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WM55US01
FPC Antenna Test Report

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Wi-Fi	
Antenna Type	FPC Antenna
Dimensions	330mm
Frequency Band	2.4~2.5GHz/5.15~5.85GHz
Return Loss	2.4GHz~2.5GHz: $S_{11} \leq 2\text{dB}$ 5.15GHz~5.85GHz: $S_{11} \leq 3\text{dB}$.
Peak Gain	2.03dBi@2.4~2.5GHz , 2.03dBi@5.15~5.85GHz
Efficiency	2.4~2.5GHz $\geq 50\%$ (Avg) , 5.15~5.85GHz $\geq 50\%$ (Avg)

BT	
Antenna Type	FPC Antenna
Dimensions	330mm
Frequency Band	2.4~2.5GHz
Return Loss	2.4GHz~2.5GHz: $S_{11} \leq 4\text{dB}$
Peak Gain	2.03dBi@2.4~2.5GHz
Efficiency	2.4~2.5GHz $\geq 40\%$ (Avg)



Wi-Fi	CH	Gain/dBi	Efficiency/%
2.4G	L	2.03	56.63
	M	0.12	54.76
	H	0.97	55.32
5G	L	0.82	57.62
	M	0.94	53.36
	H	2.03	56.63

BT	CH	Gain/dBi	Efficiency/%
2.4G	L	2.03	56.63
	M	0.12	54.76
	H	0.97	55.32

ANT Directivity Pattern

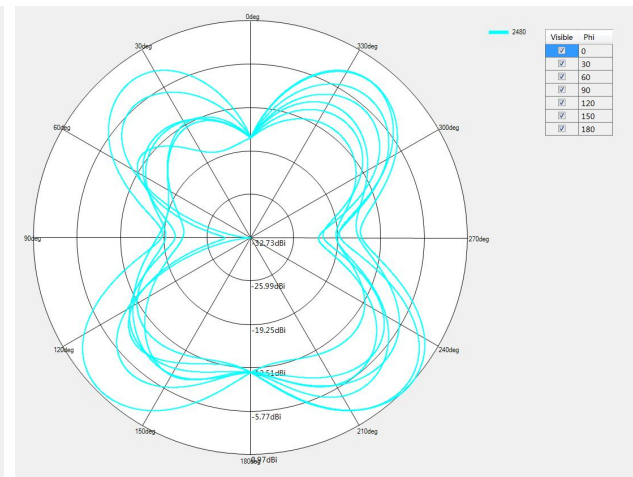
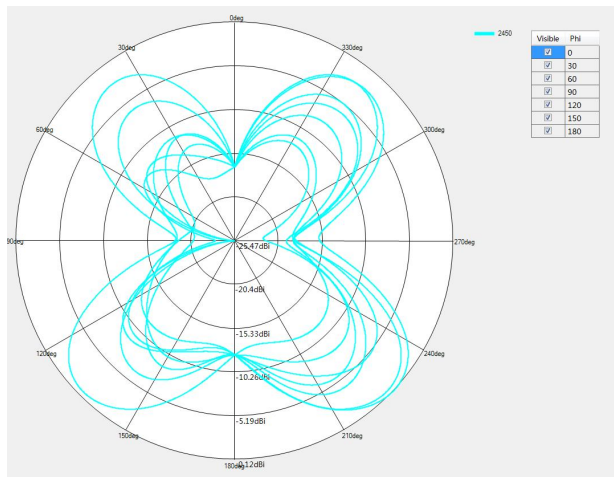
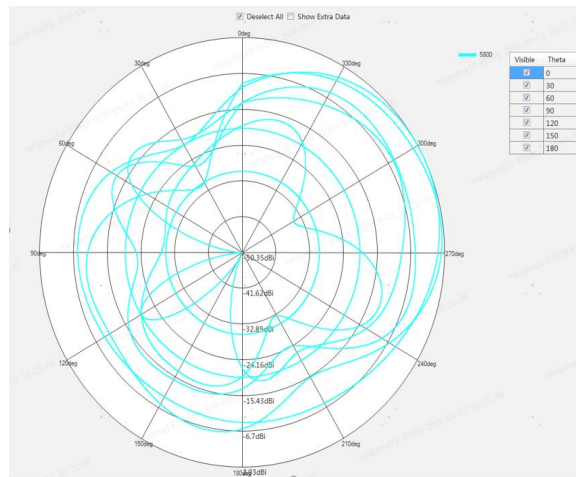
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Wi-Fi 2.4G:

L Band

M Band

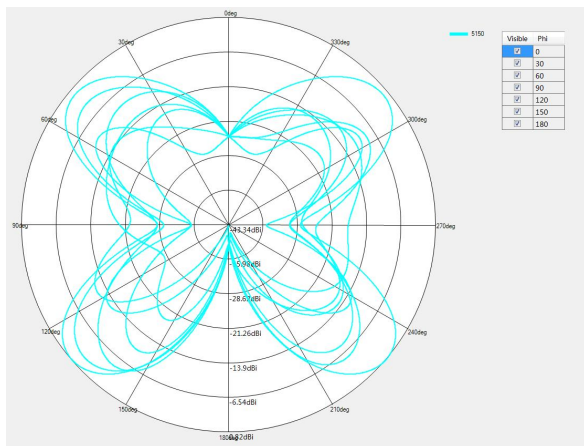
H Band



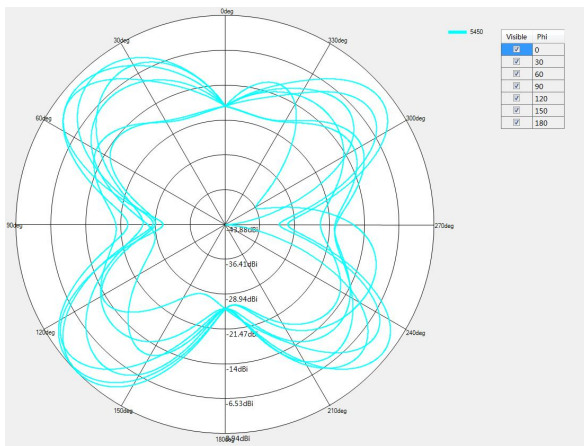
ANT Directivity Pattern

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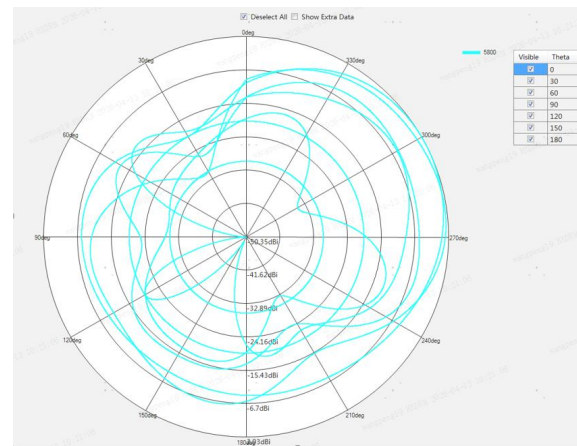
Wi-Fi 5G: L Band



M Band



H Band



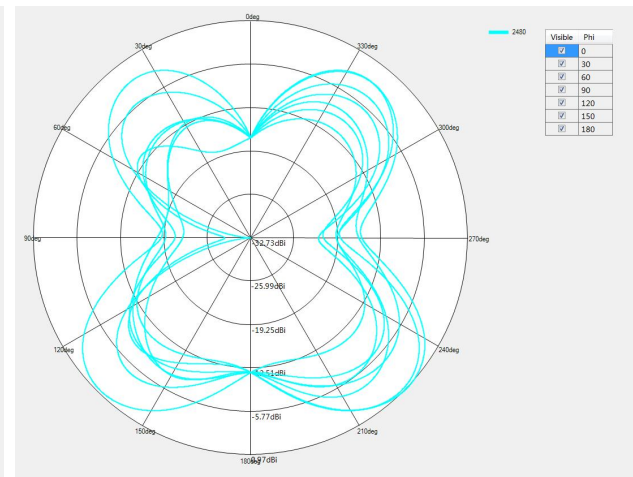
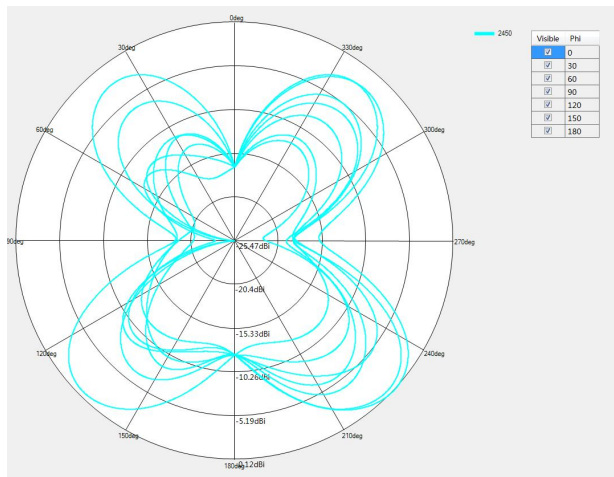
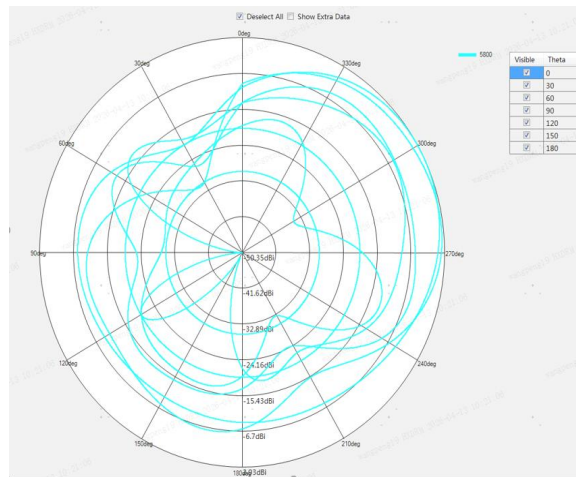
ANT Directivity Pattern

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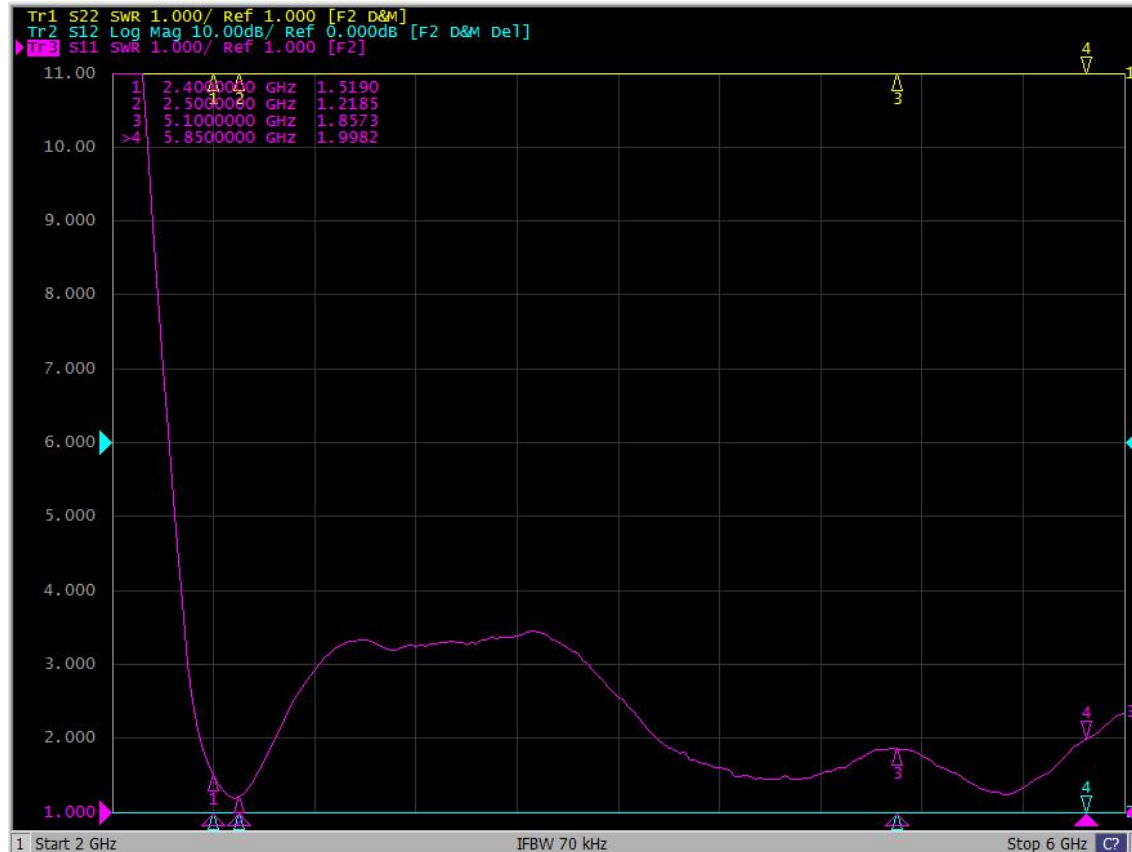
BT 2.4G: L Band

M Band

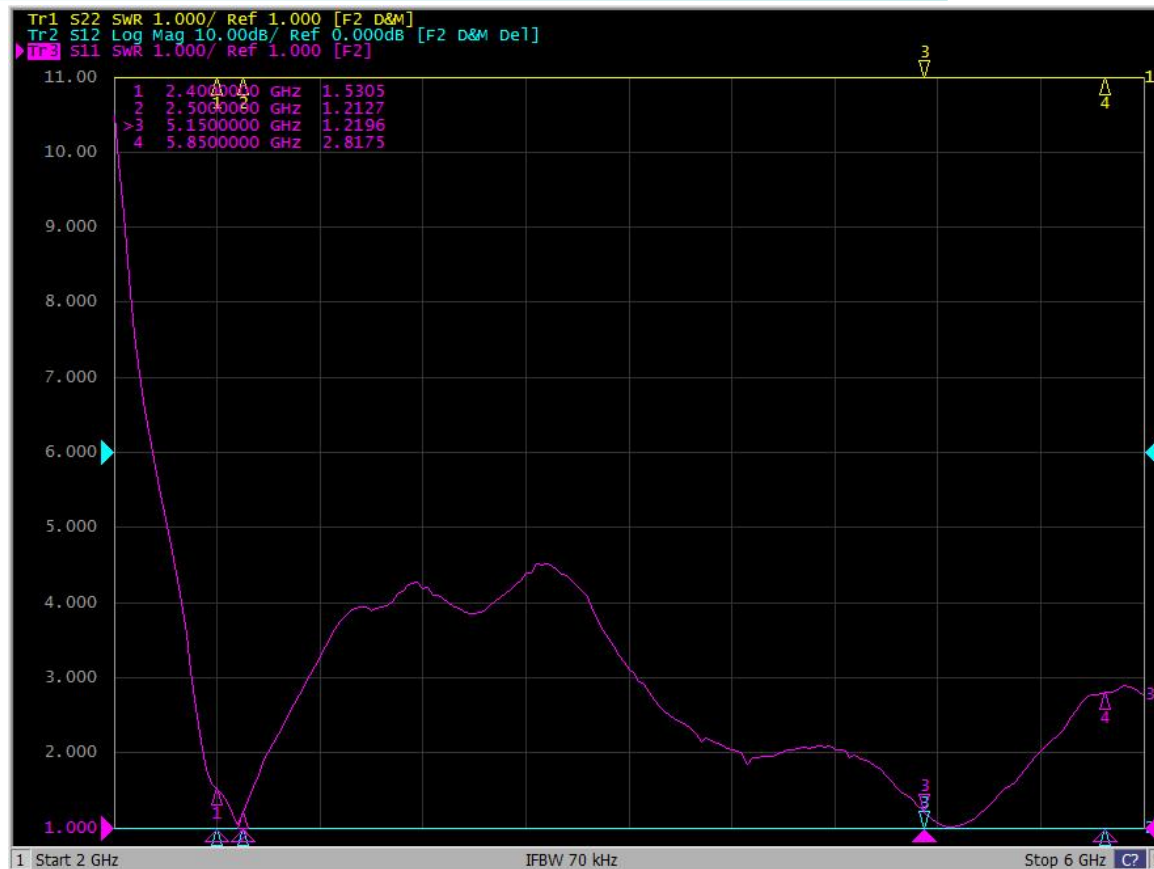
H Band



Wi-Fi0 Antenna
2.4-2.5GHz: S11 < 2dB
5.15-5.85GHz: S11 < 3dB

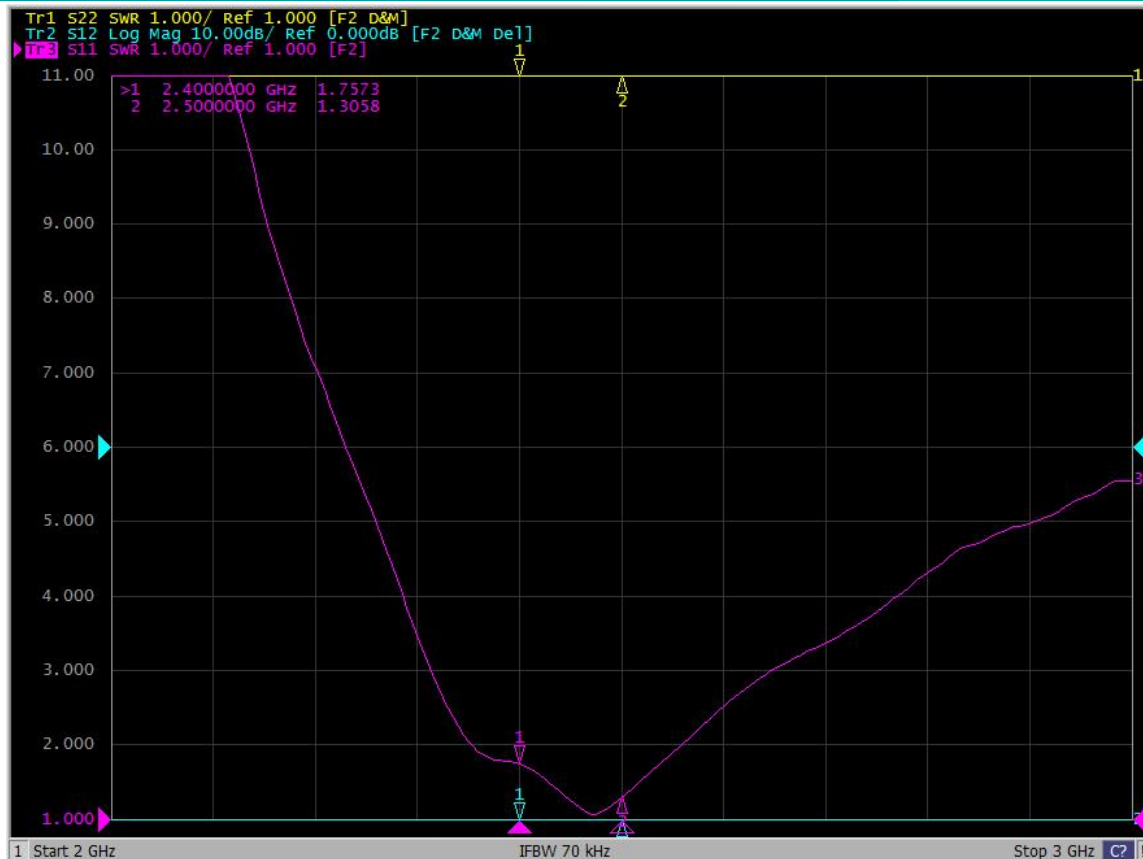


Wi-Fi1 Antenna
2.4-2.5GHz: S11 < 2dB
5.15-5.85GHz: S11 < 3dB



ANT Return Loss

BT Antenna
2.4-2.5GHz: $S_{11} < -2\text{dB}$



Isolation between
Wi-Fi0 and Wi-Fi1

2.4-2.5G:

Low band: -22dB

Middle band:-22dB

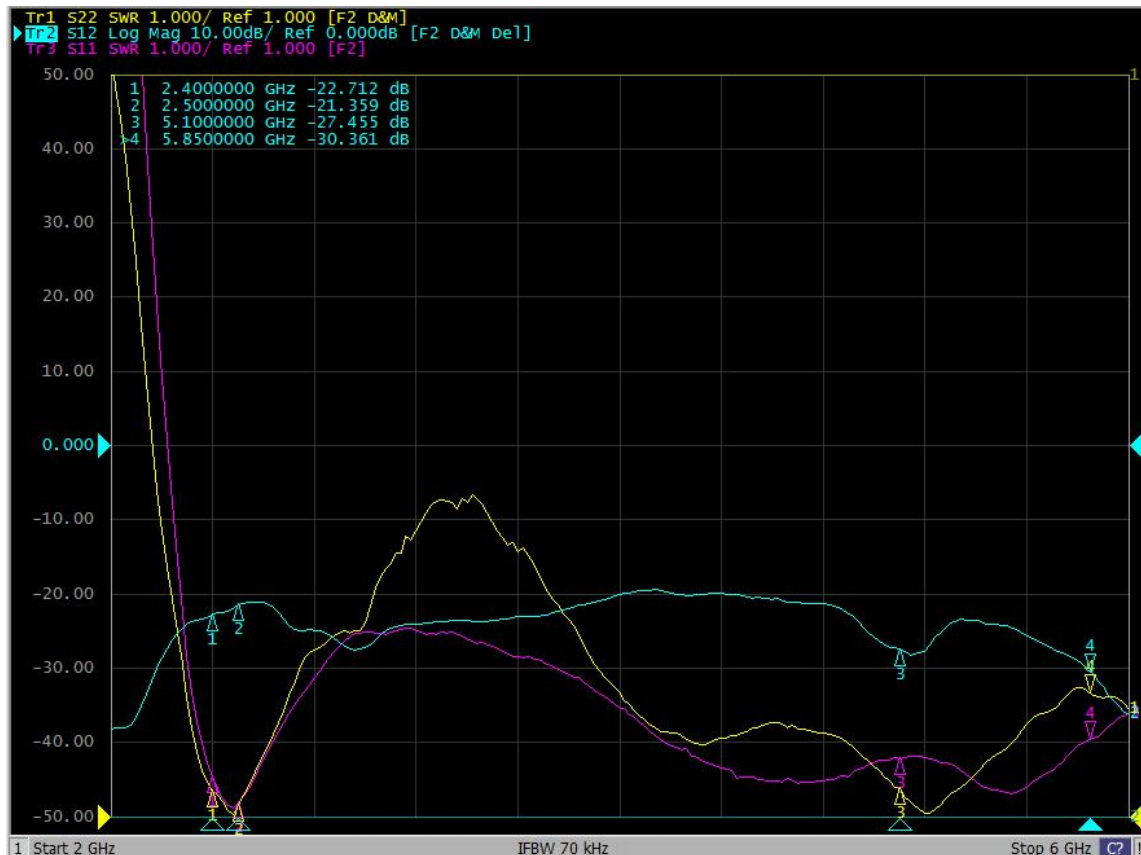
High band:-21dB

5.15-5.85G:

Low band:-27dB

Middle band:-26dB

High band:-30dB



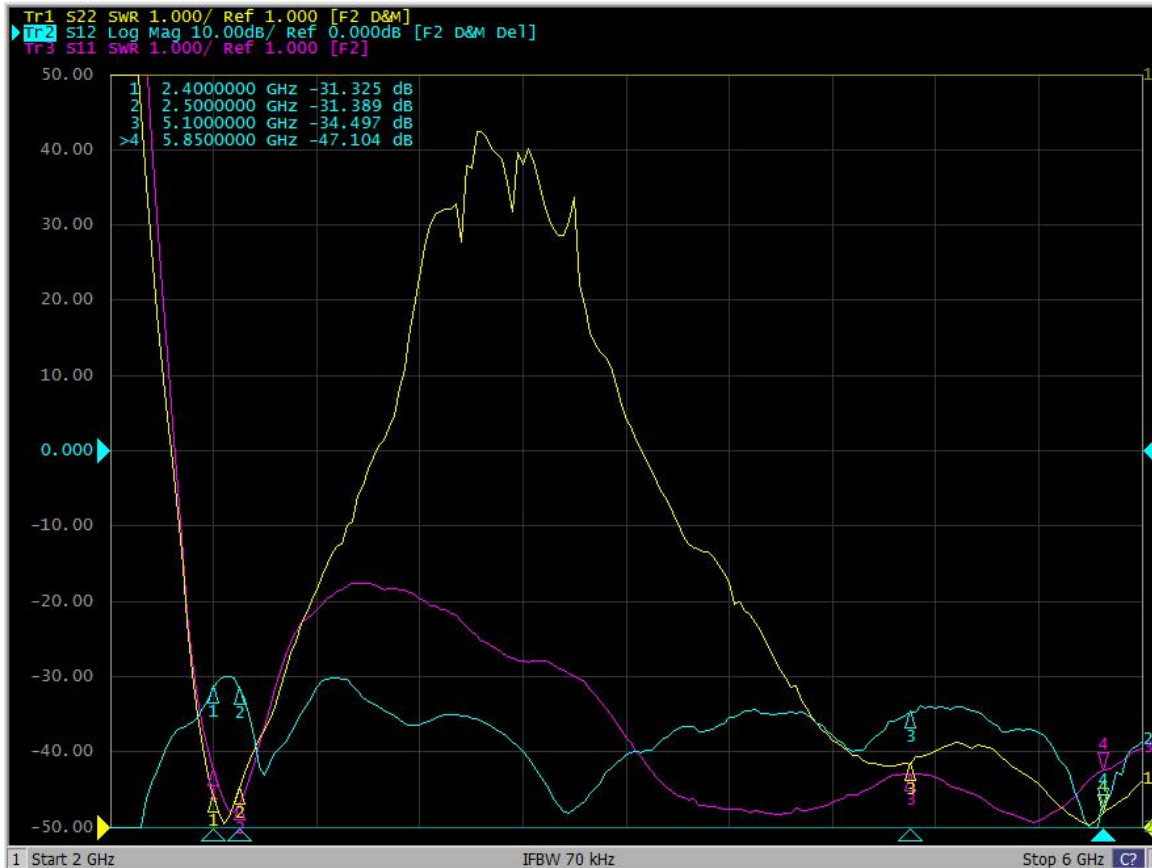
Isolation between
Wi-Fi0 and BT

2.4-2.5G:

Low band: -31dB

Middle band:-30dB

High band:-31dB



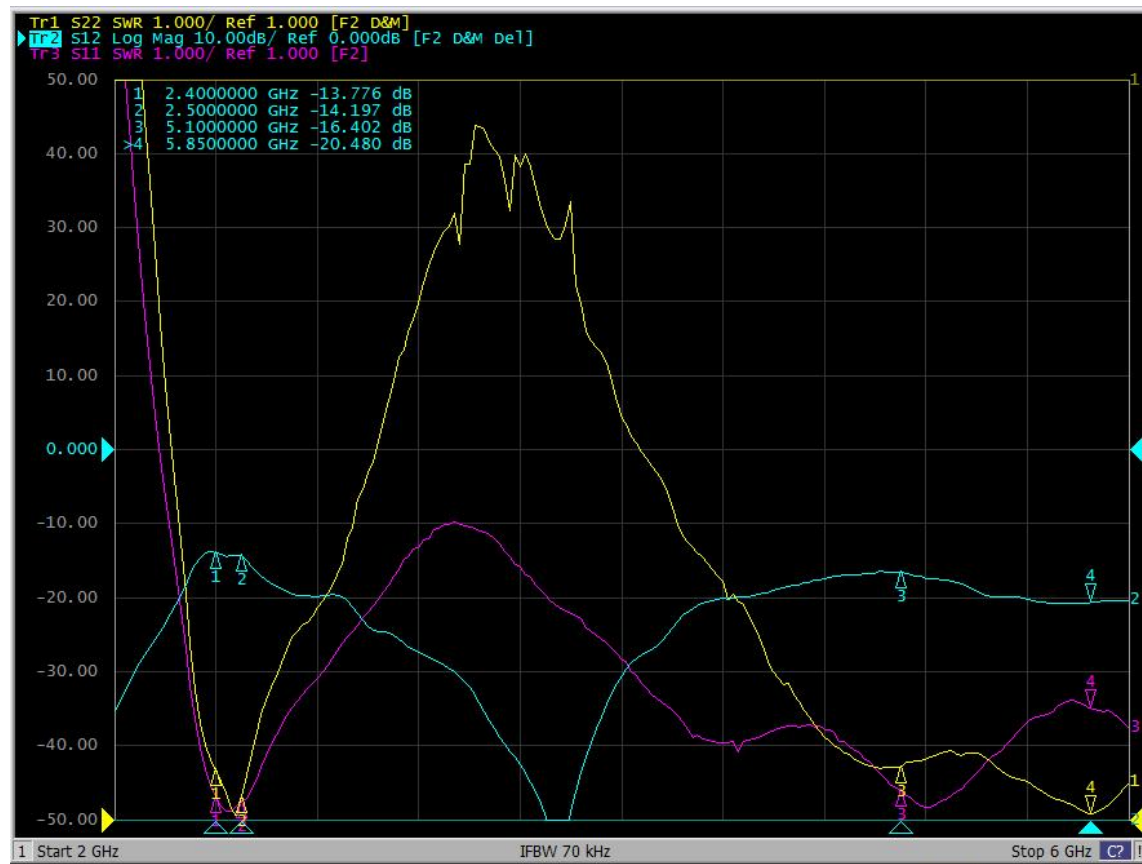
Isolation between
Wi-Fi1 and BT

2.4-2.5G:

Low band: -13dB

Middle band:-14dB

High band:-14dB



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