

Technical Specification Requirements

1. Introduction to Test Items and Equipment

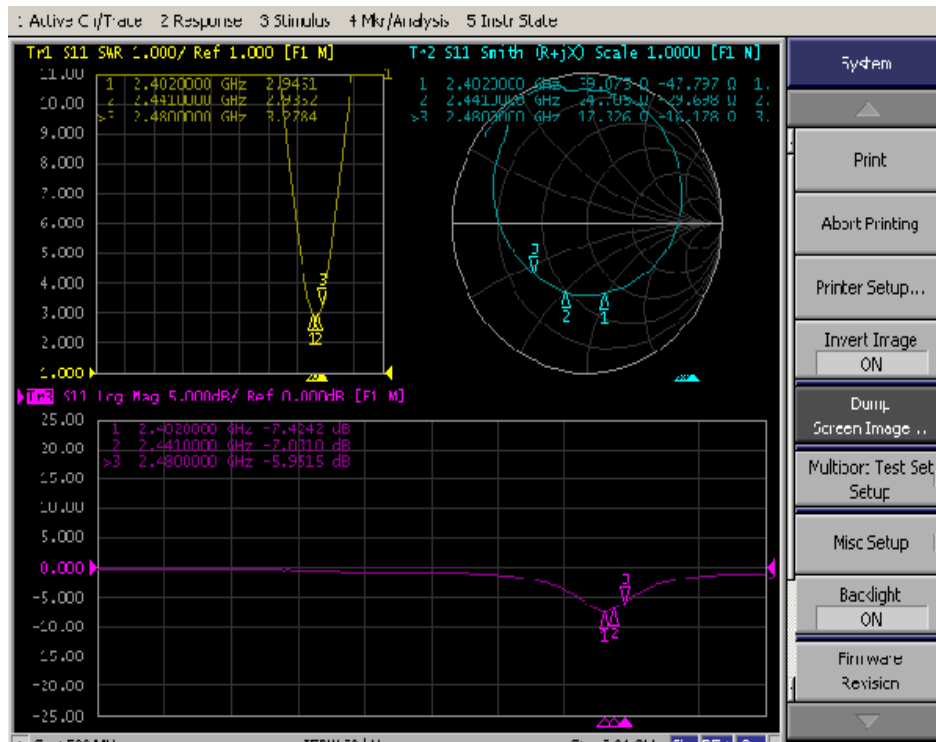
List	Test Item	Equipment
S11 Parameter	VSWR, Return Loss	Network Analyzer
Active Test	TRP,TIS	Communication Test Set, Anechoic Chamber
Passive Test	Gain, Efficiency	Network Analyzer
Antenna Model/Manufacturer	SF32LB56/SIFLI	

Antenna Manufacturer : SiFli Technologies (Nanjing) Co.,Ltd.

Address: 419-13, Building B, No. 320 Pubin Road, Nanjing Area, Jiangsu Free Trade Zone, China

Model Number: SF32LB56

2. Antenna S11 Passive Parameters

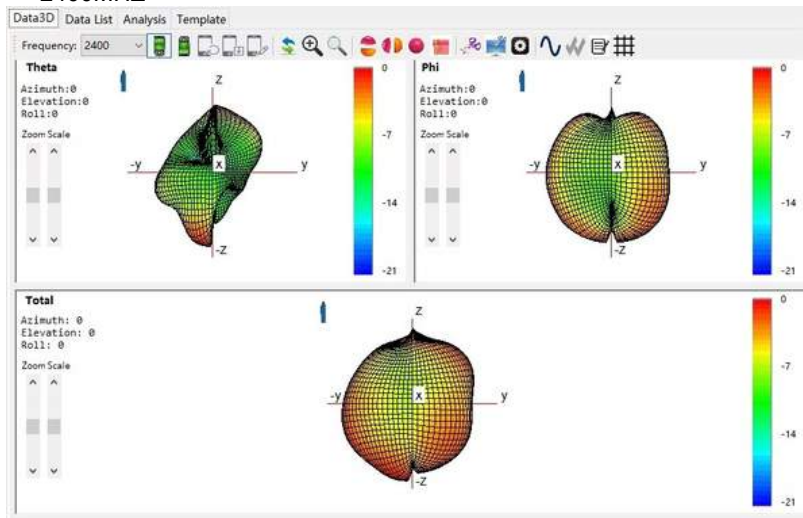


3. Antenna Gain Passive Parameters

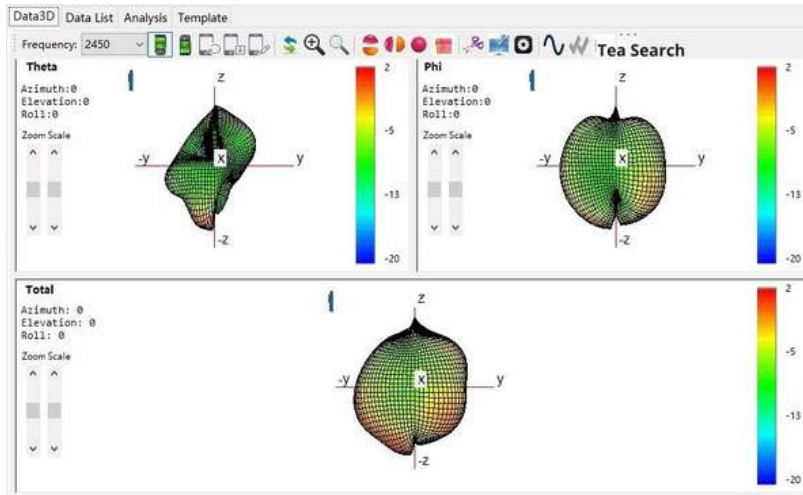
Test	FS								
Test Point ID	1	2	3	4	5	6	7	8	9
Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480
Efficiency (%)	42.38%	42.88%	43.96%	44.48%	44.17%	43.95%	43.42%	43.18%	42.47%
Efficiency (dB)	-3.73	-3.68	-3.57	-3.52	-3.55	-3.57	-3.62	-3.65	-3.72
Gain (dBi)	-0.53	-0.17	0.3	0.68	0.89	1.09	1.19	1.16	1.06

3.1 Antenna Radiation Pattern - BT (FS)

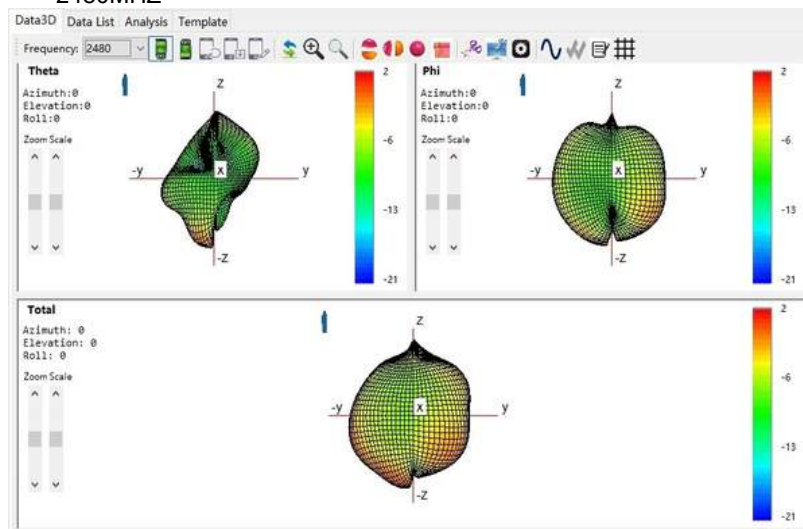
2400MHZ



2450MHZ

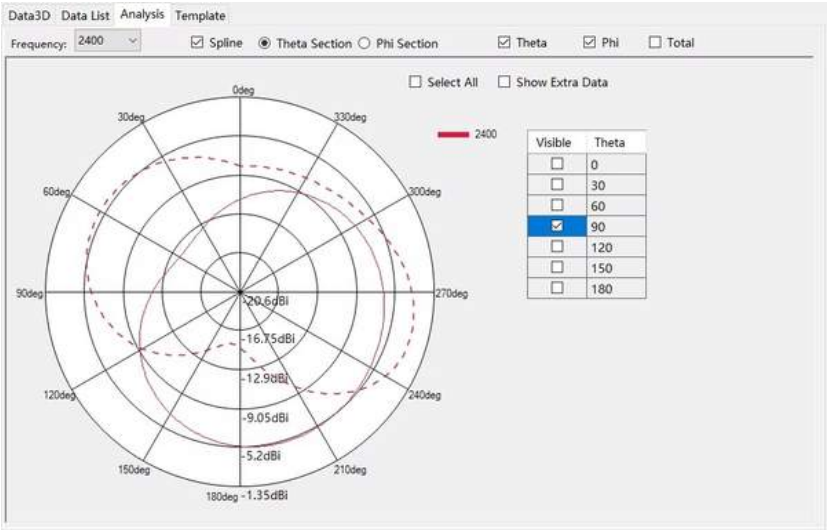


2480MHZ

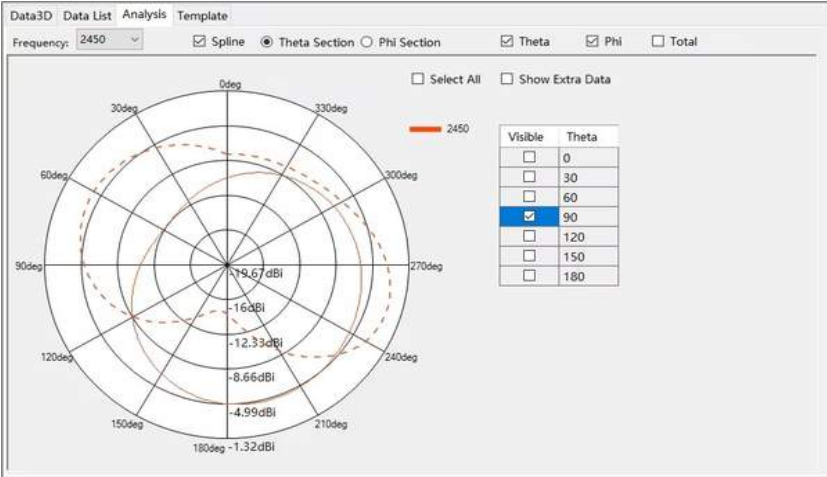


3.2 Antenna Radiation Pattern (2D) - FS

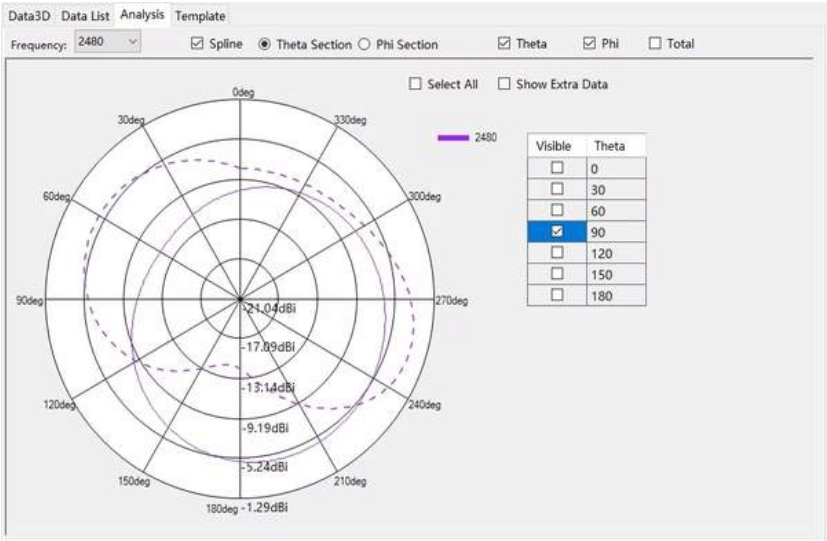
2400MHZ



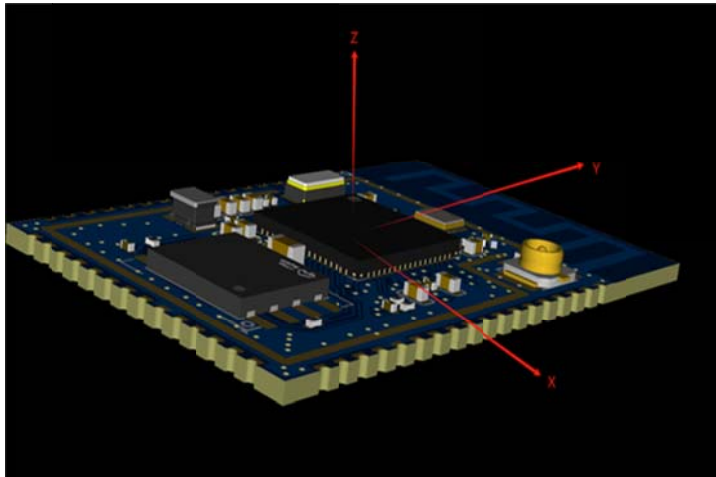
2450MHZ



2480MHZ



4. Diagram of Module Marked XYZ



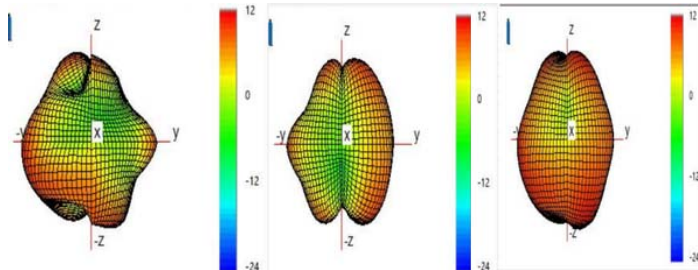
5. Active Antenna Parameters

5.1 TRP

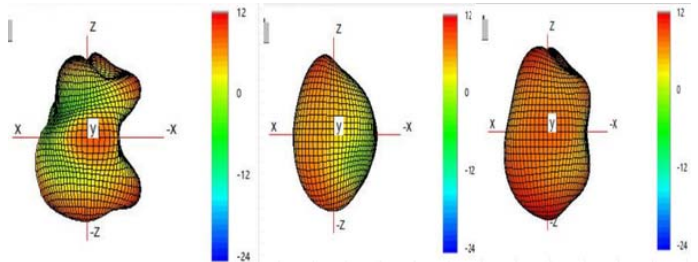
Band	Channel	Frequency (MHz)	TRP/TIS (dBm)	Peak EIRP	Min EIRP	BoreSight Theta(°)	BoreSight Phi(°)	NHPRP±45/NHPIS±45 (dBm)	NHPRP±30/NHPIS±30 (dBm)
Classic	0	2402	8.58	12.19	1.77	90	240	6.85	5.23
Classic	39	2441	8.16	11.83	0.18	150	60	6.30	4.60
Classic	78	2480	7.91	11.52	-0.51	30	240	6.00	4.19

5.2 TRP 3D (OTA)

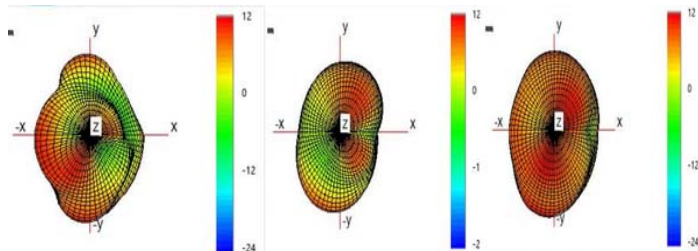
2441MHZ X+



2441MHZ Y+



2441MHZ Z+

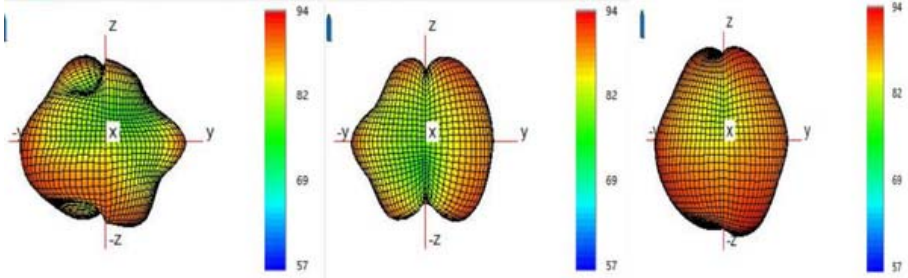


5.3 TIS

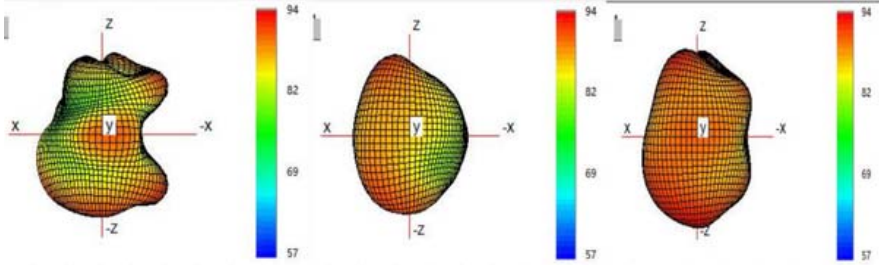
Band	Channel	Frequency (MHz)	TRP/TIS (dBm)	Peak EIS	Min EIS	BoreSight Theta(°)	BoreSight Phi(°)	NHPRP±45/ NHPS±45 (dBm)	NHPRP±30/ NHPS±30 (dBm)
Classic	0	2402	-89.88	-93.50	-83.07	90	240	-88.15	-86.53
Classic	39	2441	-89.88	-93.55	-81.90	150	60	-88.02	-86.31
Classic	78	2480	-89.51	-93.11	-81.08	30	240	-87.59	-85.78

5.4 TIS 3D (OTA)

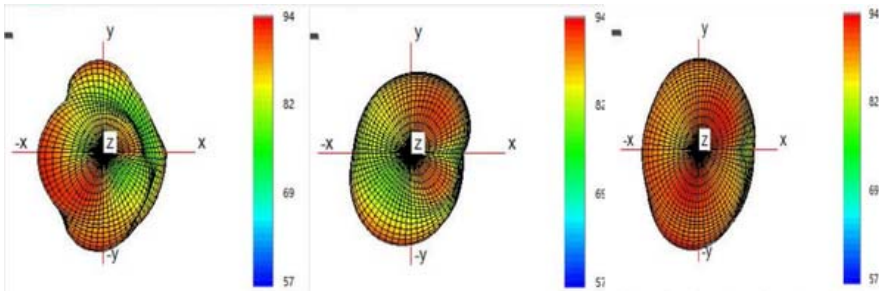
2441MHZ X+



2441MHZ Y+



2441MHZ Z+



Optimum position: phi 240° , theta 30° , horizontal polarization;