



Antenna Specification Approval Document

CUSTOMER NAME:	NOVA STAR				
Customer Material Code:	120010003				
TYPE NAME:	FS-3020-2450				
SPECIFICATION:	Rubber Antenna-2.4GHz 5dBi-Rubber Sleeve - RP-SMA Male- L=195mm (JB-049)				
一、 Newly Approved	☐				
二、 Material Approved	☐				
三、 SPEC Approved	☒				
Manufacturer/Supplier R&D Acknowledgment			Customer Confirmation		
(APPROVAL BY) :			(APPROVAL BY) :		
(APPROVAL DATE) : 2026-05-27			(APPROVAL DATE) :		
SUPPLIER			CUSTOMER		
RF:	Structures:	Business	TESTED	CHECKED	APPROVED
Guo Xi	Xu Long	Li sheng			

Feisheng Electronics Co., Ltd.

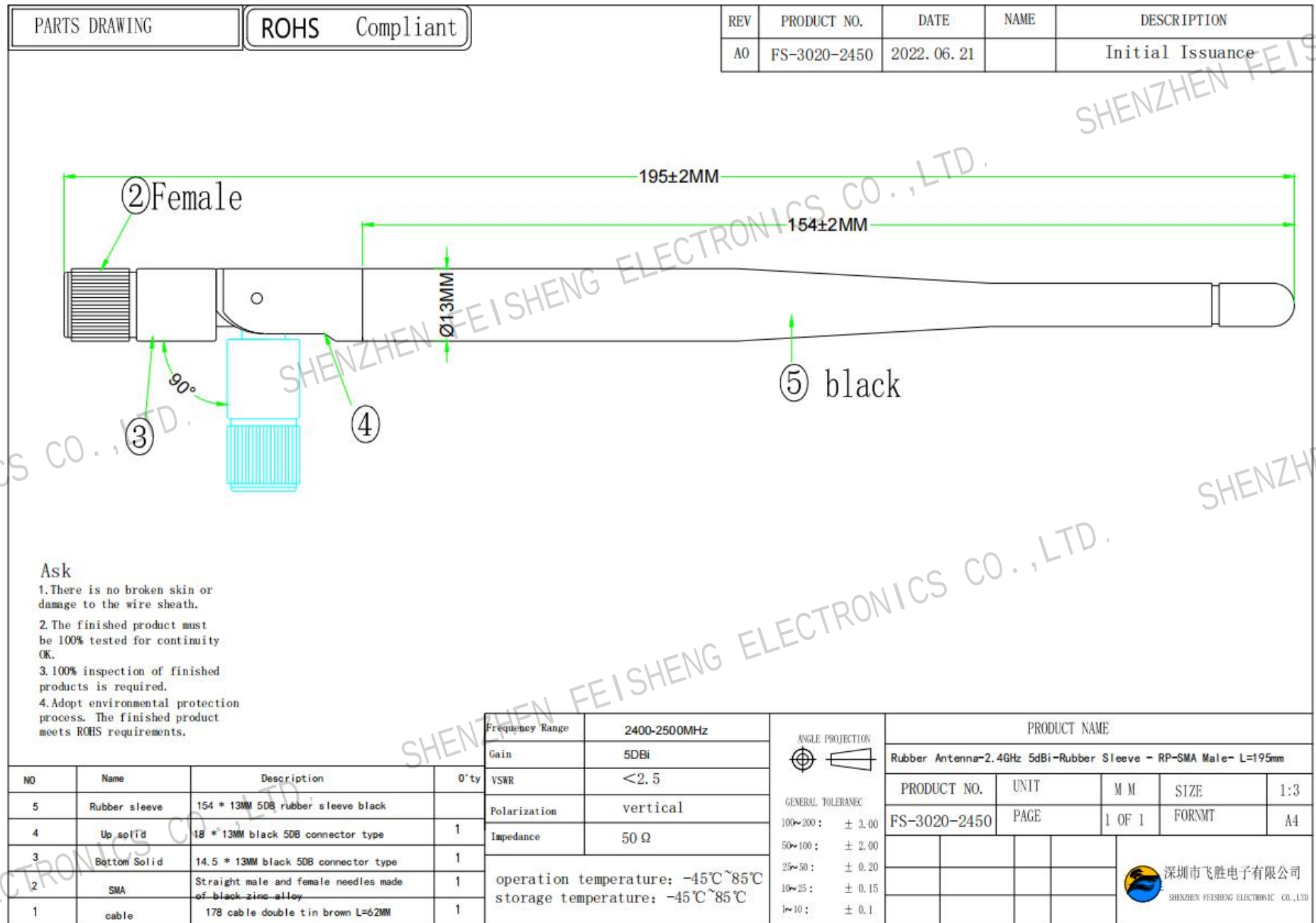
Address: Feisheng Electronics, 3rd Floor, Building A8, Guangxingteng Industrial Park, Longdong
Community, Baolong Street, Longgang District, Shenzhen
Phone number: 0755-85218289 FAX: 0755-85223189

INDEX.

1)	Cover cover.....	1
2)	Catalog.....	2
3)	2D drawings.....	3
4)	Product specification parameters.....	4
5)	Test report of passive waveform loss value.....	5-10
6)	Environmental test report.....	11-14

Modify the record

Versions	Dates	RF	Modify the content
A0	2019-07-03	Chen Yanghui	
A1	2026-05-27	Hu Yongqi	Provide English specification acknowledgment



Product Features Specification Table

一、Basic characteristics of the product:

DESCRIPTION	VALUE
Frequency Range	2400-2500MHz
Impedance	50 Ω
VSWR	<2.5
Gain	5.43dBi
Radiation	Omni-directional
Polarization	linear Vertical
Connector model	RP-SMA-male
Operating temperature	-40℃~+80℃
Storage temperature	-45℃~+85℃

二、Product size:

Dimensions (mm)	195* φ 13	Fixing method	/
Shell color	Black	Connector Model	RP-SMA-male
cable	RG178 cable, double tin, brown		

Test data and graphs

1. Summary:

This report to account for the measurement setup and result of the Antenna. The measurement setup includes s-parameter, The measured data for Antenna are presented and analysis.

2. S-Parameter Measurement S:

A. Reflection coefficient :

(a) Instrument: Network Analyzer

(b) Setup:

(1) Calibrate the Network Analyzer by one port calibration using O.S.L. calibration kits.

(2) Connect the antenna under test to the Network Analyzer.

(3) Measure the S11(reflection coefficient) shown in Fig. 1.

(4) Generally, the S11 is less than -10dB to ensure the 90% VSWR 2.0:1 power into antenna and only less than 10% power back to system.

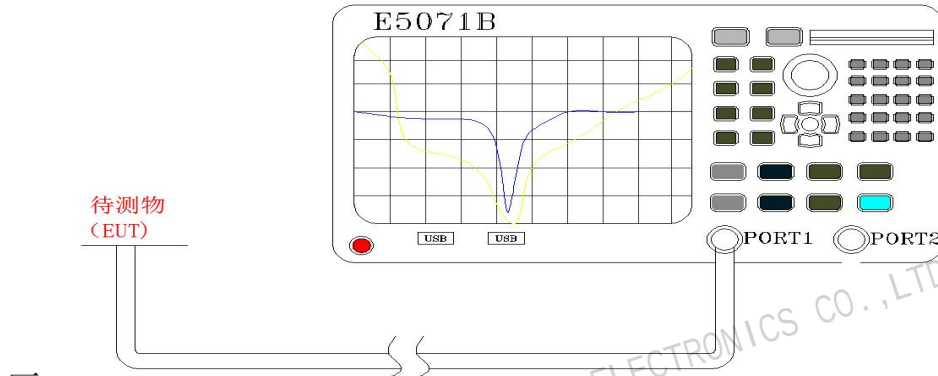


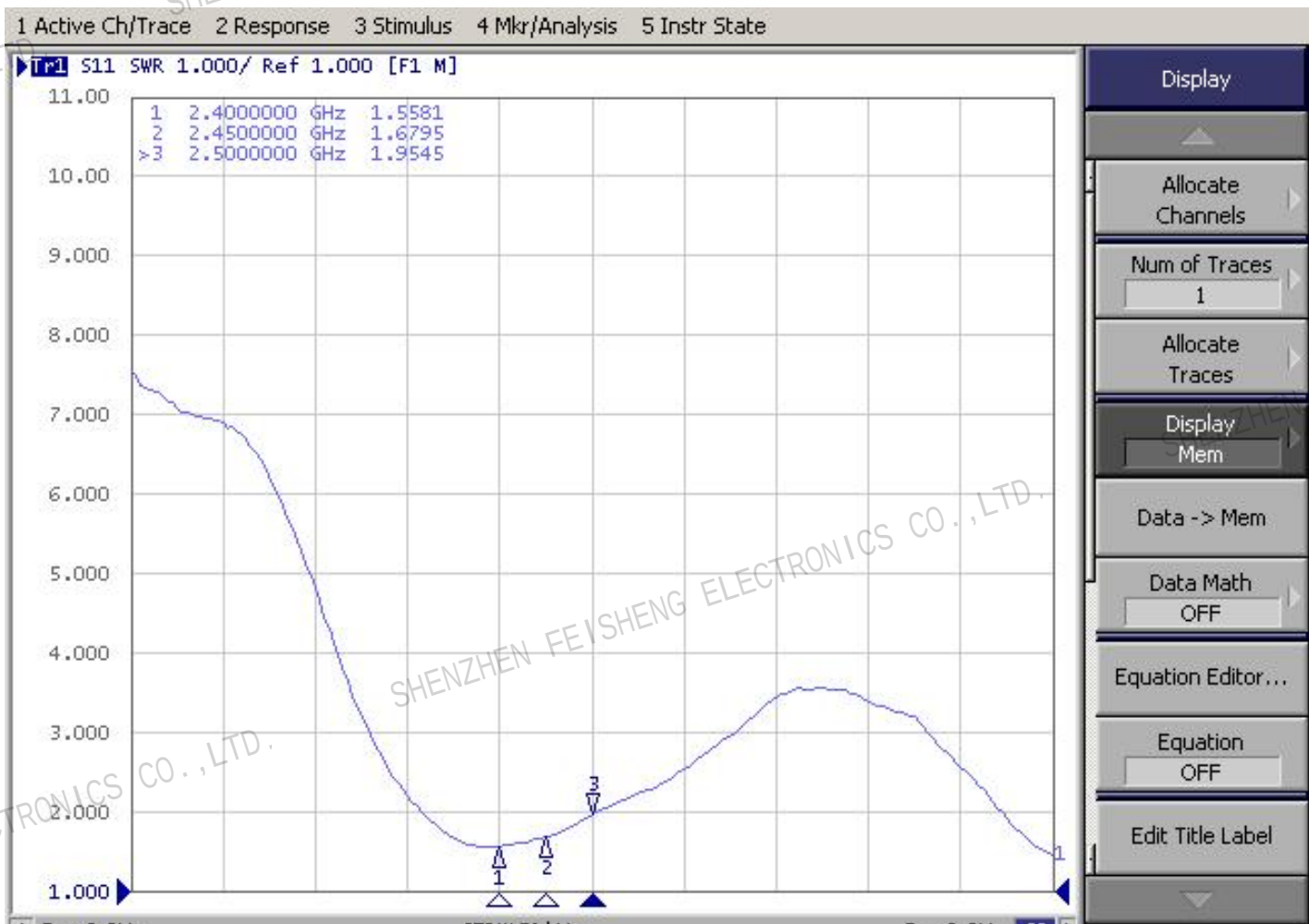
Fig.1 Antenna measured in Network Analyzer

3. S-Parameter Measurement Result S:

S-Parameter test data :

Frequency MHz	2400	2450	2500
Loss DB value	1.55	1.67	1.95

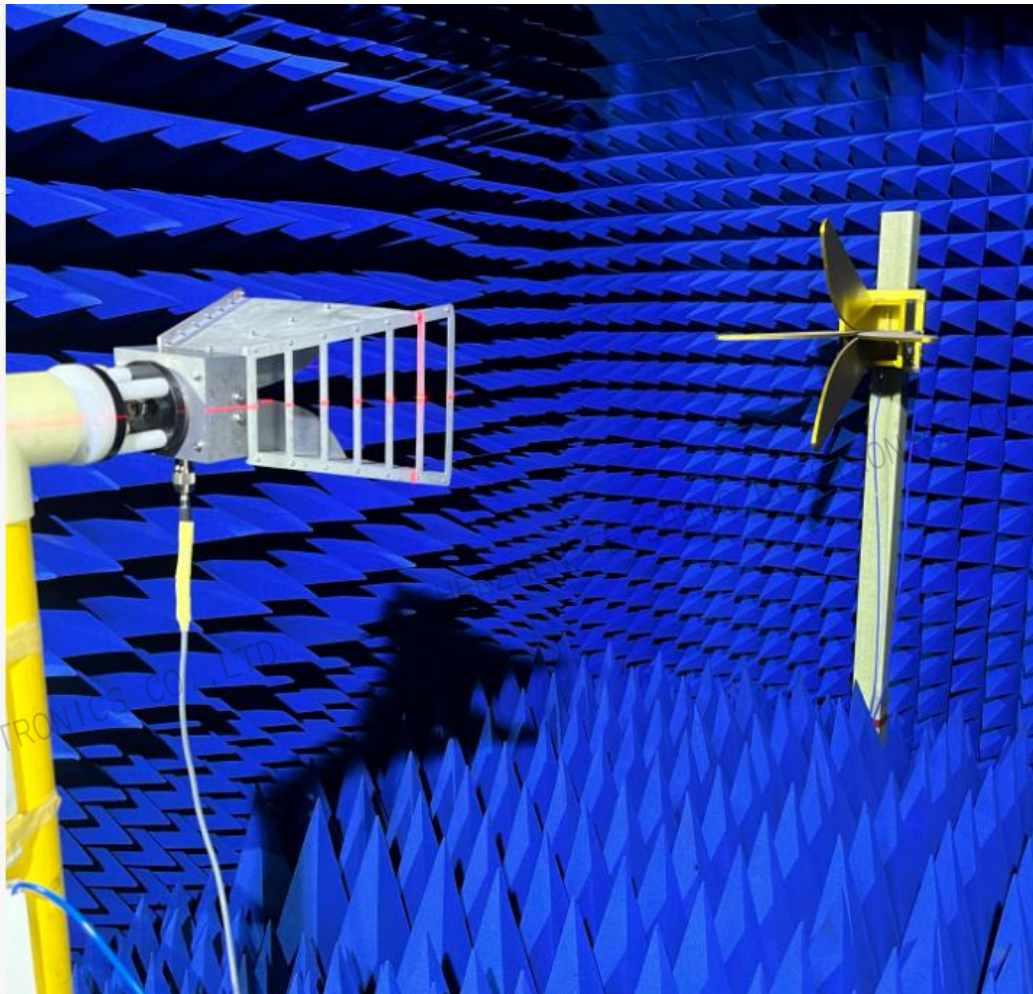
S-Parameter test image :



Product actual photo:



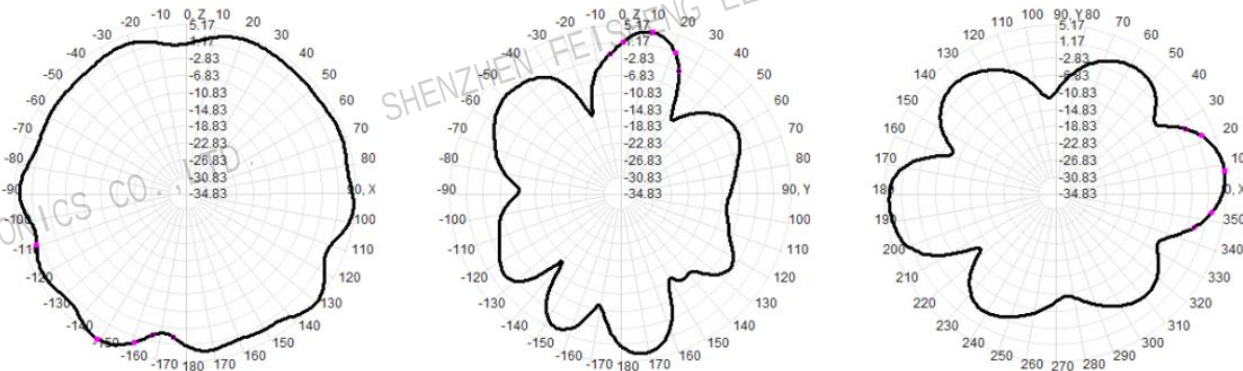
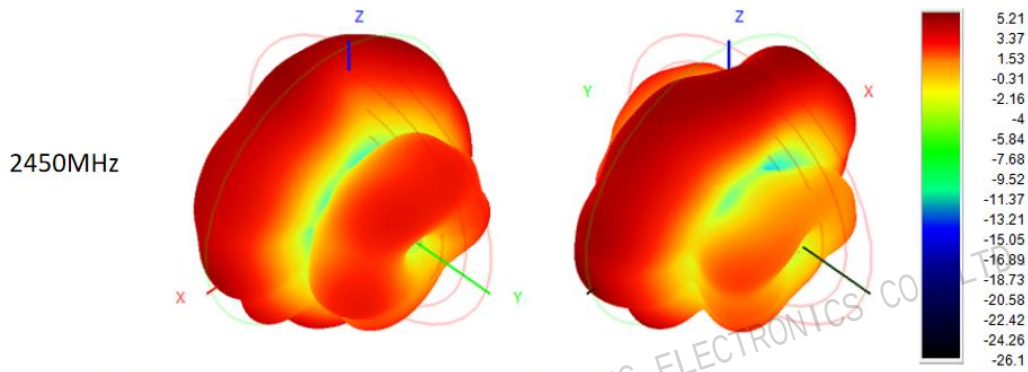
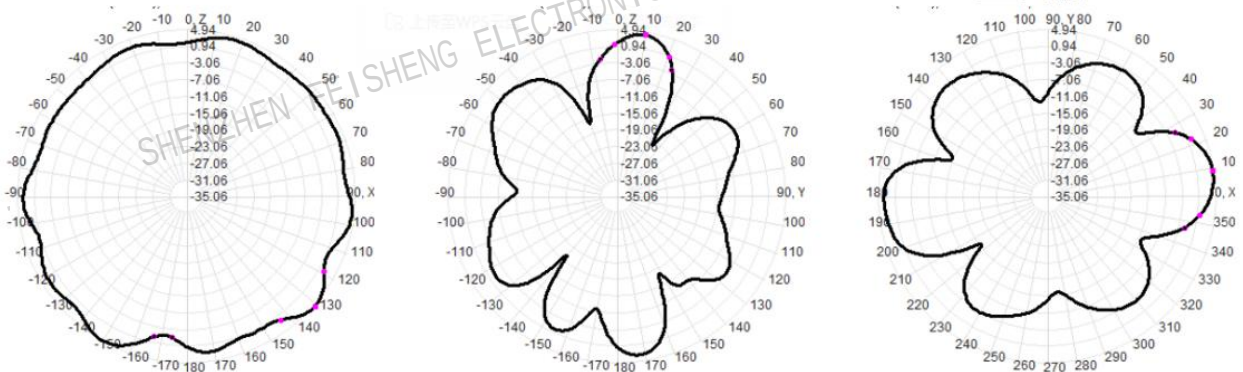
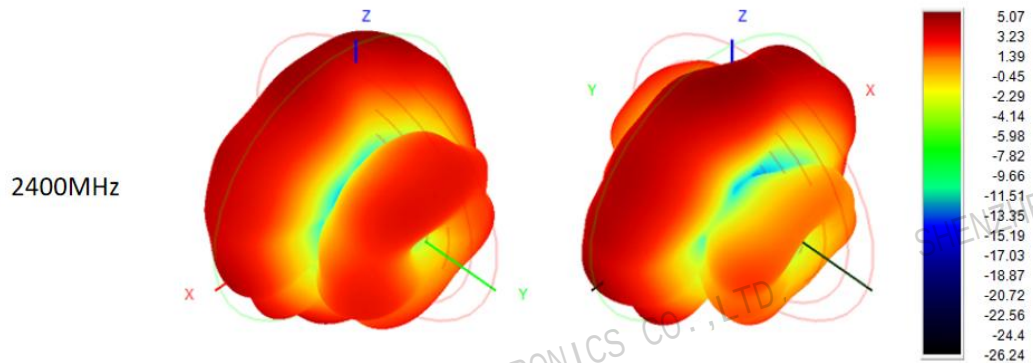
Darkroom test environment:



Passive numerical value:

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	5.07	5.20	5.37	5.36	5.26	5.21	5.38	5.43	5.33	5.23	5.29
Efficiency (%)	74.61	78.13	81.81	82.22	80.78	79.88	81.94	81.31	78.25	75.97	76.64

2D/3D:



2500MHz

