

TAITEK COMPONENTS CO., LTD.

13F-2, No.560, CHUNGHSIAO E. RD, SEC. 4., TAIPEI, TAIWAN.

<http://www.taitek.com.tw> E-MAIL:sales@taitek.com.tw

TEL:+886 2 8789-8896 FAX:+886 2 8789-2208

SPECIFICATION

Part number: WFA-EM-2508-0009-B

Product : WIFI7 EMBEDDED PIFA ANTENNA

Descriptions : 2.4~2.5/5.15~7.125GHz+FPCB

+OD1.13 CABLE+IPEX(IV)/MHF(IV)

SPECIFICATION

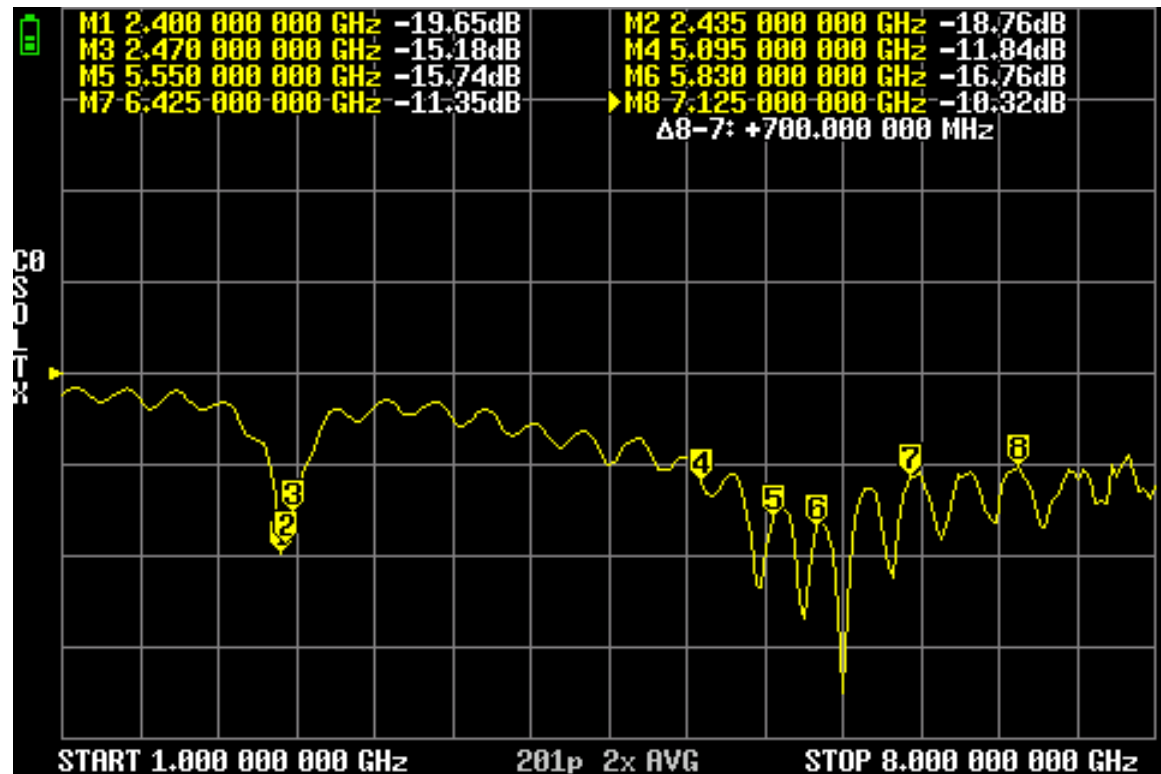
ELECTRICAL PROPERTIES

FREQUENCY RANGE	-----	2.4~2.5/5.15~7.125 GHz
VSWR	-----	≤2.0
IMPEDANCE	-----	50Ω
GAIN	-----	2.4~2.5 GHz <2.8 dBi
		5.15~7.125 GHz <3 dBi

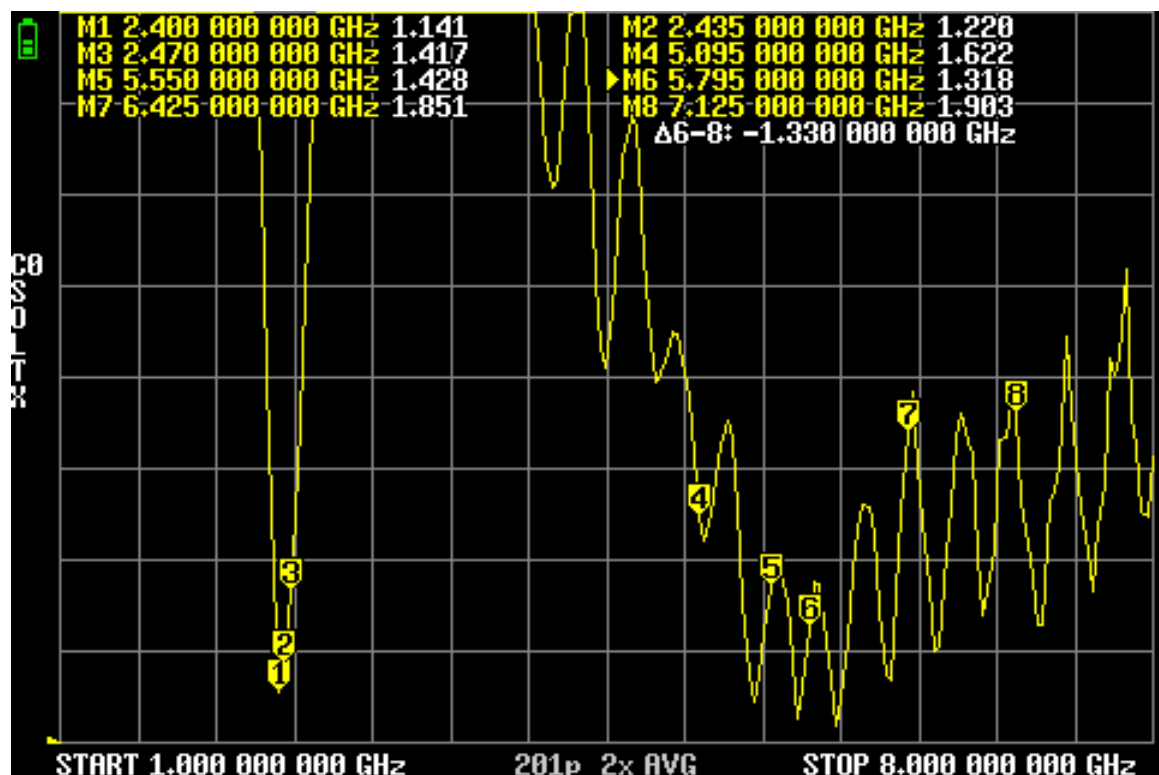
PHYSICAL PROPERTIES

WIRE	-----	OD1.13 CABLE BLACK
CABLE LENGTH	-----	150mm
CONNECTOR	-----	IPEX(IV)/MHF(IV)
FPCB	-----	FPCB
TISSUE TAPE	-----	3M467MP
OPRERATING TEMPERATURE	-----	-40℃~+80℃
STORAGE TEMPERATURE	-----	-45℃~+85℃

RETURN LOSS



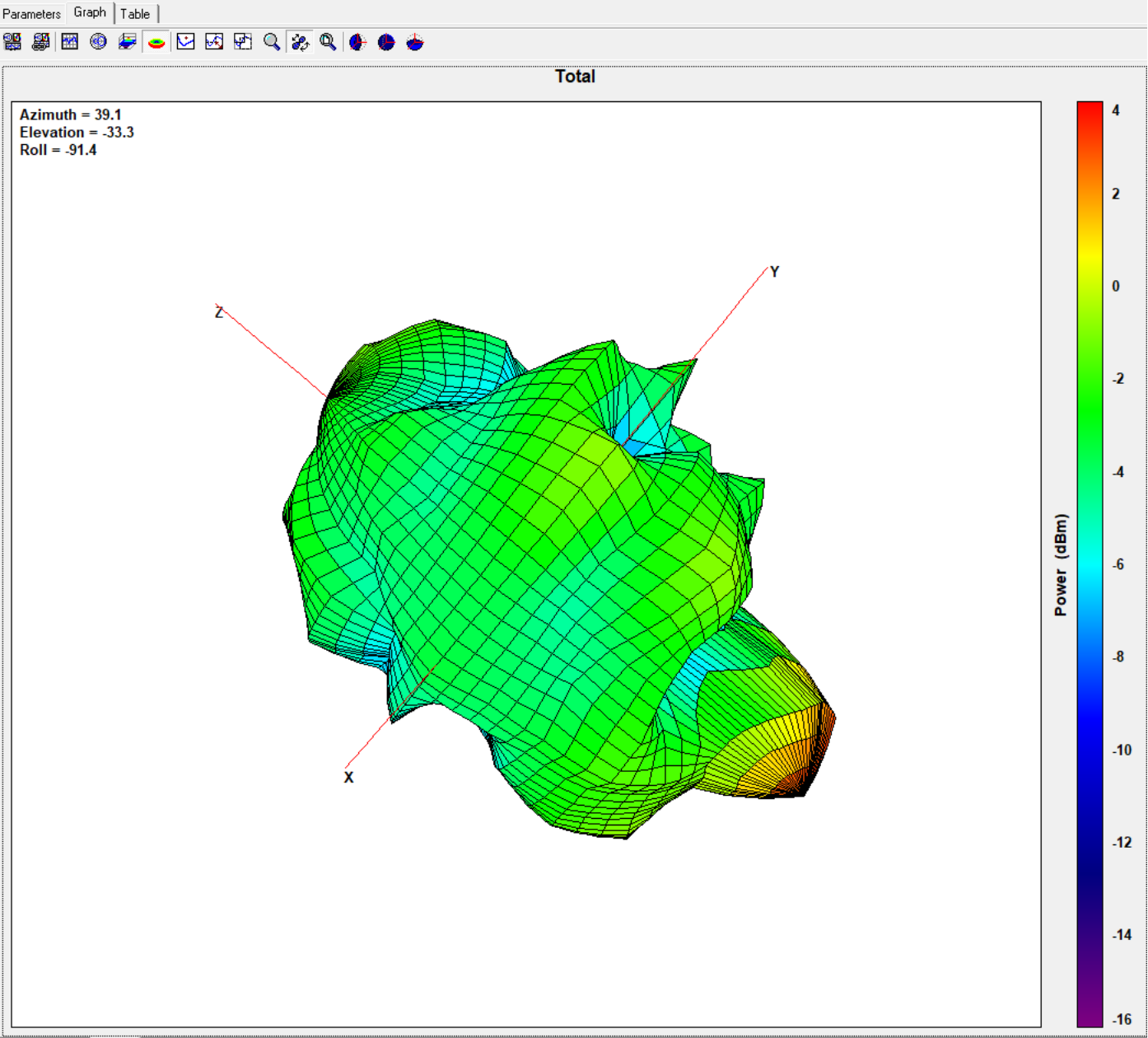
VSWR



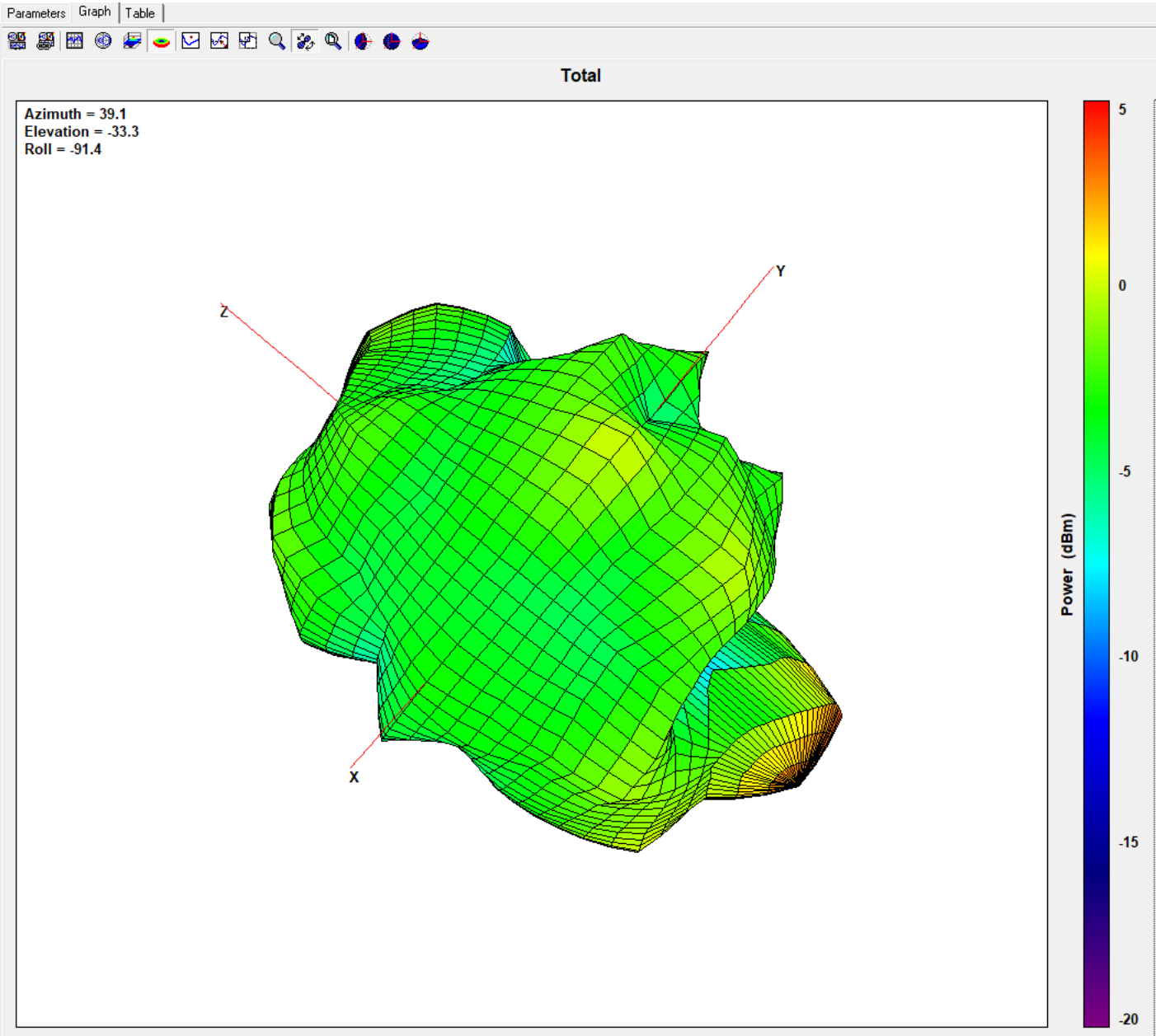
Chamber

Test Date	2025/8/19											
Trade Name												
App.No												
Model Name												
Test Mode Free Space & Talking Position												
Communication System												
Channel	2400	2450	2500	5150	5250	5350	5450	5550	5650	5750	5850	5950
Note	WIFI 6E/7											
Ant. Port Input Pwr. (dBm)	0	0	0	0	0	0	0	0	0	0	0	0
Tot. Rad. Pwr. (dBm)	-4.66765	-4.23392	-3.77788	-4.18505	-4.69068	-3.87807	-3.33848	-3.0511	-3.64333	-3.00317	-3.86601	-5.41774
Peak EIRP (dBm)	1.1664	1.56361	1.42305	1.20095	0.0415444	1.05238	2.64624	2.82592	1.94716	2.03933	1.49699	0.119541
Directivity (dBi)	5.83405	5.79753	5.20093	5.386	4.73222	4.93045	5.98472	5.87702	5.59048	5.0425	5.363	5.53728
Efficiency (dB)	-4.66765	-4.23392	-3.77788	-4.18505	-4.69068	-3.87807	-3.33848	-3.0511	-3.64333	-3.00317	-3.86601	-5.41774
Efficiency (%)	34.1378	37.7232	41.8998	38.15	33.9572	40.9443	46.3609	49.5325	43.2183	50.0822	41.0582	28.7227
Gain (dBi)	1.1664	1.56361	1.42305	1.20095	0.0415444	1.05238	2.64624	2.82592	1.94716	2.03933	1.49699	0.119541
Test Date	2025/8/19											
Trade Name												
App.No												
Model Name												
Test Mode Free Space & Talking Position												
Communication System												
Channel	6050	6150	6250	6350	6450	6550	6650	6750	6850	6950	7050	7125
Note	WIFI 6E/7											
Ant. Port Input Pwr. (dBm)	0	0	0	0	0	0	0	0	0	0	0	0
Tot. Rad. Pwr. (dBm)	-3.43607	-3.68037	-4.68818	-4.52924	-4.88269	-4.11546	-4.67214	-5.17695	-4.70568	-4.05521	-2.30515	-2.9404
Peak EIRP (dBm)	2.73939	2.94906	1.98792	1.72161	1.88083	1.45534	0.590942	0.391785	0.17928	1.11667	2.86999	1.12356
Directivity (dBi)	6.17546	6.62943	6.67609	6.25085	6.76353	5.5708	5.26308	5.56874	4.88496	5.17188	5.17514	4.06396
Efficiency (dB)	-3.43607	-3.68037	-4.68818	-4.52924	-4.88269	-4.11546	-4.67214	-5.17695	-4.70568	-4.05521	-2.30515	-2.9404
Efficiency (%)	45.3308	42.8512	33.9768	35.2432	32.4886	38.7663	34.1025	30.3602	33.8402	39.3078	58.8145	50.8113
Gain (dBi)	2.73939	2.94906	1.98792	1.72161	1.88083	1.45534	0.590942	0.391785	0.17928	1.11667	2.86999	1.12356

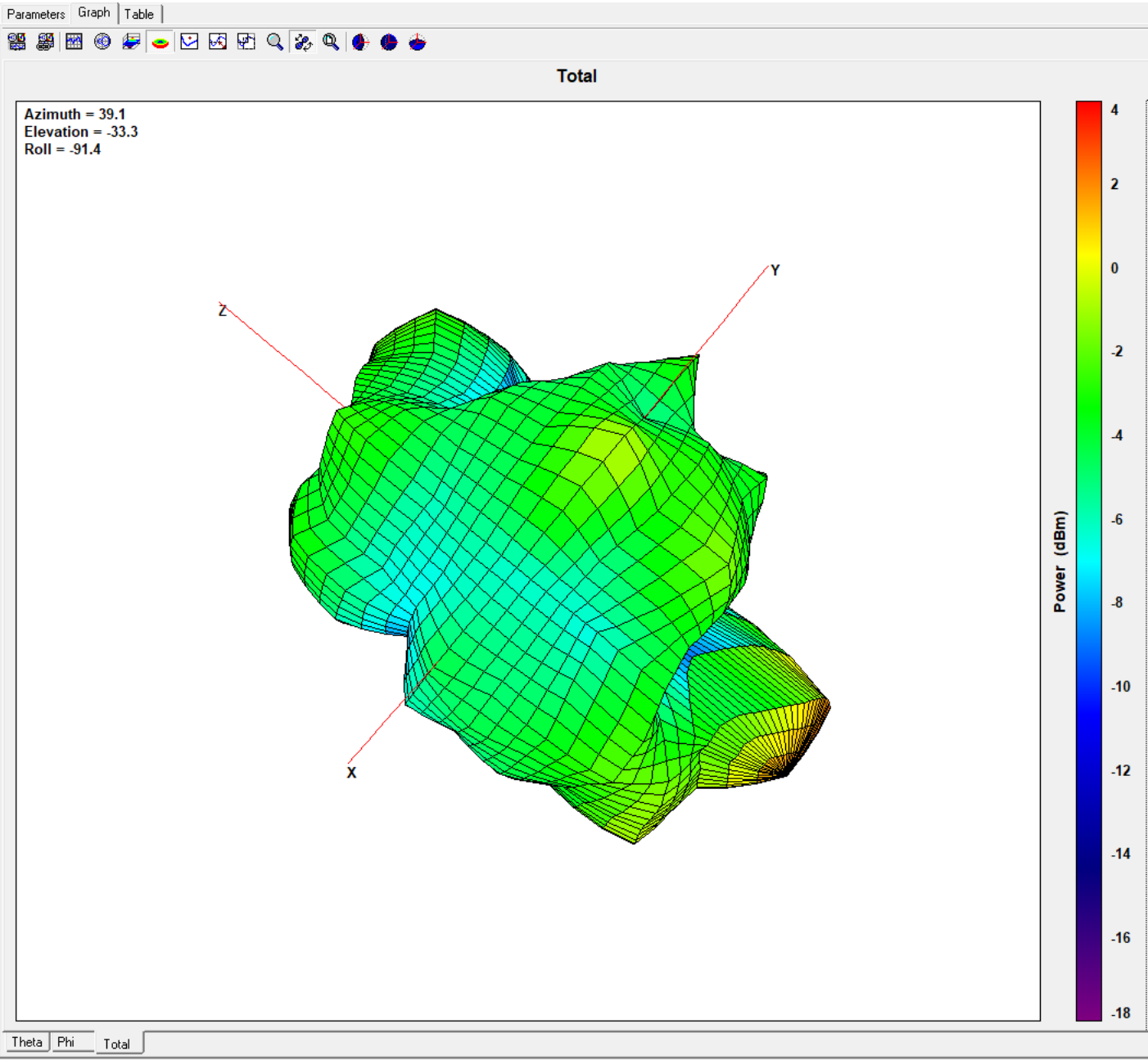
Center freq.(MHz): : 2400



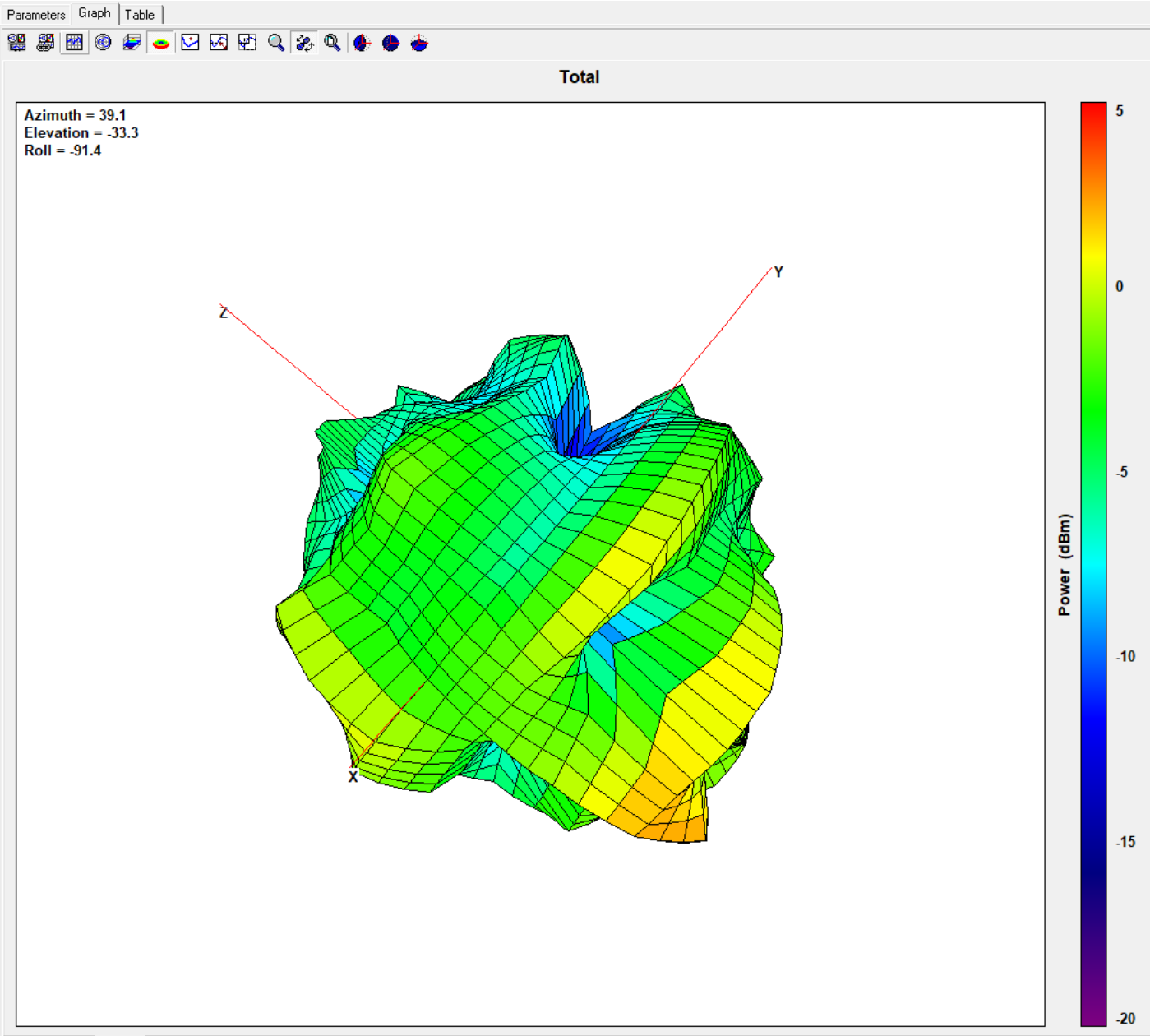
Center freq.(MHz): : 2450



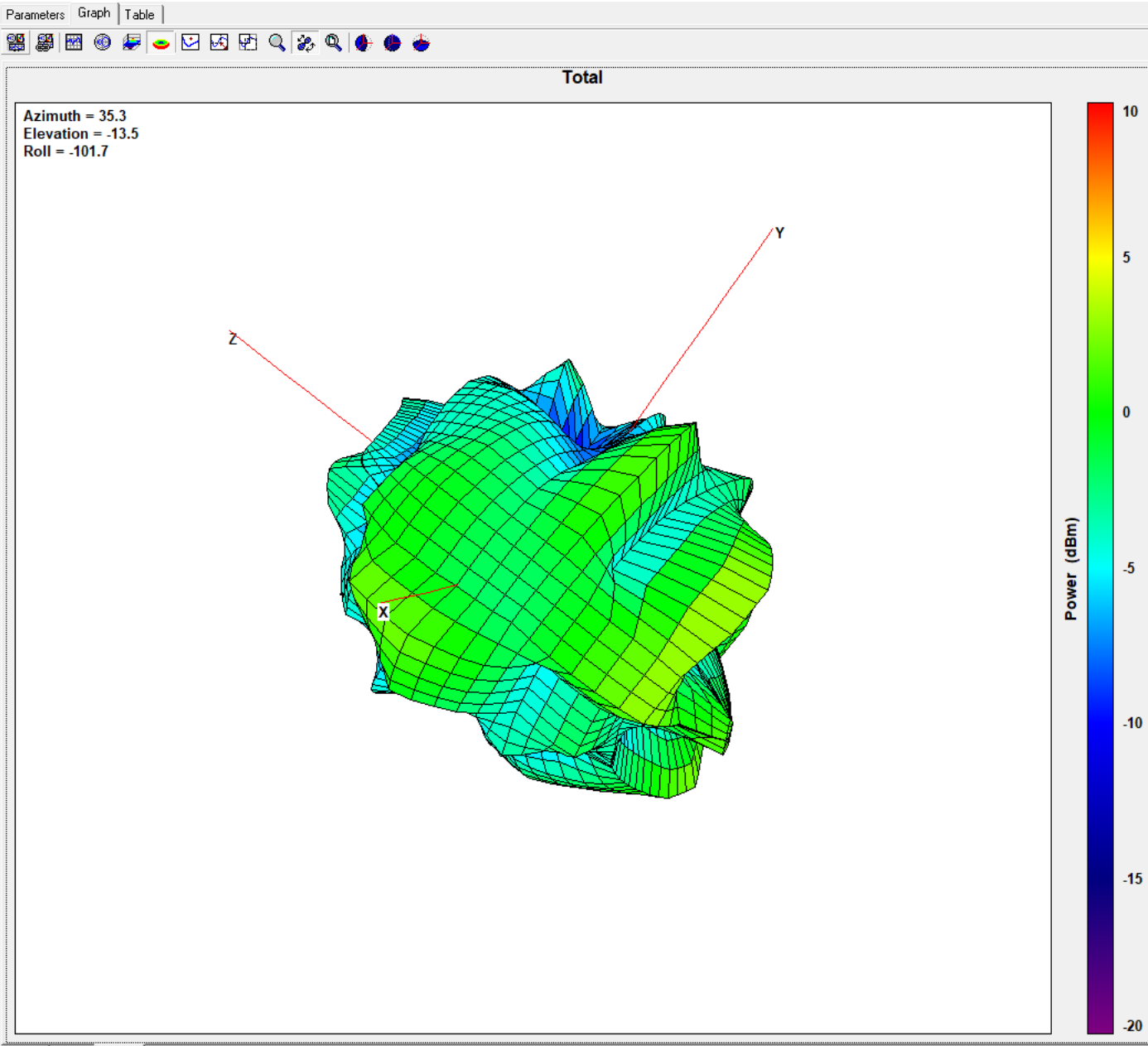
Center freq.(MHz): : 2500



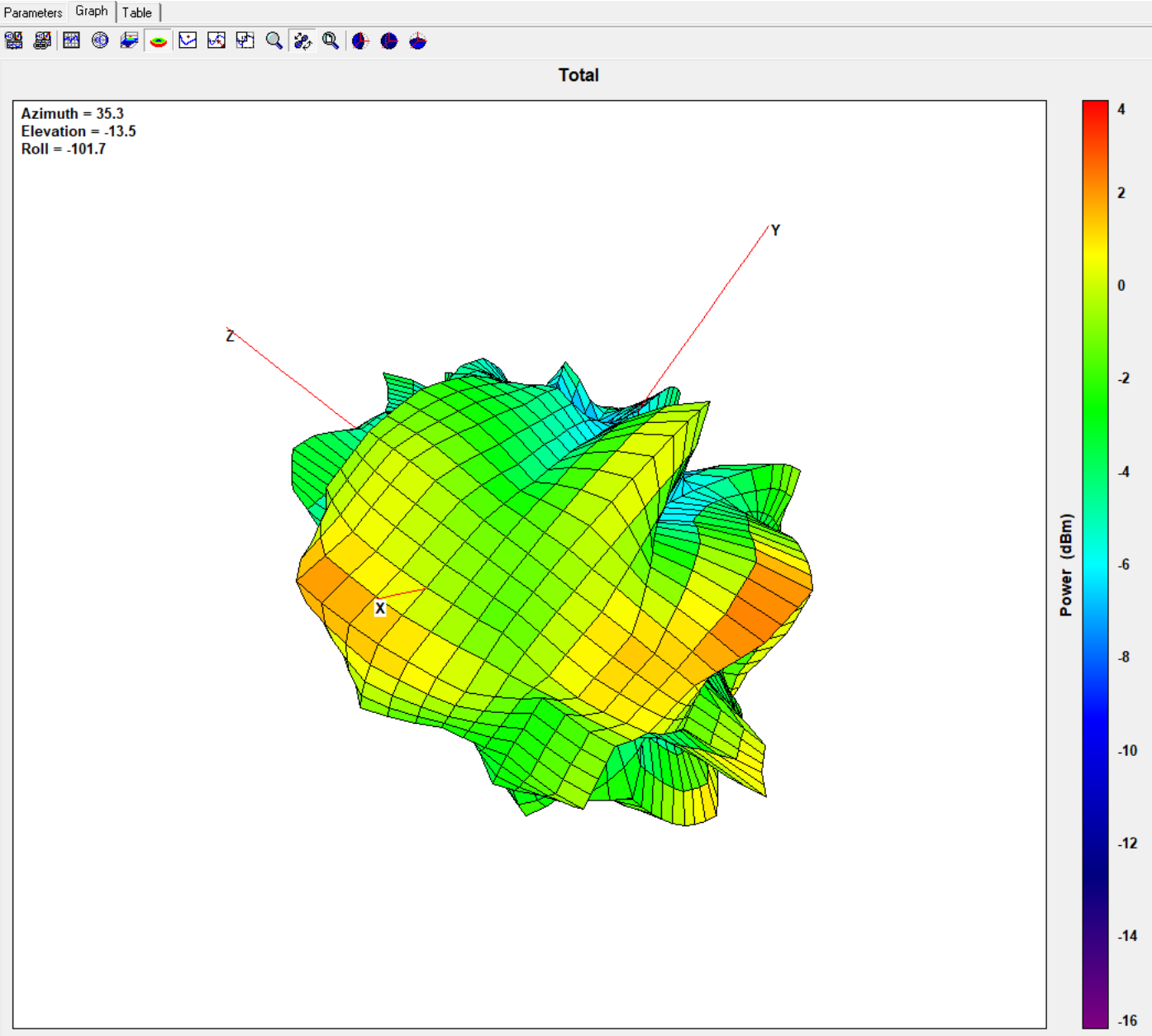
Center freq.(MHz): : 5150



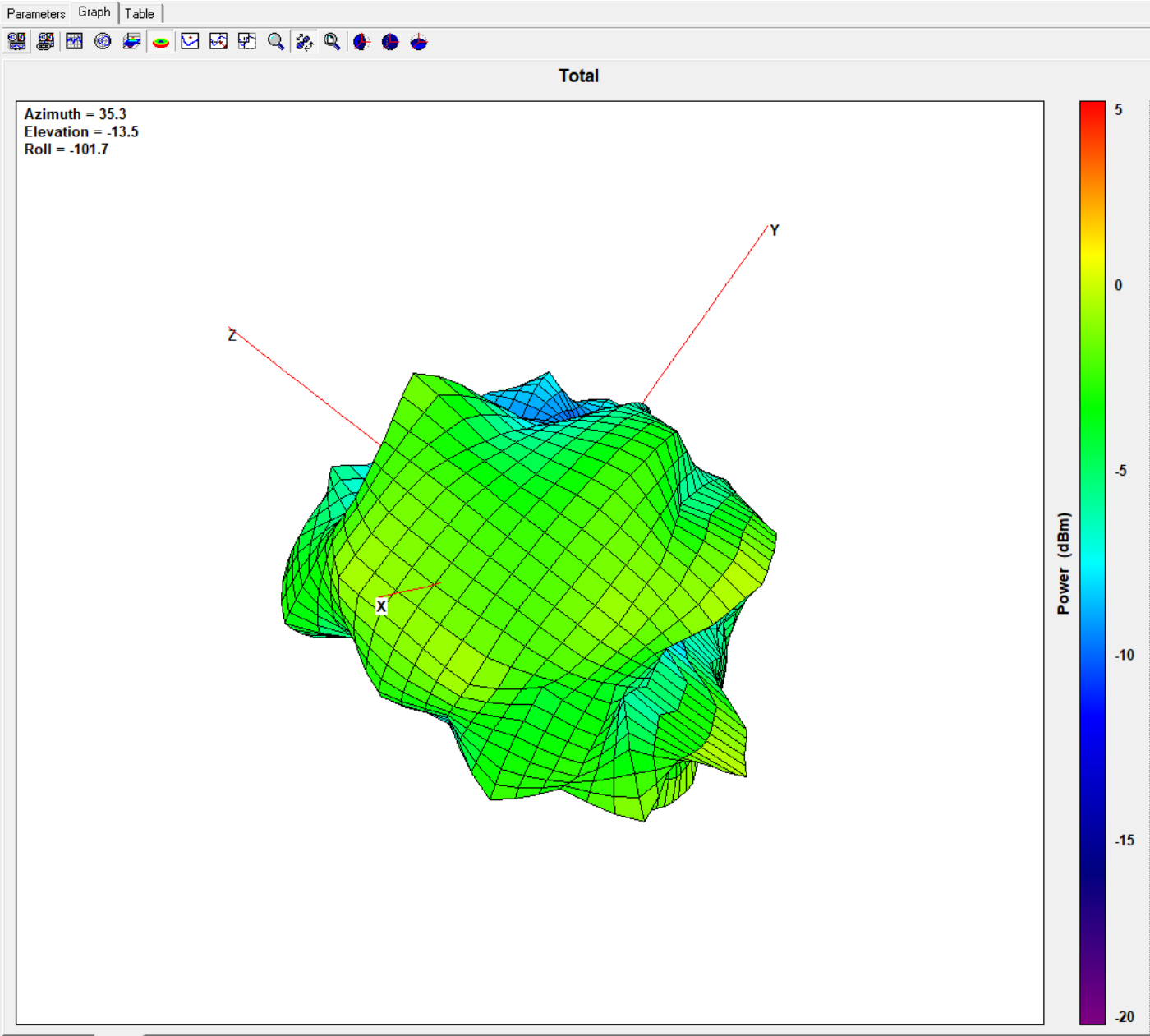
Center freq.(MHz): : 5350



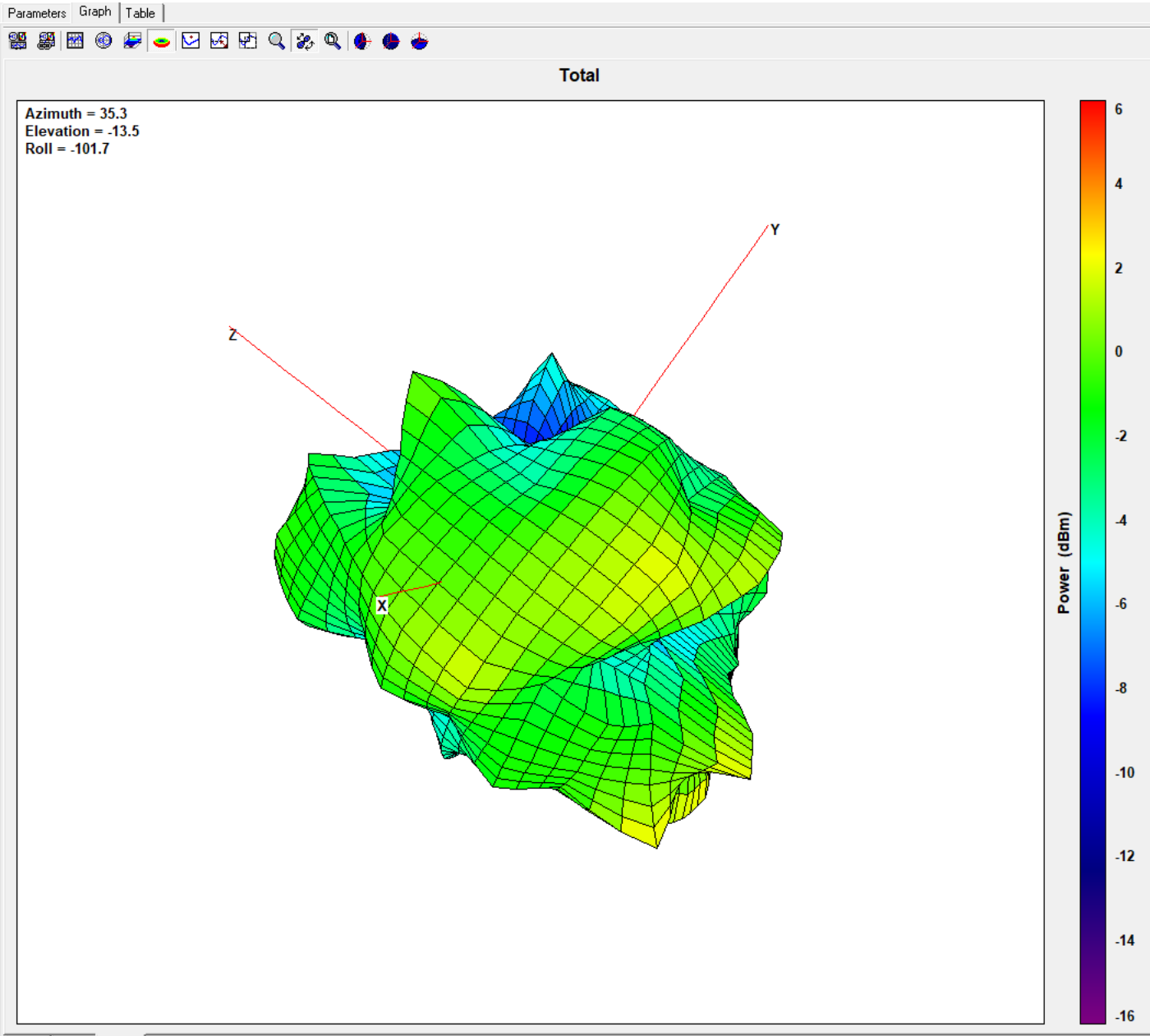
Center freq.(MHz): : 5450



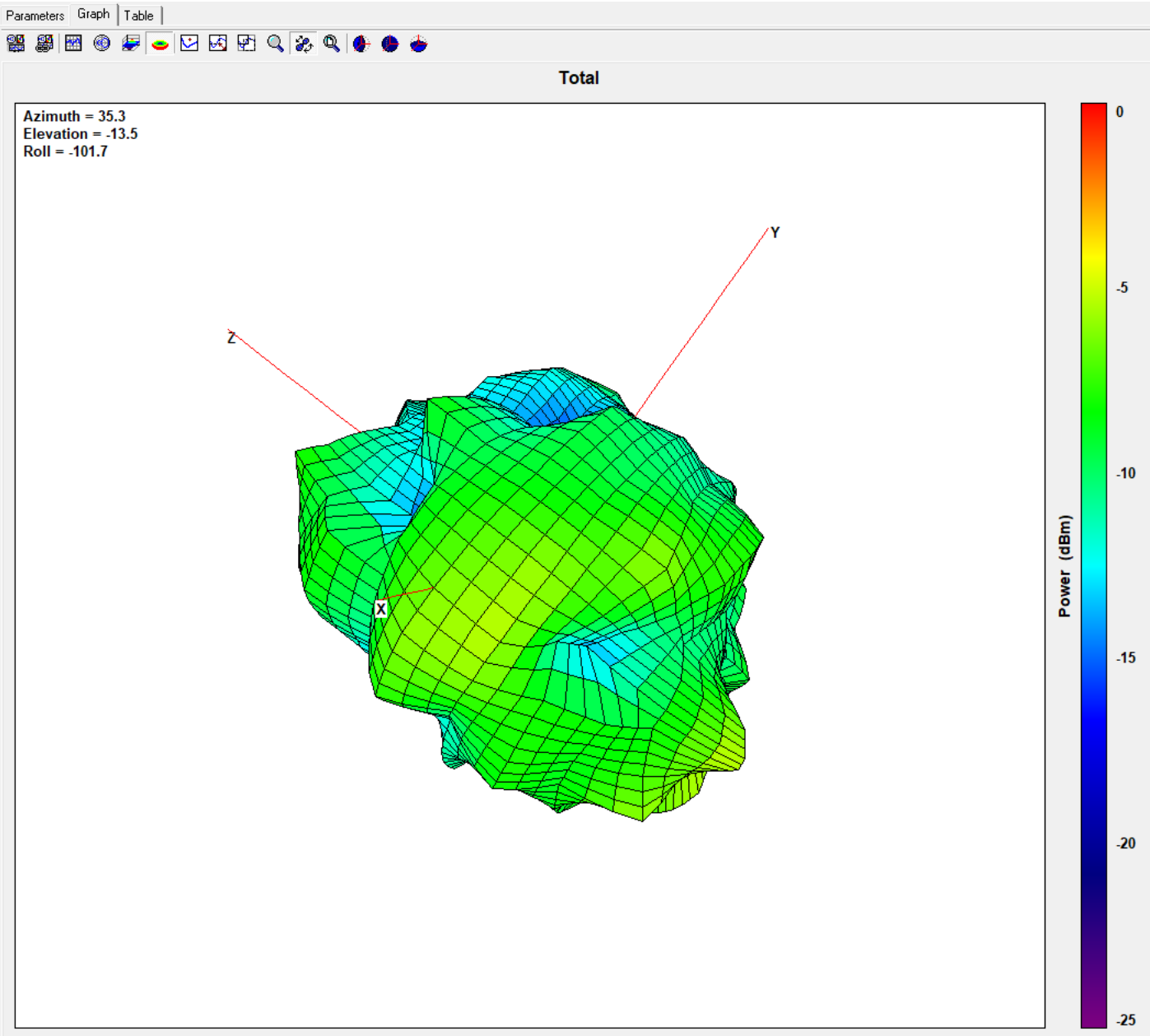
Center freq.(MHz): : 5650



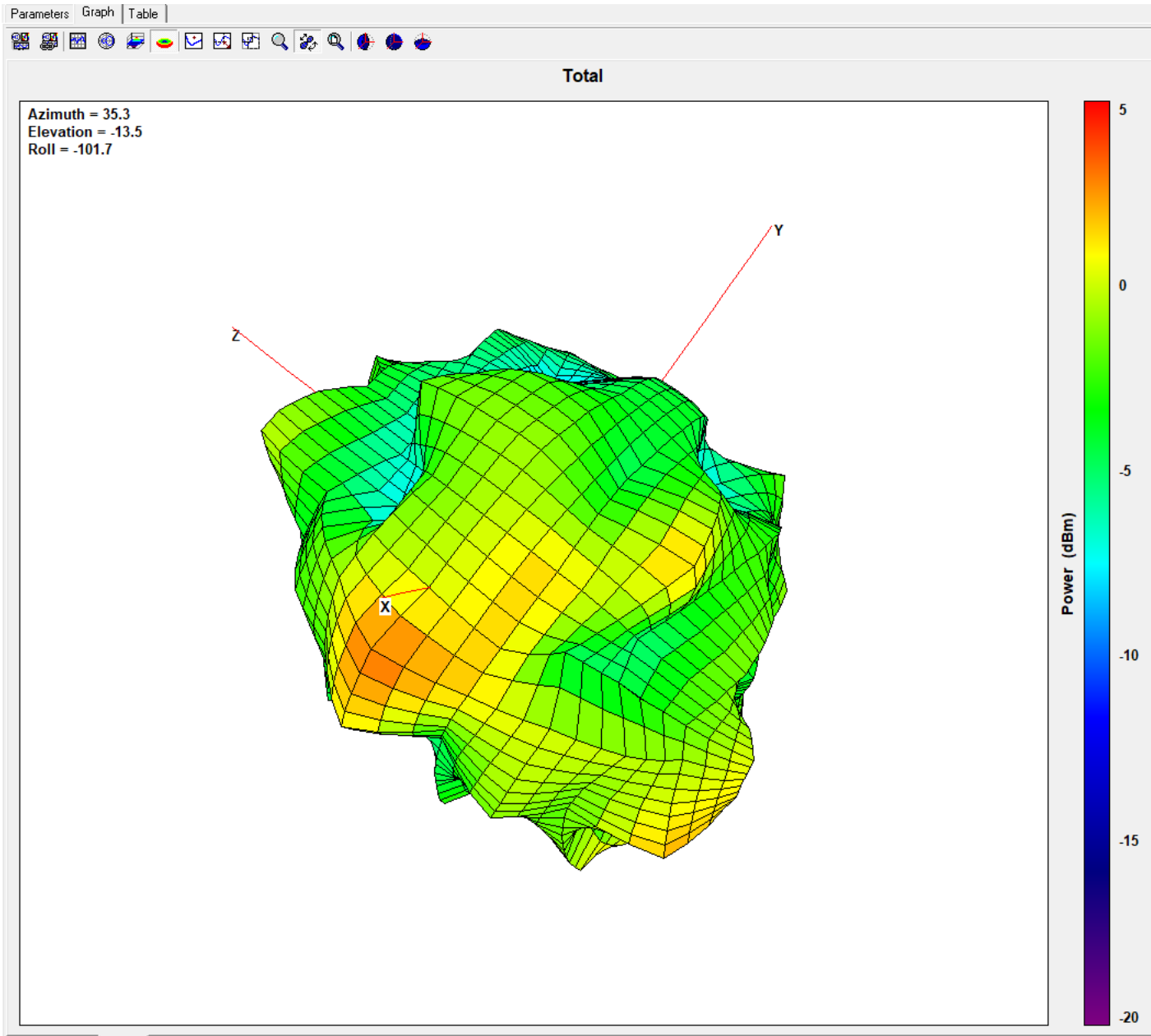
Center freq.(MHz): : 5750



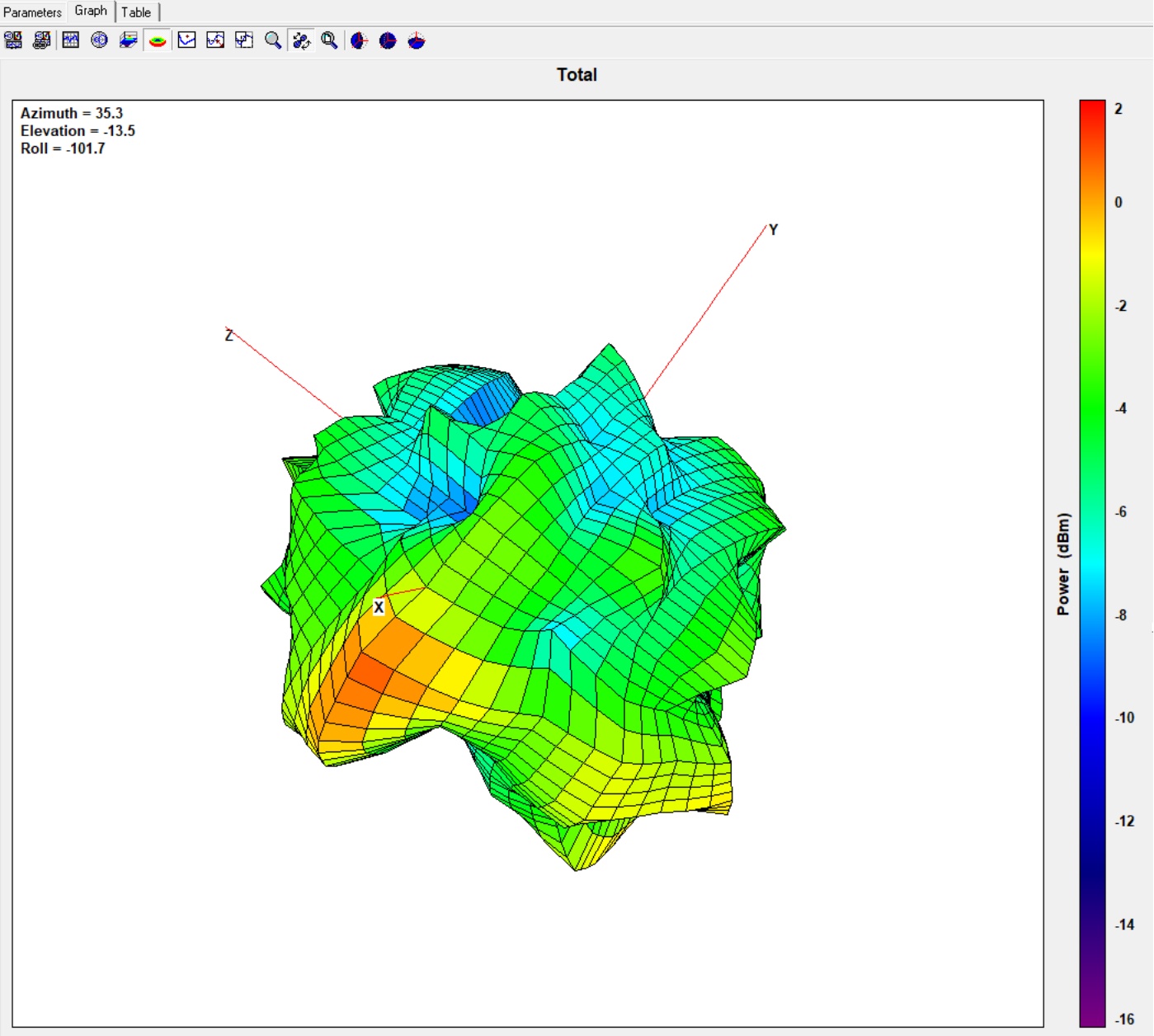
Center freq.(MHz): : 5850



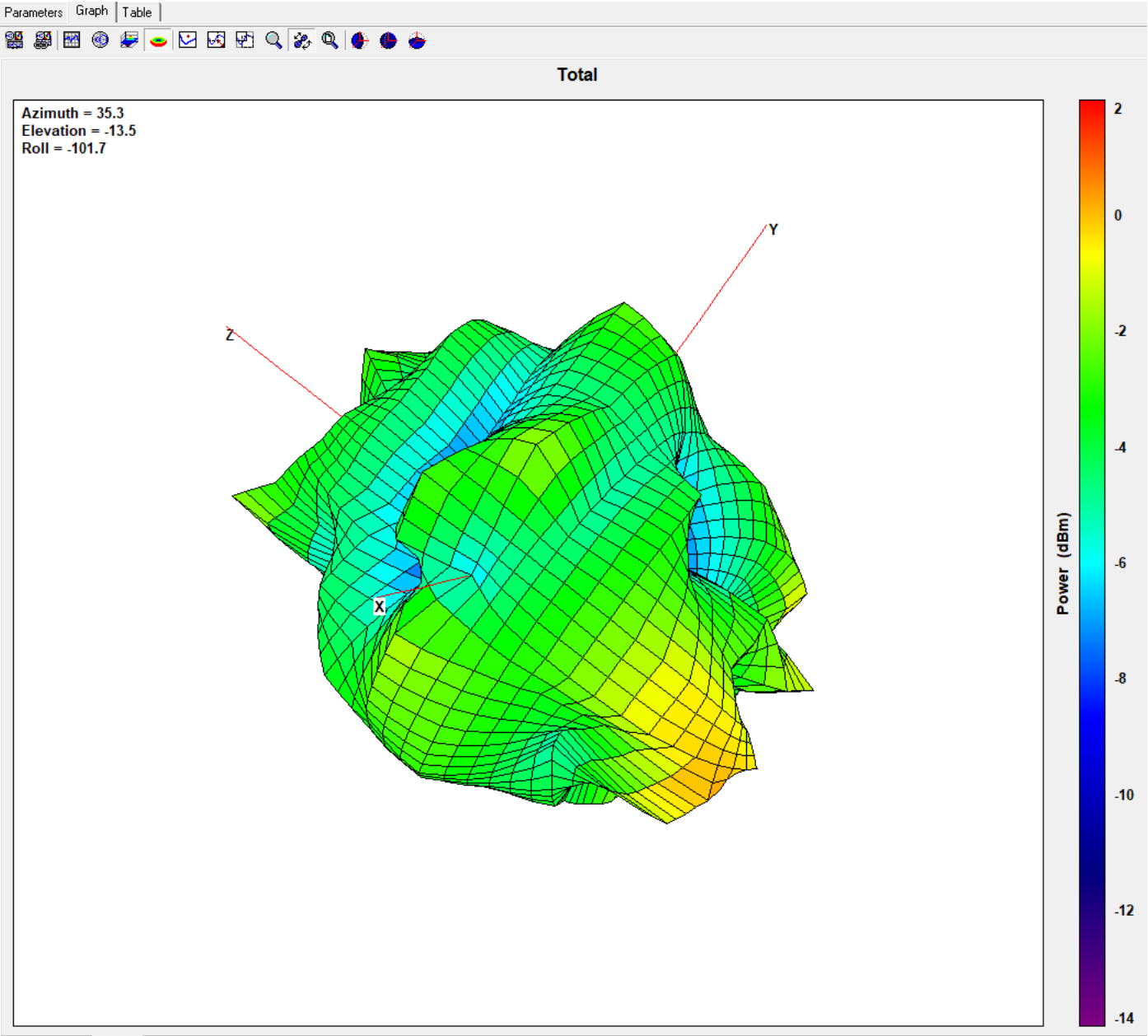
Center freq.(MHz): : 5950



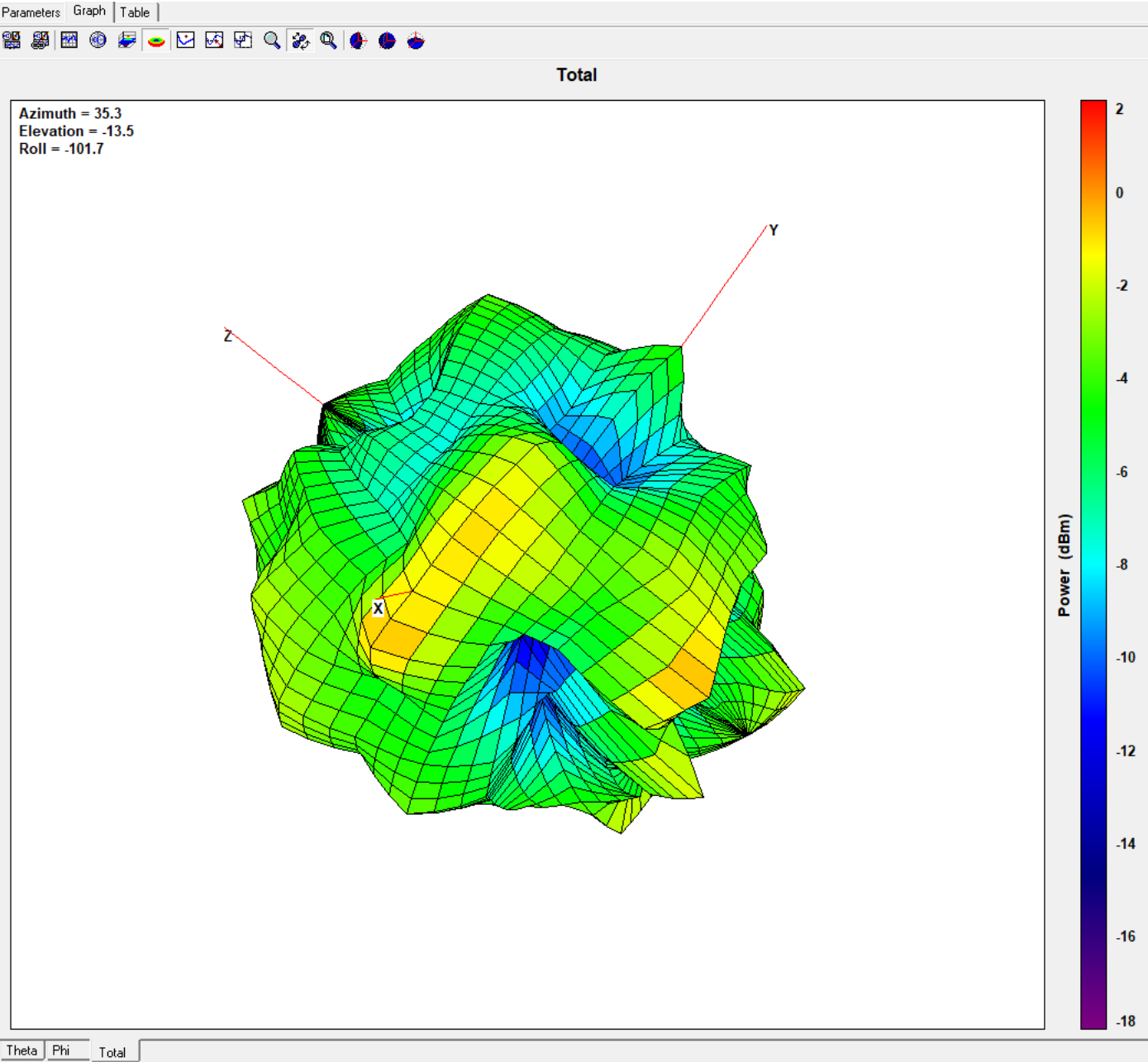
Center freq.(MHz): : 6150



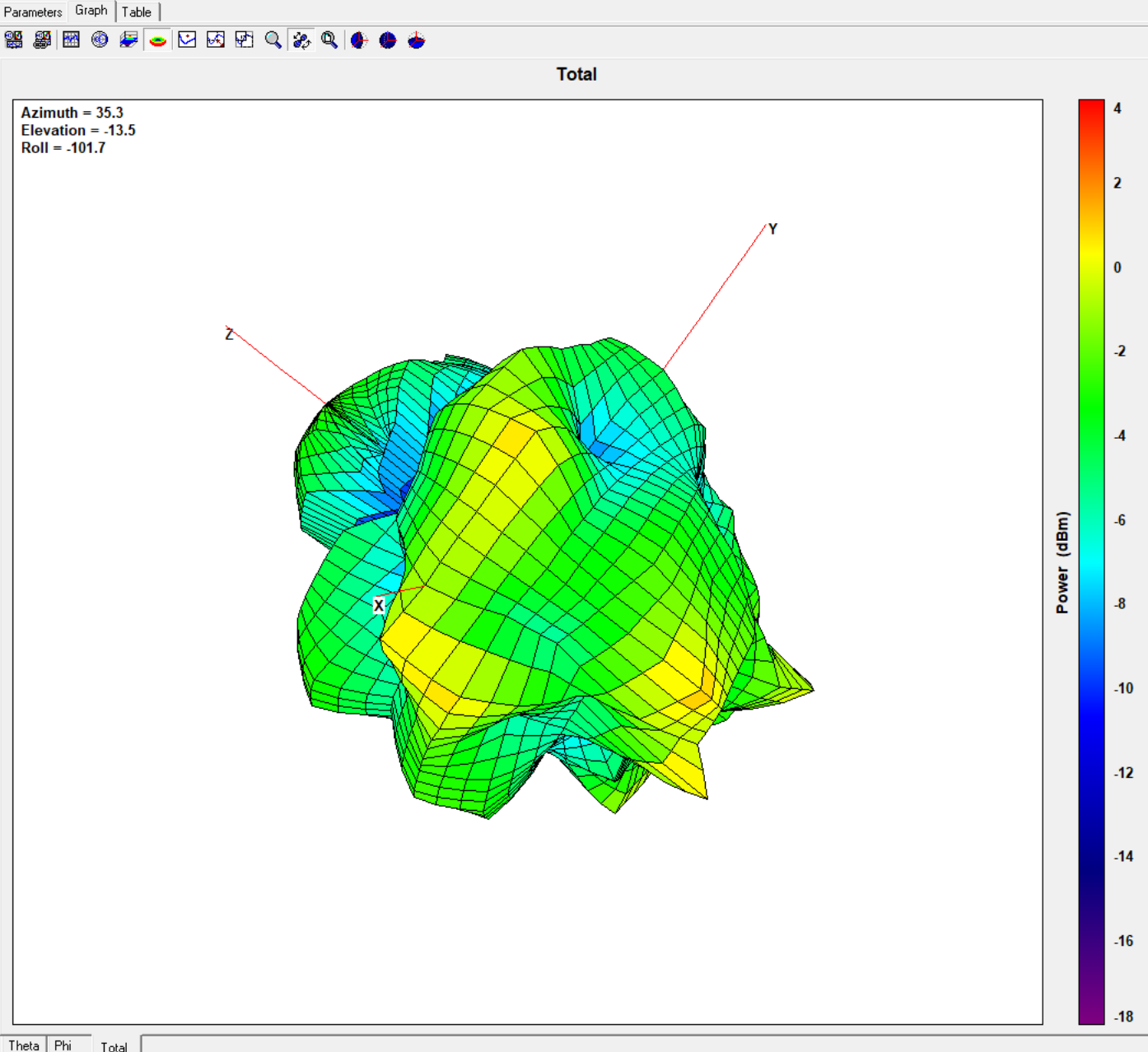
Center freq.(MHz): : 6450



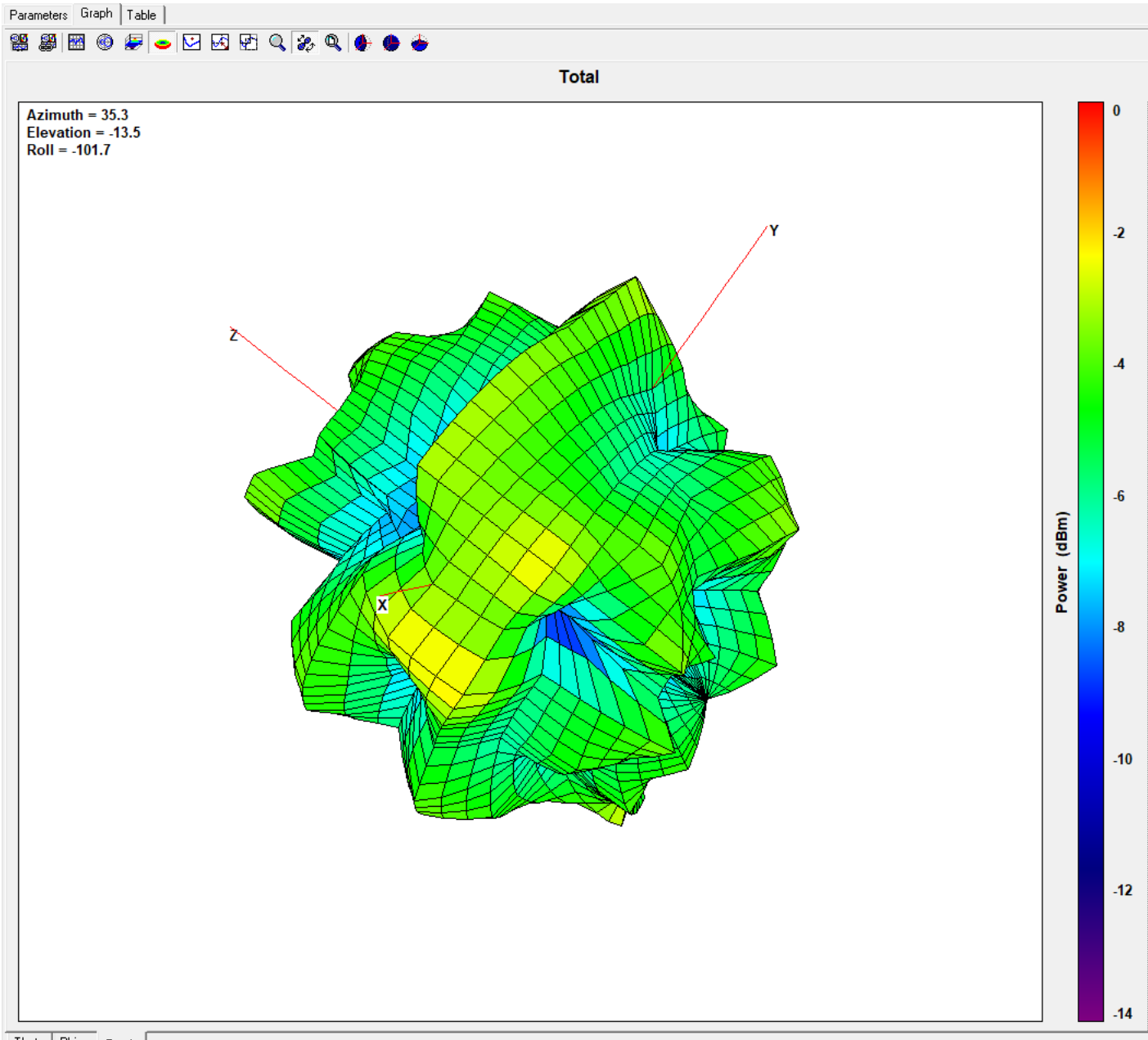
Center freq.(MHz): : 6650



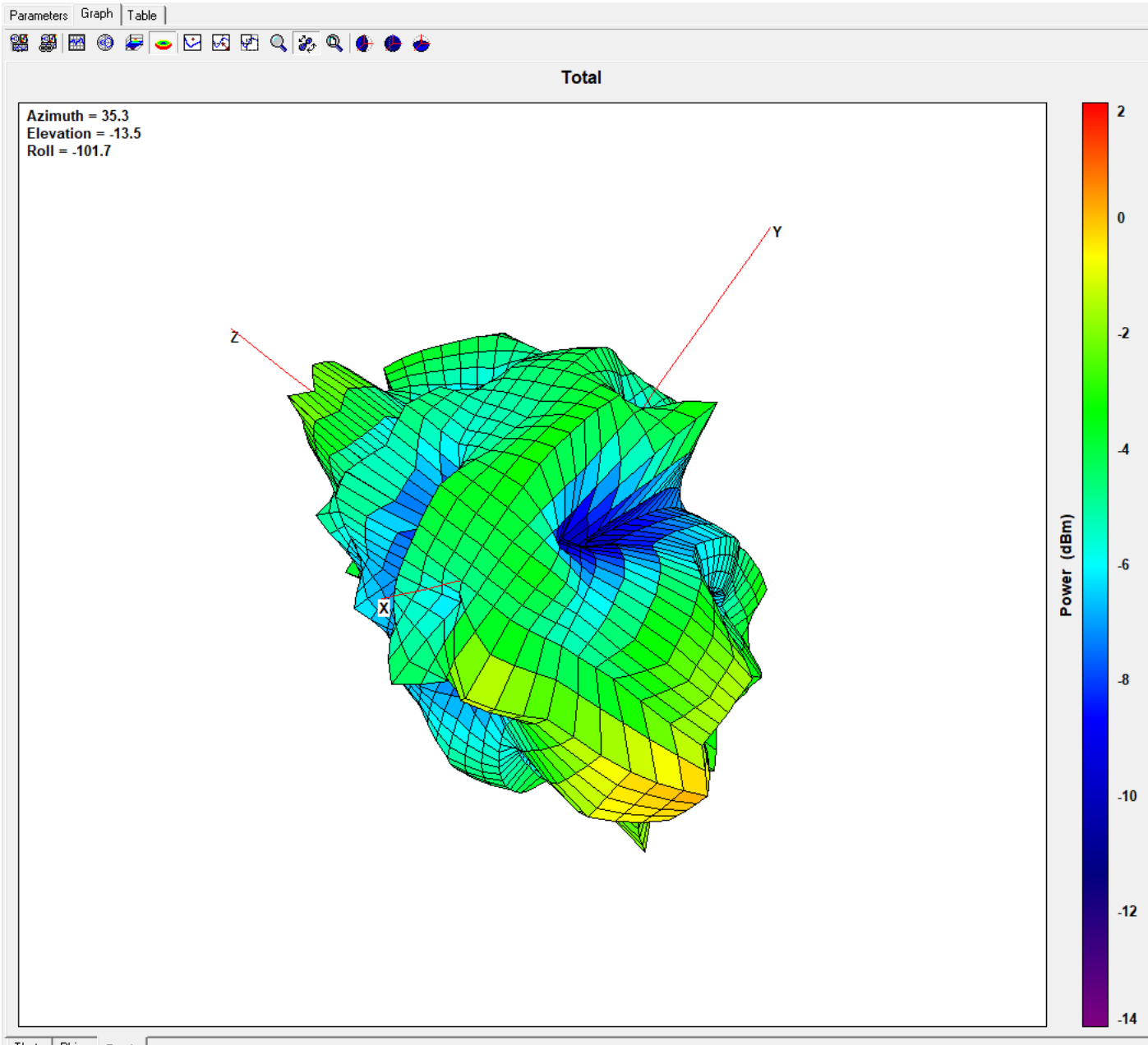
Center freq.(MHz): : 6750



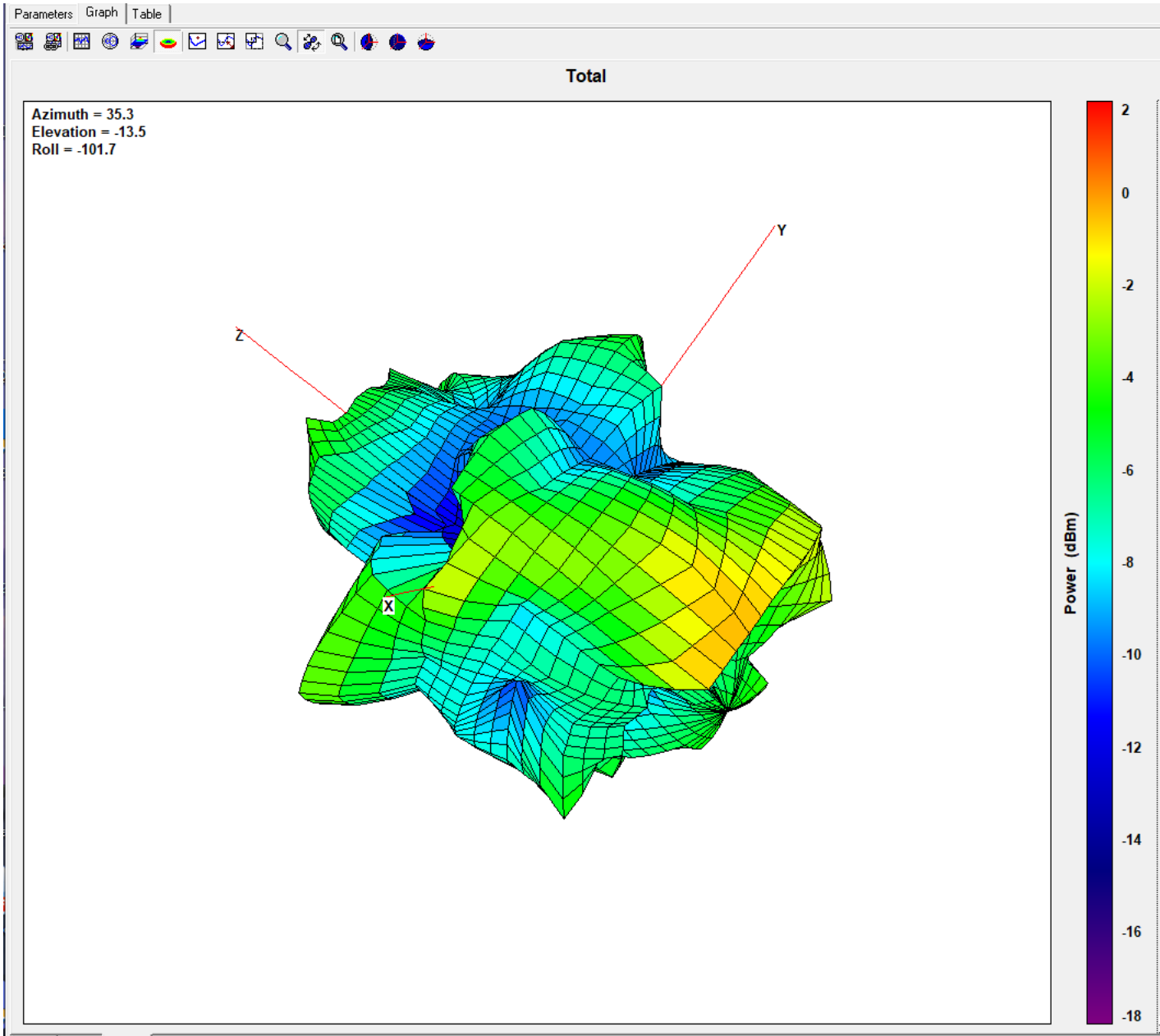
Center freq.(MHz): : 6850



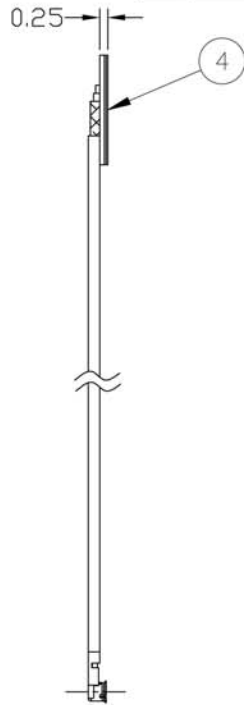
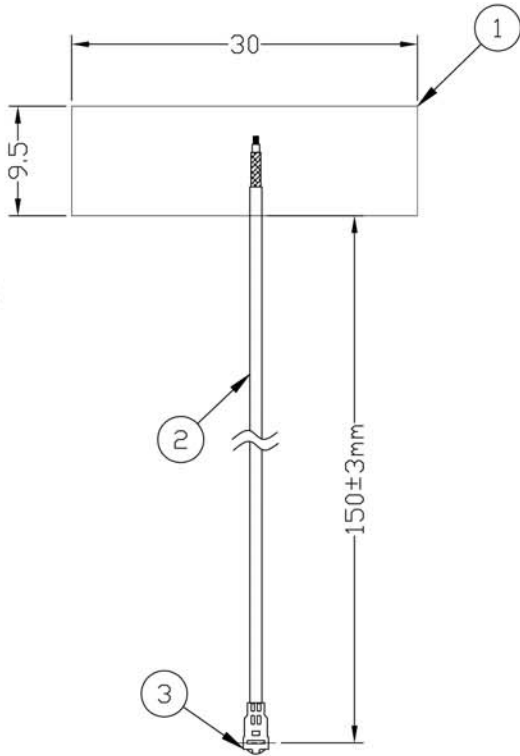
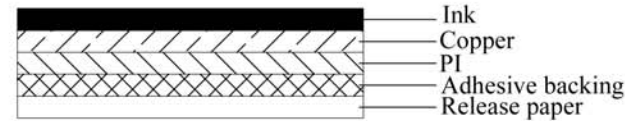
Center freq.(MHz): : 6950



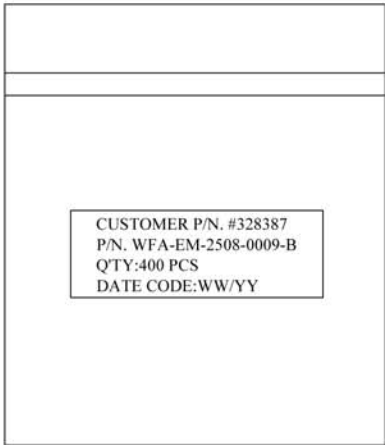
Center freq.(MHz): : 7125



FREQUENCY RANGE:2.4~2.5/5.15~7.125 GHz
IMPEDANCE:50Ω
VSWR:≤2
RETURN LOSS:-10dB MAX
RADIATION:OMNI-DIRECTIONAL
GAIN:2.0 dBi
POLARIZATION:LINEAR VERTICAL
OPERATING TEMPERATURE:-40 ~ +80 °C
STORAGE TEMPERATURE:-45 ~ +85 °C



400 pcs / 1 Bag



Connector directions are for reference only

REVISIONS

REV	DESCRIPTION	LOCATION	DRAWN	DATE
A	New drawing		JOHN	2024/12/20
A	Modify drawing		JERRY	2025/8/5
A	Add part number		JERRY	2025/8/26

4	EMI40-FPC	TISSUE TAPE	3M 467MP	CPN-FPCB-2508-0936-B	1PCS	N/A
3	N/A	CONNECTOR	MHF (IV)/IPEX (IV)	N/A	1PCS	GOLD
2	N/A	CABLE	Ø1.13mm CABLE	N/A	1PCS	BLACK
1	EMI40-FPC	FPCB	FPCB	CPN-FPCB-2508-0936-B	1PCS	BLACK
ITEM	PART NO.	PART NAME	MATERIAL	DWG NO.	Q'TY	REMARKS

RANGE	TOLERANCE	TAITEK COMPONENTS CO., LTD			MODEL NAME	
X.x.x	0.10				WIFI 7 ANTENNA	
X.x	0.15	MATERIAL: SEE TABLE	DRAWN: JERRY	DATE: 2025/8/26	TITLE: WIFI7 EMBEDDED PIFA ANTENNA	
X	0.25	FINISH: WIFI 7 ANTENNA	DESIGN: JOHN	DATE: 2025/8/26	SIZE: A3	PART NO. WF71EM140-IS150
 THE 3RD PROJECTION		UNIT: mm	APPROVED: BRUCE	DATE: 2025/8/26	SCALE : N/A	
		DWG NO. WFA-EM-2508-0009-B			SHEET 1 OF 1	
REV. C						