

Hisense



FIFA WORLD CUP
Qatar 2022

2022世界杯™官方赞助商



MWH538B

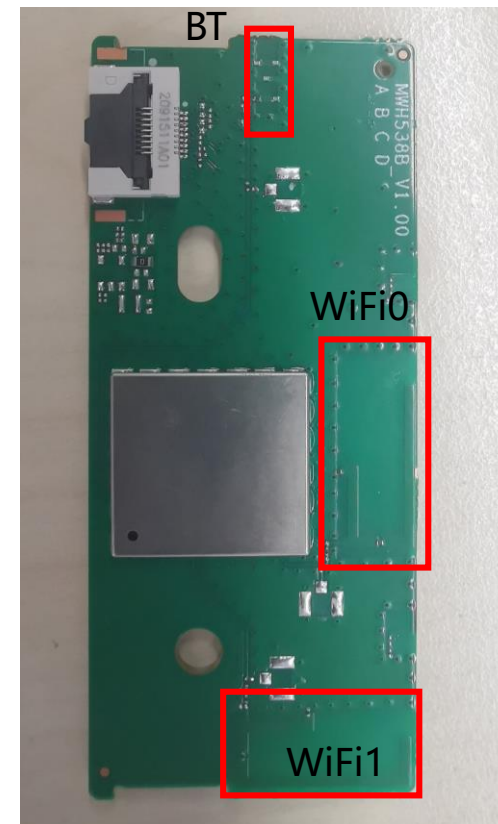
Antenna Test Report

2023.09.26

| WiFi0 | |
|-----------------|--|
| Antenna Type | IFA 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: $S_{11} \leq -5\text{dB}$. |
| Peak Gain | 1.44dBi@2.4~2.5GHz , 2.98dBi@5.15~5.85GHz |
| Efficiency | 2.4~2.5GHz $\geq 50\%$ (Avg) , 5.15~5.85GHz $\geq 50\%$ (Avg) |

| WiFi1 | |
|-----------------|--|
| Antenna Type | IFA 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: $S_{11} \leq -5\text{dB}$. |
| Peak Gain | -0.45dBi@2.4~2.5GHz , 2.35dBi@5.15~5.85GHz |
| Efficiency | 2.4~2.5GHz $\geq 45\%$ (Avg) , 5.15~5.85GHz $\geq 45\%$ (Avg) |

| BT | |
|-----------------|---------------------------|
| Antenna Type | Slot Antenna |
| Input impedance | 50Ω |
| Frequency Band | 2.4~2.5GHz |
| Return Loss | $S_{11} \leq -3\text{dB}$ |
| Peak Gain | 0.82dBi |
| Efficiency | $\geq 25\%$ (Avg) |



| WiFi0 | CH | Gain/dBi | Efficiency/% |
|-------|----|----------|--------------|
| 2.4G | L | 1.44 | 53 |
| | M | -0.71 | 38 |
| | H | 0.96 | 60 |
| 5G | L | 1.96 | 50 |
| | M | 2.98 | 61 |
| | H | 1.38 | 43 |

| WiFi1 | CH | Gain/dBi | Efficiency/% |
|-------|----|----------|--------------|
| 2.4G | L | -0.45 | 37 |
| | M | -0.82 | 40 |
| | H | -0.99 | 50 |
| 5G | L | 2.35 | 50 |
| | M | 0.47 | 36 |
| | H | 1.76 | 46 |

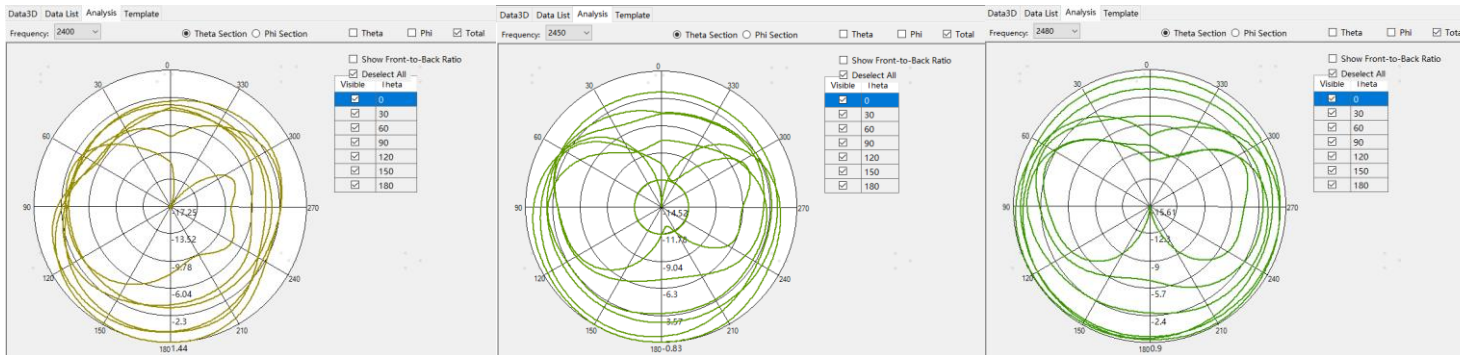
| BT | CH | Gain/dBi | Efficiency/% |
|------|----|----------|--------------|
| 2.4G | L | 0.82 | 38 |
| | M | -1.44 | 24 |
| | H | -3.11 | 16 |

WiFi0 2.4G: L Band

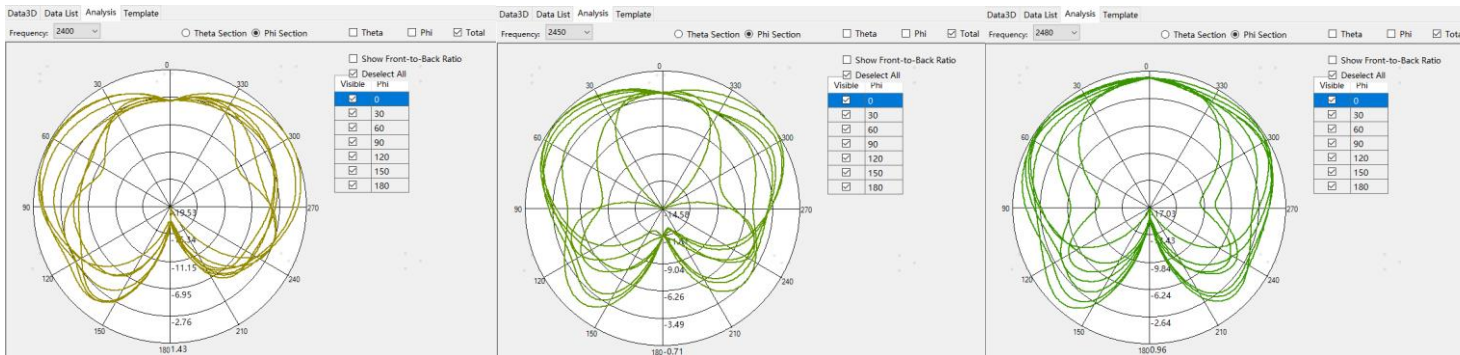
M Band

H Band

Theta
Section



Phi
Section



ANT Directivity Pattern

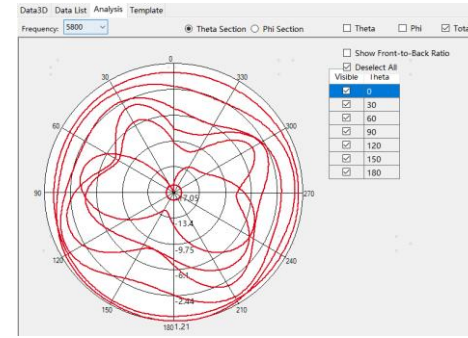
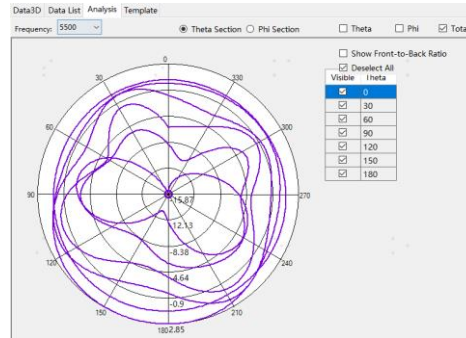
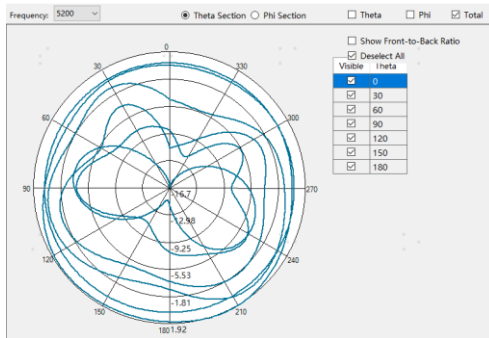
WiFi0 5G:

L Band

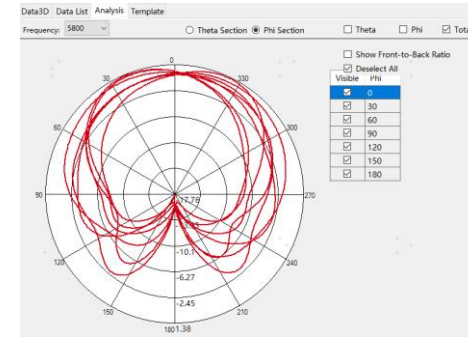
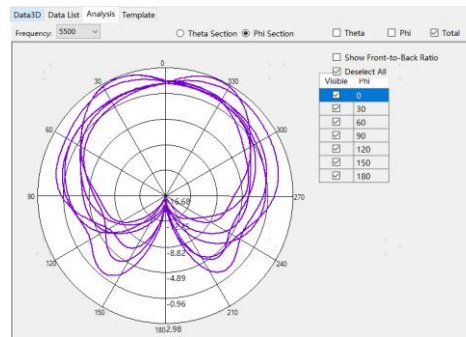
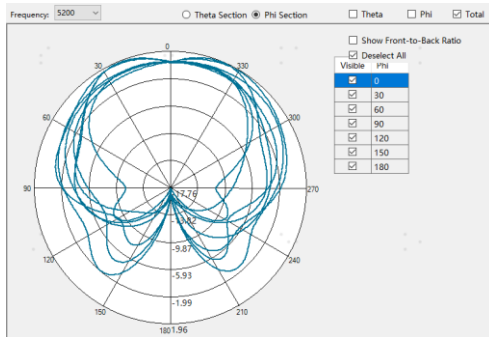
M Band

H Band

Theta Section



Phi Section



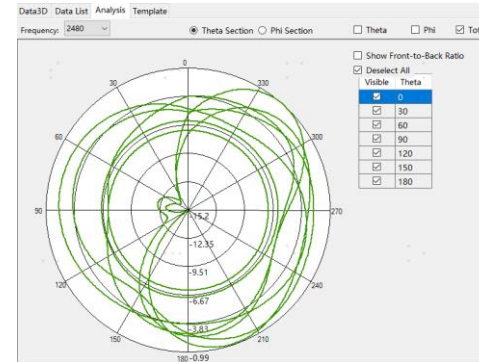
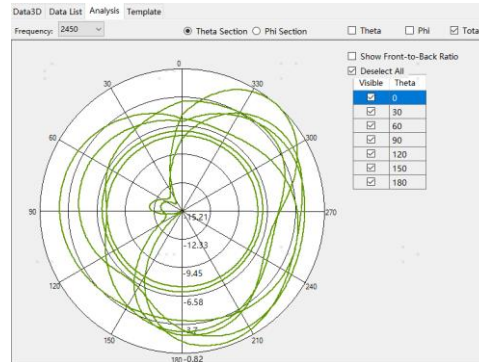
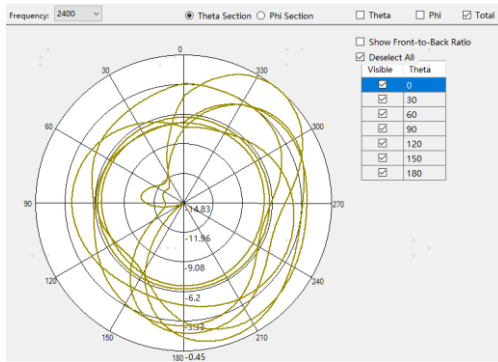
ANT Directivity Pattern

WiFi1 2.4G: L Band

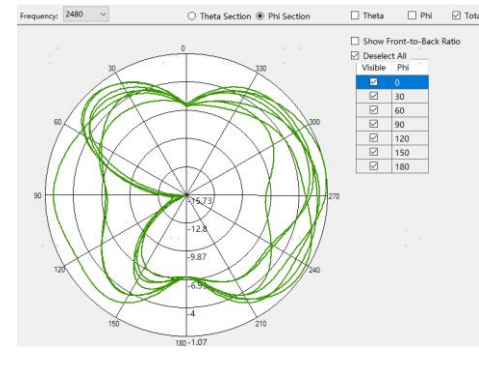
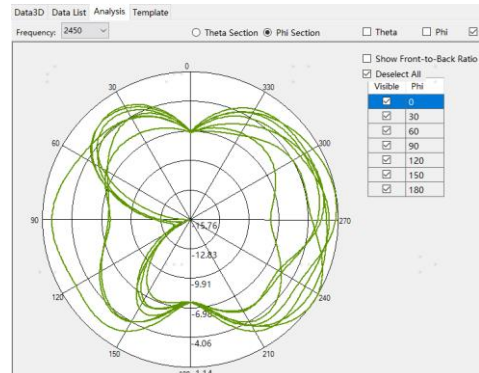
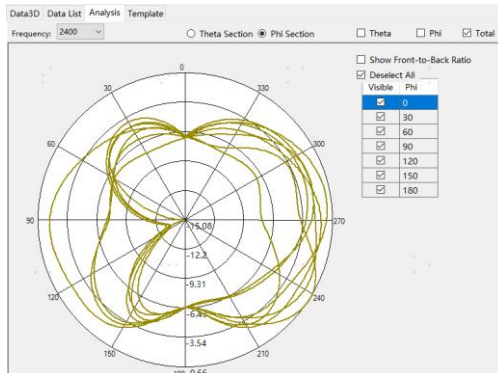
M Band

H Band

Theta Section



Phi Section

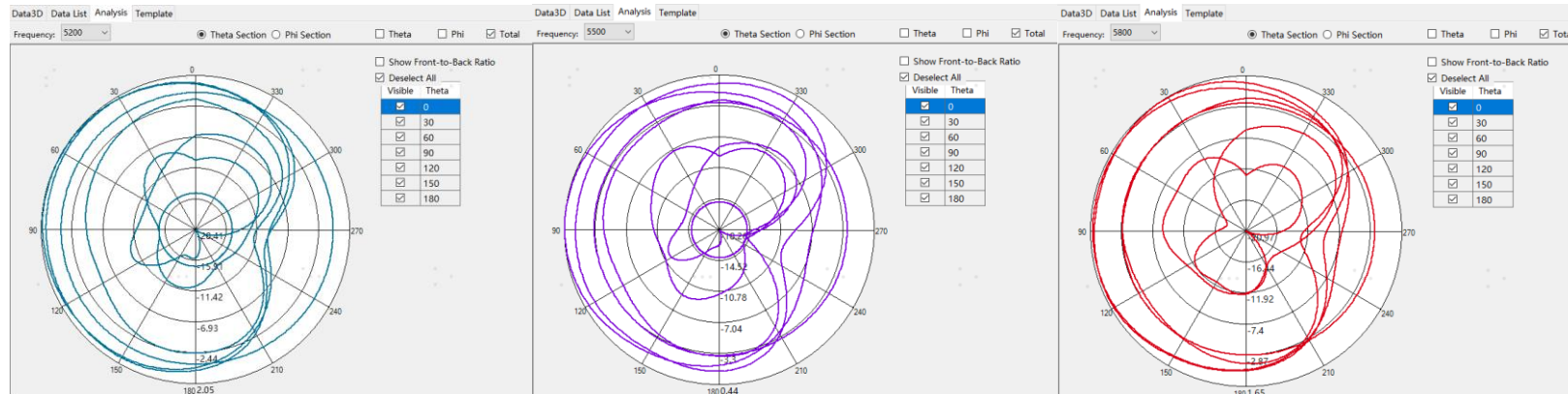


WiFi1 5G: L Band

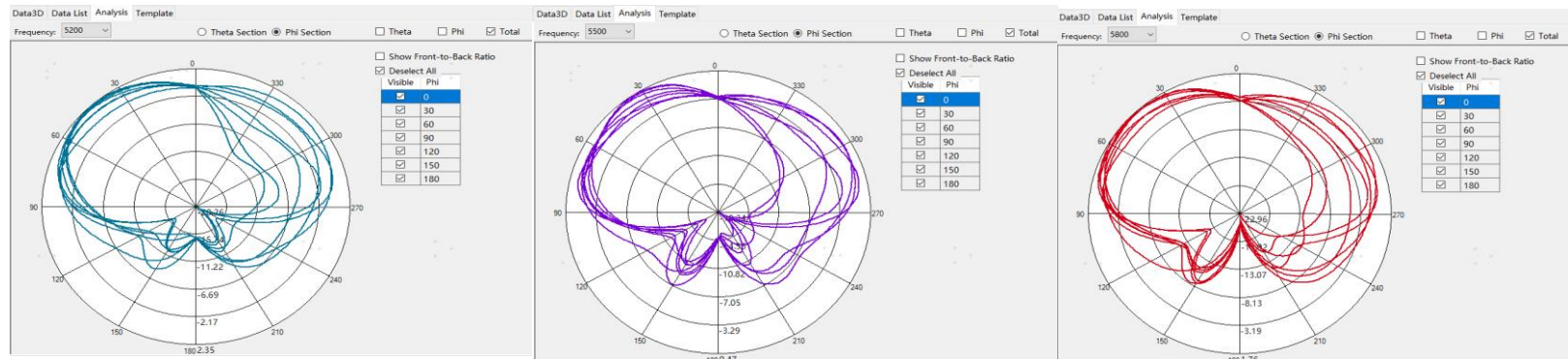
M Band

H Band

Theta Section



Phi Section



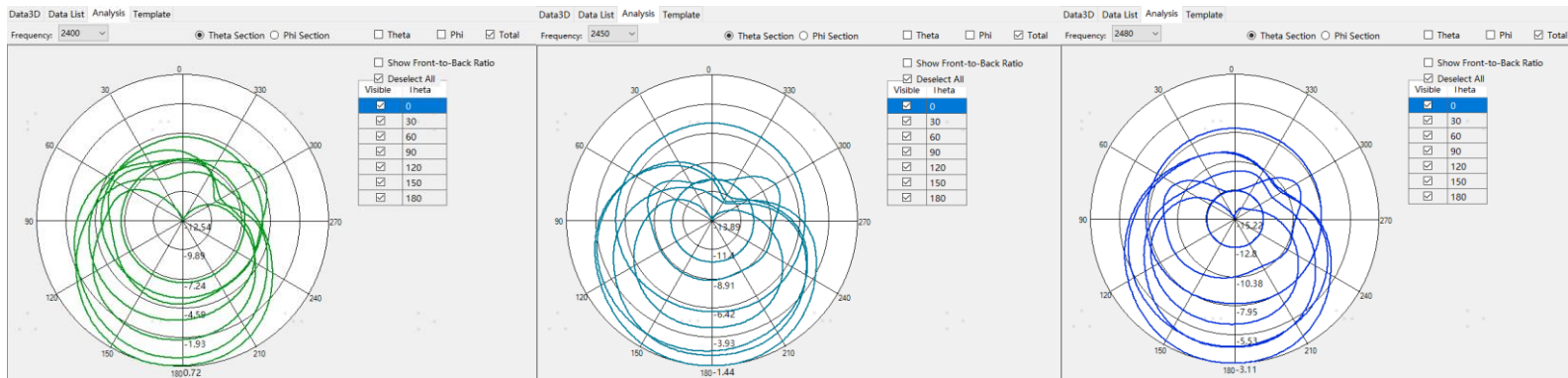
BT 2.4G:

L Band

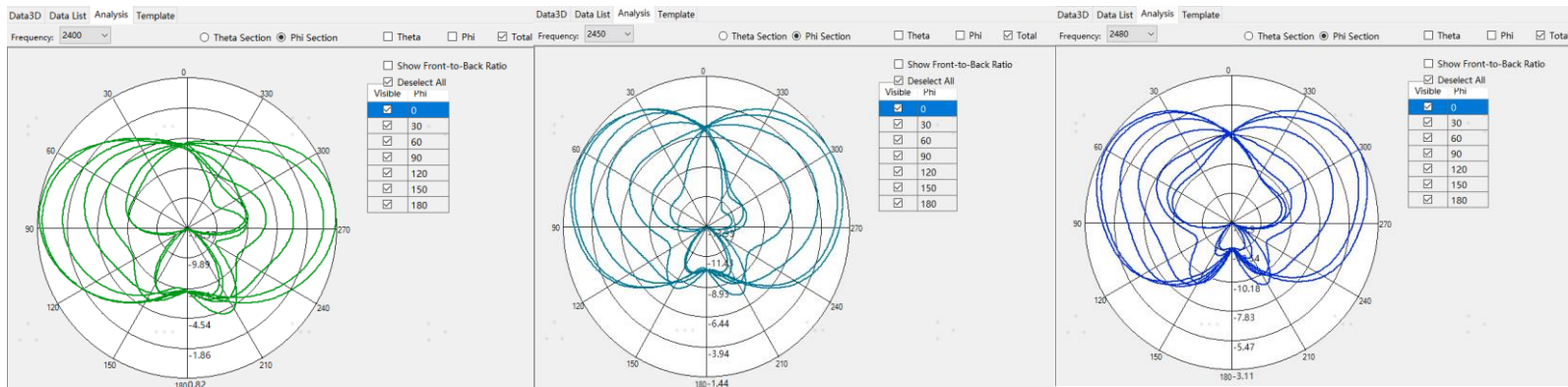
M Band

H Band

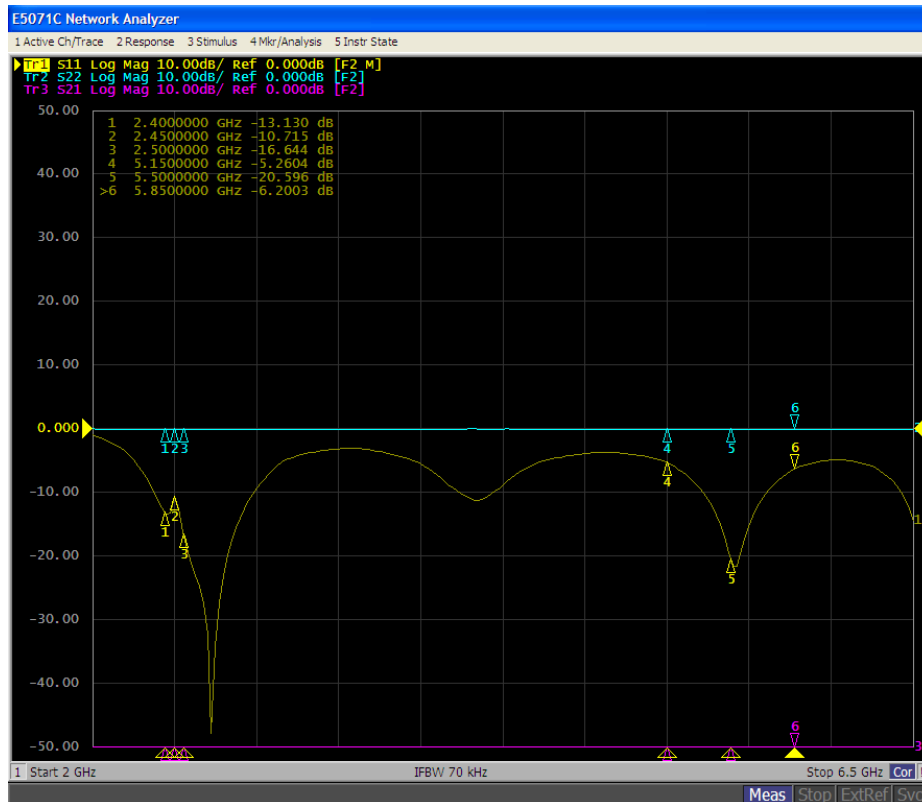
Theta Section



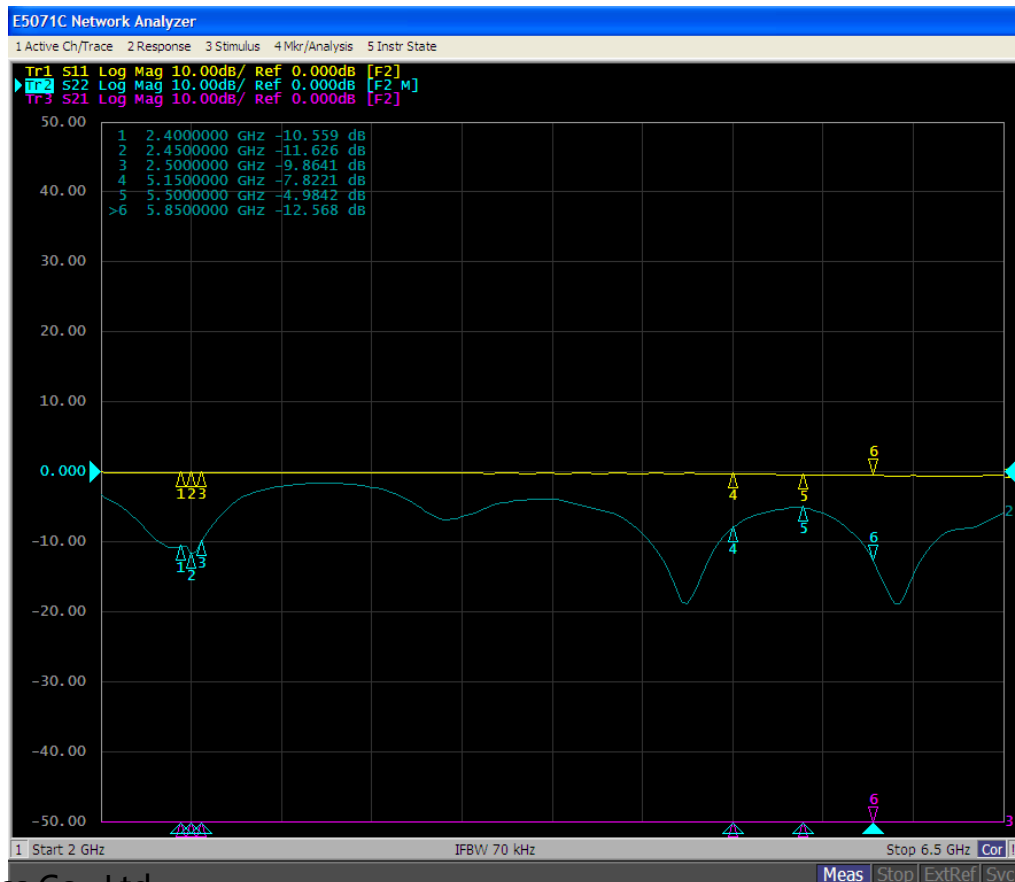
Phi Section



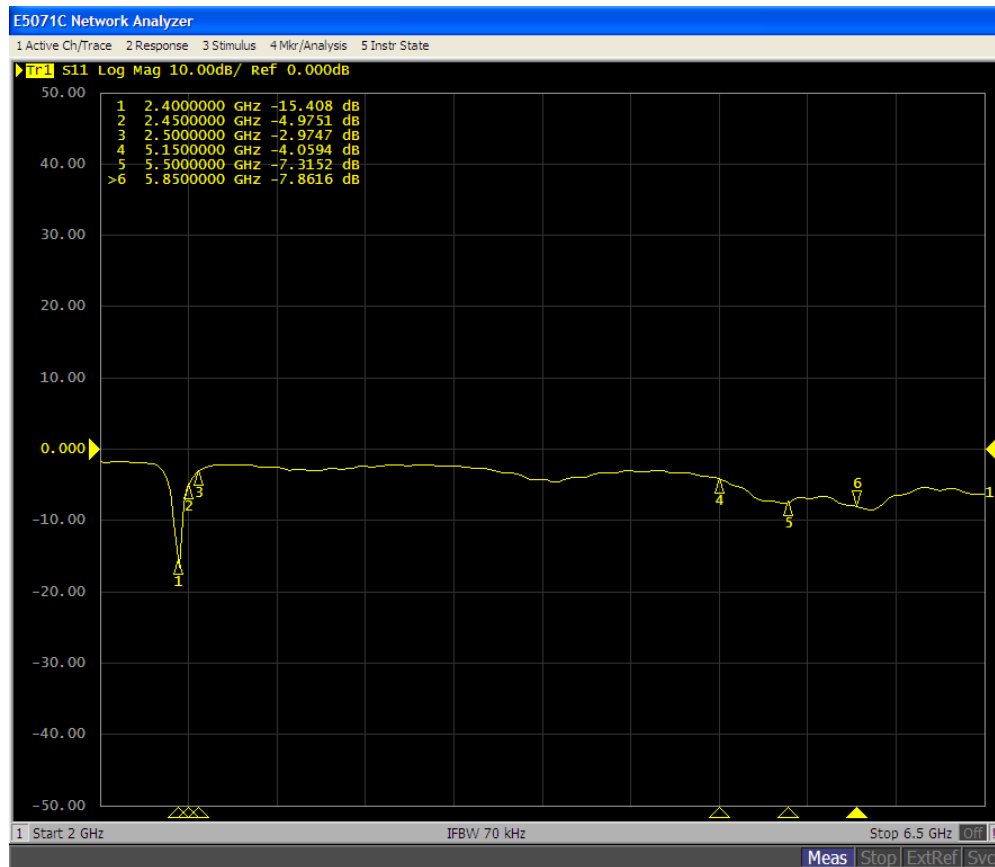
WiFi0 Antenna
2.4-2.5GHz < -10dB
5.15-5.85GHz < -5dB



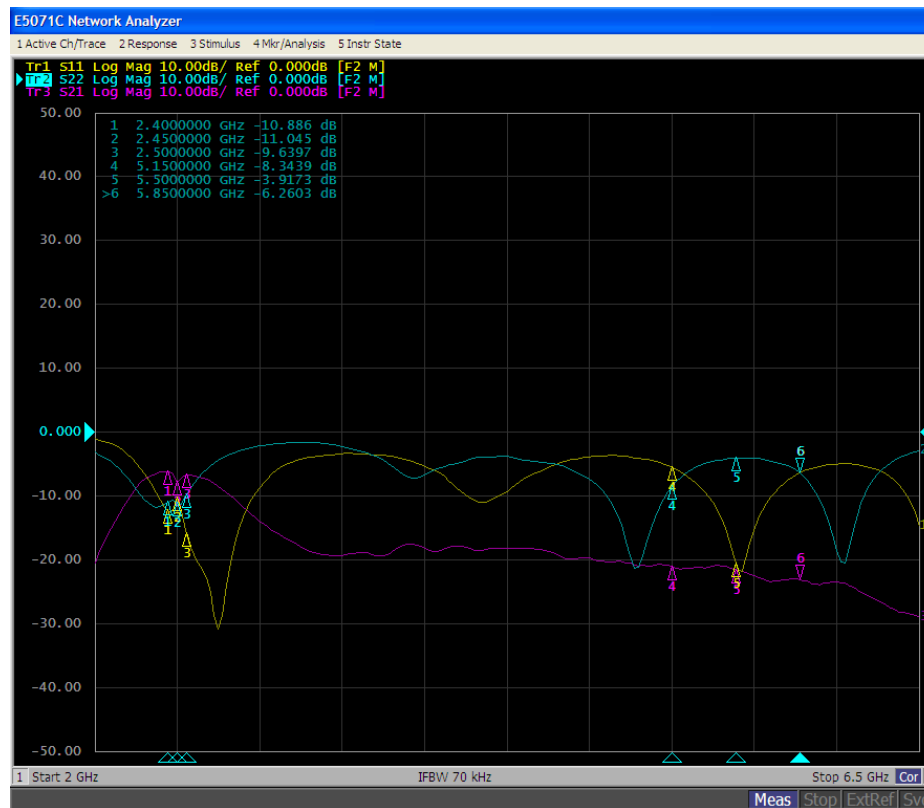
WiFi1 Antenna
2.4-2.5GHz < -10dB
5.15-5.85GHz < -5dB



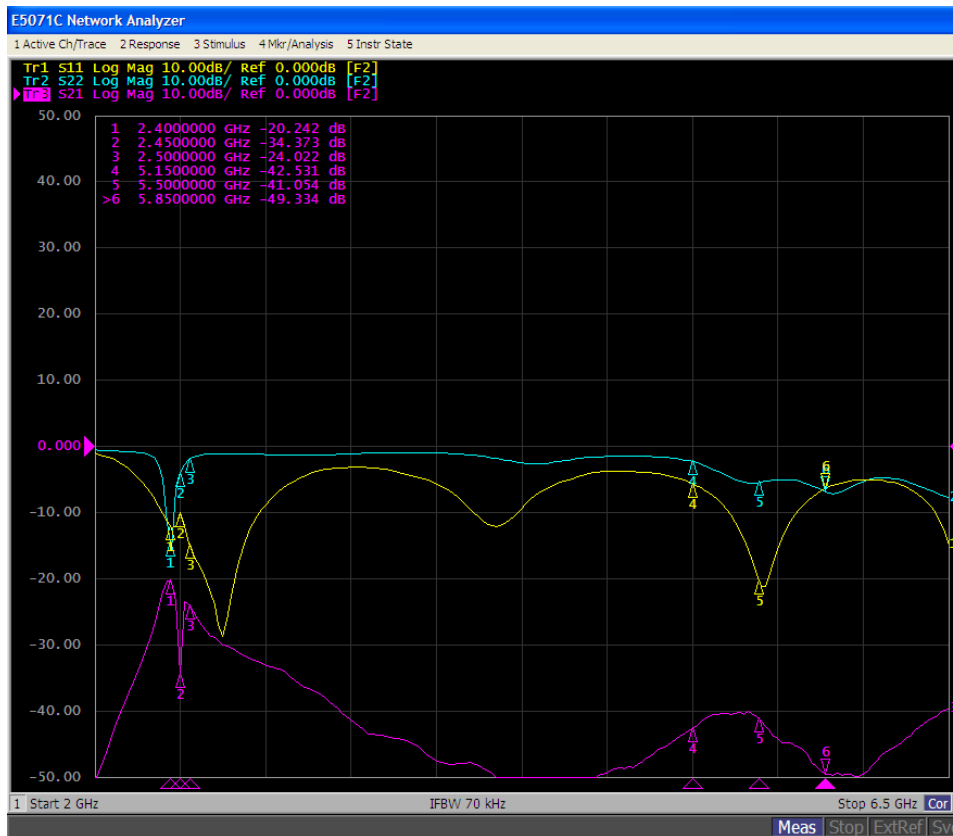
BT Antenna
2.4-2.5GHz < -3dB



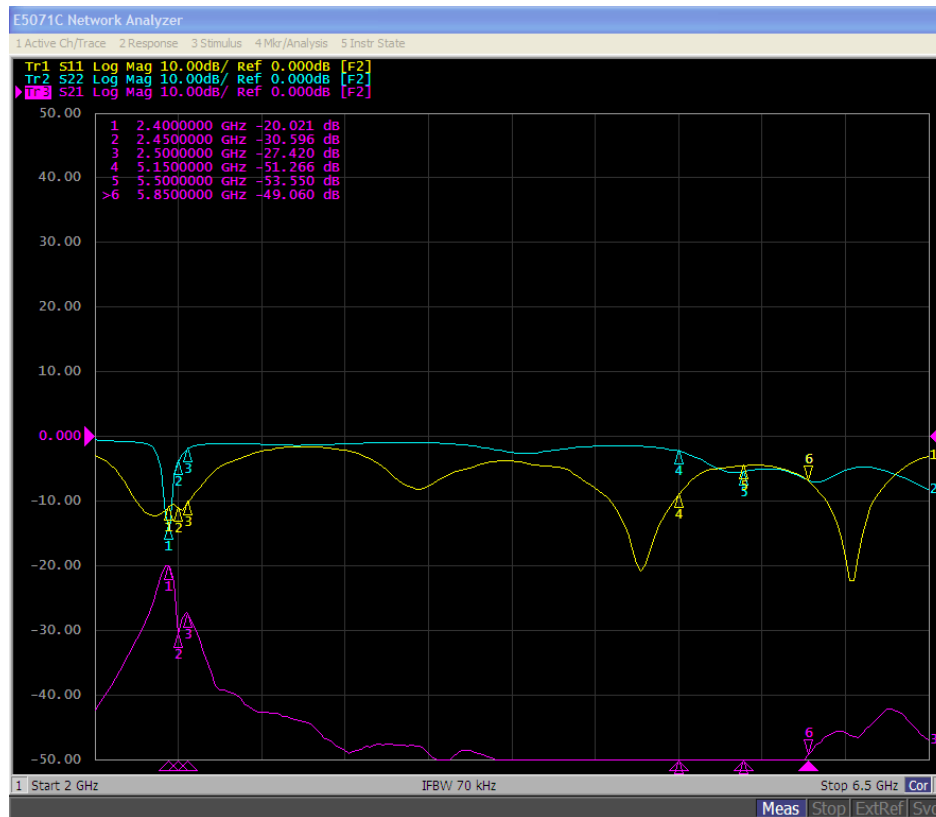
Isolation between WiFi0 and WiFi1
2.4G: L:-7dB M:-8dB H:-7dB
5G: L:-20dB M:-22dB H:-24dB



Isolation between WiFi and BT
2.4G: L:-20dB M:-34dB H:-24dB



Isolation between WiFi1 and BT
2.4G: L:-20dB M:-30dB H:-27dB



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THANKS