

Hisense



FIFA WORLD CUP
Qatar 2022

2022世界杯™官方赞助商



MWH542B

Antenna Test Report

2024.05.24

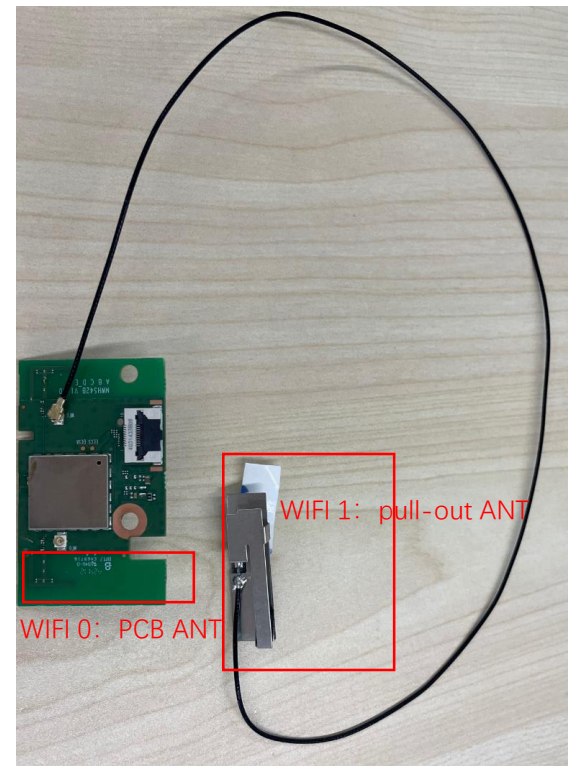
WiFi0	
Antenna Type	Inverted F-type PCB Antenna
Input impedance	50Ω
Frequency Band	2.4~2.5GHz/5.15~5.85GHz
Return Loss	2.4GHz~2.5GHz: $S_{11} \leq -10\text{dB}$ 5.15GHz~5.85GHz: $S_{11} \leq -10\text{dB}$.
Peak Gain	0.86dBi@2.4~2.5GHz , 2.03dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz $\geq 35\%$ (Avg) , 5.15~5.85GHz $\geq 38\%$ (Avg)

WiFi1	
Antenna Type	Planer Invert F-type Antenna Ipex-pull-out ANT
Input impedance	50Ω
Frequency Band	2.4~2.5GHz/5.15~5.85GHz
Return Loss	2.4GHz~2.5GHz: $S_{11} \leq -4.5\text{dB}$ 5.15GHz~5.85GHz: $S_{11} \leq -7.8\text{dB}$.
Peak Gain	0.88dBi@2.4~2.5GHz , 0.22dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz $\geq 35\%$ (Avg) , 5.15~5.85GHz $\geq 35\%$ (Avg)

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

Address: Building 1, No. 218 Qianwangang Road,
Qingdao Economic and Technological Development Zone, Shandong Province

Contact: Zhijinhui zhajinhui@hisense.com



WiFi0	CH	Gain/dBi	Efficiency/%
2.4G	L	0.86	31
	M	0.64	40
	H	-0.45	40
5G	L	2.03	42
	M	0.59	40
	H	-1.01	38

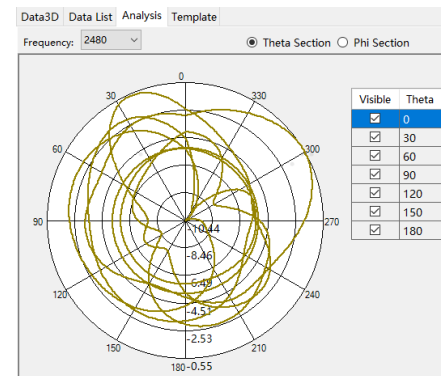
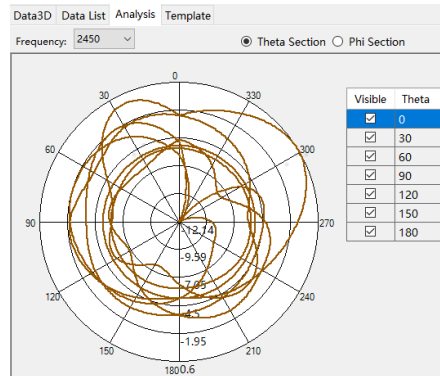
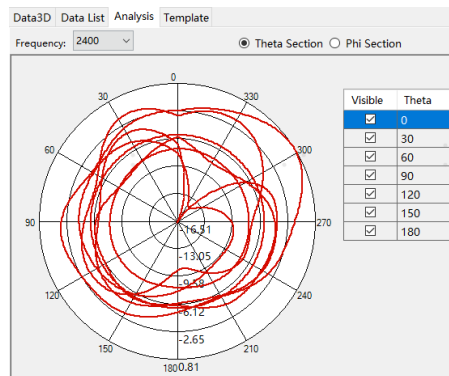
WiFi1	CH	Gain/dBi	Efficiency/%
2.4G	L	0.88	31
	M	0.81	38
	H	0.8	35
5G	L	0.22	55
	M	-1.38	50
	H	-2.16	45

WiFi0 2.4G: L Band

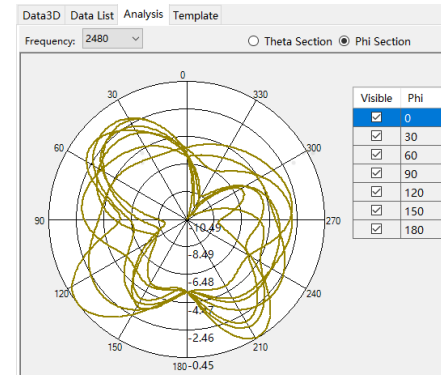
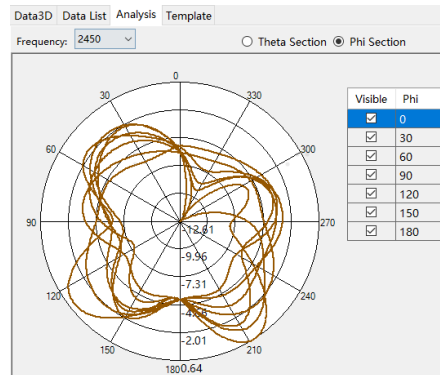
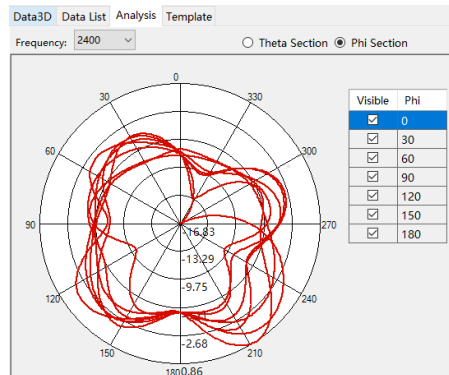
M Band

H Band

Theta Section



Phi Section



ANT Directivity Pattern

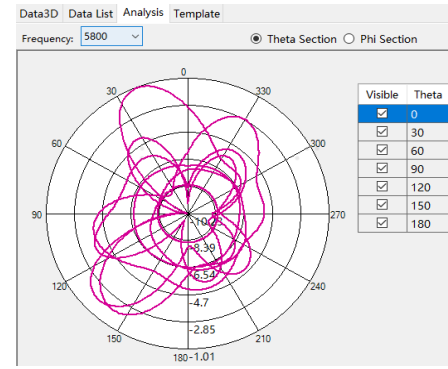
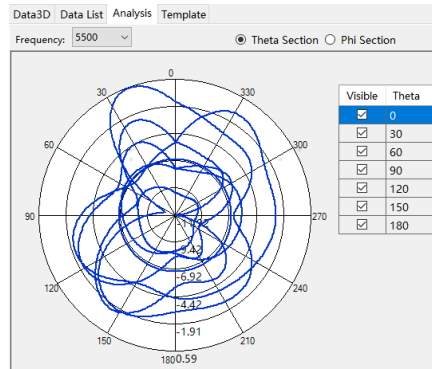
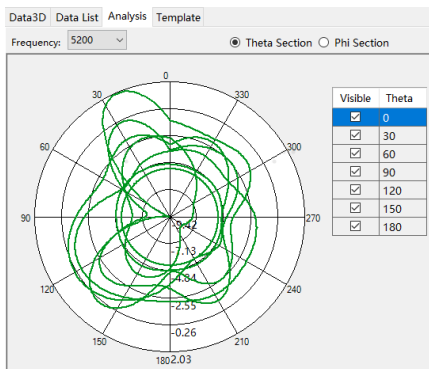
WiFi0 5G:

L Band

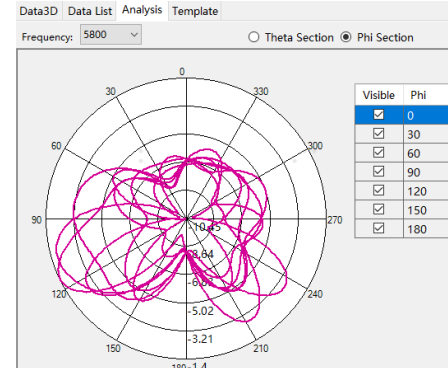
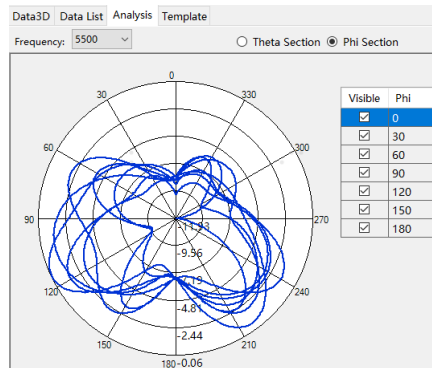
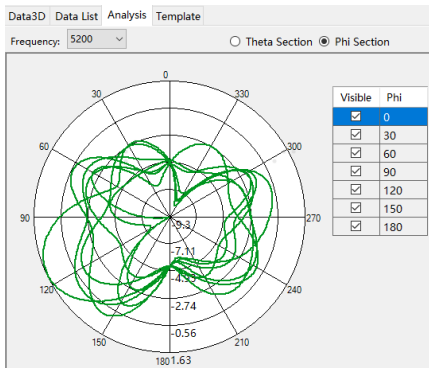
M Band

H Band

Theta Section



Phi Section



ANT Directivity Pattern

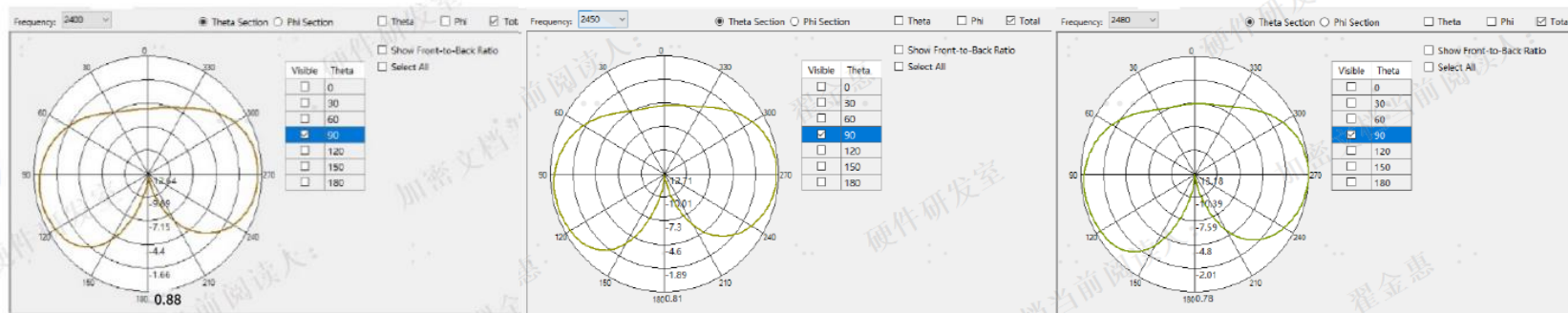
Ipex Pullout ant

2.4G : L Band

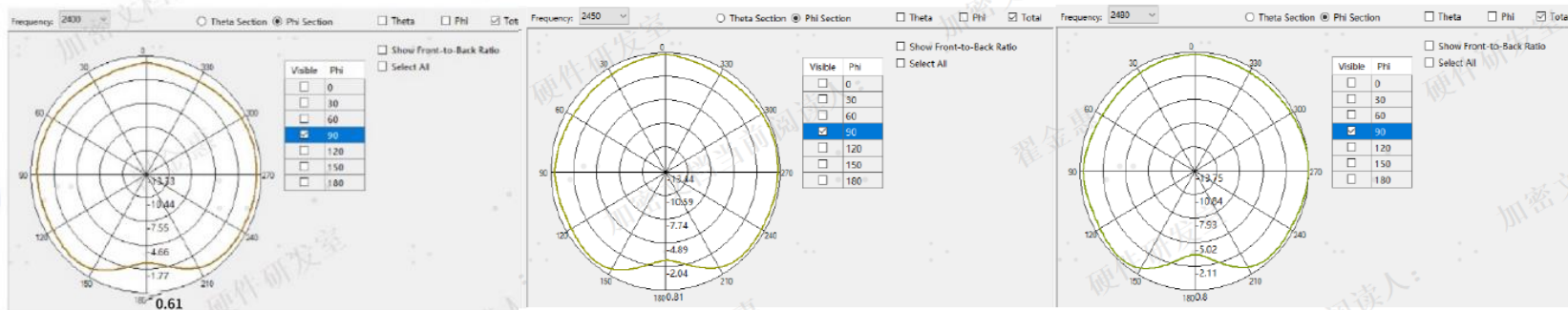
M Band

H Band

Theta
Section



Phi
Section



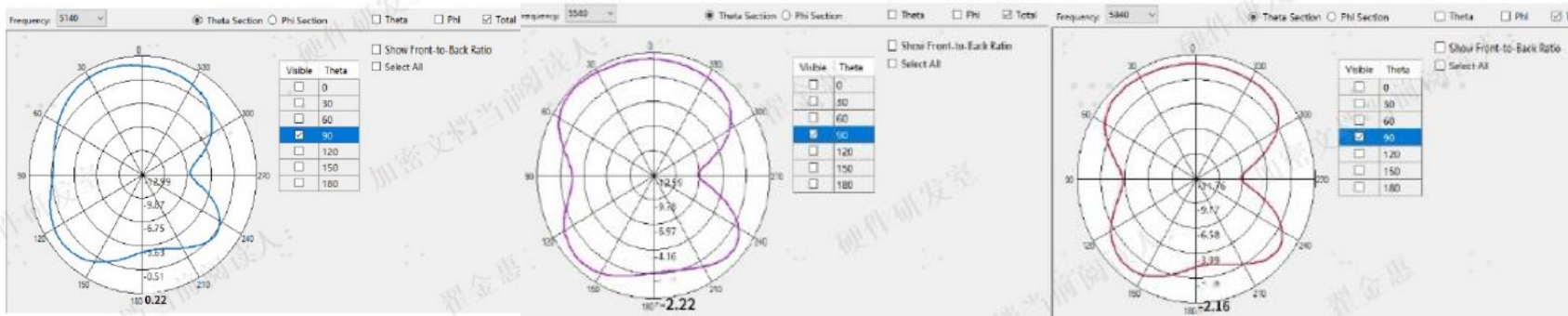
Ipex Pullout ant

5G : L Band

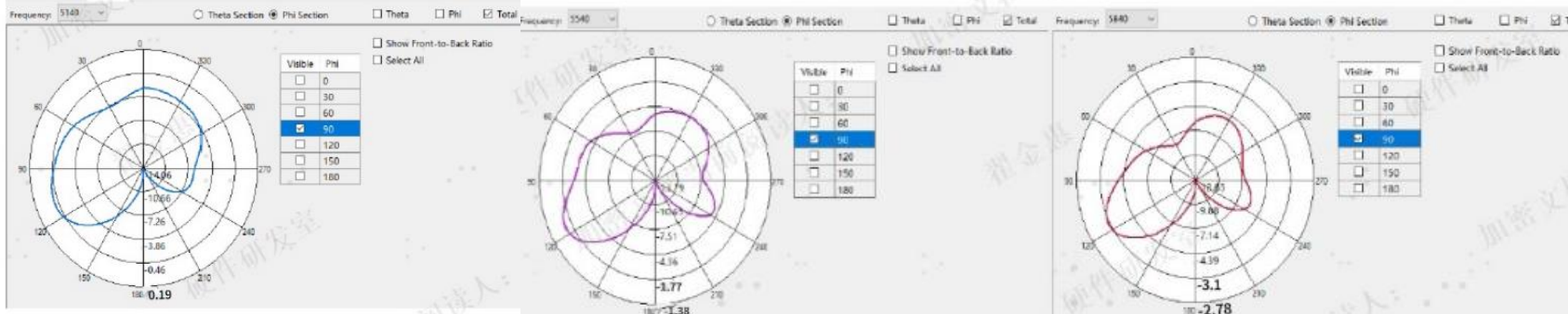
M Band

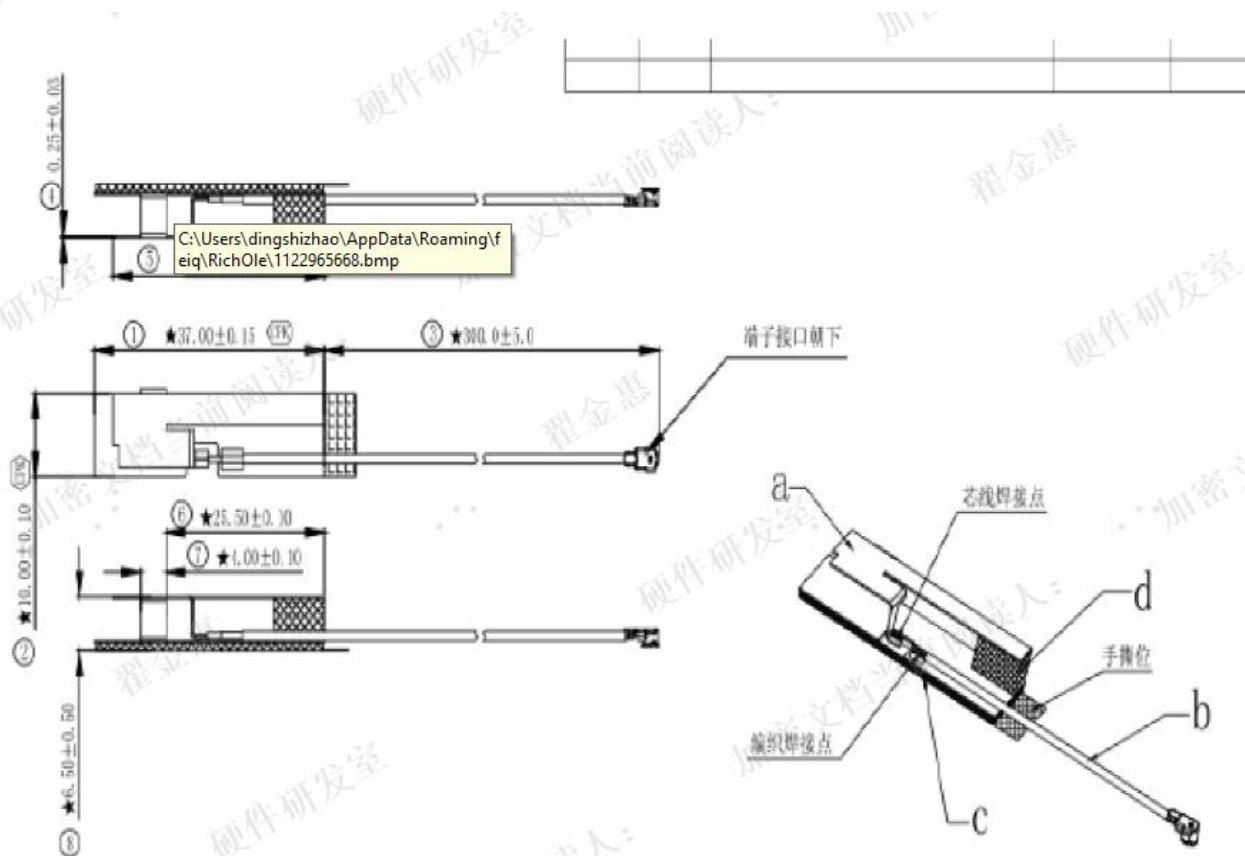
H Band

Theta Section



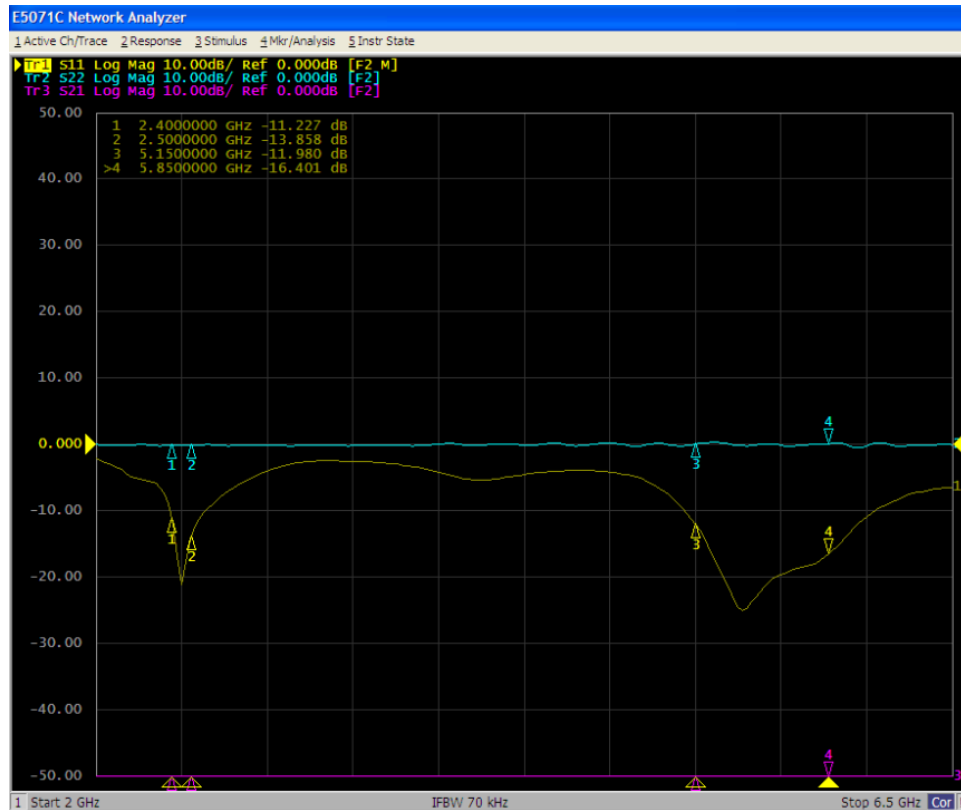
Phi Section



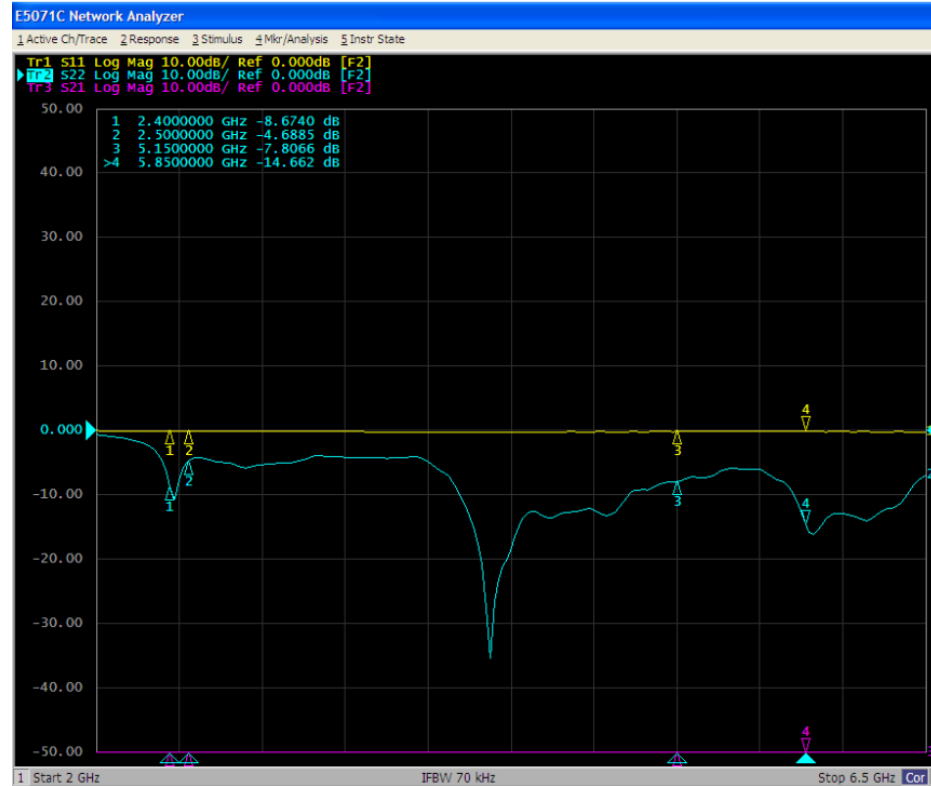


No	Size (mm)
1	37
2	10
3	300
4	0.25
5	34
6	25
7	4
8	6

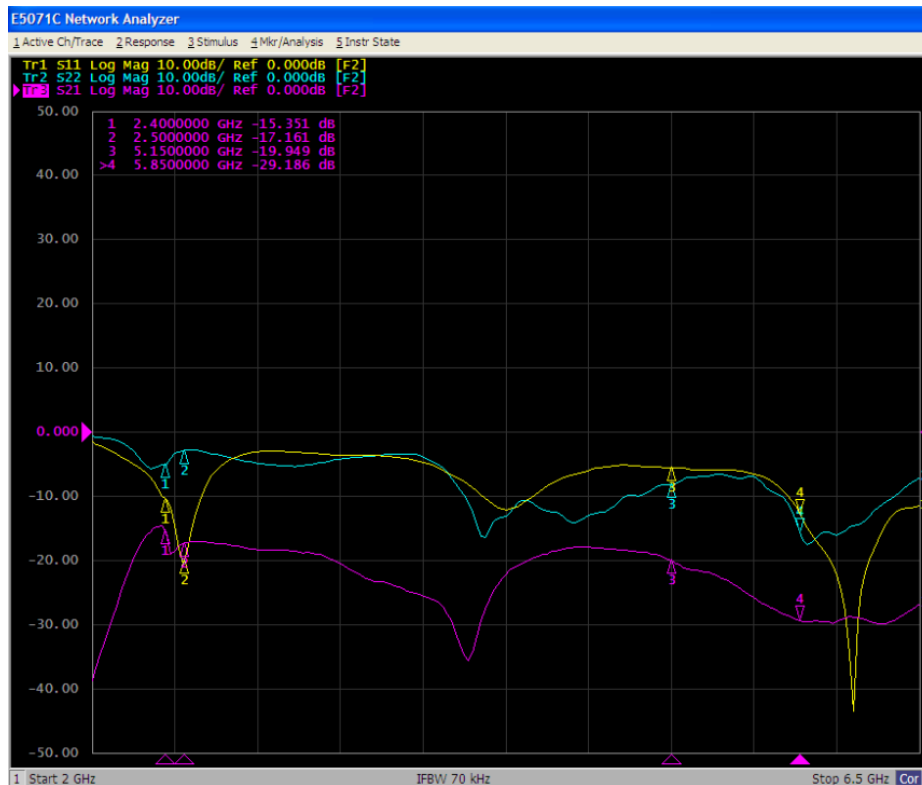
WiFi0 Antenna
2.4-2.5GHz < -10dB
5.15-5.85GHz < -10dB



WiFi1 Antenna
2.4-2.5GHz < -4.5dB
5.15-5.85GHz < -7.8dB



Isolation between WiFi0 and WiFi1
2.4G: L:-15dB M:-19dB H:-15dB
5G: L:-20dB M:-26dB H:-29dB



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THANKS