

Hisense



FIFA WORLD CUP
Qatar 2022

2022世界杯™官方赞助商



MWH516B.01

Antenna Specification

2023.06.13

WiFi0	
Antenna Type	Ceramic Antenna 9mm*2mm
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: $S_{11} \leq -8\text{dB}$.
Peak Gain	0.3dBi@2.4~2.5GHz , 0.5dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz $\geq 53\%$ (Avg) , 5.15~5.85GHz $\geq 55\%$ (Avg)

WiFi1	
Antenna Type	Ceramic Antenna 9mm*2mm
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: $S_{11} \leq -8\text{dB}$.
Peak Gain	0.2dBi@2.4~2.5GHz , 0.45dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz $\geq 47\%$ (Avg) , 5.15~5.85GHz $\geq 57\%$ (Avg)

BT	
Antenna Type	Ceramic Antenna 9mm*2mm
Input impedance	50Ω
Frequency Band	2.4~2.5GHz
Return Loss	$S_{11} \leq -7\text{dB}$
Peak Gain	-0.5dBi
Efficiency	$\geq 30\%$ (Avg)



WIFI6

2.4G

Freq	Efficiency_dB	Efficiency_Pcent	Gain-dBi
2400	-3.71	42.56	0.18
2420	-3.55	44.13	0.21
2440	-3.4	45.69	0.27
2460	-3.21	47.75	0.3
2480	-3.37	46.03	0.25
2500	-3.42	45.52	0.22

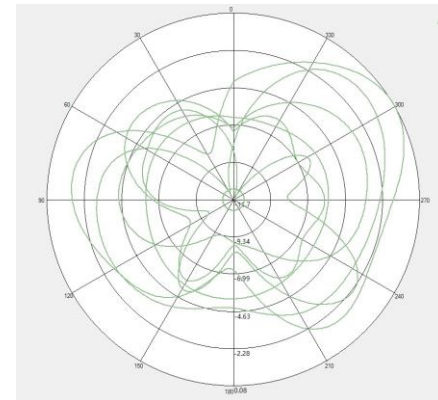
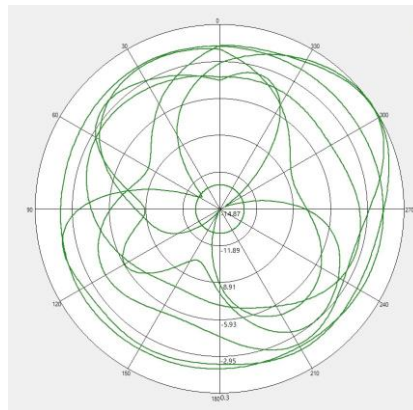
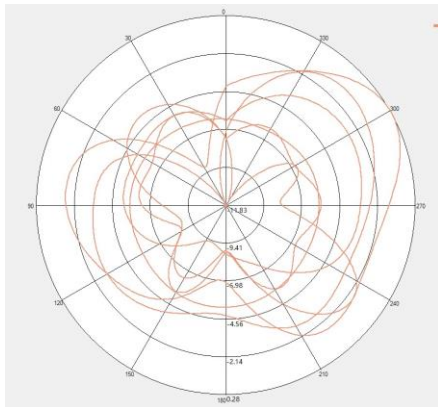
5G

Freq	Efficiency_dB	Efficiency_Pcent	Gain-dBi
5150	-2.41	57.46	0.38
5210	-2.67	54.08	0.36
5270	-2.53	55.88	0.38
5330	-2.81	52.38	0.44
5390	-2.44	56.97	0.41
5450	-2.61	54.79	0.42
5510	-2.8	52.44	0.44
5570	-2.49	56.39	0.5
5630	-2.54	55.76	0.46
5690	-2.9	51.24	0.37
5750	-2.85	51.88	0.42
5810	-2.94	50.84	0.32
5850	-2.98	50.32	0.36

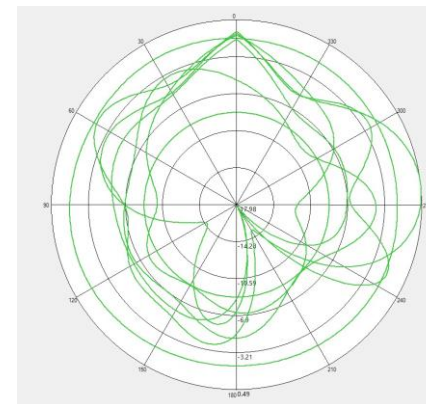
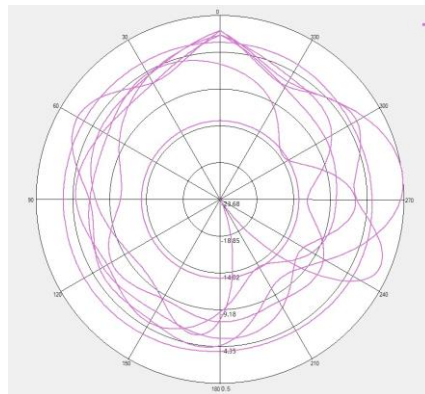
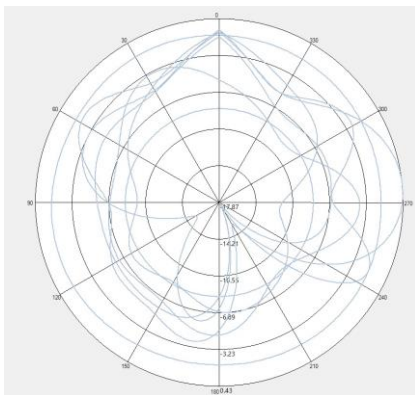
ANT Directivity Pattern

WIFI6

2.4G



5G



WIFI1

2.4G

Freq	Efficiency_dB	Efficiency_Percent	Gain-dBi
2400	-2.53	55.84	0.12
2420	-2.37	57.98	0.11
2440	-2.19	60.44	0.15
2460	-2.44	57.03	0.2
2480	-2.47	56.59	0.18
2500	-2.93	50.93	0.16

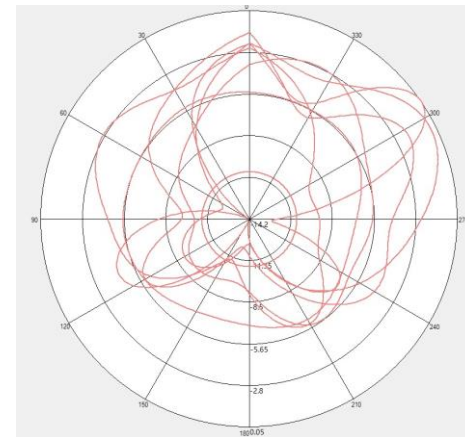
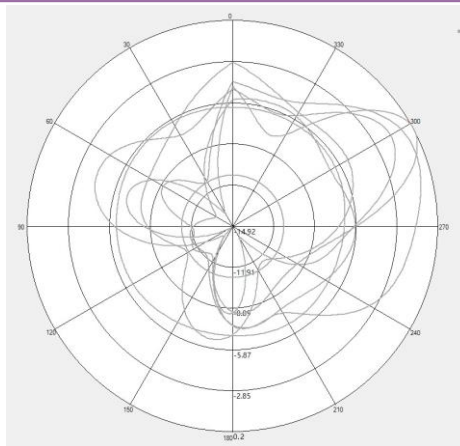
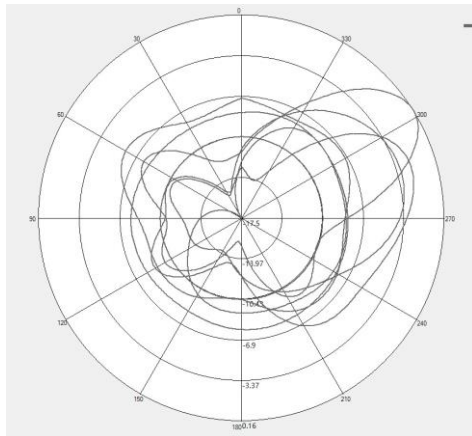
5G

Freq	Efficiency_dB	Efficiency_Percent	Gain-dBi
5150	-2.19	60.43	0.3
5210	-1.99	63.29	0.36
5270	-2.23	59.79	0.37
5330	-2.18	60.49	0.39
5390	-2.31	58.8	0.41
5450	-2.45	56.83	0.45
5510	-2.31	58.8	0.39
5570	-2.42	57.22	0.37
5630	-2.75	53.06	0.44
5690	-2.63	54.59	0.37
5750	-2.68	53.93	0.34
5810	-2.82	52.23	0.33
5850	-2.79	52.55	0.31

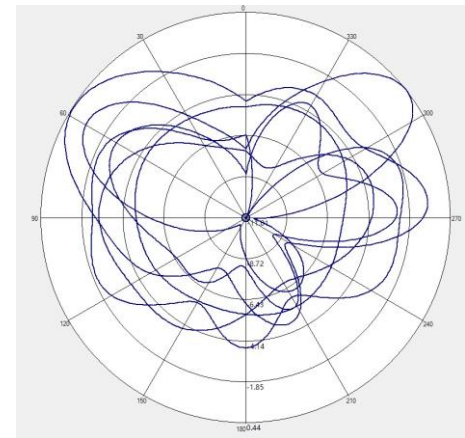
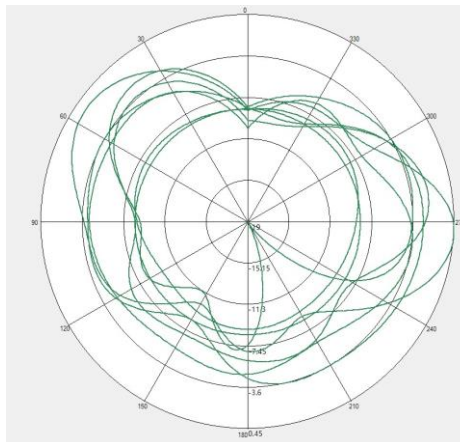
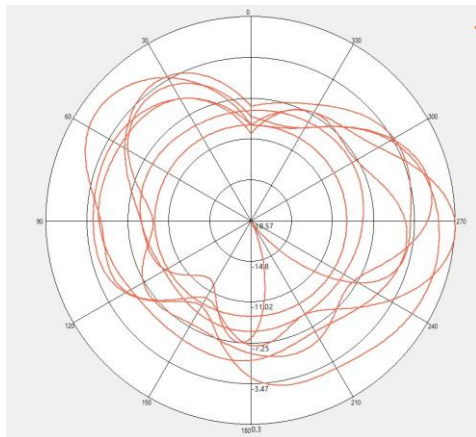
ANT Efficiency

WIFI1

2.4G



5G

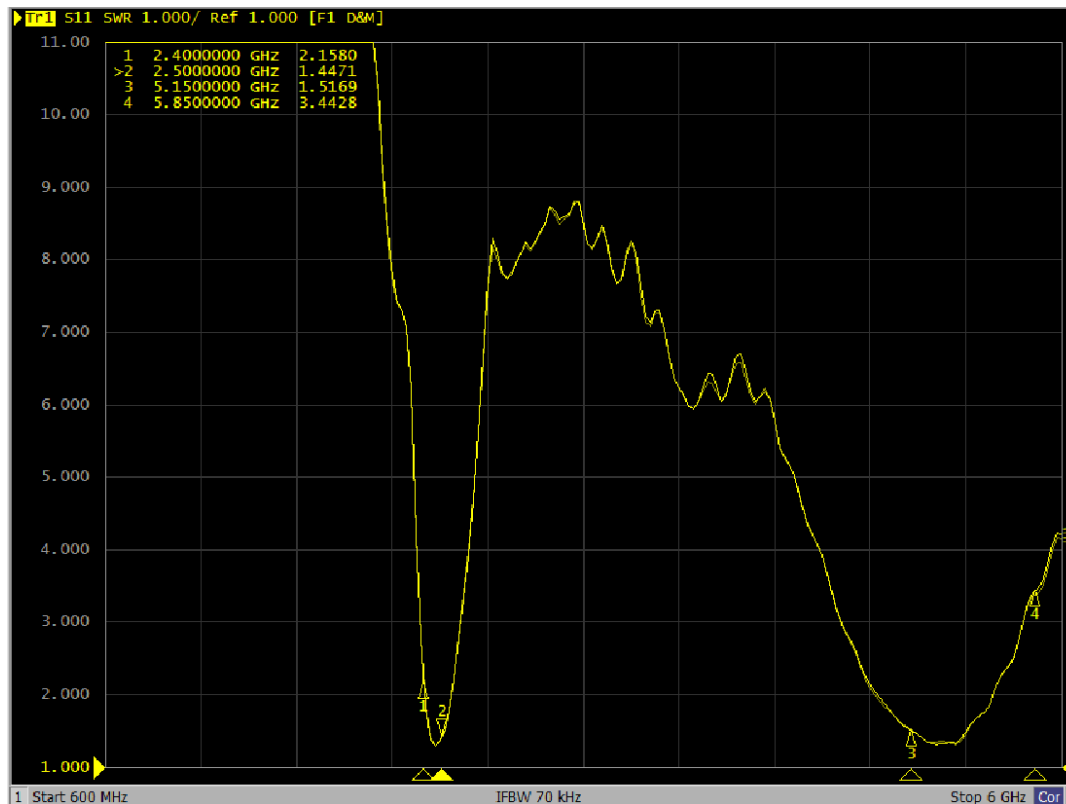


BT

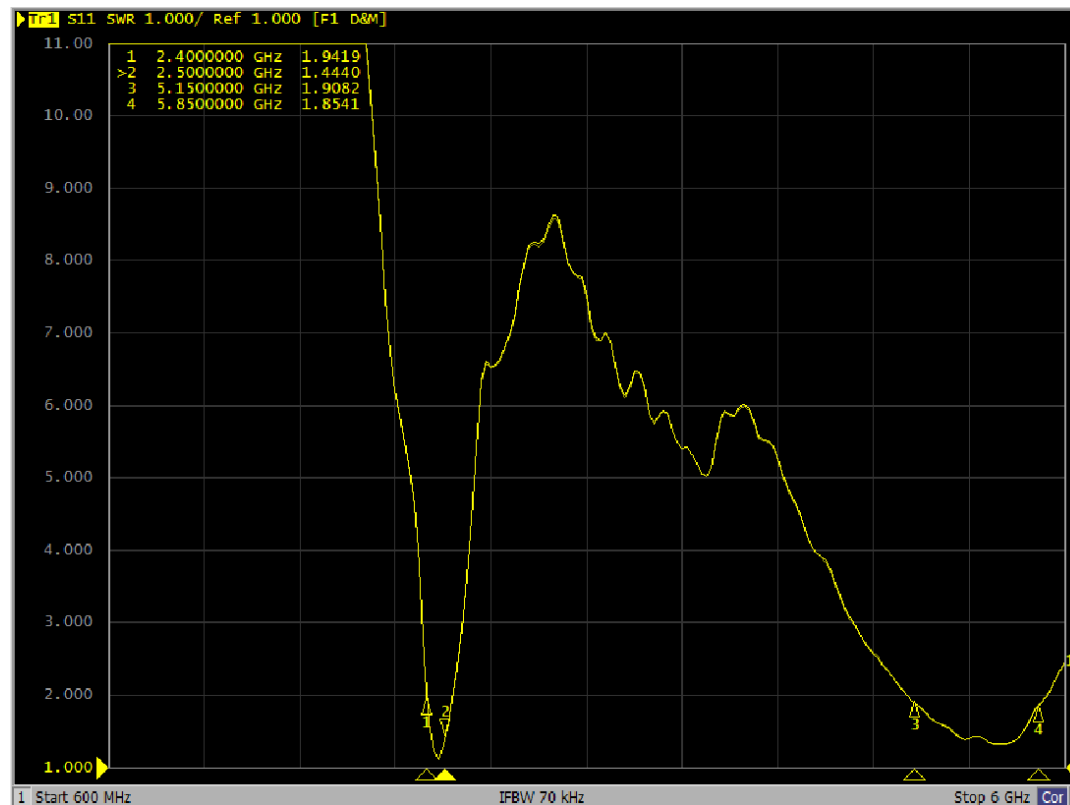
BT

Freq	Efficiency_dB	Efficiency_Percent	Gain_dBi
2400	-4.43	36.08	-0.52
2420	-4.07	39.22	-0.61
2440	-3.88	40.97	-0.56
2460	-3.69	42.78	-0.5
2480	-3.85	41.25	-0.53
2500	-3.9	40.76	-0.51

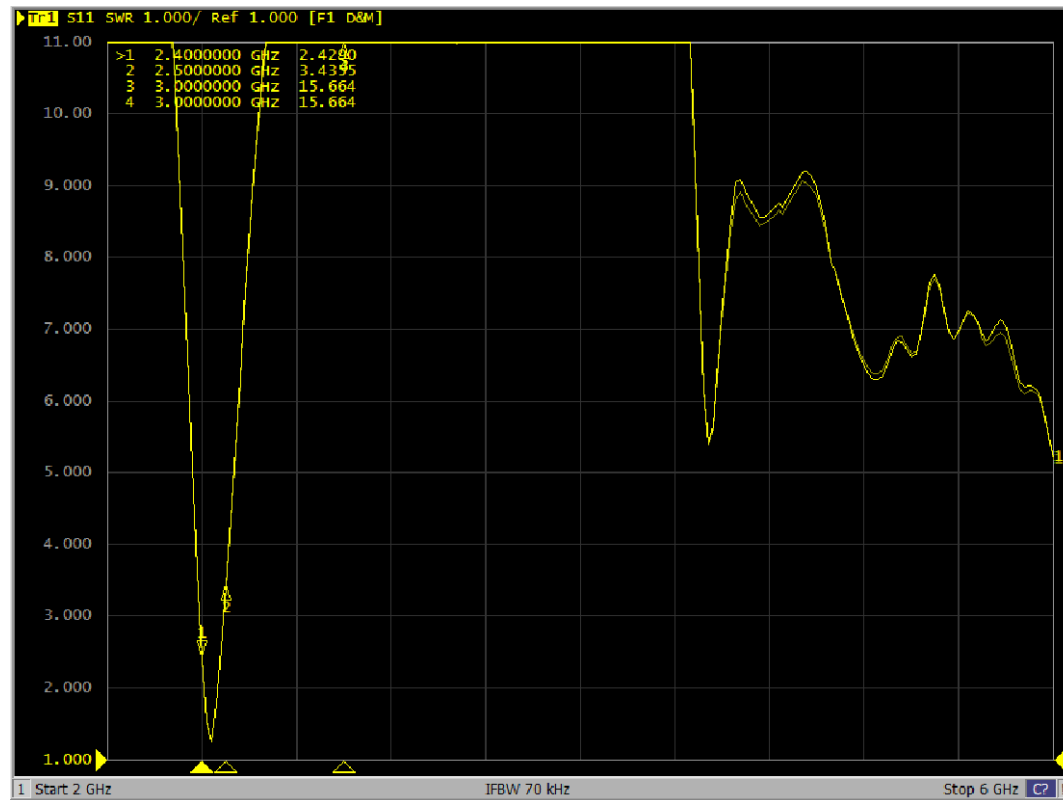
WiFi 0 Antenna
2.4-2.5GHz < 2.2
5.15-5.85GHz < 3.5



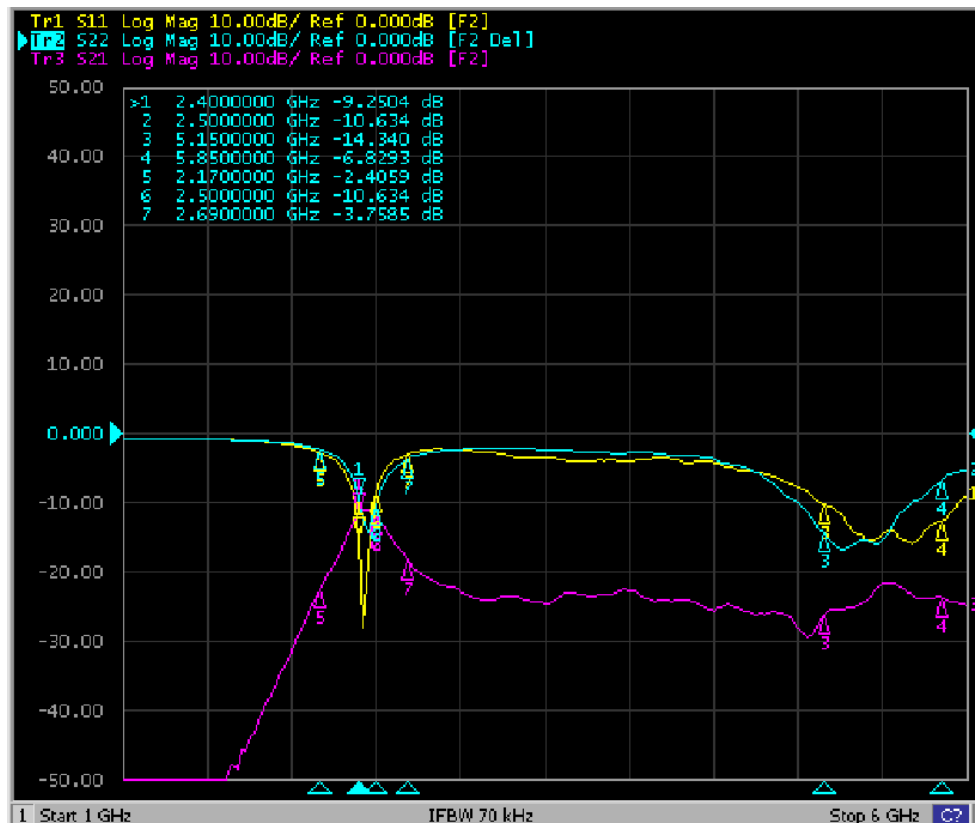
WiFi 1 Antenna
2.4-2.5GHz < 2.0
5.15-5.85GHz < 2.0



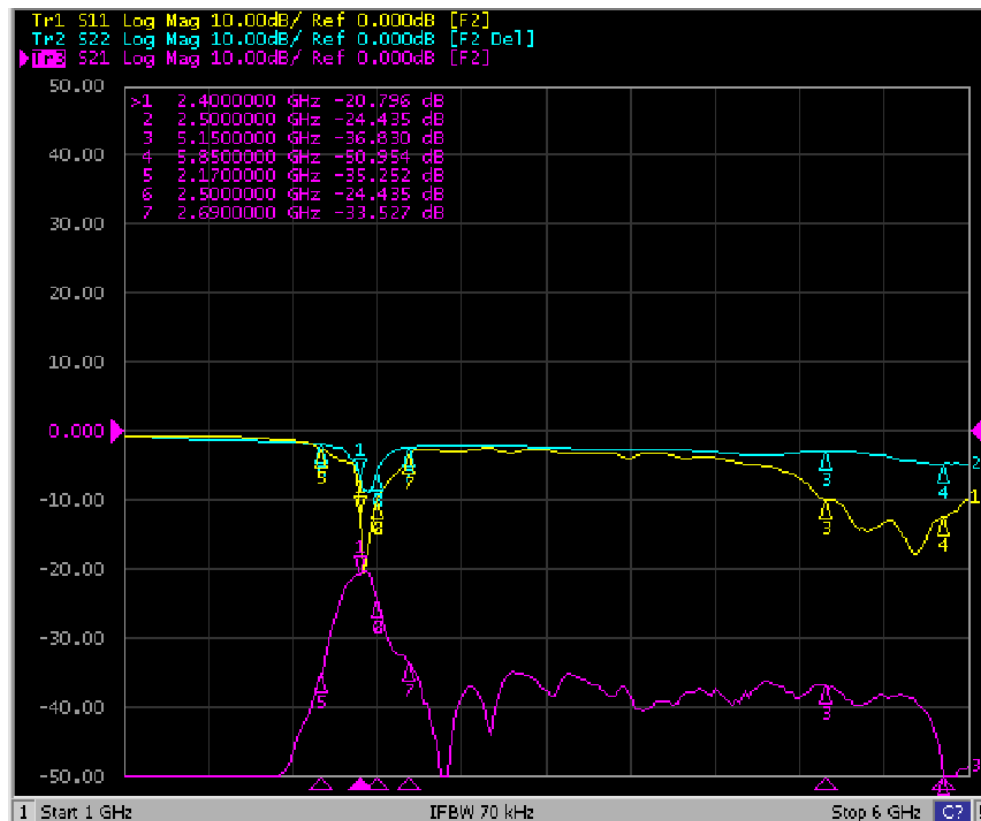
BT Antenna
2.4-2.5GHz<3.3



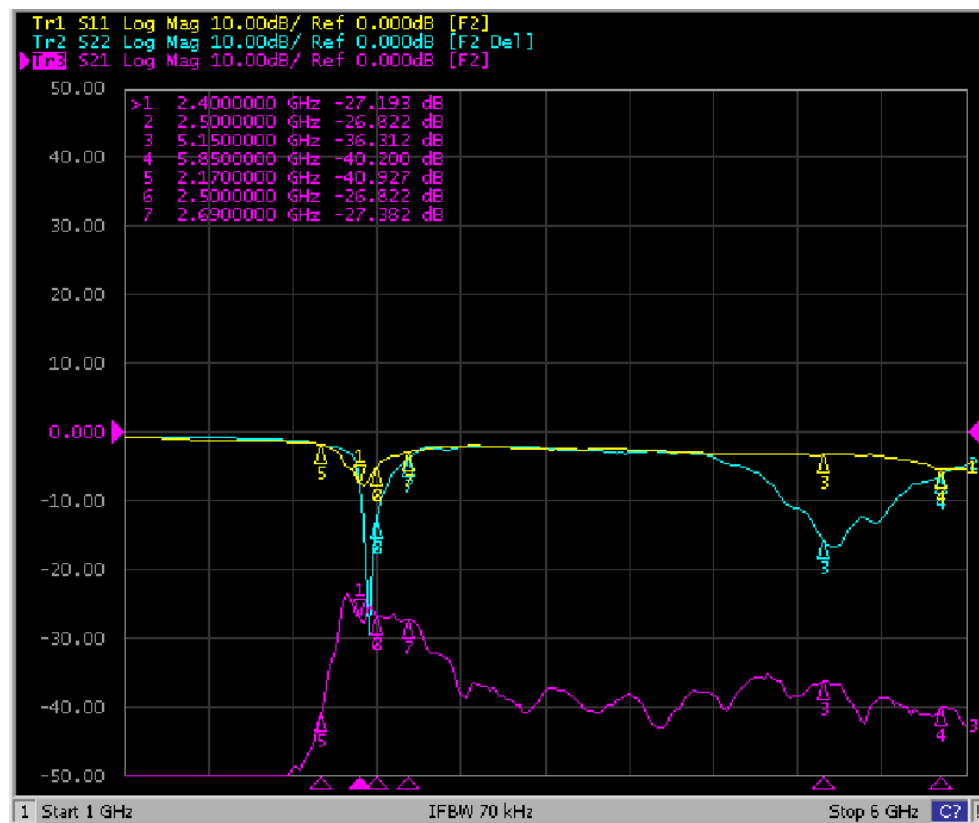
Isolation between WiFi0 and WiFi1
2.4G: L:-12dB M:-13dB H:-14dB
5G: L:-26dB M:-25dB H:-23dB



Isolation between WiFi0 and BT
2.4G: L:-20dB M:-23dB H:-25dB



Isolation between WiFi1 and BT
2.4G: L:-27dB M:-26dB H:-25dB



Manufacturer

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