

Hisense



FIFA WORLD CUP
Qatar 2022

2022世界杯™官方赞助商



MWH634B

Antenna Test Report

2024.01.31

WiFi0	
Antenna Type	Inverted F Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz/5.15~5.85GHz
Return Loss	2.4GHz~2.5GHz: $S_{11} \leq -9\text{dB}$ 5.15GHz~5.85GHz: $S_{11} \leq -5\text{dB}$.
Peak Gain	3.58dBi@2.4~2.5GHz , 3.42dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz $\geq 58\%$ (Avg) , 5.15~5.85GHz $\geq 47\%$ (Avg)

WiFi1	
Antenna Type	Inverted F Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz/5.15~5.85GHz
Return Loss	2.4GHz~2.5GHz: $S_{11} \leq -10\text{dB}$ 5.15GHz~5.85GHz: $S_{11} \leq -4\text{dB}$.
Peak Gain	3.01dBi@2.4~2.5GHz , 3.25dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz $\geq 55\%$ (Avg) , 5.15~5.85GHz $\geq 40\%$ (Avg)

BT	
Antenna Type	Loop Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz
Return Loss	$S_{11} \leq -4.0\text{dB}$
Peak Gain	4.17dBi
Efficiency	$\geq 45\%$ (Avg)



WiFi0	CH	Gain/dBi	Efficiency/%
2.4G	L	2.94	55
	M	3.58	62
	H	3.41	61
5G	L	3.42	50
	M	2.60	47
	H	1.43	45

WiFi1	CH	Gain/dBi	Efficiency/%
2.4G	L	2.98	51
	M	3.01	58
	H	2.51	56
5G	L	3.25	44
	M	0.19	40
	H	-2.28	35

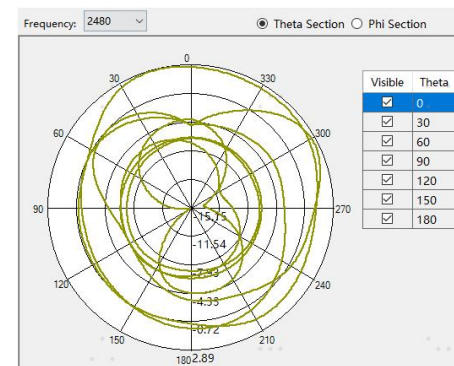
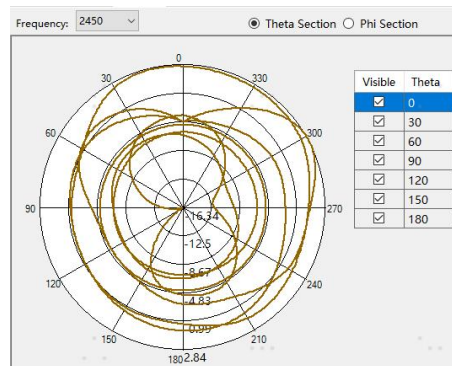
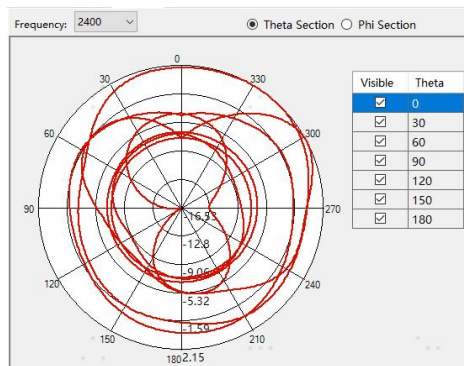
BT	CH	Gain/dBi	Efficiency/%
2.4G	L	2.16	36
	M	4.17	54
	H	2.29	38

WiFi0 2.4G: L Band

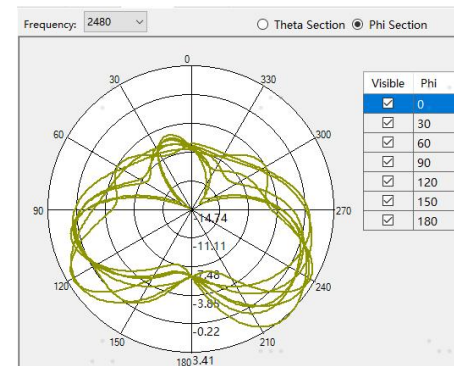
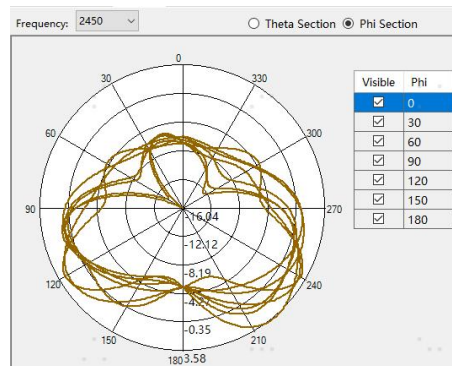
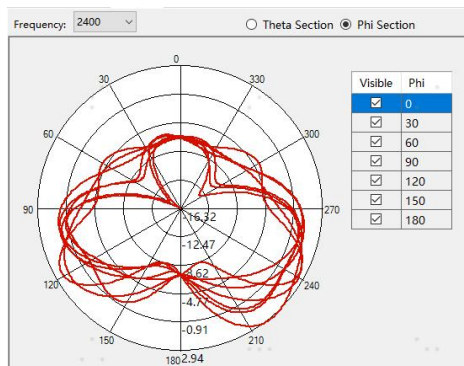
M Band

H Band

Theta
Section



Phi
Section



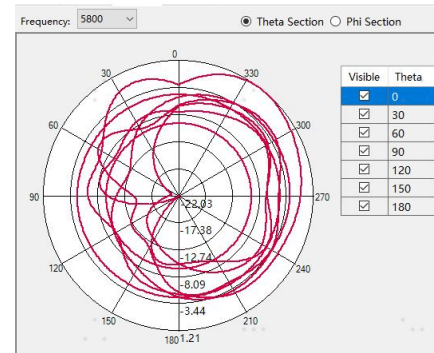
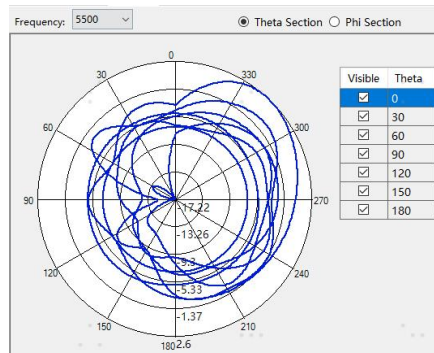
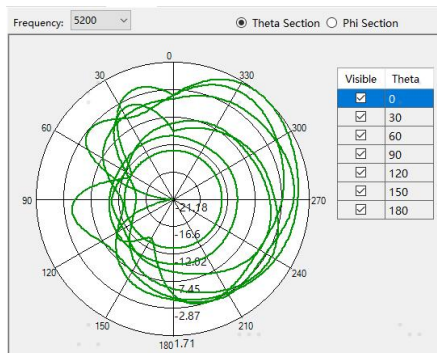
ANT Directivity Pattern

WiFi0 5G: L Band

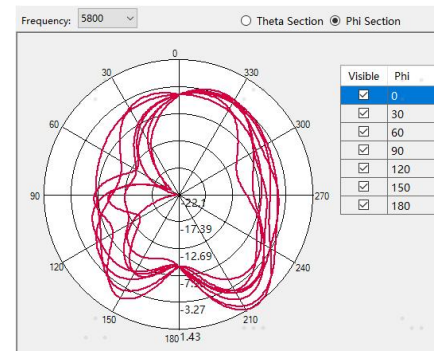
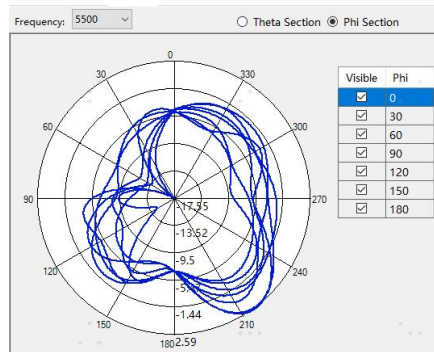
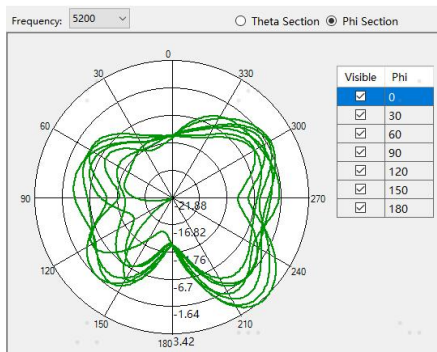
M Band

H Band

Theta
Section



Phi
Section

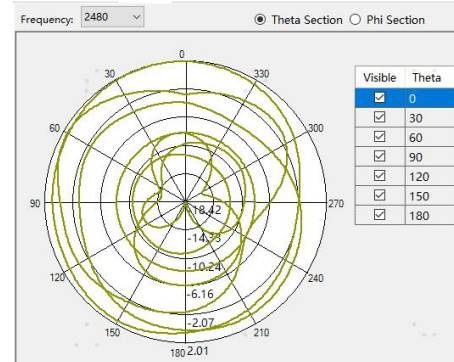
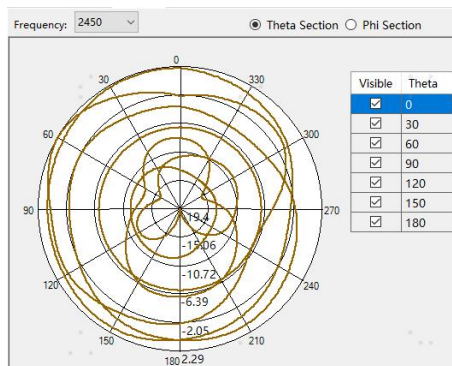
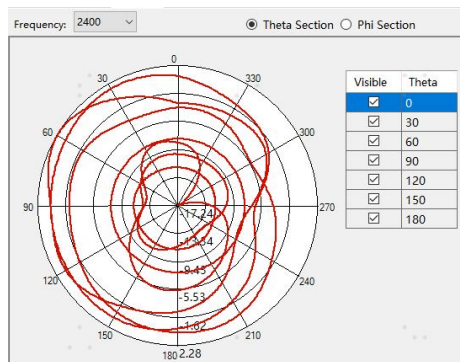


WiFi1 2.4G: L Band

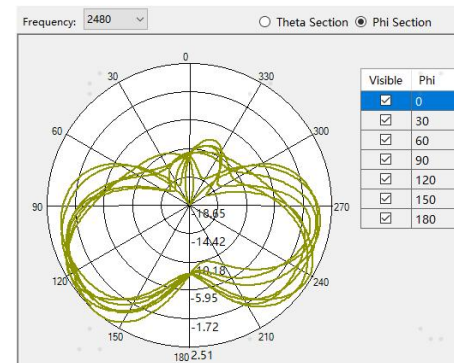
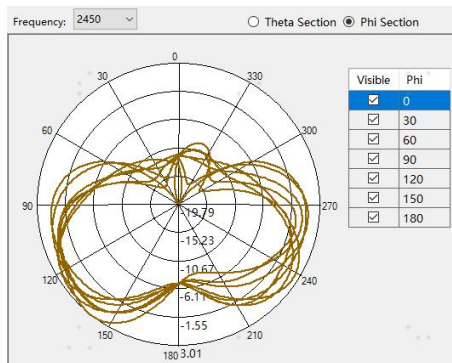
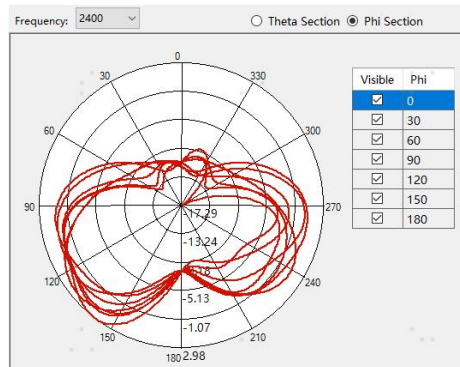
M Band

H Band

Theta
Section



Phi
Section

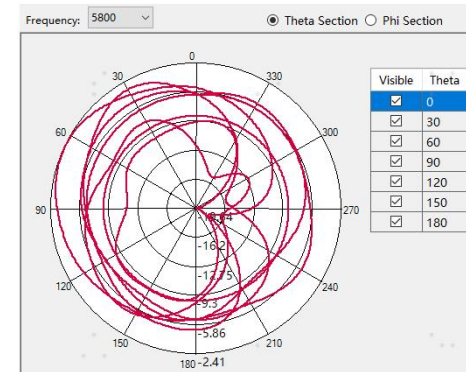
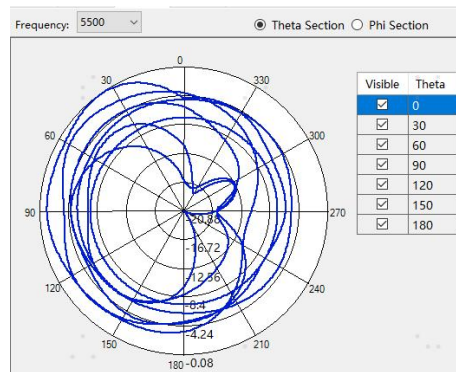
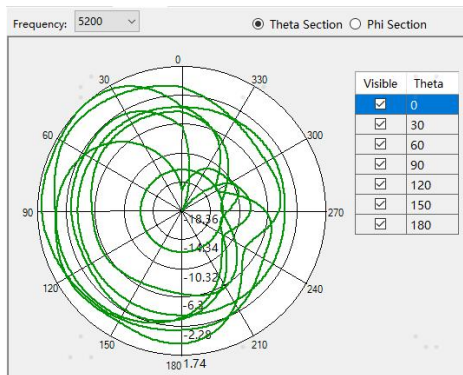


WiFi1 5G: L Band

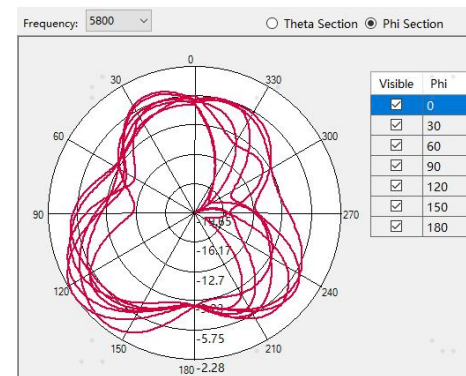
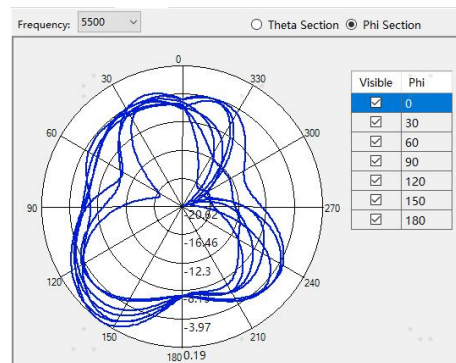
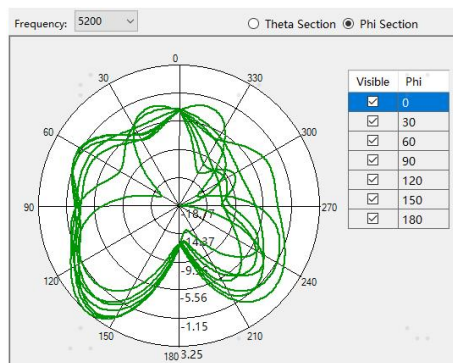
M Band

H Band

Theta
Section



Phi
Section

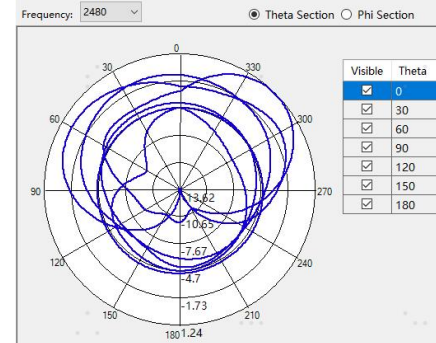
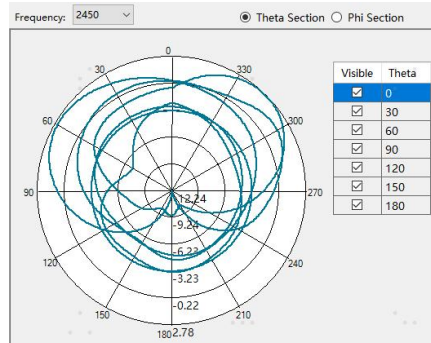
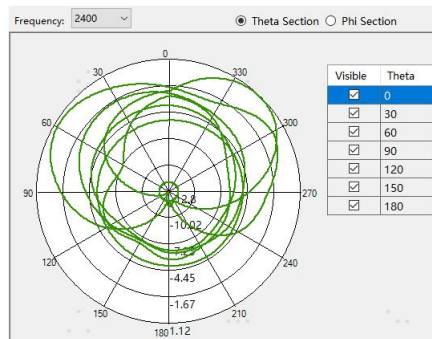


BT 2.4G: L Band

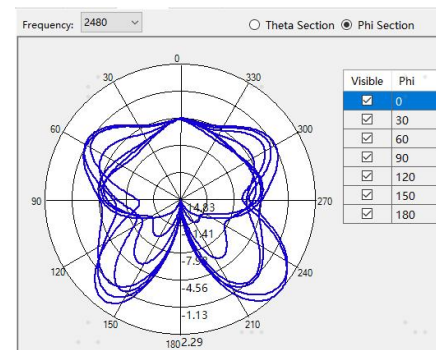
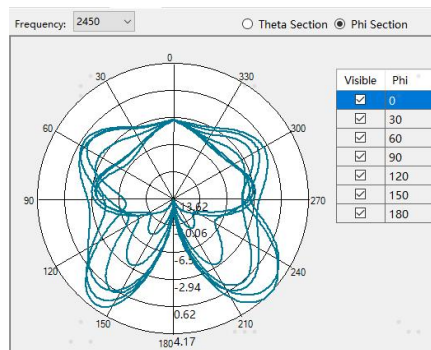
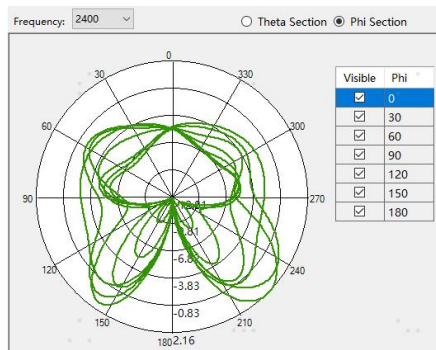
M Band

H Band

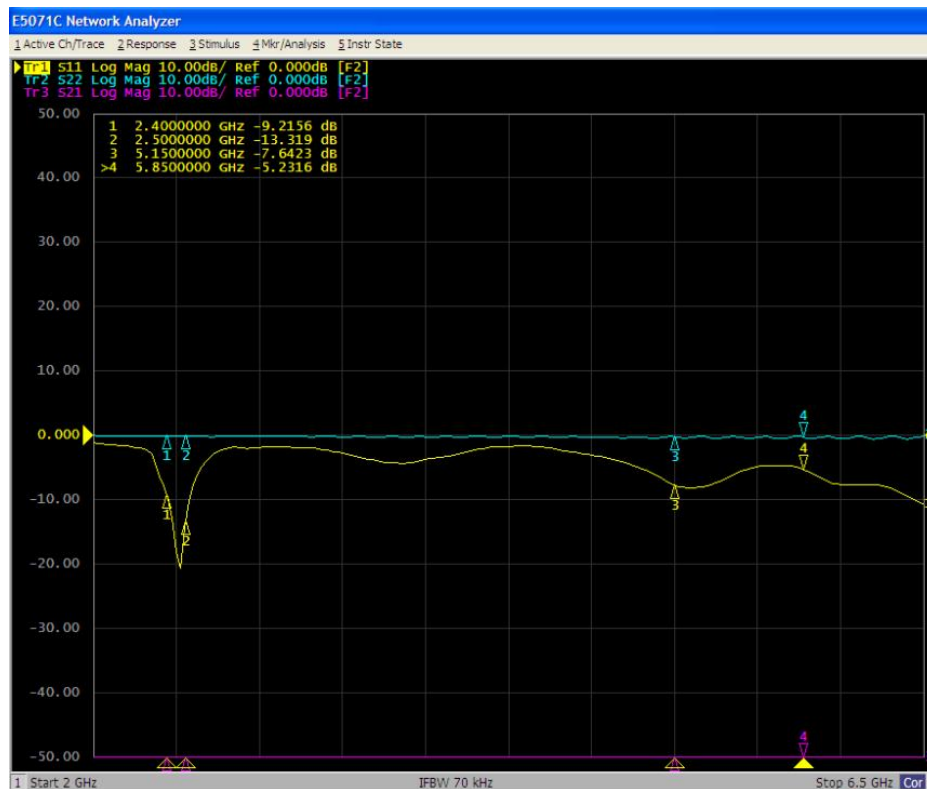
Theta
Section



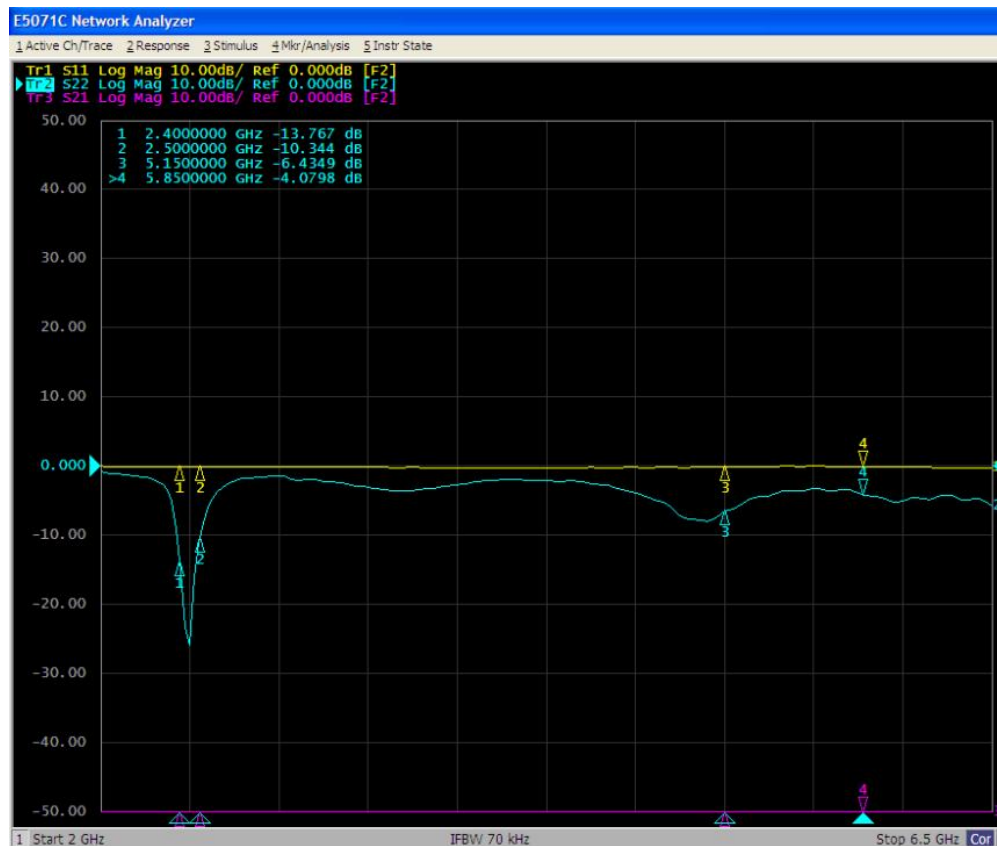
Phi
Section



WiFi0 Antenna
2.4-2.5GHz < -9.0dB
5.15-5.85GHz < -5.0dB



WiFi1 Antenna
2.4-2.5GHz < -10dB
5.15-5.85GHz < -4.0dB



BT Antenna
2.4-2.5GHz < -4.0dB



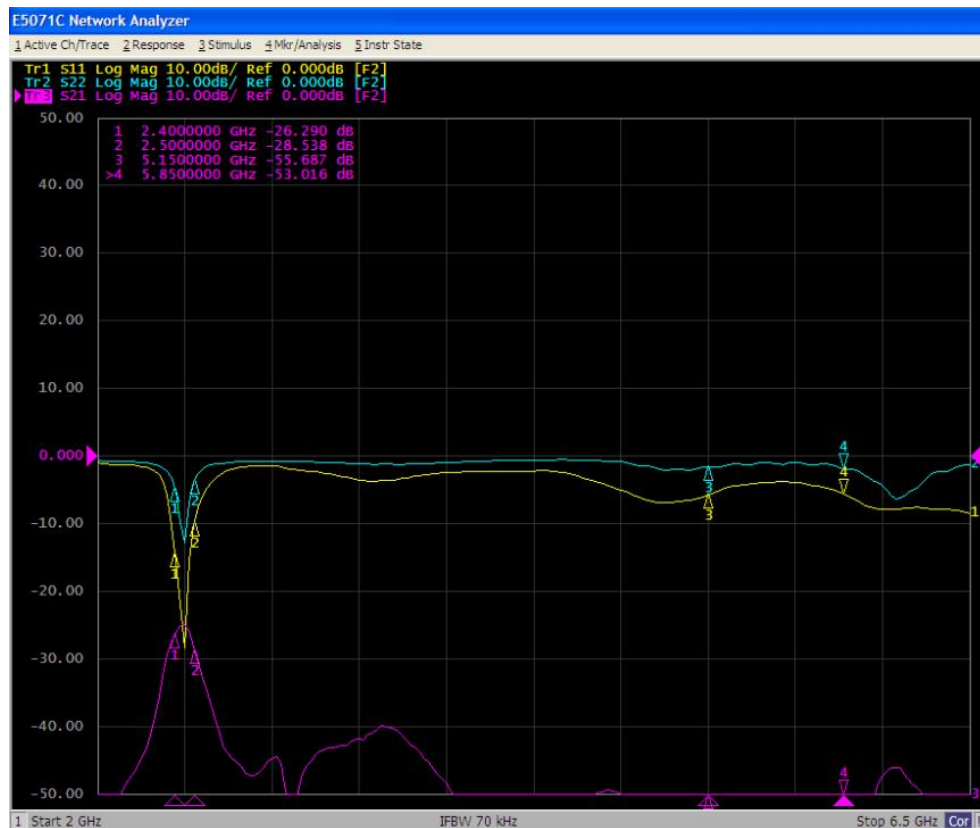
Isolation between WiFi0 and WiFi1
2.4G: L:-11dB M:-10dB H:-11.4dB
5G: L:-20dB M:-26dB H:-32.4dB



Isolation between WiFi0 and BT
2.4G: L:-27dB M:-25dB H:-30dB



Isolation between WiFi1 and BT
2.4G: L:-26dB M:-25dB H:-28dB



Qingdao Intelligent & Precise Electronics Co., Ltd.

Address

Hisense Infor. Industrial Park
Economic Technology Dev.
District

Contact information

dingshizhao 13370851021



2022世界杯™官方赞助商



THANKS