	Document number:

Sample acceptance letter

Specification For Approval

Customer name: customer:	**Dongguan lingdu electronic technology co., ltd**		
Name of supplier: Customer:	**Shenzhen Guangyuanfa Electronics Co., Ltd.**		
Customer Item:		**Supplier Item:**	V630-WIFI-V1.0 GYF 2024-07-12
Product description:	**WIFI antenna (V630) coaxial line length: 2nd generation terminal L=65mm, line diameter: 0.81mm,; silk Seal: V630-WIFI-V1.0 GYF 2024-07-12**	**Matching model:**	V630
Supplier acknowledges (seals):		**Customer acknowledges (seals):**	
Production: Guo Shaosen	**Structure: Ma Shuaixi**		
Audit: Zhou Xuefeng	**Date: July 12, 2024**		

catal ogue

V630 antenna

1.specifications

1.1 Electrical specification

This report mainly provides the test status of various electrical and structural performance parameters of the V630 antenna.

specifications and models	Guang yuan fa Liao Hao
WIFI antenna	V630-WIFI-V1.0 GYF 2024-07-12

1.2 Antenna frequency range

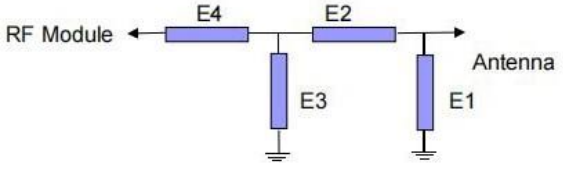
The following table is the electrical performance index of Guangyuanfa design and mass production antenna.

项目调试简介

机型	v630			
天线类型	FPC			
频段及天线材质	主天线	频段		材质
		2G	/	/
		3G	/	
		LTE	/	
	其他天线	分集	/	/
		WIFI	2.4G	FPC
性能要求	按客户要求执行			

2. Matching circuit diagram

天线匹配无更改



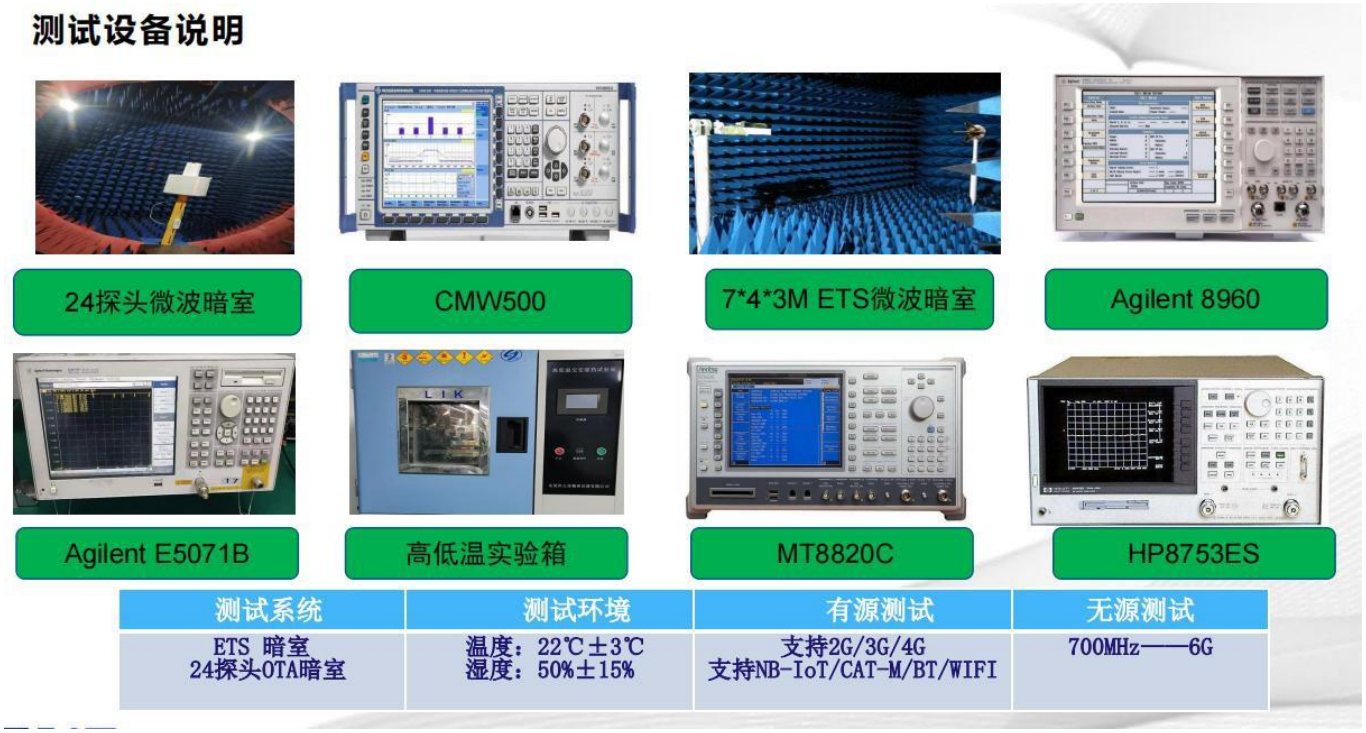
	Element	Value
GWB天线	E1(0402)	N/A
	E2(0402)	0欧姆
	E3(0402)	N/A
	E4(0402)	0欧姆

3.structural style

3.1 Antenna composition

The antenna is mainly composed of flexible printed circuit board and coaxial line.

4. testing equipment



测试系统	测试环境	有源测试	无源测试
ETS 暗室 24探头OTA暗室	温度：22℃±3℃ 湿度：50%±15%	支持2G/3G/4G 支持NB-IoT/CAT-M/BT/WIFI	700MHz——6G

5 . VSWR test connection

5. 1 Test connection: VSWR test device is connected in sequence as: R&SZVL network analyzer → test line → test fixture.

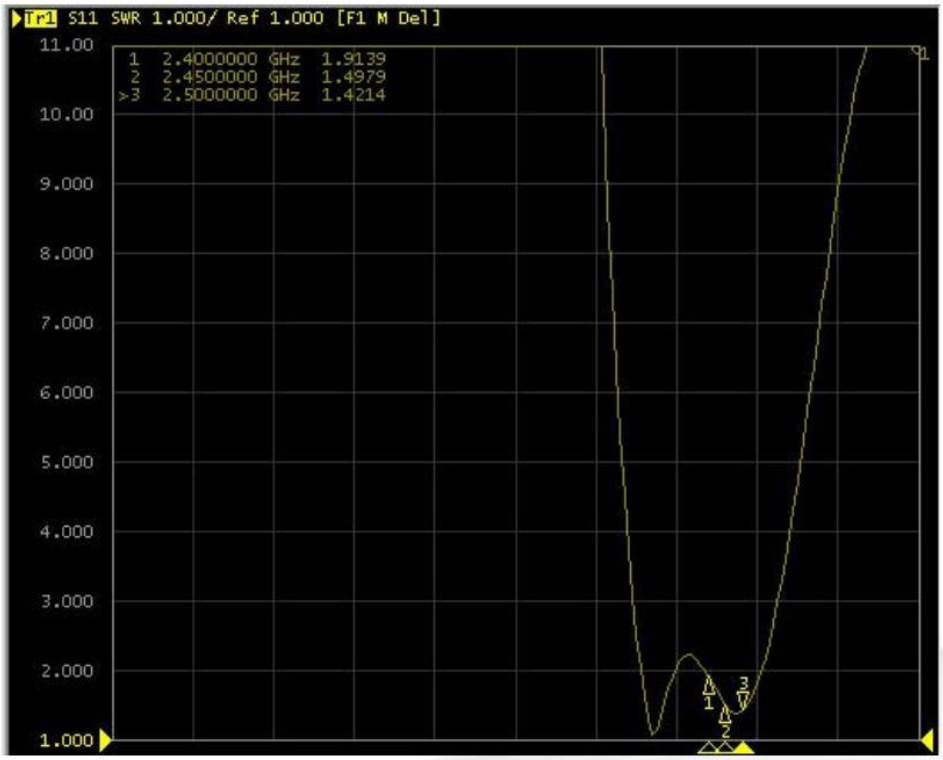
6. test

6.1 Test site: Guangyuan microwave darkroom. The test frequency range is 400 MHz-6 GHz, the dead zone range is 50cm Ruta, and the reflectivity is less than -50 dB.

6.2 Tested instruments: Agilent5071B, CMW500, Agilent8960 E5515C, standard horn antenna, 24-probe OTA microwave darkroom test system, printer, etc.

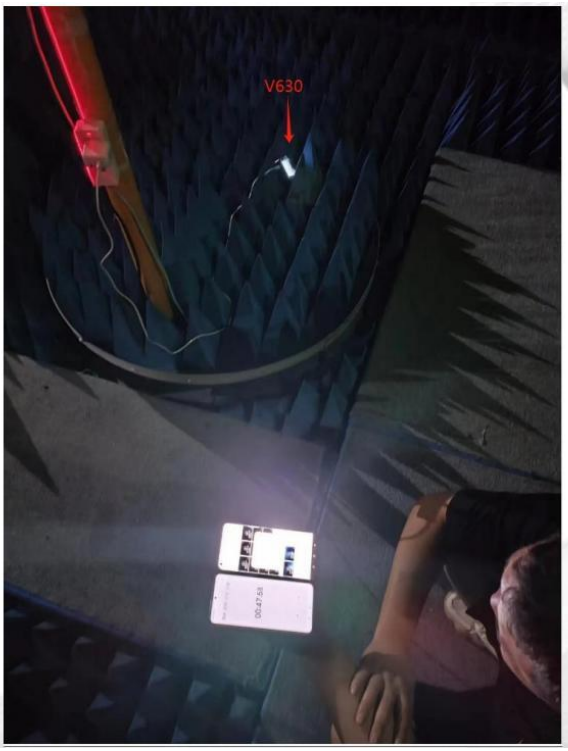
6.3 Test data:

天线驻波



天线实测

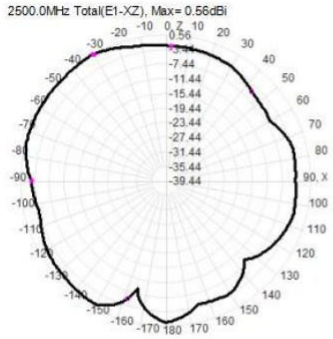
测试手机:oppo find x3
办公室实测：10M无卡顿延迟
视频大小：438
下载时间：109s
平均：4M/s
视频回放：无杂音

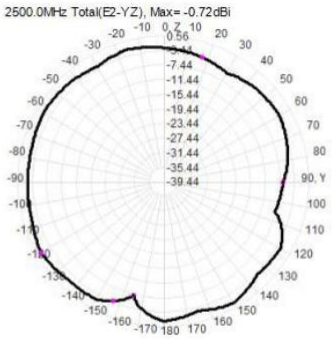


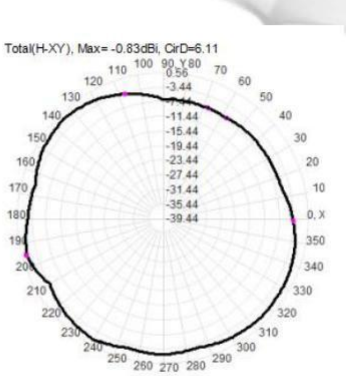
无源数据-WIFI

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400.0	-3.51	0.50	44.54
2405.0	-3.03	0.95	49.80
2410.0	-2.86	1.12	51.75
2415.0	-2.89	1.12	51.35
2420.0	-2.64	1.38	54.39
2425.0	-2.58	1.43	55.22
2430.0	-2.55	1.46	55.60
2435.0	-2.51	1.47	56.08
2440.0	-2.53	1.42	55.90
2445.0	-2.48	1.43	56.55
2450.0	-2.48	1.39	56.53
2455.0	-2.54	1.37	55.66
2460.0	-2.52	1.46	56.04
2465.0	-2.23	1.82	59.87
2470.0	-2.13	2.02	61.30
2475.0	-2.38	1.84	57.84
2480.0	-2.36	1.95	58.02
2485.0	-2.42	1.94	57.28
2490.0	-2.87	1.55	51.61
2495.0	-2.58	1.90	55.15
2500.0	-2.17	2.17	60.73

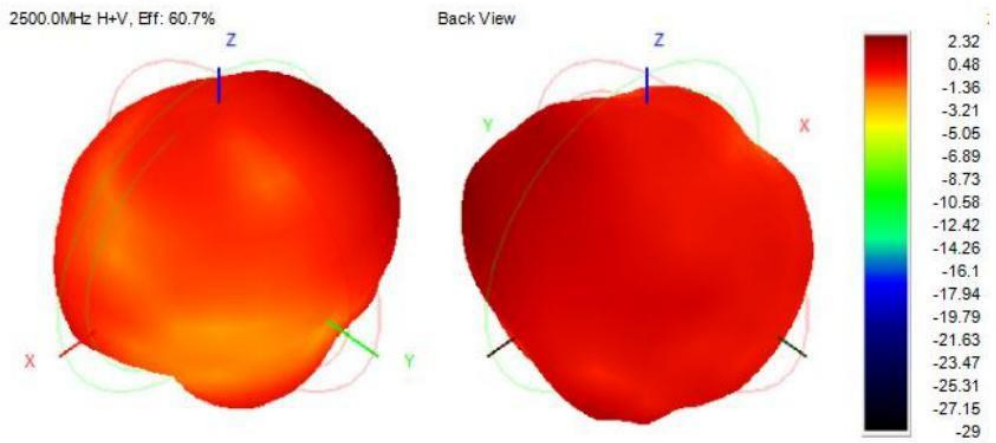
2D图





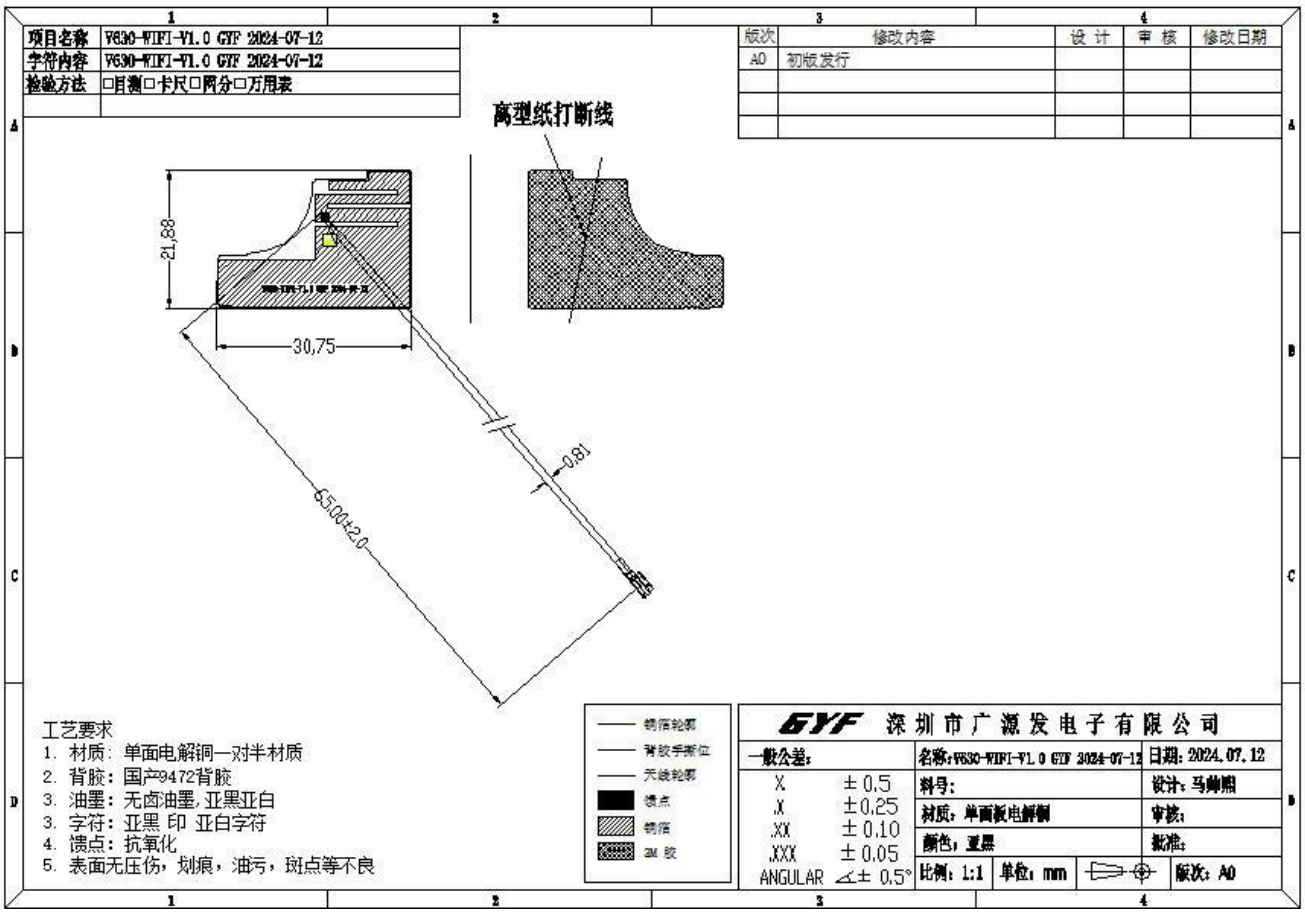


3D图



7.Drawing specification

7.1 blueprint



7.2 Sample size detection

Project name	V630	Finished item number	V630-WIFI-V1.0 GYF 2024-07-12	date	2024.07.04	

Item order	specifications	Measured data					decide	remarks
		one	2	three	four	five		
one	21.88	21.86	21.85	21.87	21.87	13.88	OK	
2	30.75	30.74	30.77	30.75	30.76	30.77	OK	
three	65.00	65..46	65.56	65.62	65.57	65.61	OK	
four	0.81	0.80	0.81	0.79	0.82	0.78	OK	
five								
six								
seven								
eight								
nine								
10								
11								
twelve								
13								
14								
15								
16								
17								
18								
19								
twenty								
21								
22								
23								

7.3 Bill Of Material

Bill Of Material

Project name	V630	Finished item number	V630-WIFI-V1.0 GYF 2024-07-12	date	2024.07.04
Bill Of Material	category	texture of wood	specifications		dosage
one	Fpc antenna	One and a half.	30.75*21.88mm		one
three	coaxial-line	copper	0.81 black 65mm second-generation terminal		one
four					
five					
six					
seven					
eight					
nine					
10					
11					
twelve					
13					
14					
15					
16					
17					
18					
19					
twenty					

8. reliability testing

8.1 Reliability test report

Project name	V630	Finished item number	V630-WIFI-V1.0 GYF 2024-07-12	date	2024.07.04
Test quantity	15pcs	start time	June 11th, 09:15	finish time	June 13th at 11:25.

test item	testing nominative	Test quantity	test result	remarks
Salt spray corrosion test	(1) Test temperature: salt water test 35℃ 2℃; Pressure barrel 47℃ 1℃ （2） Test conditions/methods: salt water concentration is above 5%, solution PH is 6.5~7.2, air pressure is 1.0 ~ 1.2 kg/cm ㎡, and test time is set according to product requirements. （3） Test finished: after 2 hours, observe the product surface. Surface oxidation discoloration, coating shedding phenomenon	5pcs	**OK**	Test time 48H
Low temperature test	(1) Temperature:-30℃ (-25℃-pilot stage) （2） Test time: 20 hours/packing condition: no packing. （3） The product to be tested is placed in a high and low temperature test box without turning on the machine, and the temperature in the box is adjusted to be 25℃ and the humidity to be 65% for 1 hour, and then the temperature is reduced to -30℃ and the humidity within 1 hour. Closing, keeping the temperature for 20 hours, raising the temperature for 1 hour, then cooling to normal temperature, and performing performance test after 2 hours. Appearance and structure: the appearance and surface of the antenna shall be free from defects, and the antenna shall be free from deformation, warping and damage, and its performance shall be normal, and the standing wave ratio shall not exceed the product standard. 10%	5pcs	**OK**	Test time is 20H.

High temperature test	(1) Temperature:+70℃ (+65℃-pilot stage) and humidity 85% (80%-pilot stage) （2） Test time: 20 hours/packing condition: no packing. （3） The product to be tested is placed in the high and low temperature test box without turning on the machine, and the temperature in the box is adjusted to be 25℃ and the humidity to be 65% for 1 hour, and then the temperature is raised to +70℃ and humidity within 1 hour. After 85% heat preservation for 20 hours, the temperature is cooled for 1 hour and then cooled to normal temperature, and the performance is tested after 2 hours. Appearance and structure: the appearance and surface of the antenna shall be free from defects, and the antenna shall be free from deformation, warping and damage, and its performance shall be normal, and the standing wave ratio shall not exceed the product standard. 10%	5pcs	**OK**	

8.2 Product storage instructions

1. The exposed part of the gold finger conductor needs surface plating (anti-rust) treatment, such as gold plating, OSP, tin plating, etc., and the storage environment needs to avoid corrosive gases.

2. The antenna temperature needs to be controlled at 21-38℃, and the humidity needs to be controlled at 50-70%. If the temperature is too high, the 3M glue will melt, which will make the antenna sticky.

3. It is suggested that if the initial bonding temperature is lower than 10℃, it is not suitable for bonding, so the adhesive is too hard to be firmly bonded to the object. However, if it has been bonded, the adhesion at low temperature is also satisfactory.

3. Under the condition of 21℃ and 50% relative humidity, the shelf life of the original packaging is 24 months from the date of production.

9. Working temperature

components	temperature
FPC body	-50~280℃
3m glue (pasted to the machine)	-30-80℃

10. Antenna picture