KnightX 100 Antenna Report

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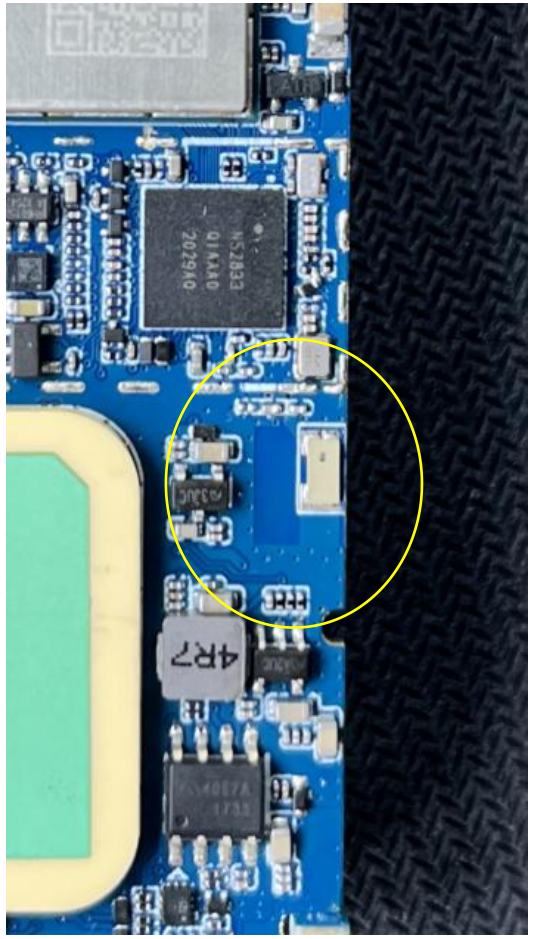
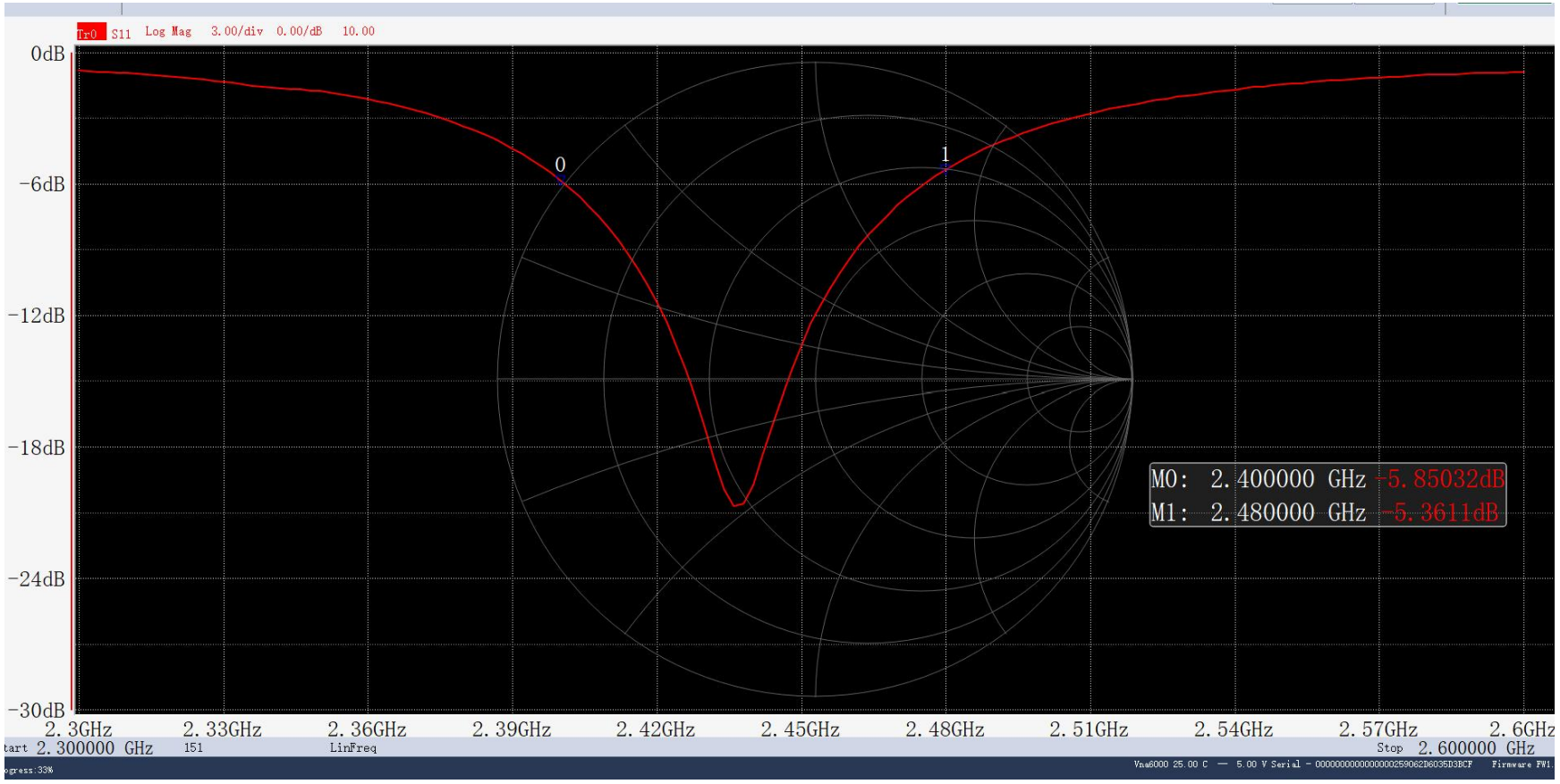
Device Information

Device Model:	KnightX 100

Antenna Detail	Antenna Type	Bands & Frequency
Bluetooth Antenna	Passive Ceramic Antenna	Frequency: 2400~2480MHz

Bluetooth Antenna Performance —— S11

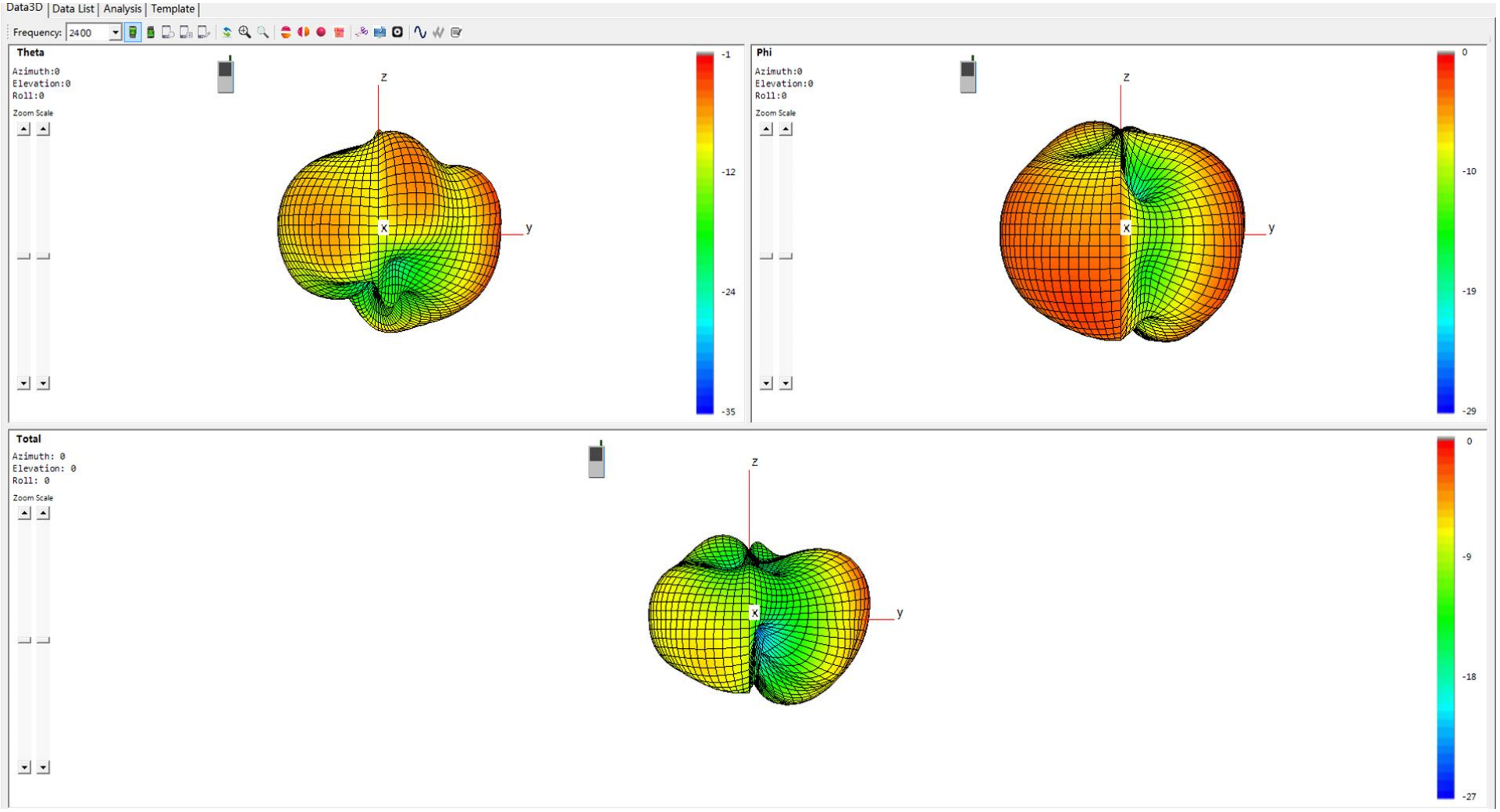




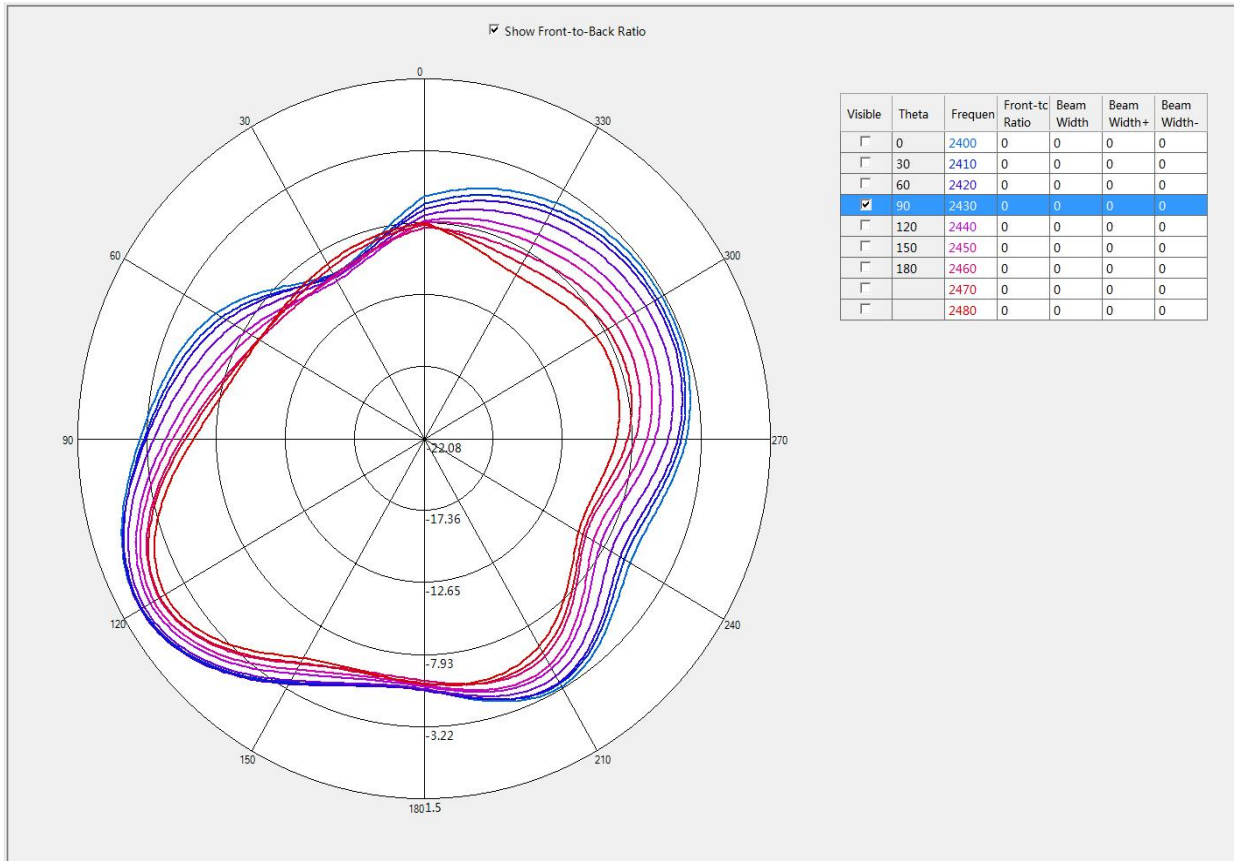
Bluetooth Antenna Performance —— Efficiency and Gain

Frequency（MHz)	Efficiency （%）	Efficiency（dB）	Gain（dBi)
2400	28.7%	-5.41	0.83
2410	30.3%	-5.19	1.05
2420	33.7%	-4.72	1.52
2430	34.0%	-4.68	1.53
2440	34.8%	-4.59	1.65
2450	34.9%	-4.57	1.67
2460	33.0%	-4.81	1.43
2470	31.0%	-5.08	1.13
2480	29.3%	-5.34	0.87

Bluetooth Antenna Performance —— Antenna Pattern 1

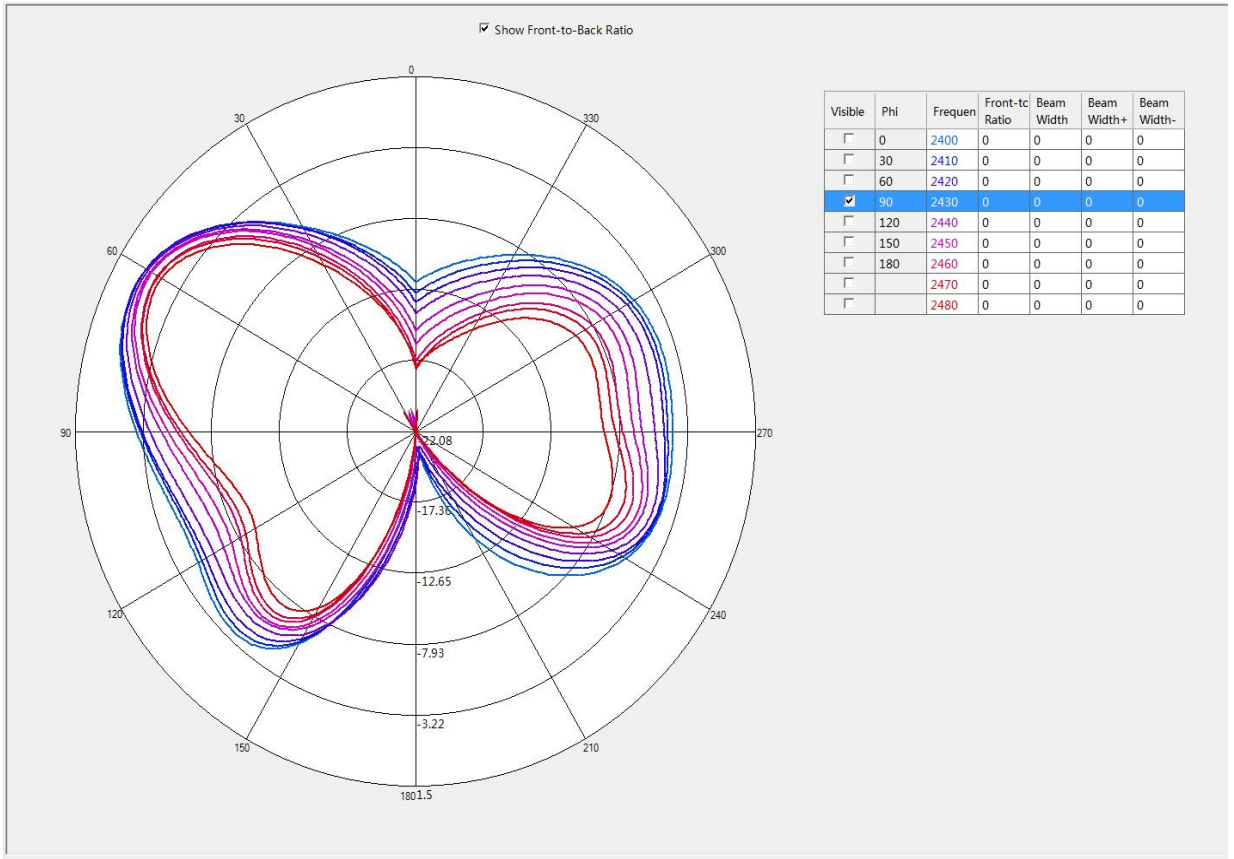


Bluetooth Antenna Performance —— Antenna Pattern 2



Visible	Theta	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-
☐	0	2400	0	0	0	0
☐	30	2410	0	0	0	0
☐	60	2420	0	0	0	0
☑	90	2430	0	0	0	0
☐	120	2440	0	0	0	0
☐	150	2450	0	0	0	0
☐	180	2460	0	0	0	0
☐		2470	0	0	0	0
☐		2480	0	0	0	0

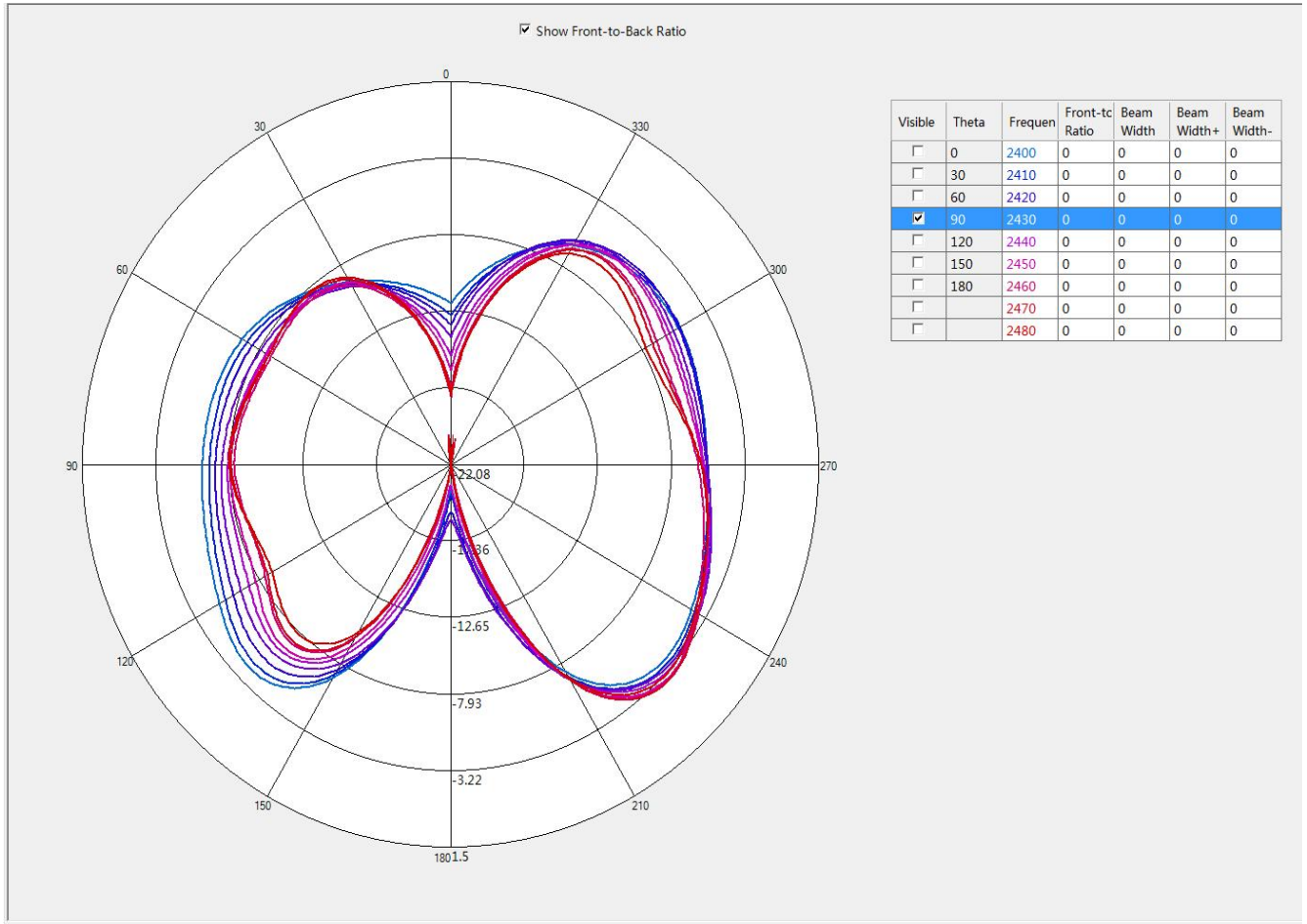
Theta=90°



Visible	Phi	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-
☐	0	2400	0	0	0	0
☐	30	2410	0	0	0	0
☐	60	2420	0	0	0	0
☑	90	2430	0	0	0	0
☐	120	2440	0	0	0	0
☐	150	2450	0	0	0	0
☐	180	2460	0	0	0	0
☐		2470	0	0	0	0
☐		2480	0	0	0	0

Phi=90°

Bluetooth Antenna Performance —— Antenna Pattern 3



Visible	Theta	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-
☐	0	2400	0	0	0	0
☐	30	2410	0	0	0	0
☐	60	2420	0	0	0	0
☑	90	2430	0	0	0	0
☐	120	2440	0	0	0	0
☐	150	2450	0	0	0	0
☐	180	2460	0	0	0	0
☐		2470	0	0	0	0
☐		2480	0	0	0	0

Phi=0°

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Thank you!

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