

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 engineer He fa rong			PM	Bai feng lian		
Date	2023-11-9					

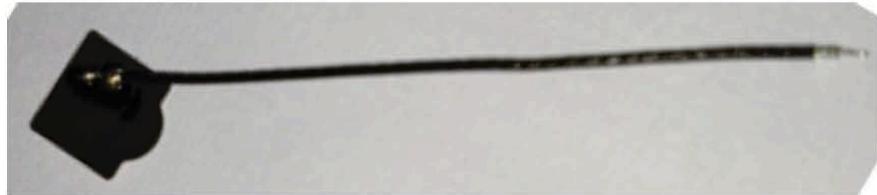
4th Floor, Building B5, Taohuayuan Technology Innovation Ecological Park, Tiegang Community, Xixiang Street, Bao'an District, Shenzhen, China

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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

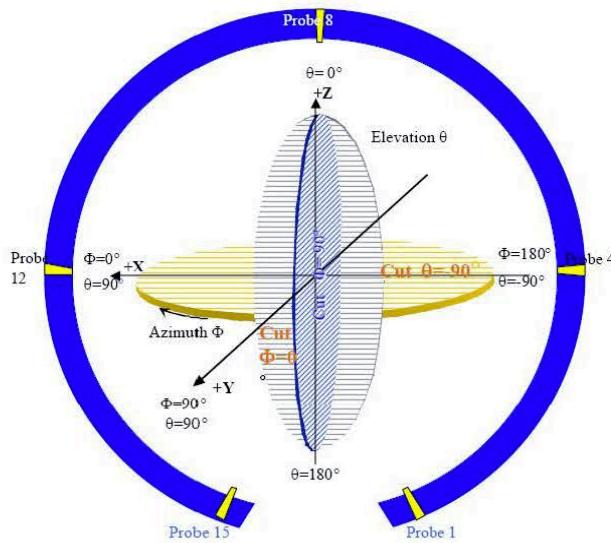


Figure.4.1 SHEN ZHEN VLG chamber system

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4.2 Efficiency

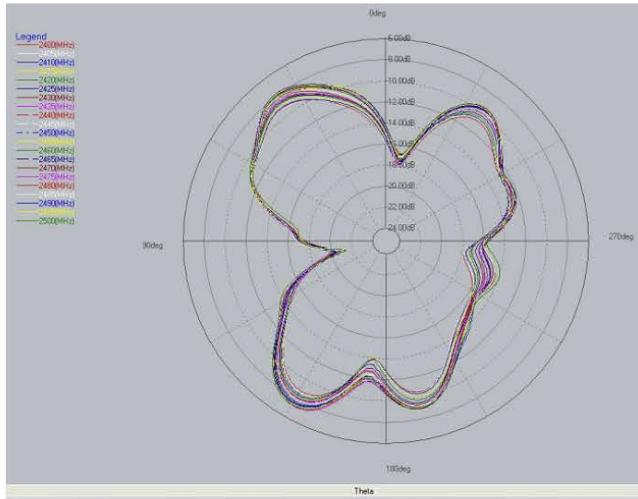
Frequency (MHZ)	Efficiency (%)	Efficiency dB	Peak_Gain dBi
2400	4%	-13.88	-7.97
2405	4%	-13.70	-7.91
2410	4%	-13.55	-7.67
2415	5%	-13.42	-7.61
2420	5%	-13.25	-7.58
2425	5%	-13.04	-7.41
2430	5%	-12.85	-7.22
2435	5%	-12.68	-7.09
2440	5%	-12.69	-7.22
2445	8%	-11.24	-7.17
2450	8%	-11.17	-6.91
2455	8%	-11.08	-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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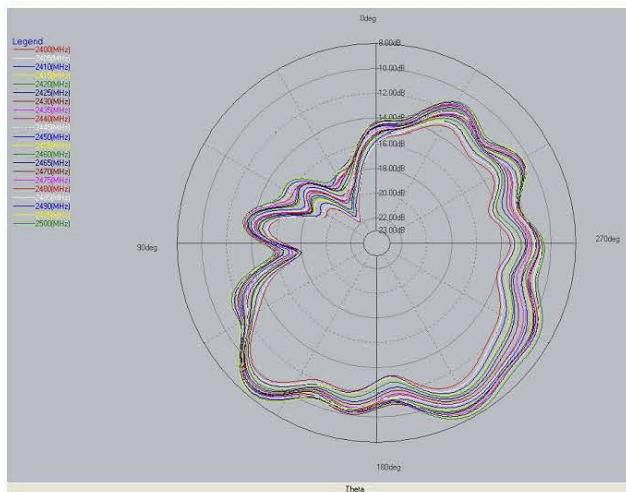
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4.3 Radiation Pattern:

E1 Plane:



E2 Plane:



H Plane:

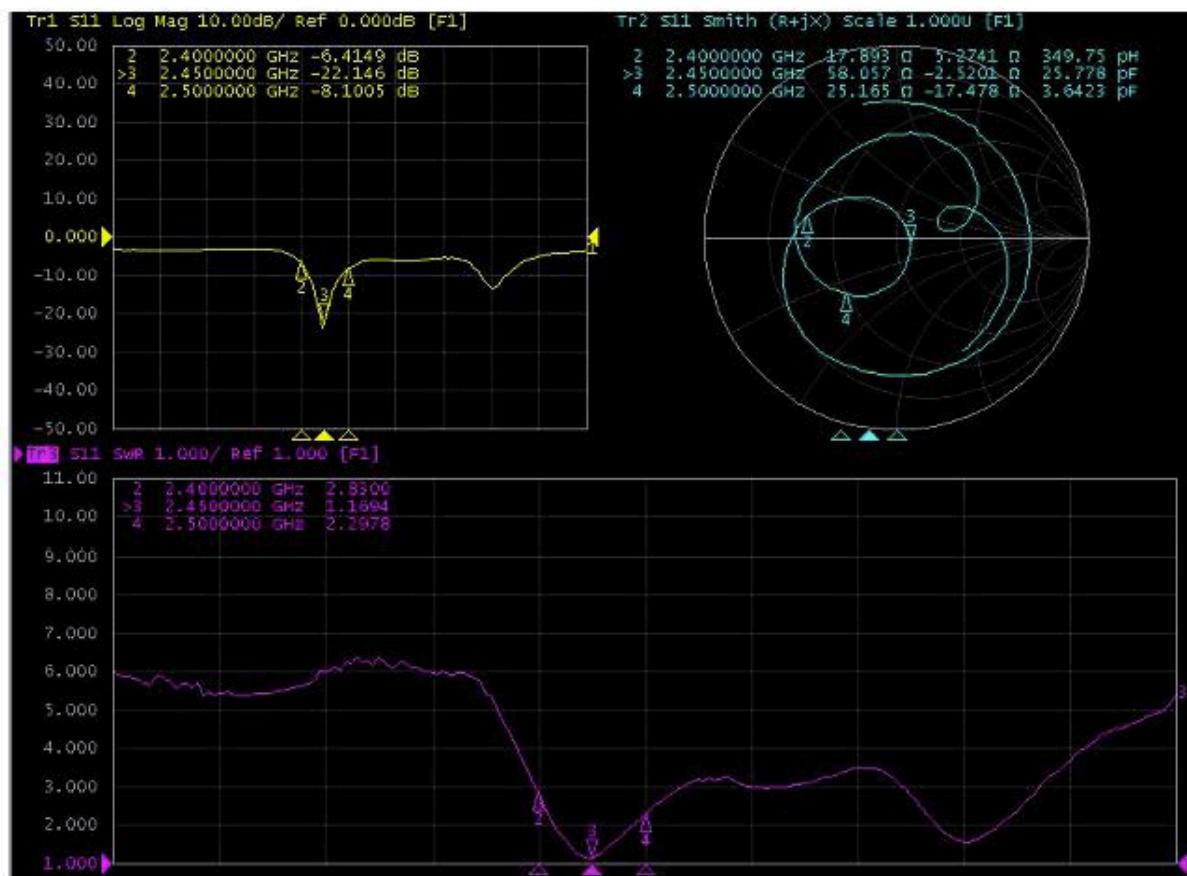
3、Matching circuit

Customer origin matching

4、Electrical performance

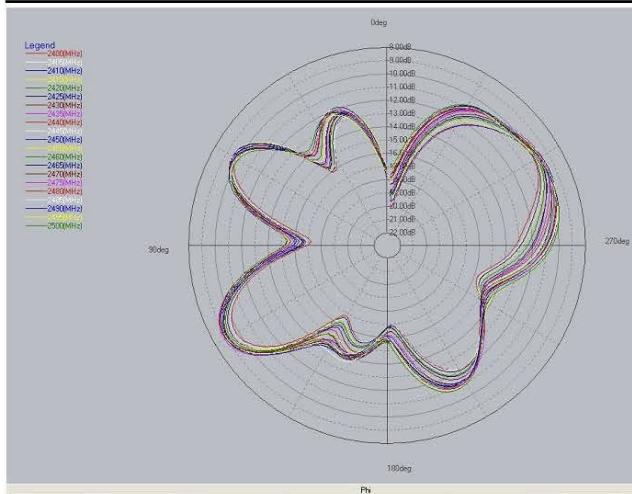
4.1 S11 argument:

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



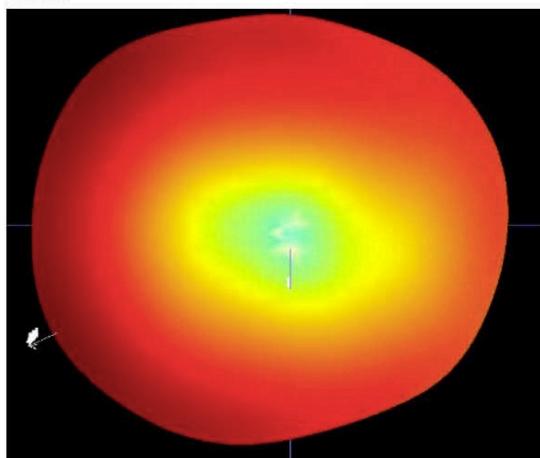
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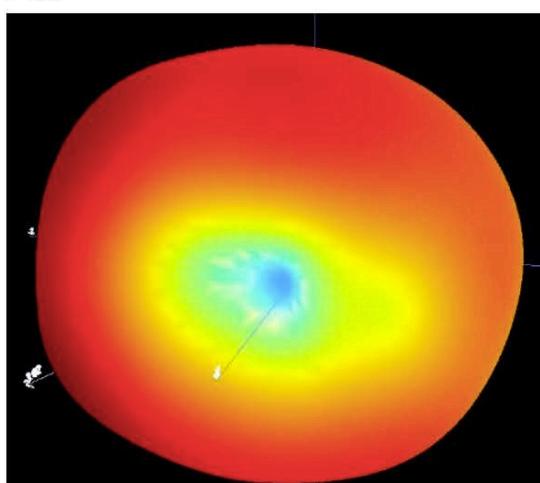


4.4 Antenna 3D

2400



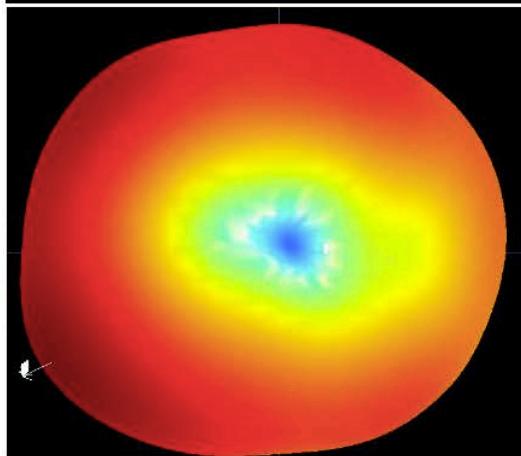
2450



2500

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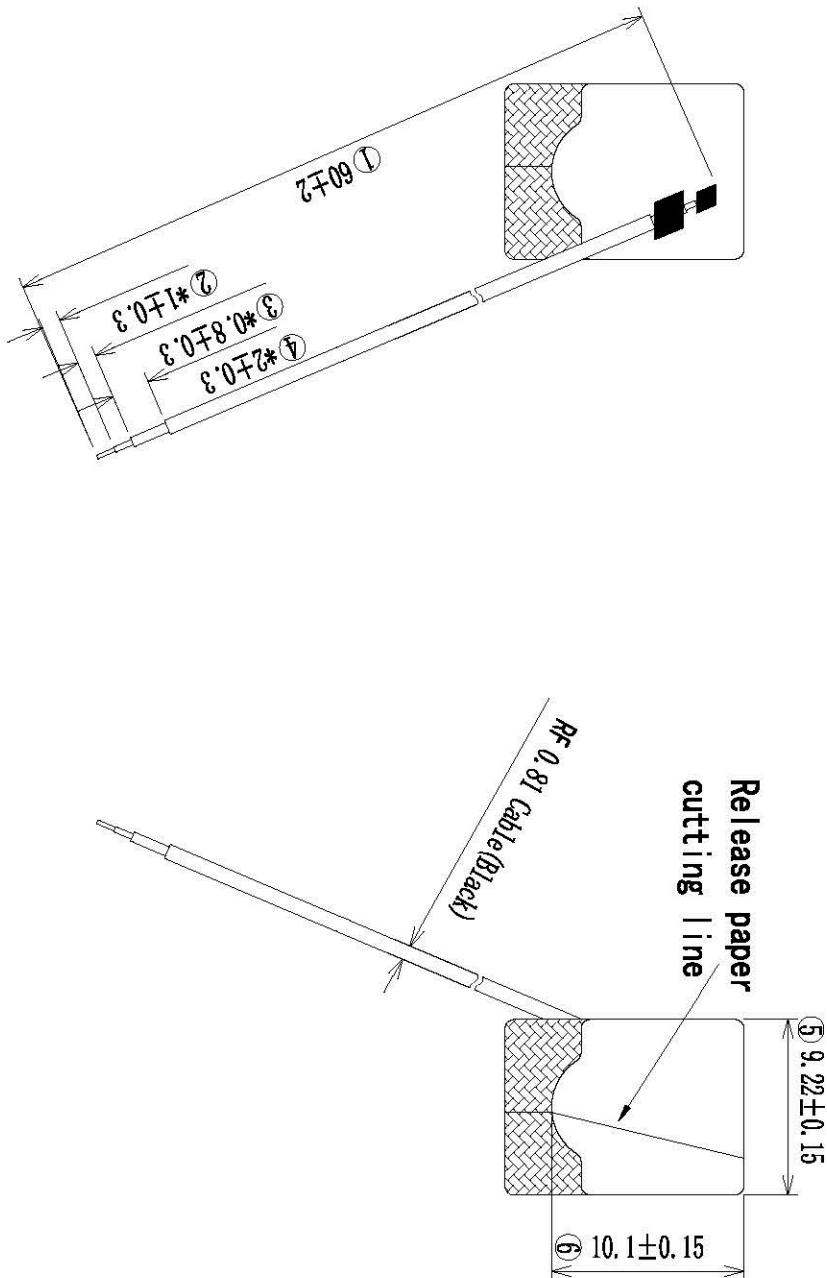
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Solder
Release paper hand
tear position



注:

1. Hit "*" for strict control size(required grade A)
2. D other design reference size grade C;
3. No damage/scratches and other external defects;
4. Need to pass the VLG quality department requirements of the test;
5. 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						
ShenZhen VLG Wireless Technology Co., Ltd			Draw	何发荣		
Third corner method			RF	深蓝网		
0~10	±0.10	Breed	V2066-003-01	Quality		D
11~20	±0.15	Project	IT4			
21~40	±0.20	Name	IT4 antenna			
>40	±0.25	P/N	V2066-003-A-01	Examine		
Sheet A4	Ratio 1:1	Unit mm		R.A		
		Page	1/1	Approved	彦义东	
1	2	3	4	5	6	7
						8