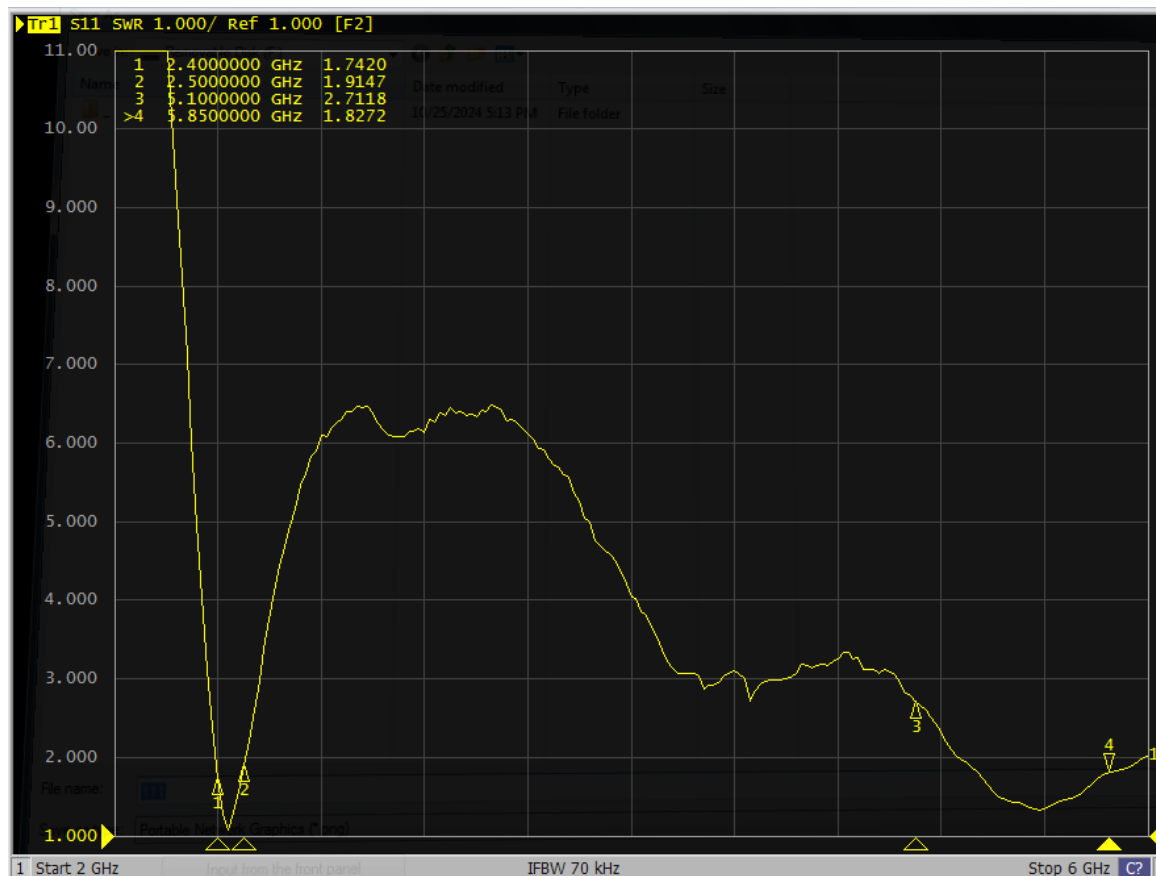
BT 2.4G:



Wi-Fi0 Antenna
2.4-2.5GHz: S11 < 2dB
5.15-5.85GHz: S11 < 2dB

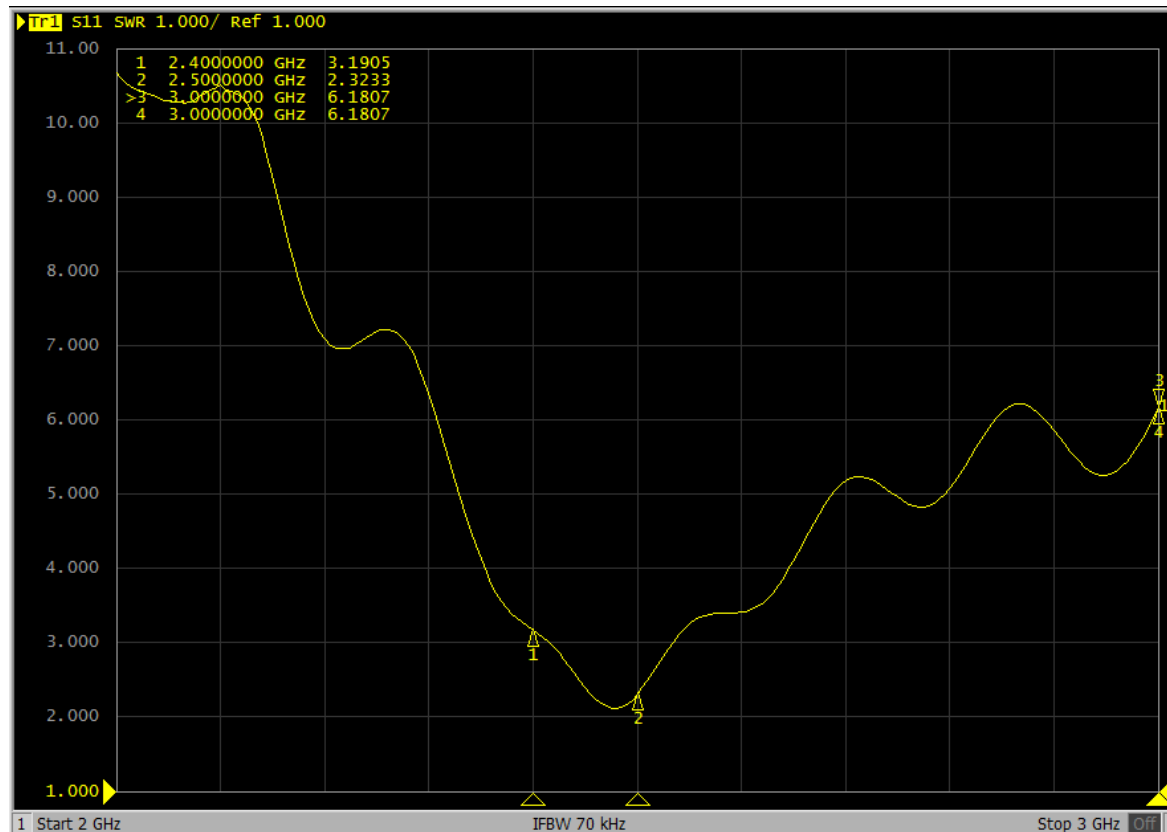


Wi-Fi1 Antenna
2.4-2.5GHz: S11 < 2dB
5.15-5.85GHz: S11 < 3dB



ANT Return Loss

BT Antenna
2.4-2.5GHz: $S_{11} < 3\text{dB}$



Isolation between
Wi-Fi0 and Wi-Fi1

2.4-2.5G:

Low band: -15dB

Middle band:-55dB

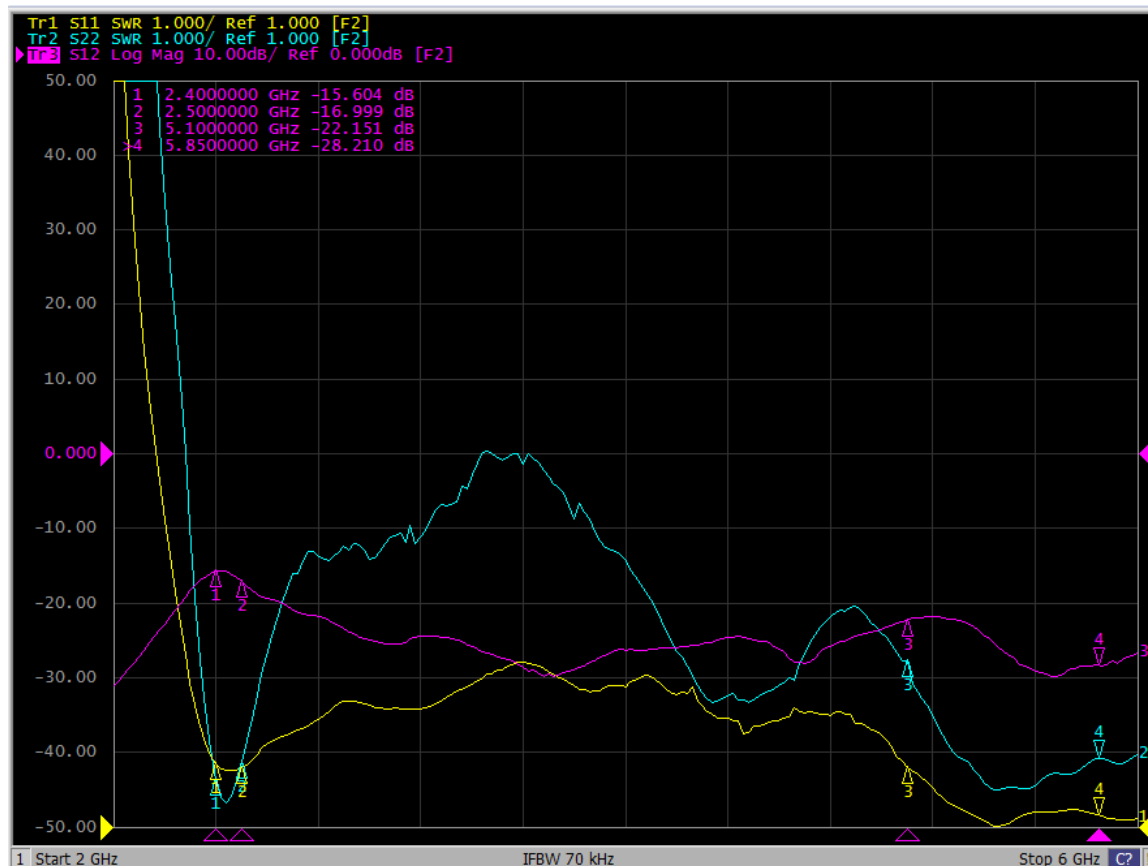
High band:-16dB

5.15-5.85G:

Low band:-22dB

Middle band:-22dB

High band:-28dB



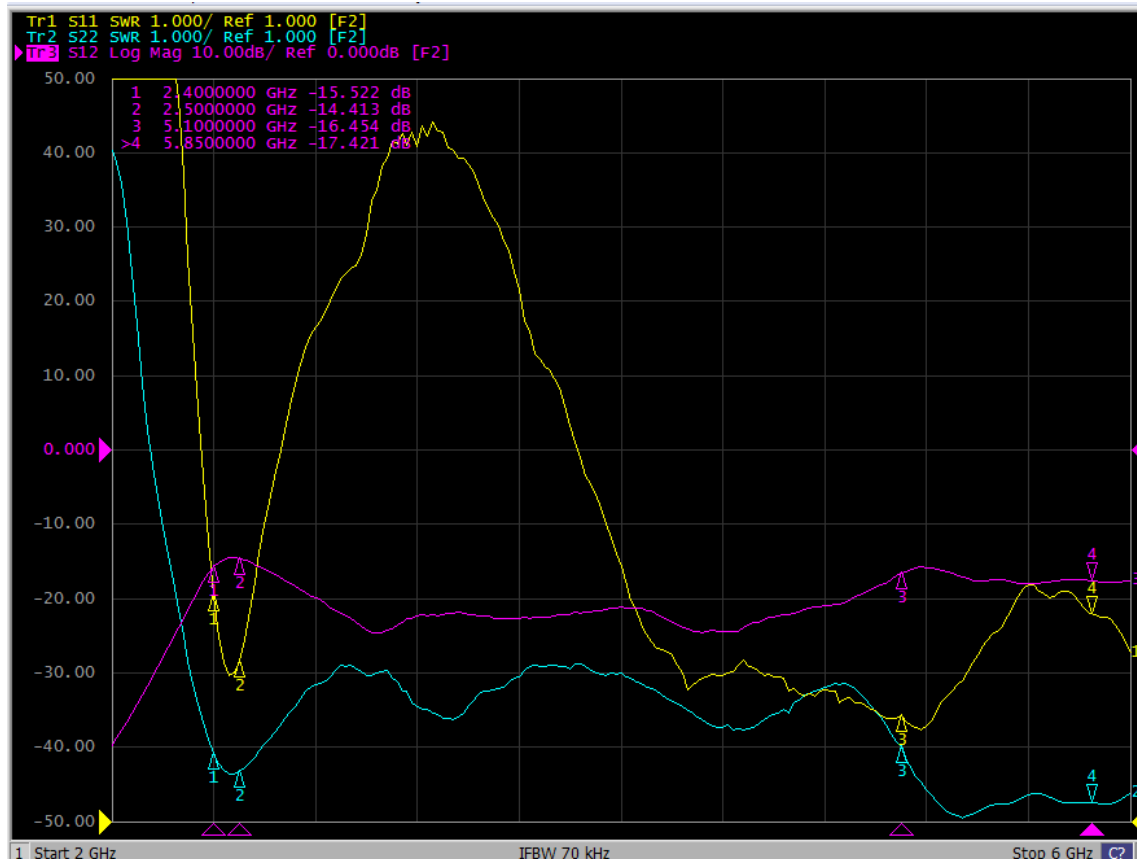
Isolation between
Wi-Fi0 and BT

2.4-2.5G:

Low band: -15dB

Middle band:-15dB

High band:-14dB



ANT Isolation

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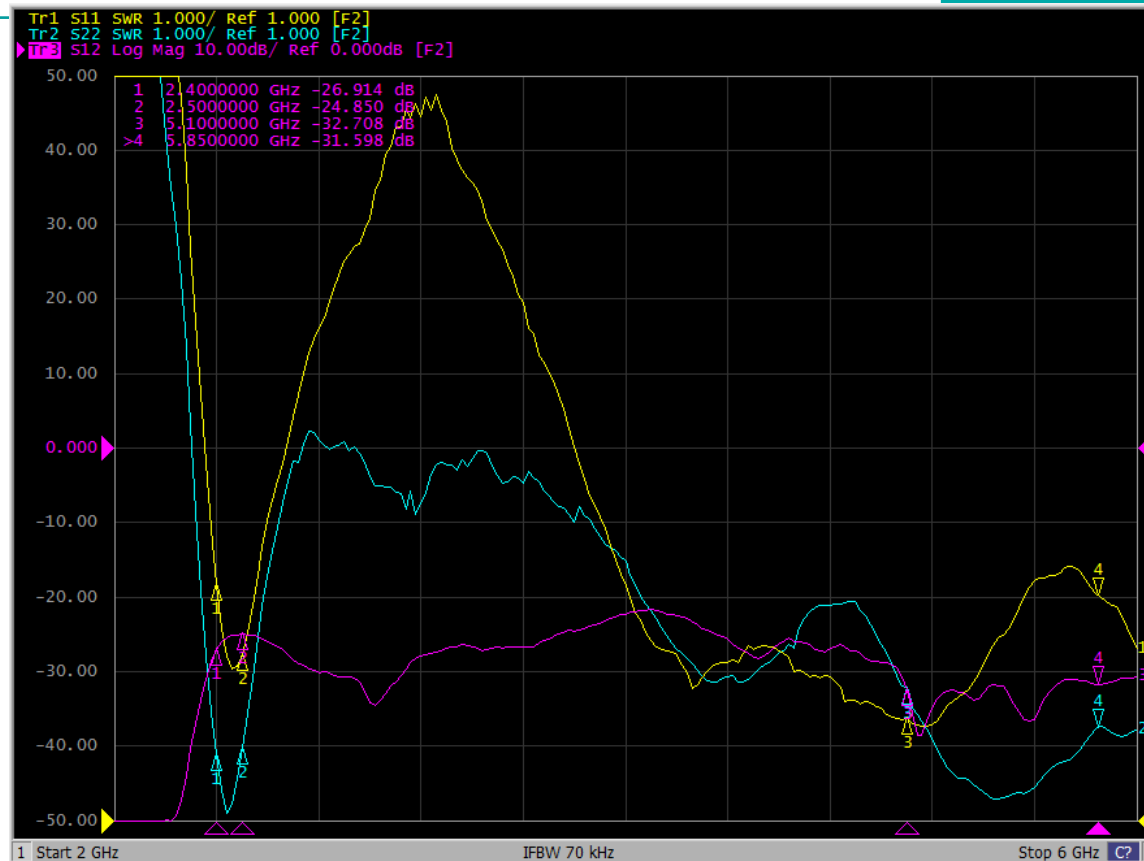
Isolation between
Wi-Fi1 and BT

2.4-2.5G:

Low band: -26dB

Middle band:-26dB

High band:-24dB



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A tall, modern skyscraper with a grid-like facade, identified as the Hisense International Center. The building is the central focus of the background image, which is overlaid with a blue tint and white decorative lines.

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海信国际中心

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