

			<b>Document number:</b>
<h1>Sample acceptance letter</h1>			
<h2>Specification For Approval</h2>			
<b>Customer name: customer:</b>	<b>Dongguan lingdu electronic technology co., ltd</b>		
<b>Name of supplier: Customer:</b>	<b>Shenzhen Guangyuanfa Electronics Co., Ltd.</b>		
<b>Customer Item:</b>		<b>Supplier Item:</b>	V630-WIFI-V1.0 GYF 2024-07-12
<b>Product description:</b>	<b>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</b>	<b>Matching model:</b>	V630
<b>Supplier acknowledges (seals):</b>		<b>Customer acknowledges (seals):</b>	
<b>Production: Guo Shaosen</b>	<b>Structure: Ma Shuaixi</b>		
<b>Audit: Zhou Xuefeng</b>	<b>Date: July 12, 2024</b>		



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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**

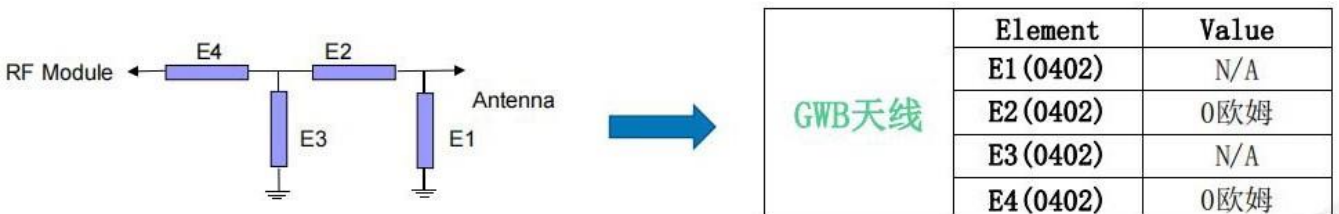
The following table is the electrical performance index of Guangyuanfa design and mass production antenna.

**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



### 3. structural style

#### 3.1 Antenna composition

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

### 4. testing equipment

#### 测试设备说明

			
24探头微波暗室	CMW500	7*4*3M ETS微波暗室	Agilent 8960
			
Agilent E5071B	高低温试验箱	MT8820C	HP8753ES
测试系统 ETS 暗室 24探头OTA暗室	测试环境 温度: 22°C ± 3°C 湿度: 50% ± 15%	有源测试 支持2G/3G/4G 支持NB-IoT/CAT-M/BT/WIFI	无源测试 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.

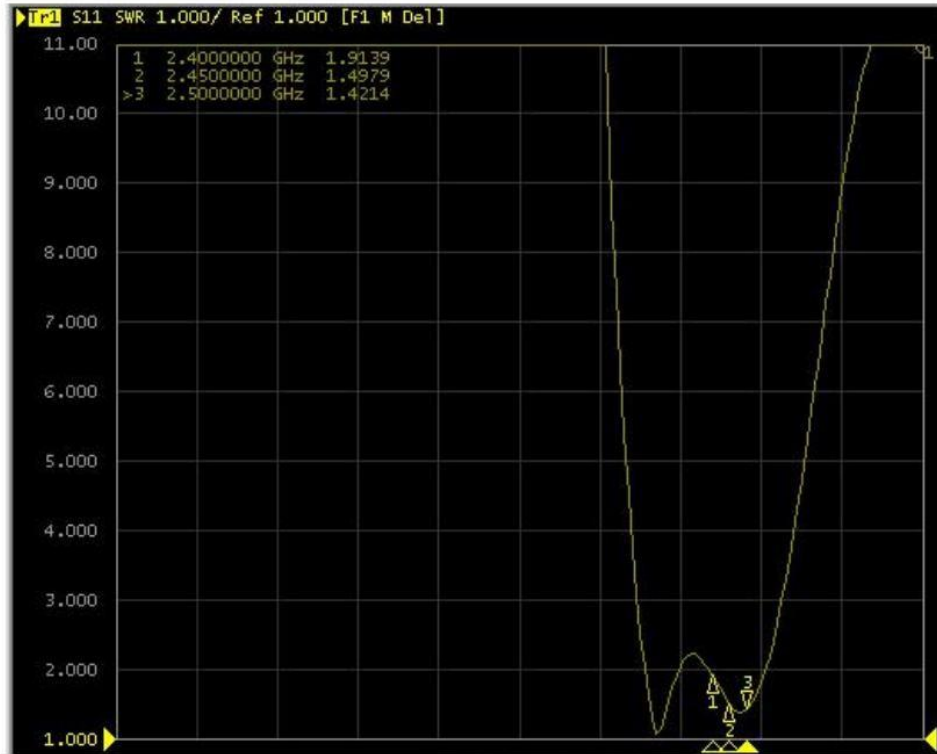
#### 6. test

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.

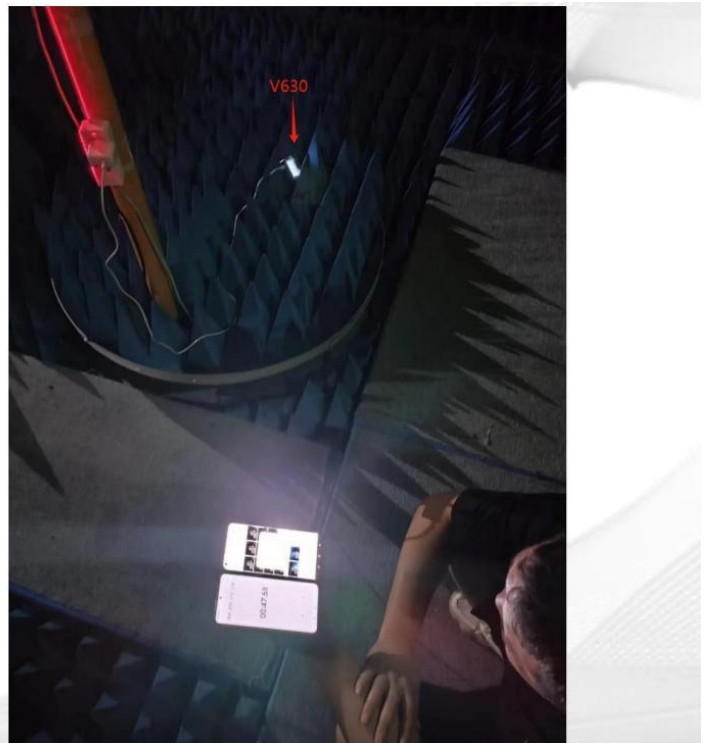
6.3 Test data:

天线驻波



天线实测

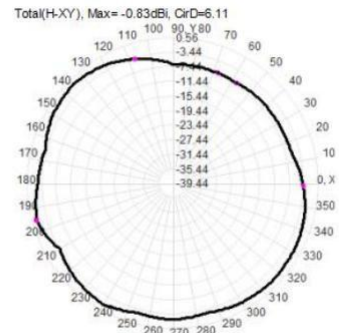
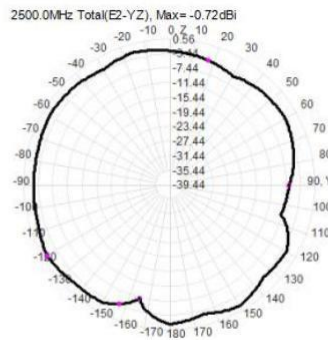
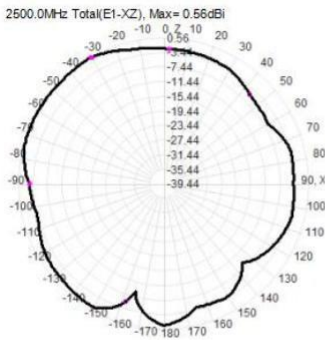
测试手机:oppo find x3  
办公室实测: 10M无卡顿延迟  
视频大小: 438  
下载时间: 109s  
平均: 4M/s  
视频回放: 无杂音



## 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









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	Measure d 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	<p>(1) Test temperature: salt water test 35°C ±2°C; Pressure barrel 47°C ±1°C</p> <p>(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<sup>2</sup>, and test time is set according to product requirements.</p> <p>(3) Test finished: after 2 hours, observe the product surface.</p> <p>Surface oxidation discoloration, coating shedding phenomenon</p>	5pcs	OK	Test time 48H
Low temperature test	<p>(1) Temperature:-30°C (-25°C-pilot stage)</p> <p>(2) Test time: 20 hours/packing condition: no packing.</p> <p>(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°C and the humidity to be 65% for 1 hour, and then the temperature is reduced to -30°C and the humidity within 1 hour.</p> <p>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.</p> <p>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.</p> <p>10%</p>	5pcs	OK	Test time is 20H.

<p>High tempe rature test</p>	<p>(1) Temperature: +70°C (+65°C -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°C and the humidity to be 65% for 1 hour, and then the temperature is raised to +70°C 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%</p>	<p>5pcs</p>	<p><b>OK</b></p>	
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## 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°C, 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°C, 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°C 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°C
3m glue (pasted to the machine)	-30-80°C

## 10. Antenna picture

### 天线装配与环境处理

← 天线往左边贴

