

**Hisense**



FIFA WORLD CUP  
Qatar 2022

2022世界杯™官方赞助商



# MWH633B

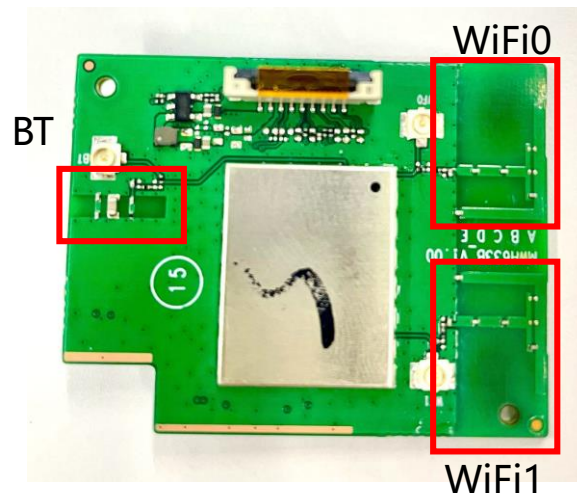
# Antenna Test Report

2024.01.19

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: $S_{11} \leq -8\text{dB}$ 5.15GHz~5.85GHz: $S_{11} \leq -4\text{dB}$ .
Peak Gain	1.98dBi@2.4~2.5GHz , 3.87dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz $\geq 40\%$ (Avg) , 5.15~5.85GHz $\geq 50\%$ (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: $S_{11} \leq -4\text{dB}$ 5.15GHz~5.85GHz: $S_{11} \leq -5\text{dB}$ .
Peak Gain	1.81dBi@2.4~2.5GHz , 4.76dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz $\geq 45\%$ (Avg) , 5.15~5.85GHz $\geq 40\%$ (Avg)

BT	
Antenna Type	Loop Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz
Return Loss	$S_{11} \leq -4.5\text{dB}$
Peak Gain	5.29dBi
Efficiency	$\geq 40\%$ (Avg)



WiFi0	CH	Gain/dBi	Efficiency/%
2.4G	L	-5.11	35
	M	0.17	45
	H	1.98	50
5G	L	3.87	65
	M	2.22	55
	H	0.90	50

WiFi1	CH	Gain/dBi	Efficiency/%
2.4G	L	-3.17	38
	M	1.11	50
	H	1.81	55
5G	L	4.76	47
	M	4.08	45
	H	2.30	40

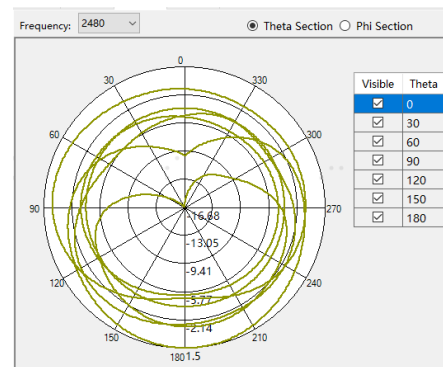
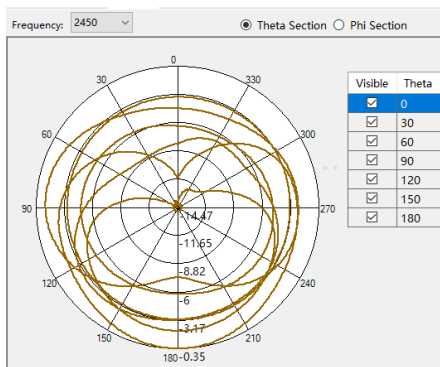
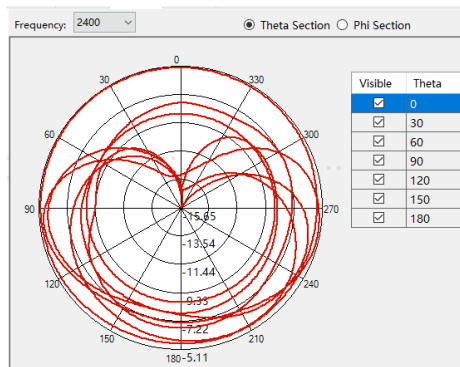
BT	CH	Gain/dBi	Efficiency/%
2.4G	L	4.13	38
	M	5.29	58
	H	3.76	37

WiFi0 2.4G: L Band

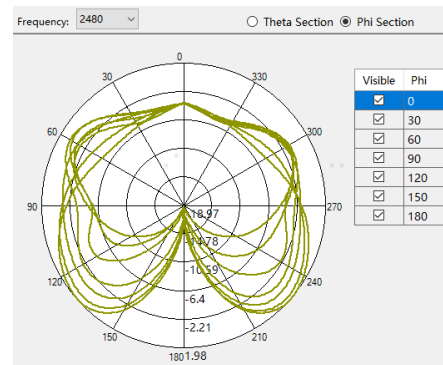
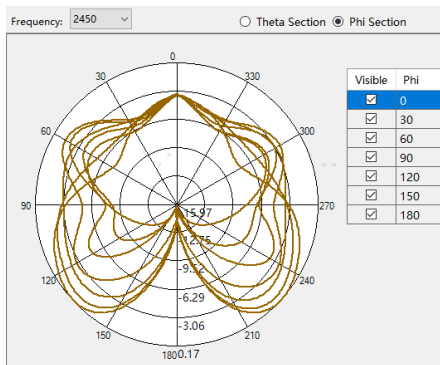
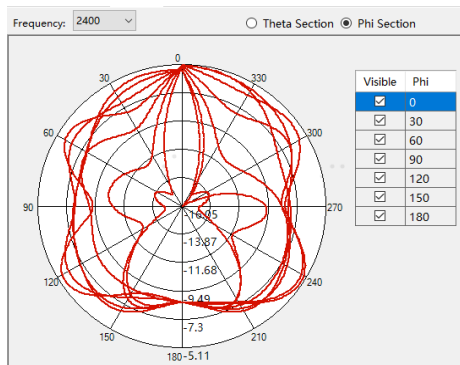
M Band

H Band

Theta Section



Phi Section



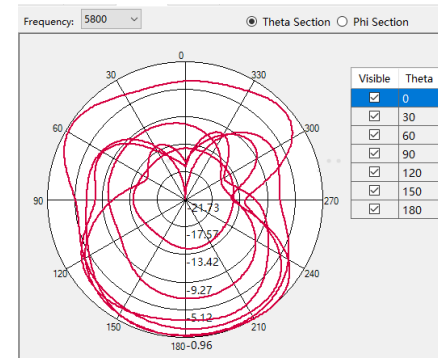
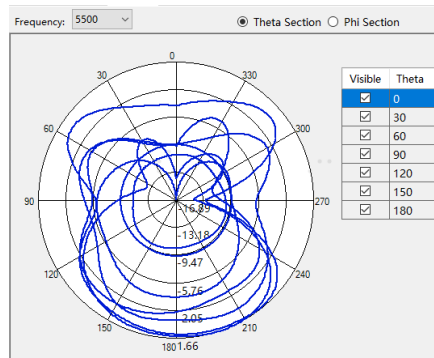
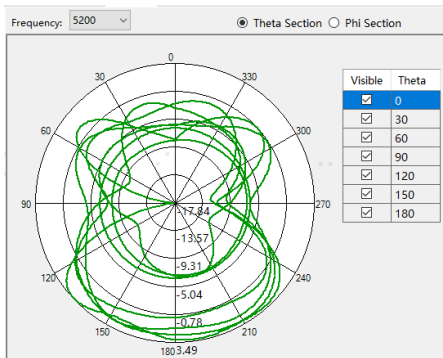
# ANT Directivity Pattern

WiFi0 5G: L Band

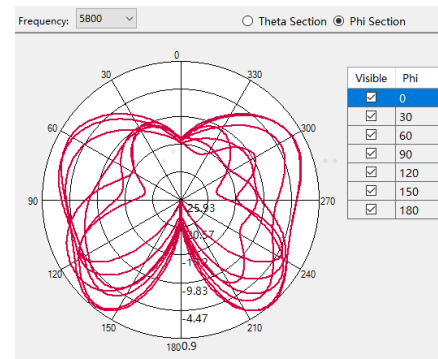
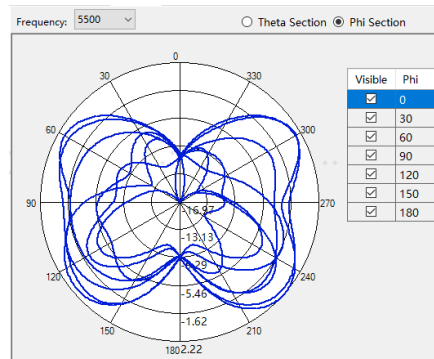
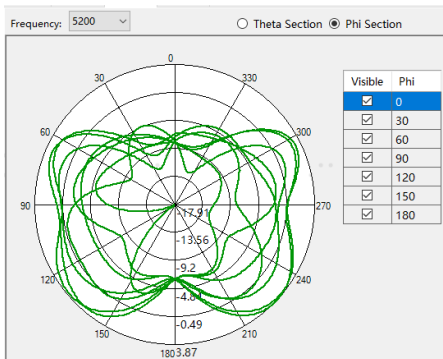
M Band

H Band

Theta Section



Phi Section



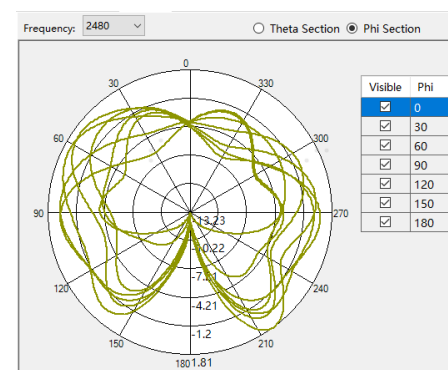
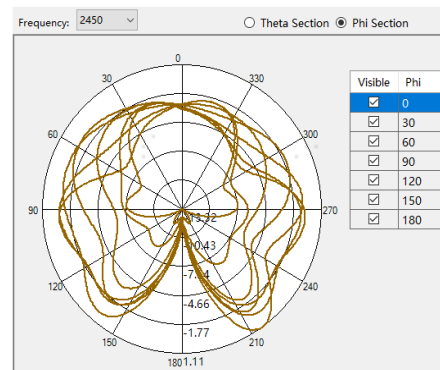
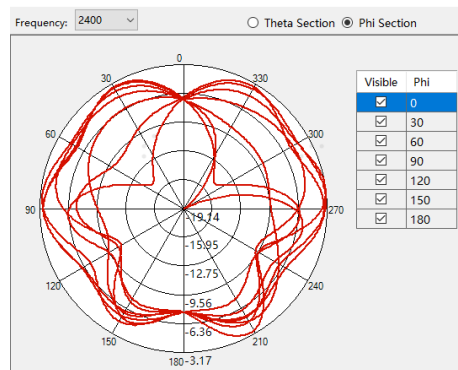
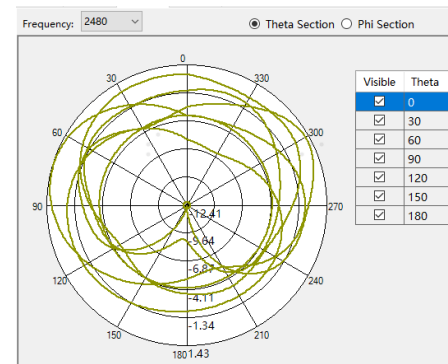
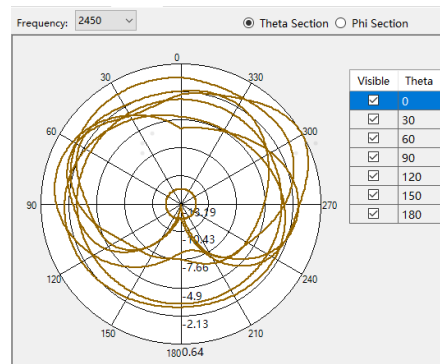
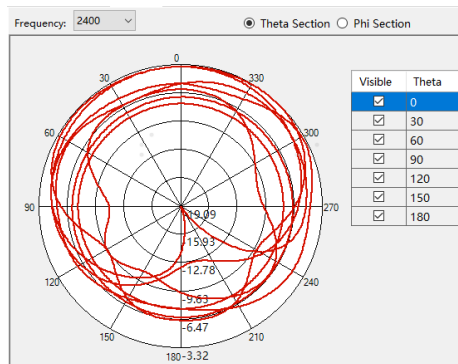
WiFi1 2.4G: L Band

M Band

H Band

Theta Section

Phi Section

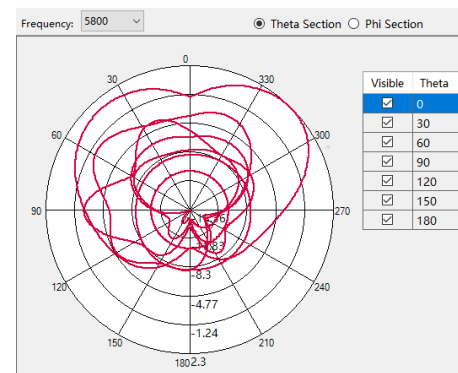
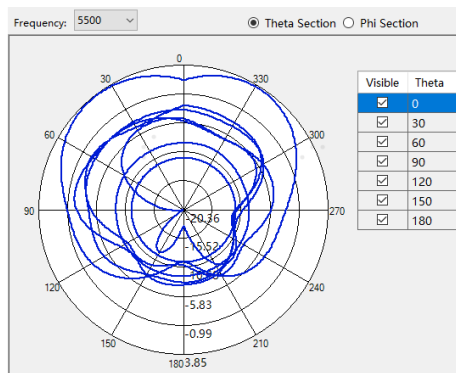
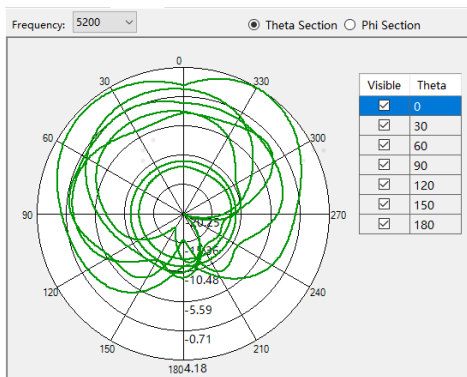


WiFi1 5G: L Band

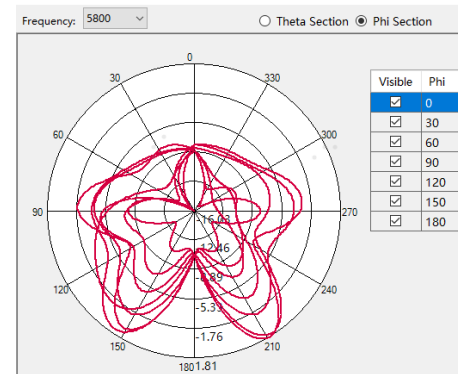
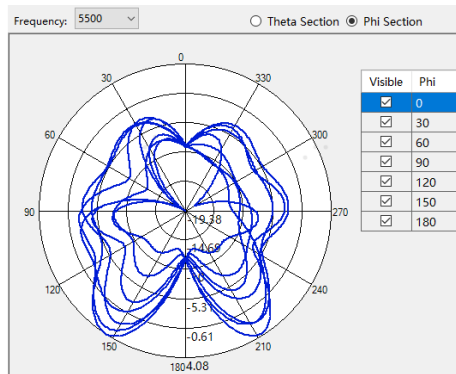
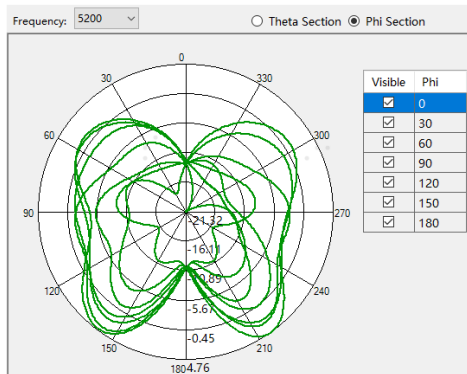
M Band

H Band

Theta Section



Phi Section

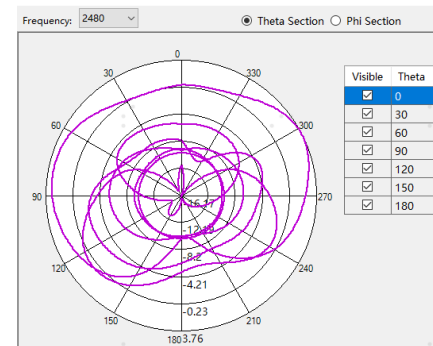
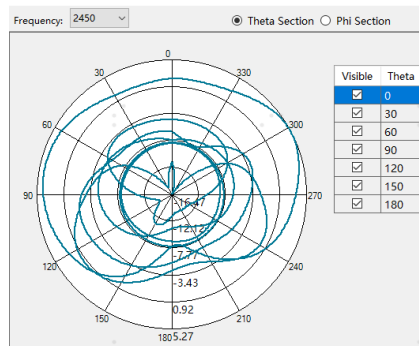
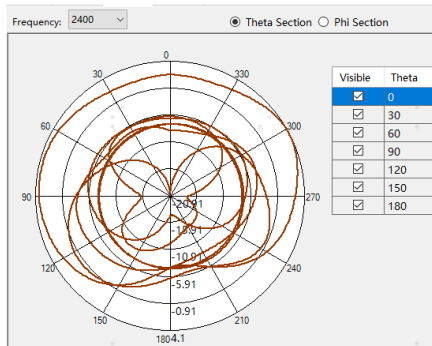


BT 2.4G: L Band

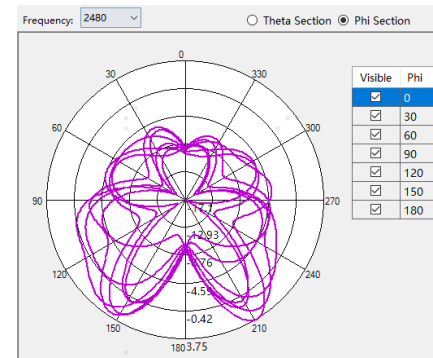
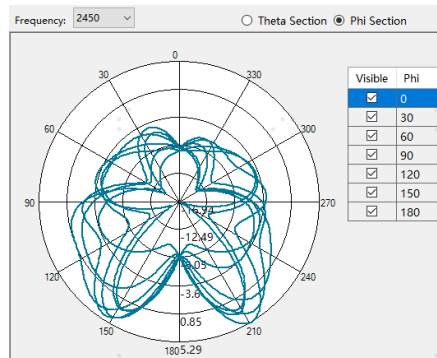
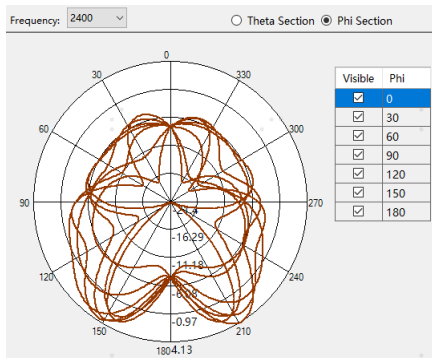
M Band

H Band

Theta Section

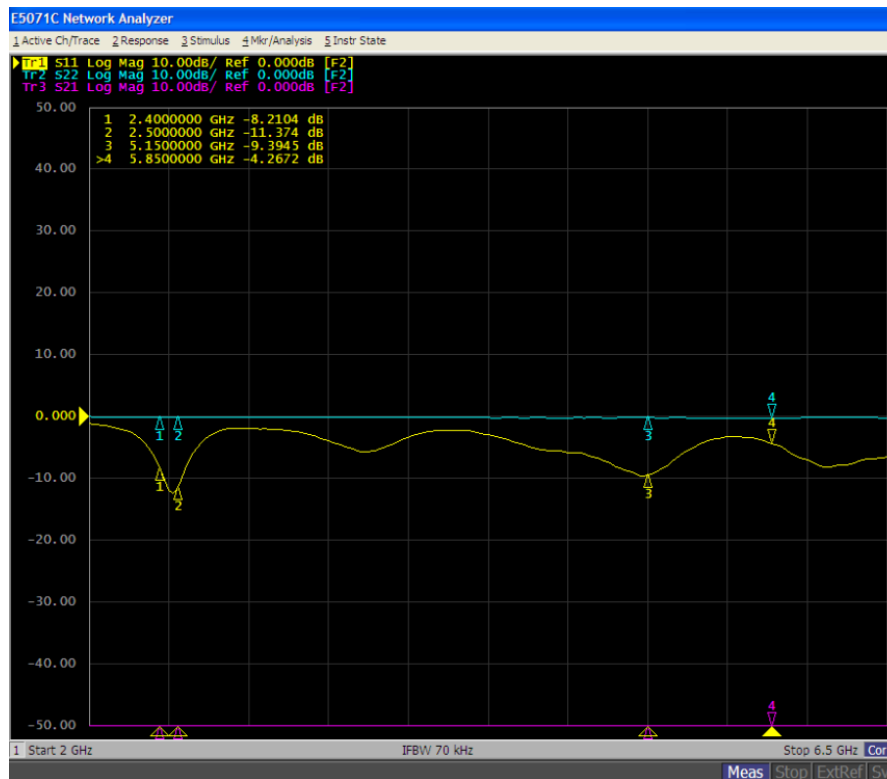


Phi Section

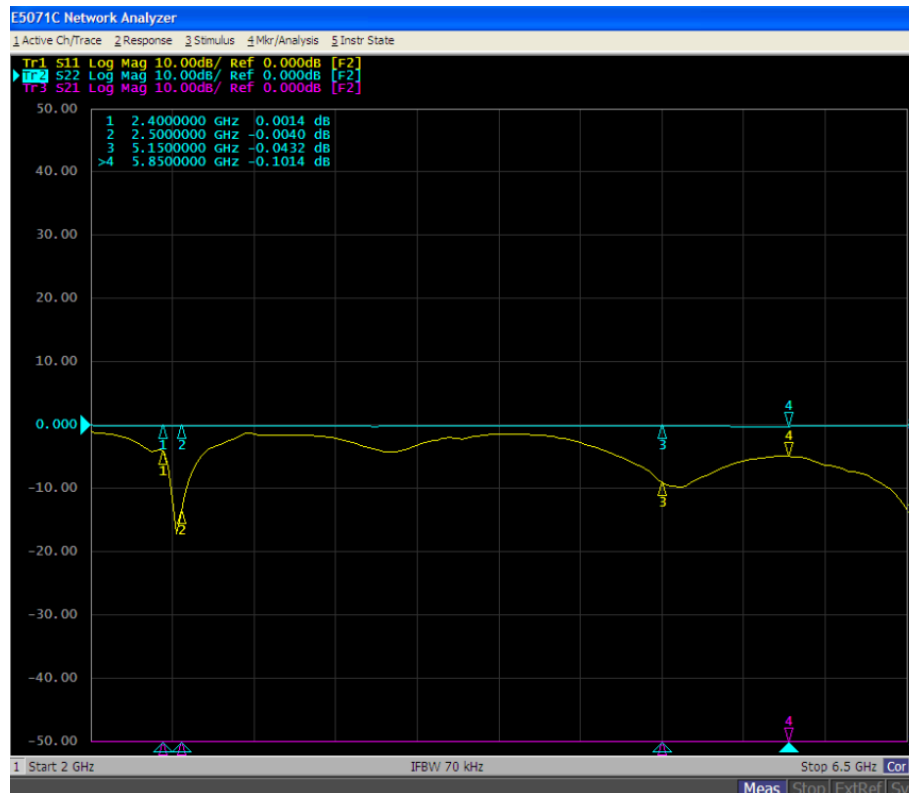




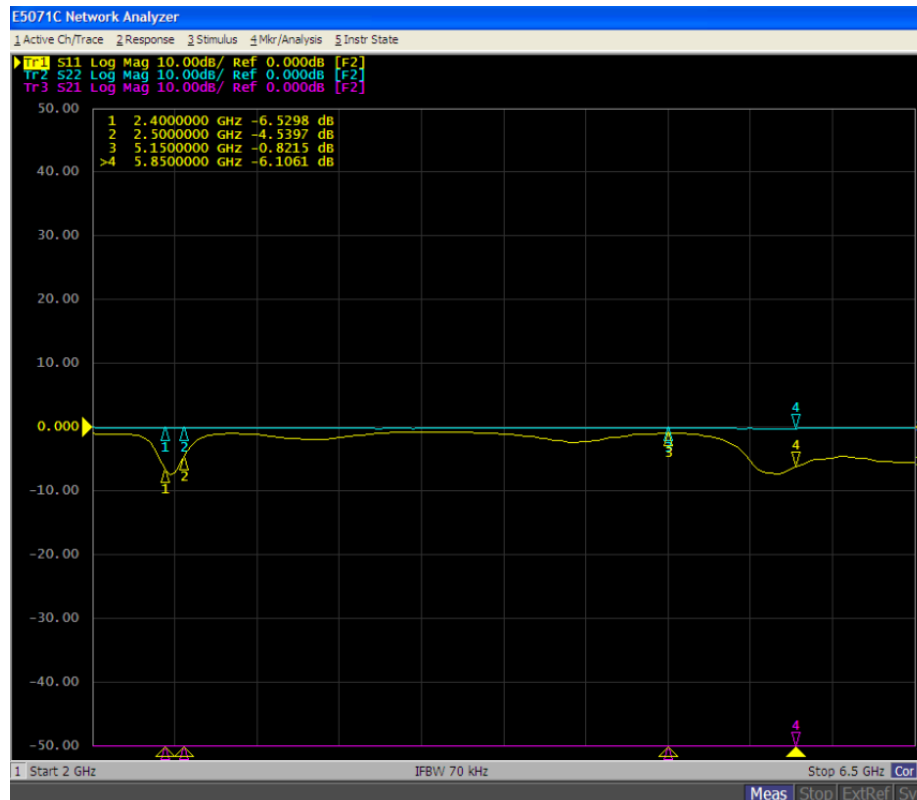
WiFi0 Antenna  
2.4-2.5GHz < -8.0dB  
5.15-5.85GHz < -4.0dB



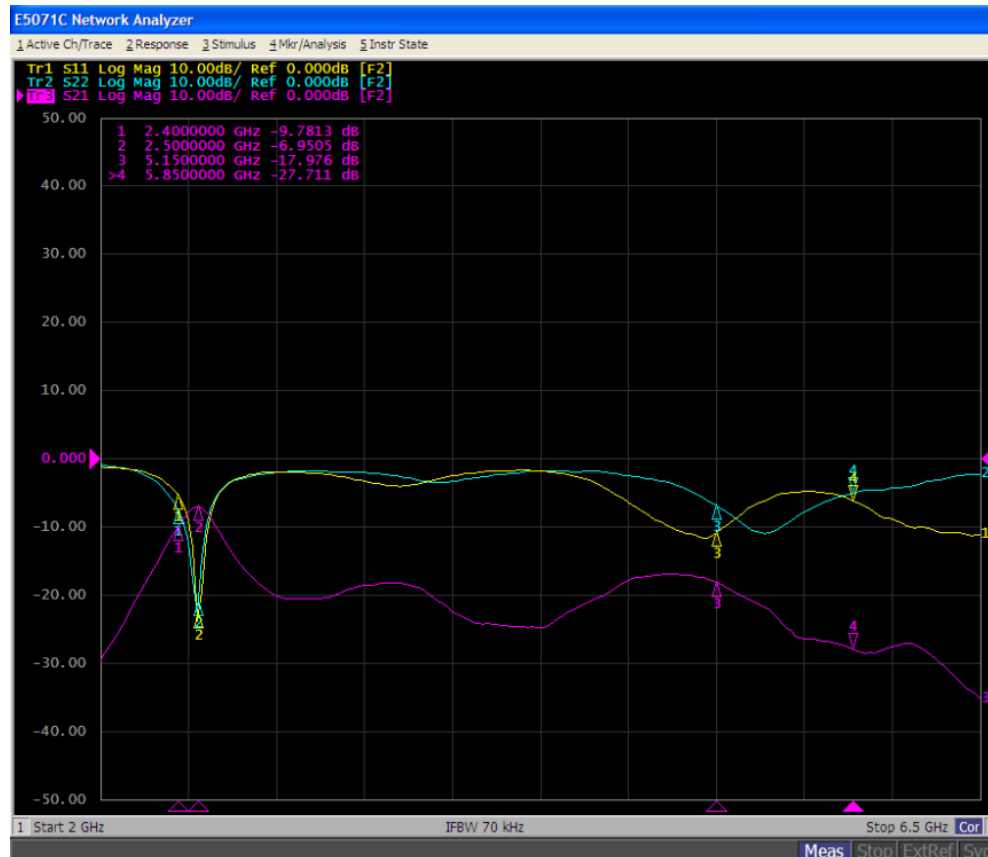
WiFi1 Antenna  
2.4-2.5GHz < -4.0dB  
5.15-5.85GHz < -5.0dB



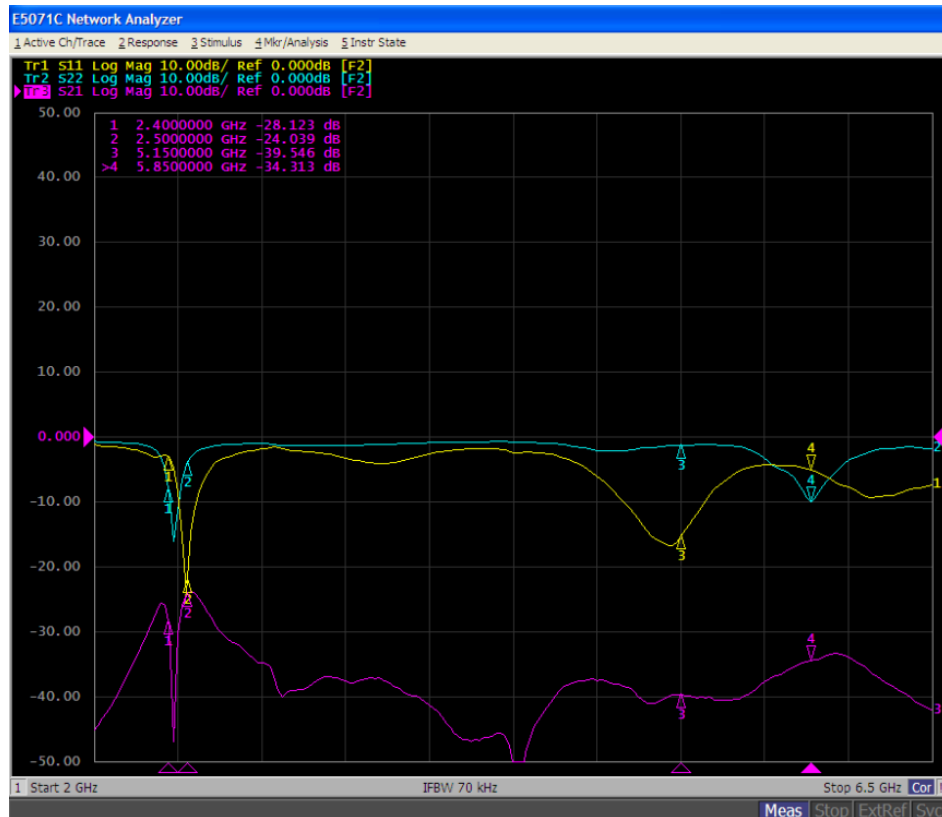
BT Antenna  
2.4-2.5GHz < -4.5dB



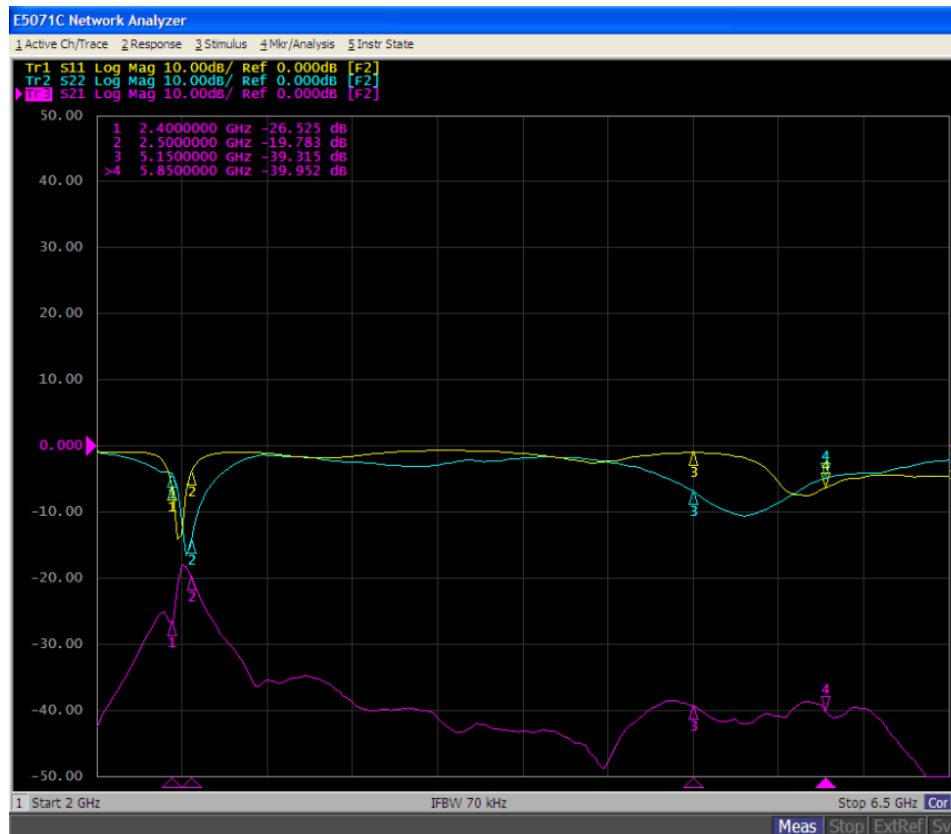
Isolation between WiFi0 and WiFi1  
2.4G: L:-9.8dB M:-8.0dB H:-7.0dB  
5G: L:-18dB M:-23dB H:-27dB



Isolation between WiFi and BT  
2.4G: L:-28dB M:-30dB H:-24dB



Isolation between WiFi1 and BT  
2.4G: L:-26dB M:-21dB H:-19dB



Qingdao Intelligent & Precise Electronics Co., Ltd.

## Address

Hisense Infor. Industrial Park  
Economic Technology Dev.  
District

## Contact information

dingshizhao 13370851021

Hisense



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