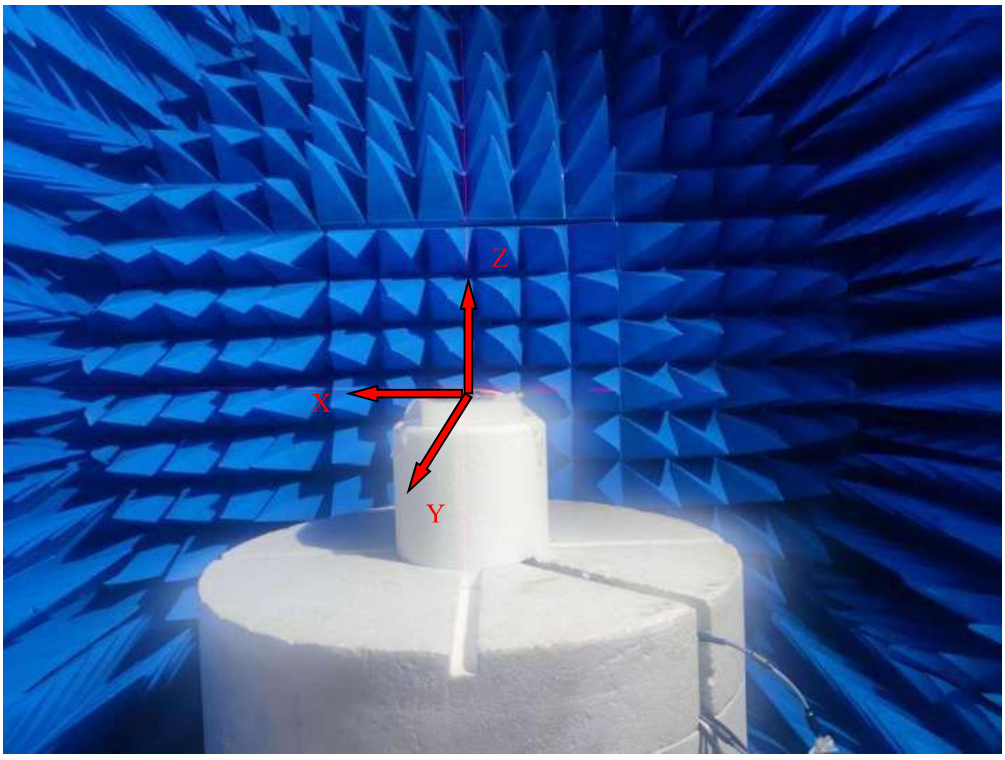
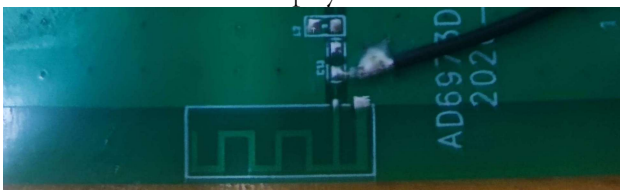
Test Report for On-board PIFA Antenna (2.4 GHz – 2.48 GHz Band)

SPECIFICATIONS	
Frequency (MHz)	2400-2480
Peak Gain (dBi)	2.27
Average Gain (dBi)	＞0
VSWR	＜1.9
Impedance (Ω)	50Ω
Antenna Type	Plannar Inverted F on board
Polarization	Linear

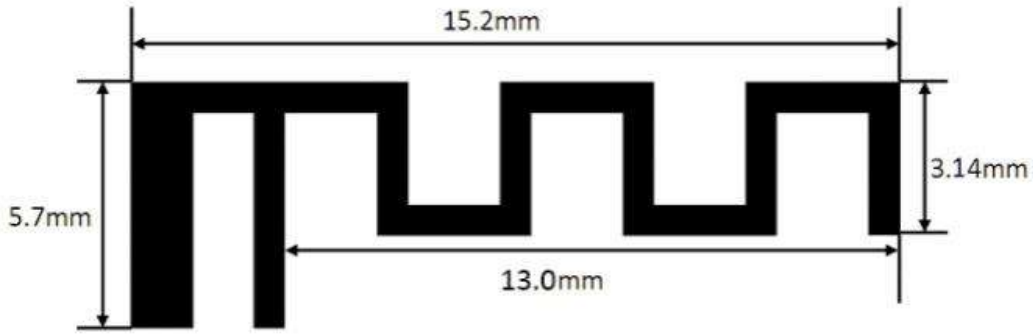
Test Environment: CAS-Guoji Anechoic Chamber Test System



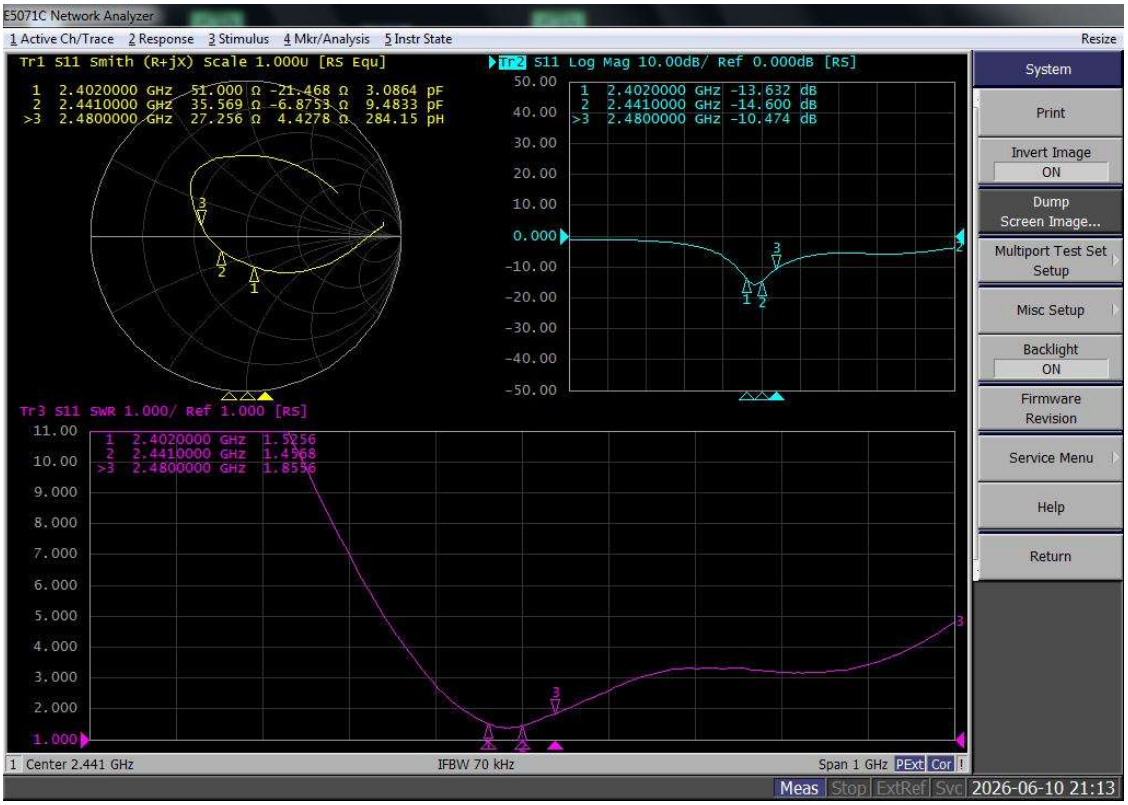
Actual antenna unit and physical dimensions



Antenna Photo & Length (mm)



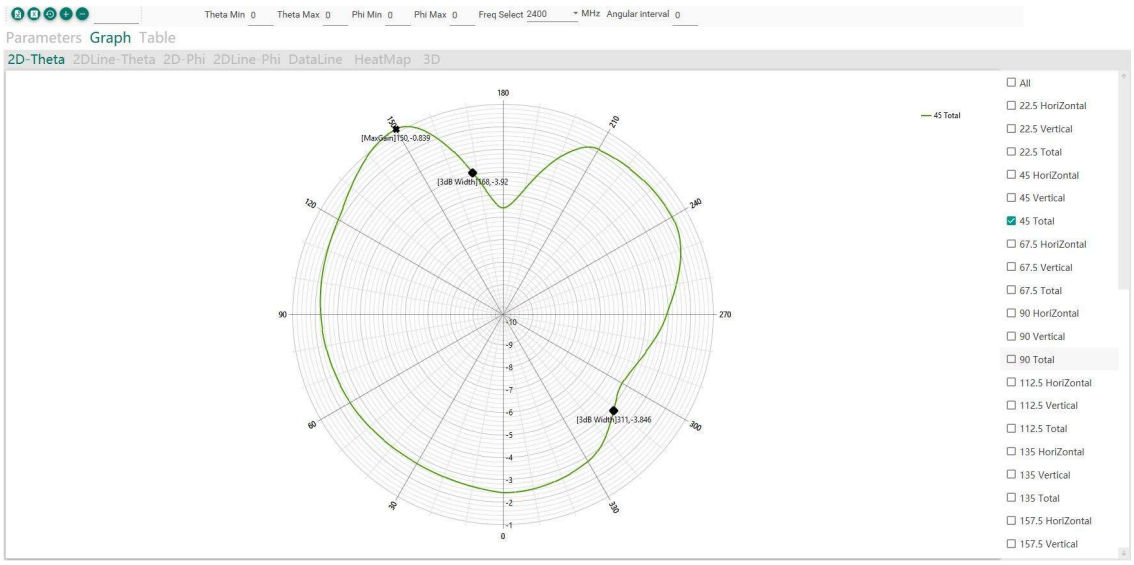
Antenna Passive S-Parameters:
VSWR, Return Loss, and Smith Chart



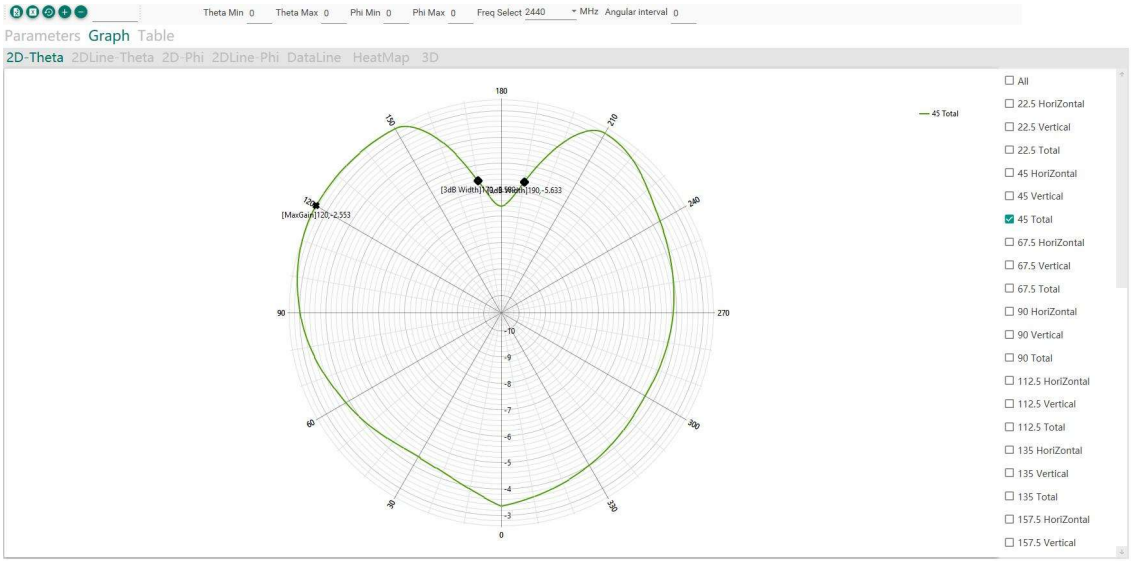
Antenna Efficiency and Gain

Frequency (MHz)	Gain (dBi)	Effciency (%)	AverageGain (dBi)	Efficiency (dB)
2400	1.48	63.36%	-2.73	-1.98
2410	1.25	57.22%	-3.40	-2.43
2420	0.60	54.48%	-3.43	-2.64
2430	-0.06	48.04%	-3.91	-3.18
2440	-0.09	45.16%	-4.20	-3.45
2450	0.36	49.24%	-3.56	-3.08
2460	1.08	54.75%	-3.10	-2.62
2470	1.55	54.67%	-2.97	-2.62
2480	2.27	64.19%	-2.25	-1.93
Average	0.94	54.57%	-3.28	-2.66
Peak	2.27	64.19%	-2.25	-1.93

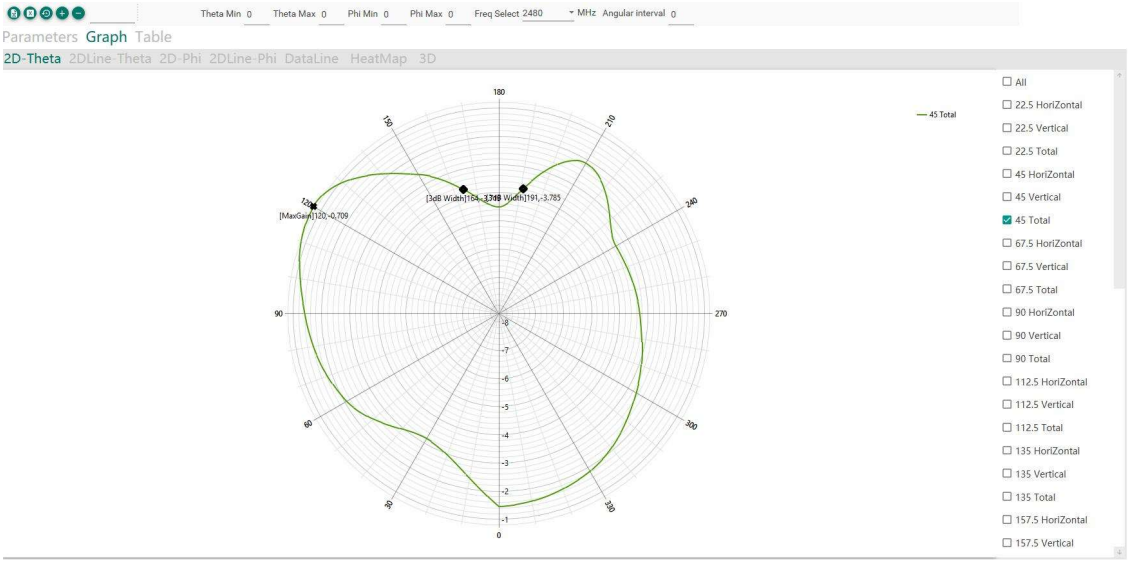
2400MHz 2D-Theta Pattern



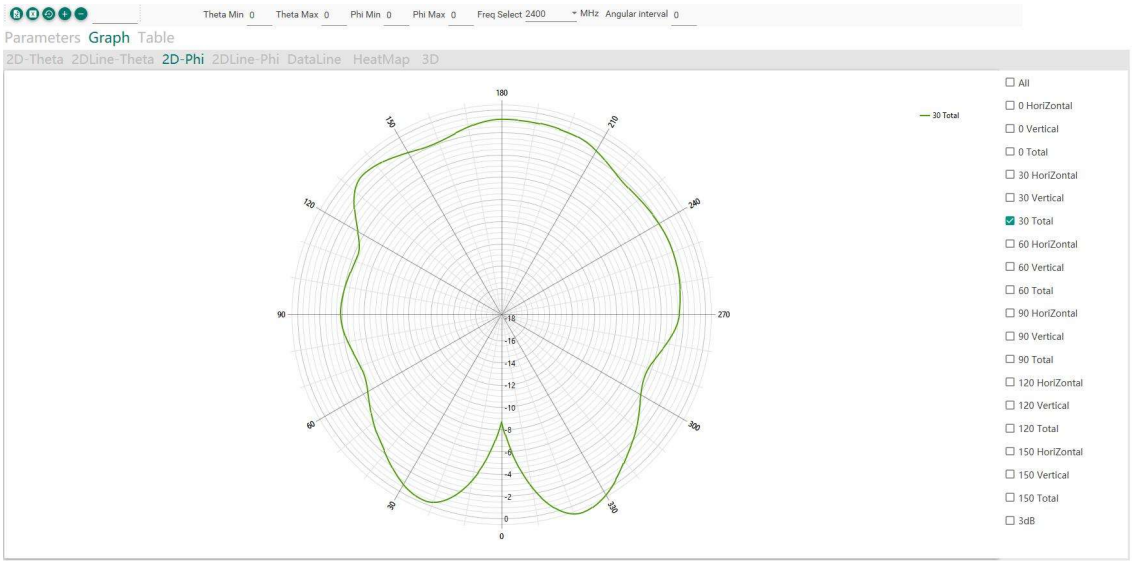
2440MHz 2D-Theta Pattern



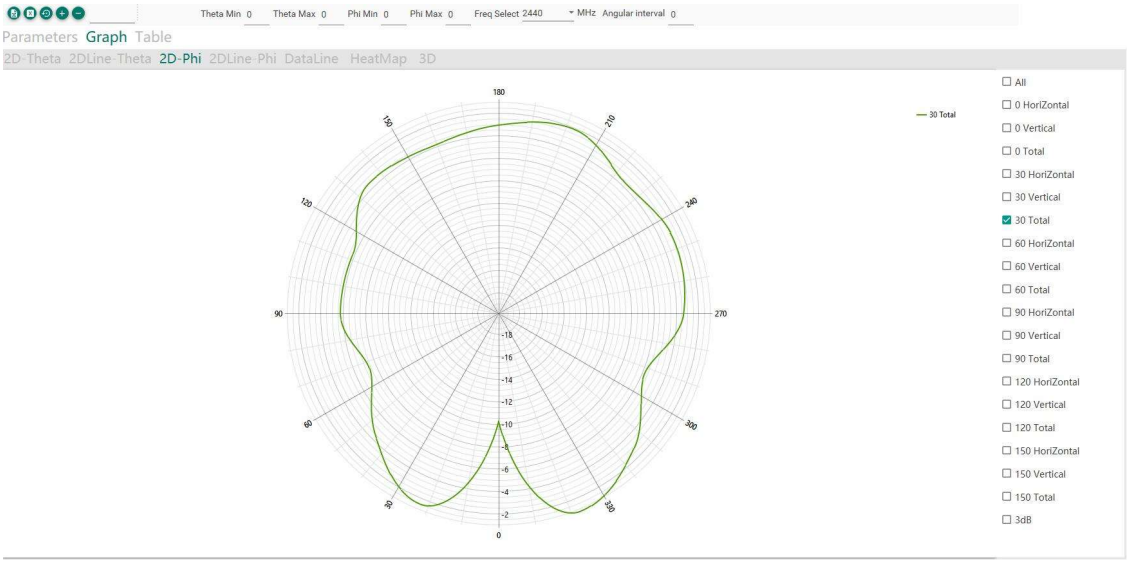
2480MHz 2D-Theta Pattern



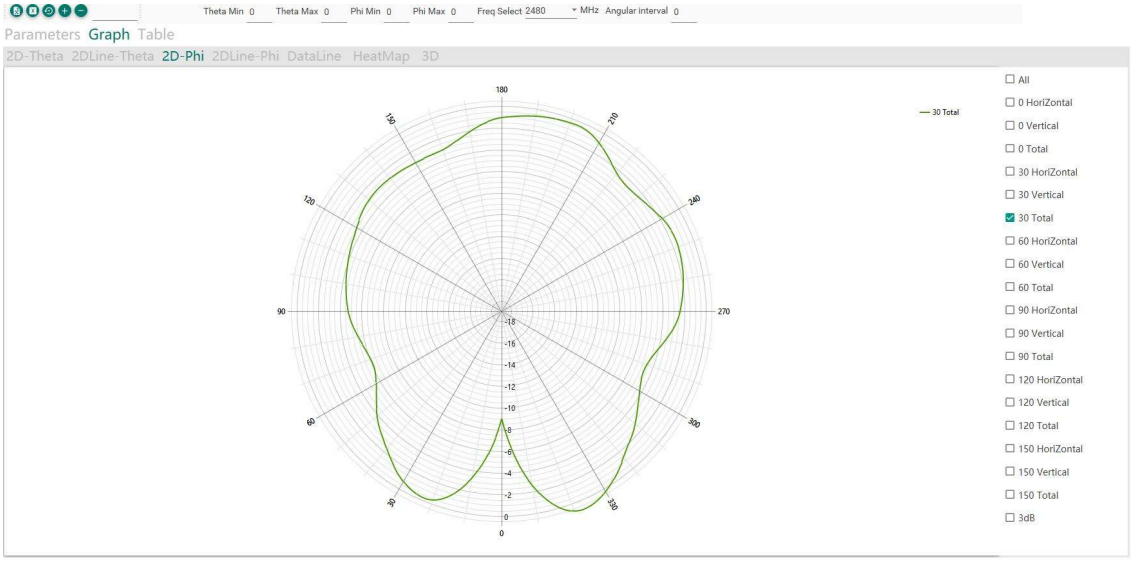
2400MHz 2D-Phi Pattern



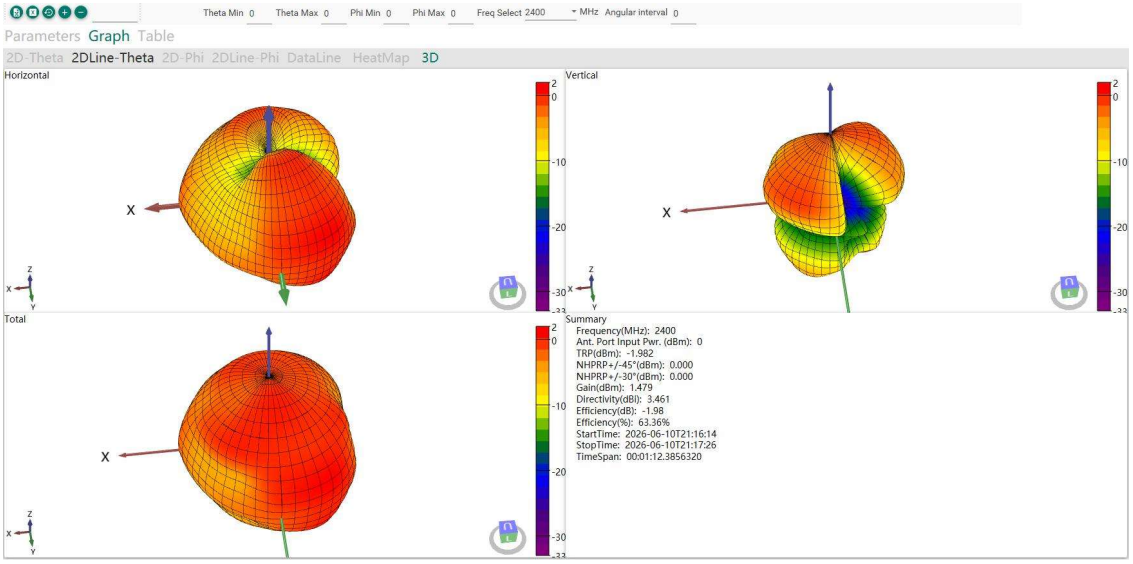
2440MHz 2D-Phi Pattern



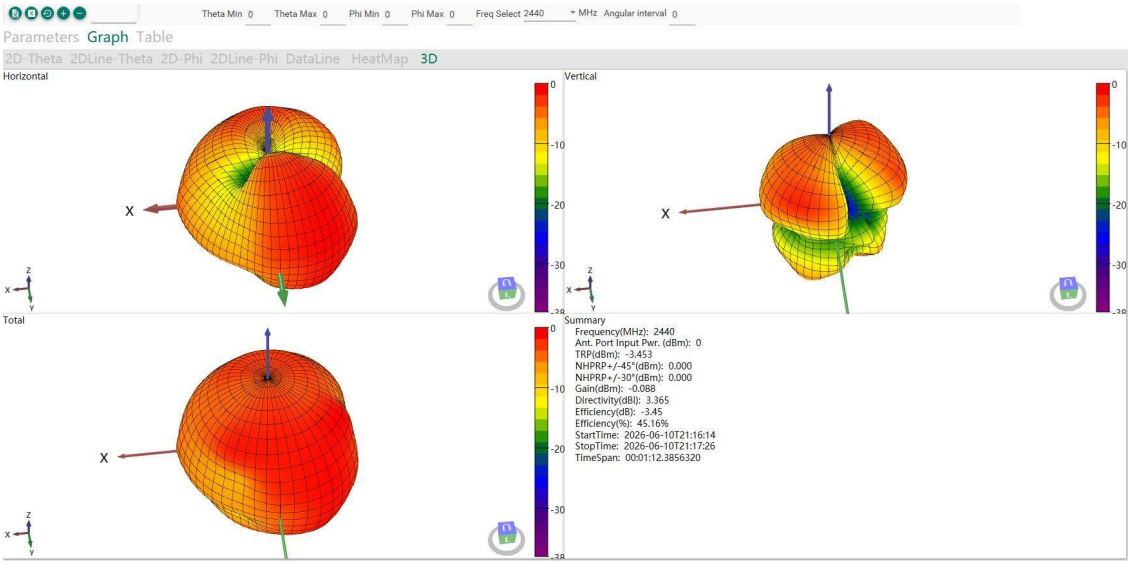
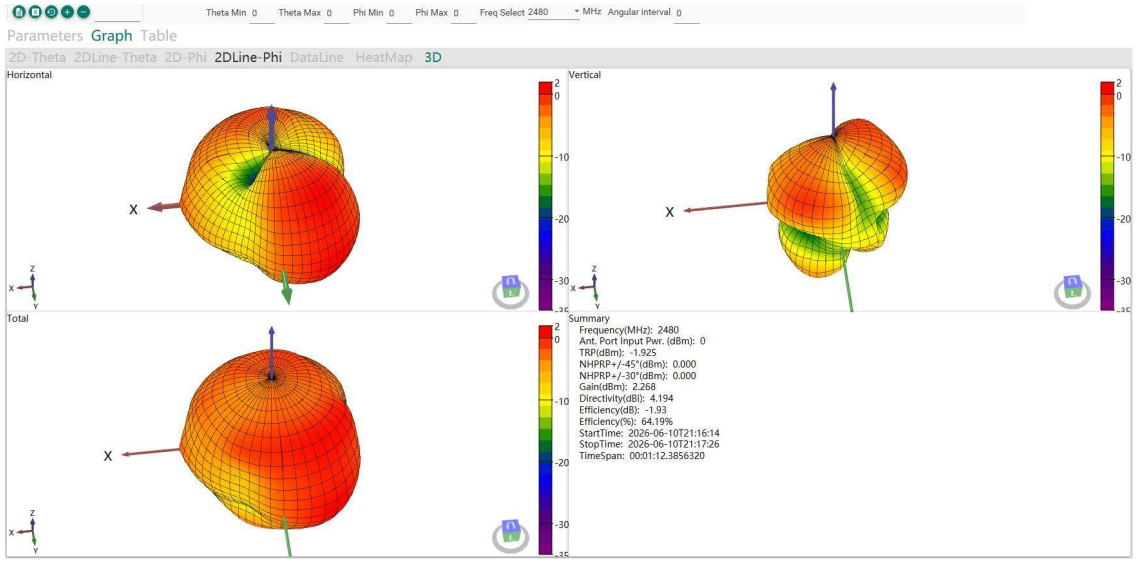
2480MHz 2D-Phi Pattern



2400MHz 3D-Total Pattern



2440MHz 3D-Total Pattern



2480MHz 3D-Total Pattern