

VLG TECHNOLOGY

Shenzhen VLG Wireless Technology Co.,Ltd

Specification for approval

Model Name		IF4		Frequency band	2400MHZ-2500MHZ		
VLG P/N		V2066-003-A-01		Version number	A		
RF engineer You yan li		verify		Quality engineer	Yu hong	verify	
Structural enginee He fa rong				PM	Bai feng lian		
Date				2023-11-9			

4th Floor, Building B5, Taohuayuan Technology Innovation Ecological Park, Tiegang Community, Xixiang Street, Bao'an District, Shenzhen, China

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1、Antenna picture

This report is the RF report of IF4, The antenna is a single frequency antenna, The antenna is made of FPC+Wire rod Make up.



2、 antenna test environment

Antenna test equipment

4.1 antenna passive test environment

The efficiency of the antenna was measured in the VLG Communication Technology anechoic chamber. SATIMO Star lab: Frequency bands 800MHz—6GHz. The measurement results are calibrated using both dipole and leaky wave horn standards

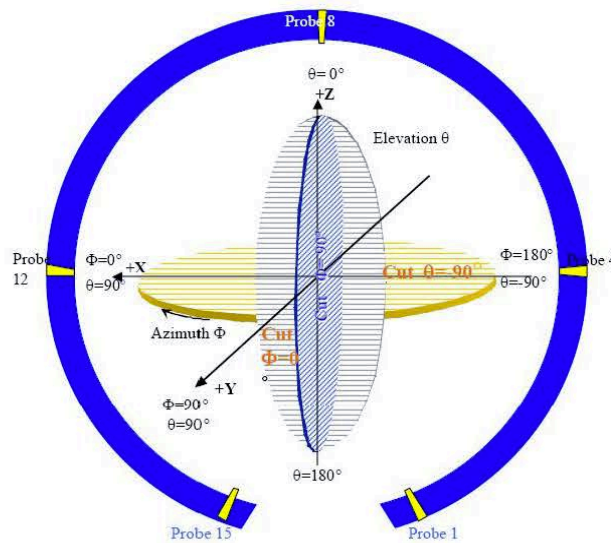


Figure.4.1 SHEN ZHEN VLG chamber system

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4.2 Efficiency

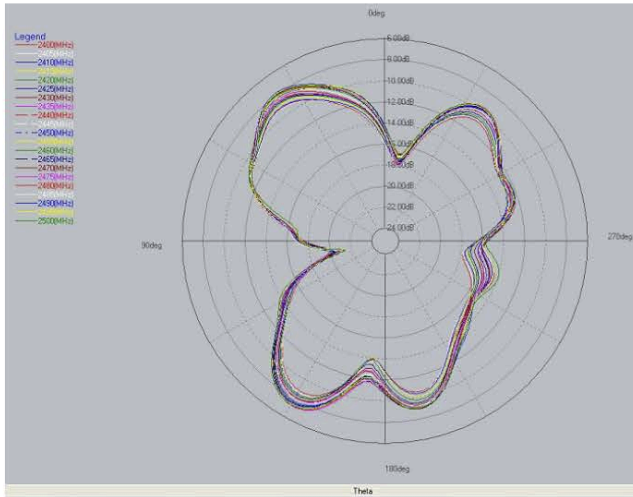
Frequency (MHZ)	Efficiency (%)	Efficiency . dB	Peak_Gain . dBi
2400	4%	-13.88	-7.97
2405	4%	-13.70	-7.91
2410	4%	-13.55	-7.67
2415	5%	-13.42	-7.61
2420	5%	-13.25	-7.58
2425	5%	-13.04	-7.41
2430	5%	-12.85	-7.22
2435	5%	-12.68	-7.09
2440	5%	-12.69	-7.22
2445	8%	-11.24	-7.17
2450	8%	-11.17	-6.91
2455	8%	-11.08	-6.81
2460	6%	-12.37	-6.72
2465	6%	-12.29	-6.81
2470	6%	-12.24	-6.80
2475	6%	-12.20	-6.66
2480	6%	-12.19	-6.64
2485	5%	-12.99	-6.74
2490	5%	-12.91	-6.84
2495	5%	-12.87	-6.60
2500	5%	-12.87	-6.52

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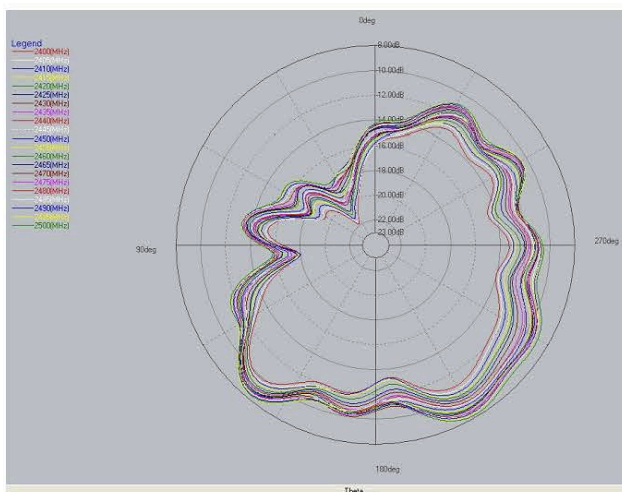
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4.3 Radiation Pattern:

E1 Plane:



E2 Plane:



H Plane:

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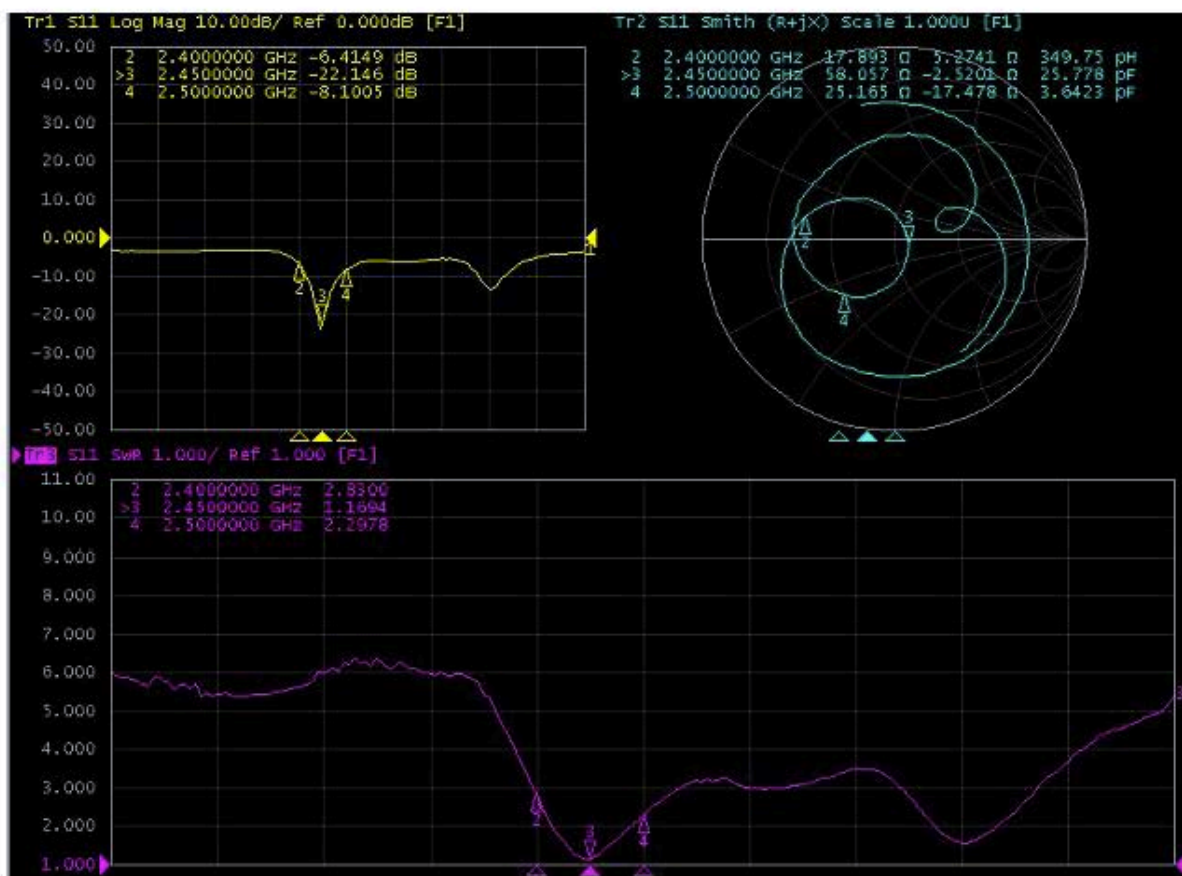
3、Matching circuit

Customer origin matching

4、Electrical performance

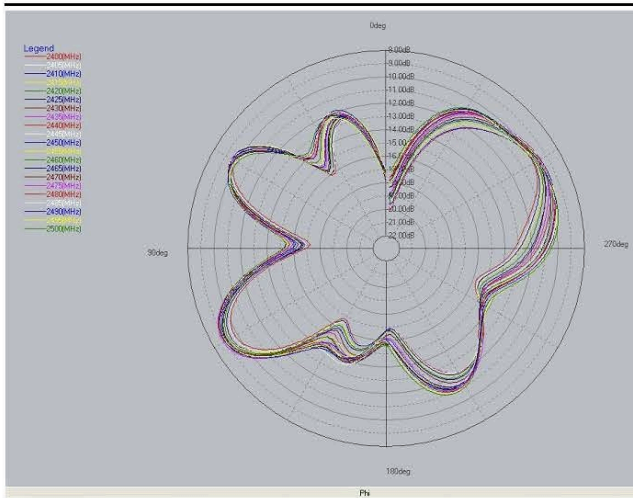
4.1 S11 argument:

(Return loss) 、 (Smith chart) 、 (VSWR)



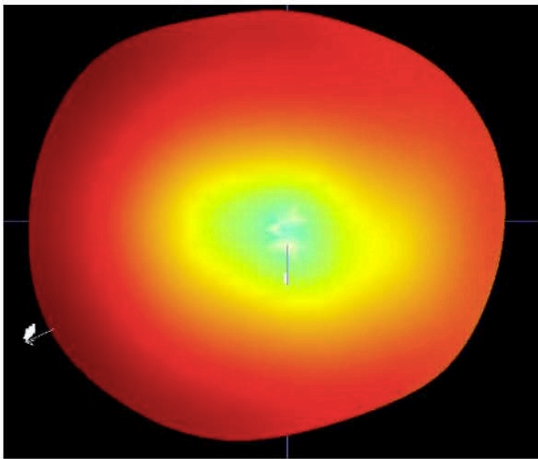
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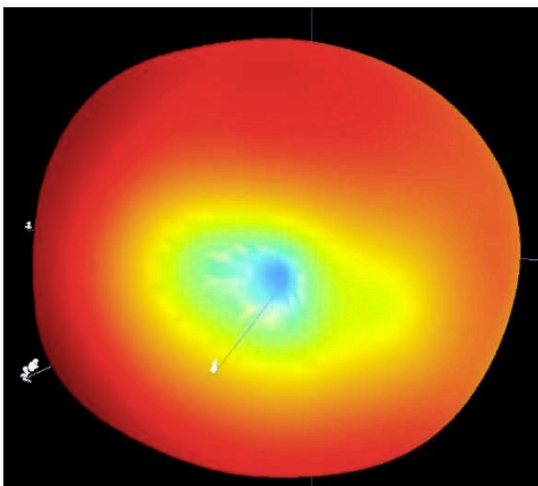


4.4 Antenna 3D

2400



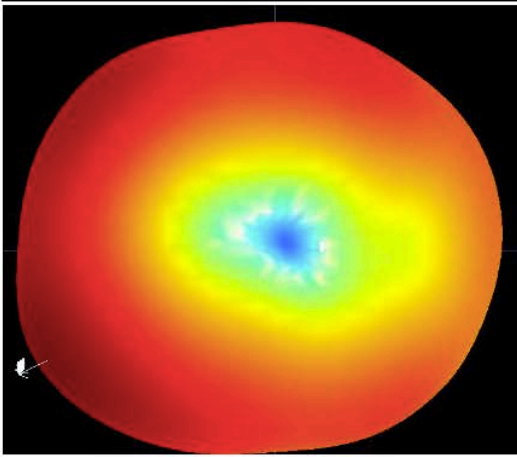
2450



2500

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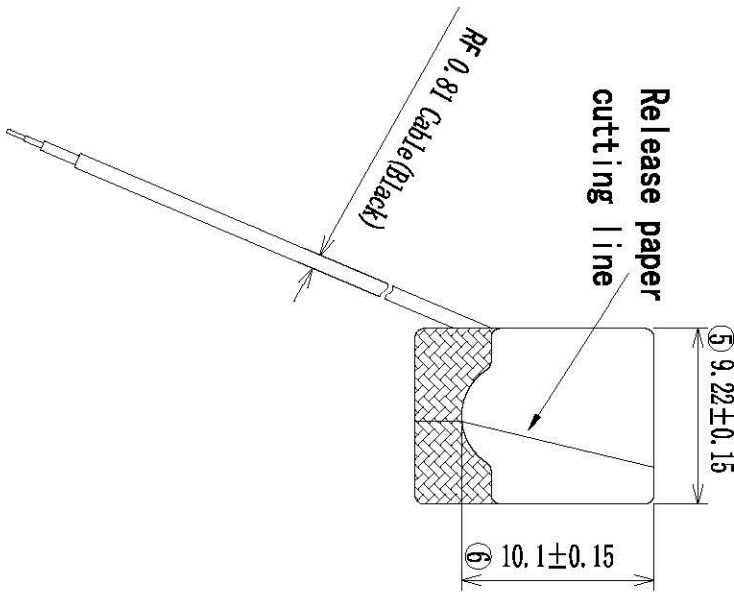
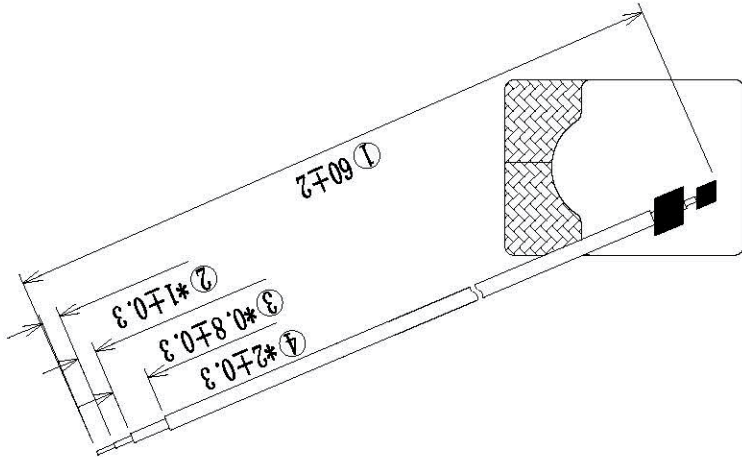
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Version	Modification content	Design	Date

Solder

Release paper hand
tear position



注:

- 1、Hit “*”for strict control size(required grade A)
- 2、No damage/scratches and other external defects;
- 3、Need to pass the VLG quality department requirements of the test;
- 4、Any material modification must be approved by the VLG R&D department in writing;

深圳市维力谷无线技术股份有限公司					Draw		何发荣
Shenzhen VLG Wireless Technology Co., Ltd					RF		张燕明
Third corner method	Breed	V2066-003-01			Quality		李林
0~10	±0.10	Project	IF4		Examine		
11~20	±0.15	Name	IF4 antenna		R:A		
21~40	±0.20	P/N	V2066-003-A-01		Approved		
>40	±0.25	Version			廖义永		
Sheet A4	Ratio	1:1	Unit	mm	Page	1/1	