

样品承认书

SAMPLE SPECIFICATION FOR APPROVAL

供应商名称

SUPPLIER

Shenzhen Shunda cheng Technology Co., Ltd.

客户名称

CUSTOMER

Visionsky (SZ) Industrial Co., Ltd

项目号

ITEM NO

M616

物料名称

DESCRIPTION

WIFI antenna

物料规格

SPECIFICATION

M616 antenna FPC+1.13 gray line + 1st generation terminal L=70MM

物料编码

CUSTOMER PART NO

WF4217B-1131L-70

供应商审核(签字盖公章)

SUPPLIER APPROVAL

客户审核(签字盖公章)



深圳市顺达成科技有限公司
SHUN DA CHENG TECHNOLOGY CO., LTD

承 认 书
SPECIFICATION FOR APPROVAL

客户名称 Customer Name	创族 Visionsky		
客户项目名 Customer Project Name	M616	顺达成项目名 SDC Project Name	M616
客户编码 Customer P/N		顺达成料号 SDC P/N	WF4217B-1131L-70
频段 Band	WIFI2. 4G/5. 8G/BT		
版本号 Version	A0		
设计人信息/Designer Information			
射频工程师 RF Engineer	杨永辉	研发主管 R&D Diretor	符学荣
结构工程师 ME Engineer	李瑶娜		

审批/ Approval				客户批准/Customer Approval	
	制作 Prepared By	审核 Checked By	批准 Approval By	审核 Checked By	批准 Approval By
签章 Signature	李瑶娜	杨永辉	符学荣		
日期 Date	2023. 04. 19	2023. 04. 19	2023. 04. 19		

修订履历/Change Log				
版本 Version	修订内容 Change Description	责任人 Person in Charge	核准 Approval By	日期 Date



目录/Catalogue

序号 No.	项目 Item	页码 Page No.
1	图纸或实物图片 Drawing or Product Image	3
2	尺寸测量报告 Dimensions Test Report	4
3	射频性能测试报告 RF Performance Test Report	6-8
4	可靠性测试报告 Reliability Test Report1	9
5	包装文件 Package Document	10
6	环境有害物质管控一览表 RoHS Control list for Sample	11
7	安装事宜或其它	12

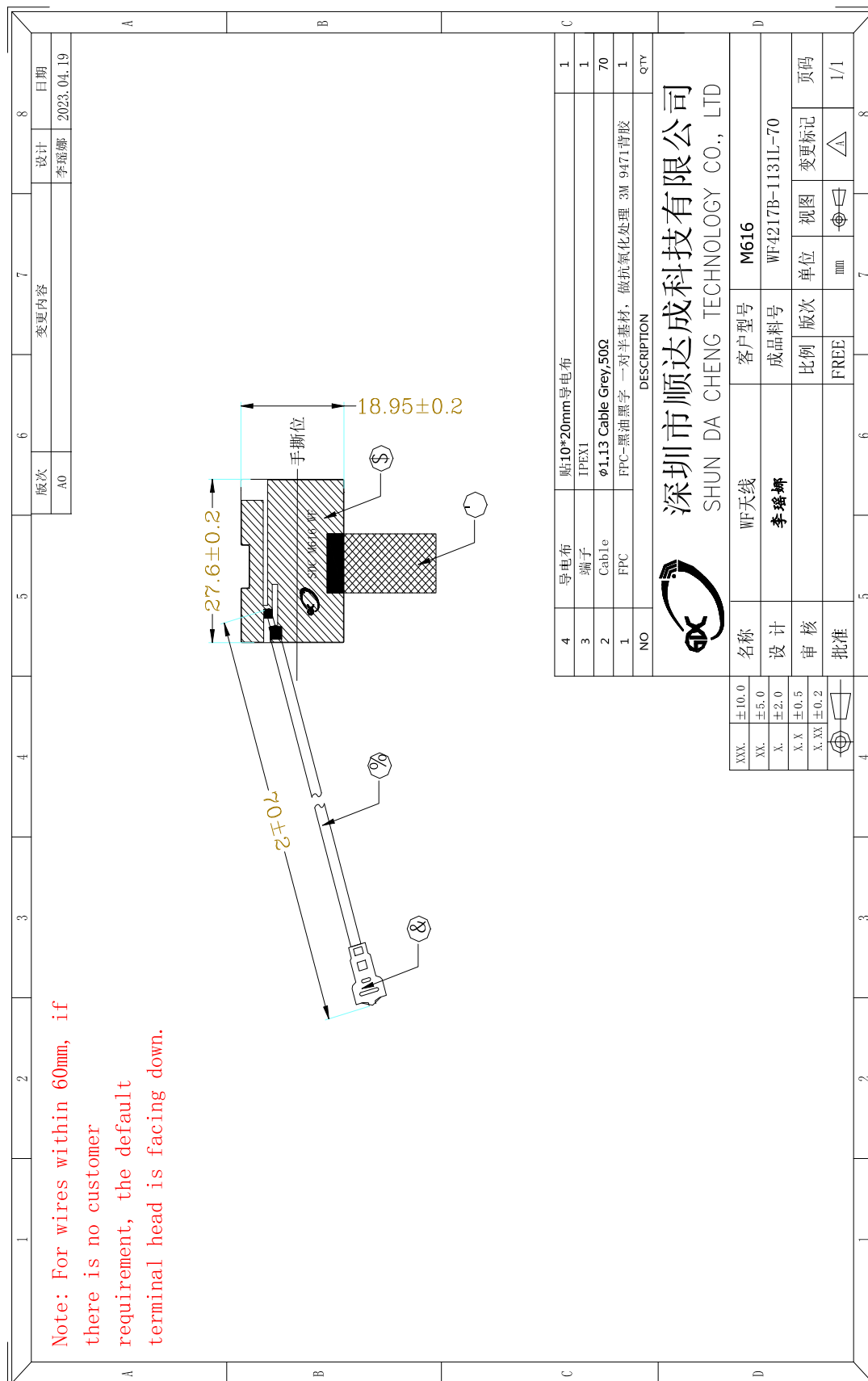


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产品图纸或实物图片

Drawing or Product Image





样品尺寸测量报告

Sample Dimensions Test Report

测试日期 Test Date	2023. 04. 19	样品数量 Sample Qty.	3	测试人 Inspector	许燕芳
尺寸编号 Dimension No.	标准 Standard	样品 1 Sample 1	样品 2 Sample 2	样品 3 Sample 3	Pass/NG
①长度	27. 6±0. 2mm	27. 6	27. 7	27. 6	Pass
②宽度	18. 95±0. 2mm	18. 95	19. 05	18. 95	Pass
③厚度	0. 1±0. 03mm	0. 1	0. 1	0. 1	Pass
④线长	70±2mm	70	71	70	Pass
⑤					
⑥					
⑦					
最终结论 Conclusion					PASS
测试人&日期 Inspector & Date	许燕芳 2023. 04. 19		批准&日期 Approval & Date		



射频性能测量报告

RF Performance Test Report

天线测试设备简介

Antenna Test Equipment Introduction

测试天线输入特性使用 **Agilent E5071C** and **Agilent 5062A** 矢量网络分析仪；辐射特性利用广屏三维近场暗室进行测试，并分别使用 8960 E5515 和 Agilent E4438C 进行了分析。暗房的测试坐标如下：

Test of antenna input characteristics using **Agilent E5071C** and **Agilent 5062A** vector network analyzer; The radiation pattern of the antenna are tested using the guangping 3D near field Anechoic Chamber, and the instrument is used to agilent8960 E5515 and Agilent E4438C. The test coordinates of the darkroom are as follows:

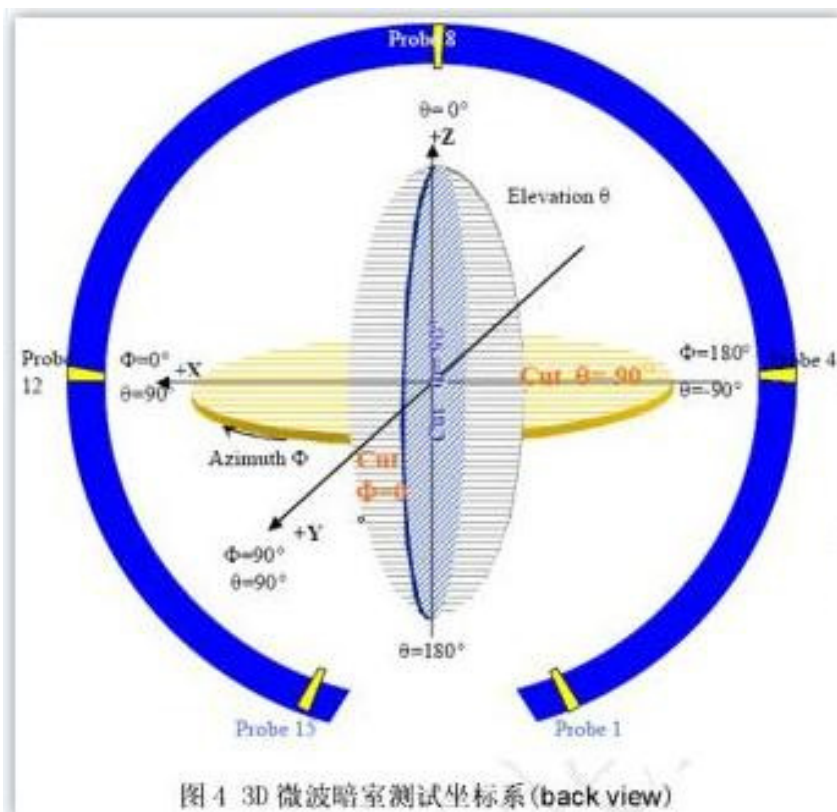


图 4 3D 微波暗室测试坐标系 (back view)

1. S11 参数测量 / **S11 Parameter-VSWR**

使用一根 50 Ω 同轴电缆连接到天线，然后该电缆连接到网络分析仪测量 S11 参数，被测量产品远离金属至少 20 厘米。

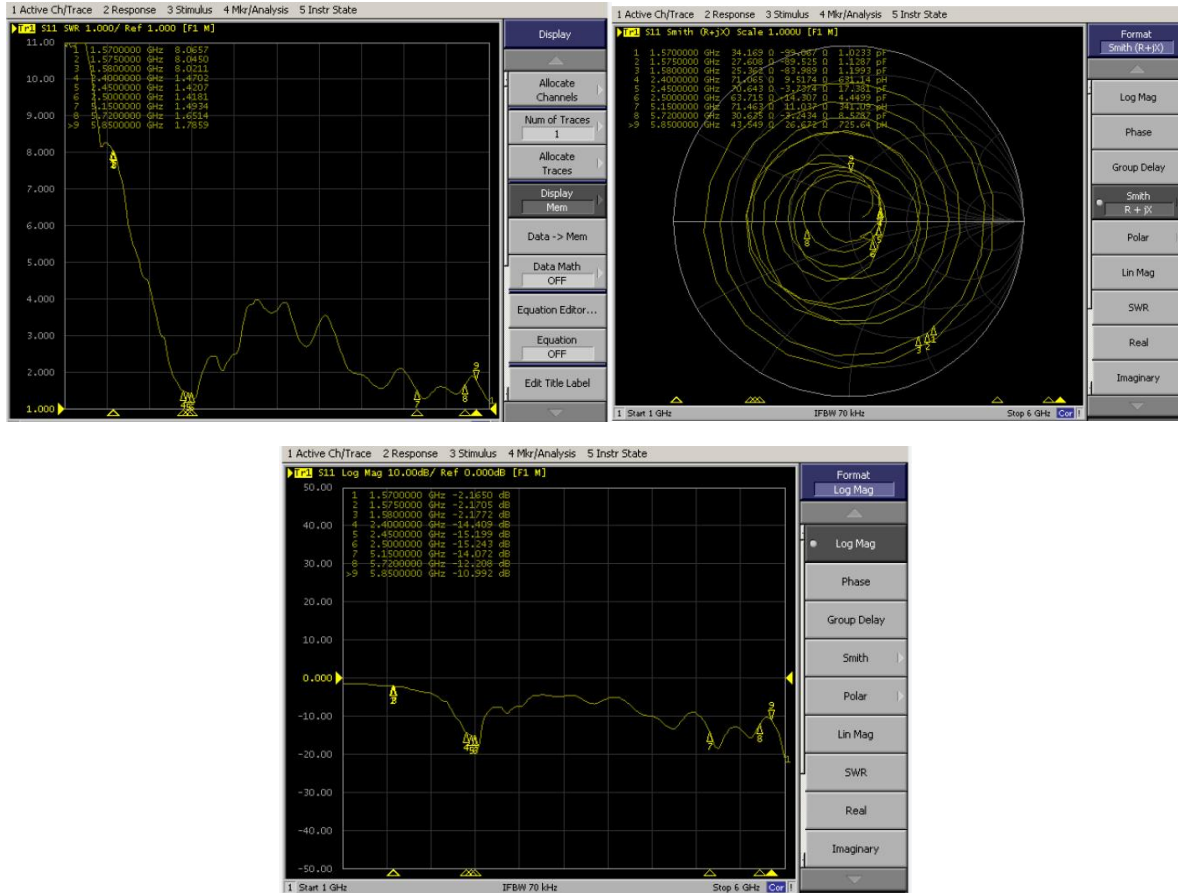
Measuring Method is a 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the S11 parameter, Keeping this fixture away from metal at least 20cm.



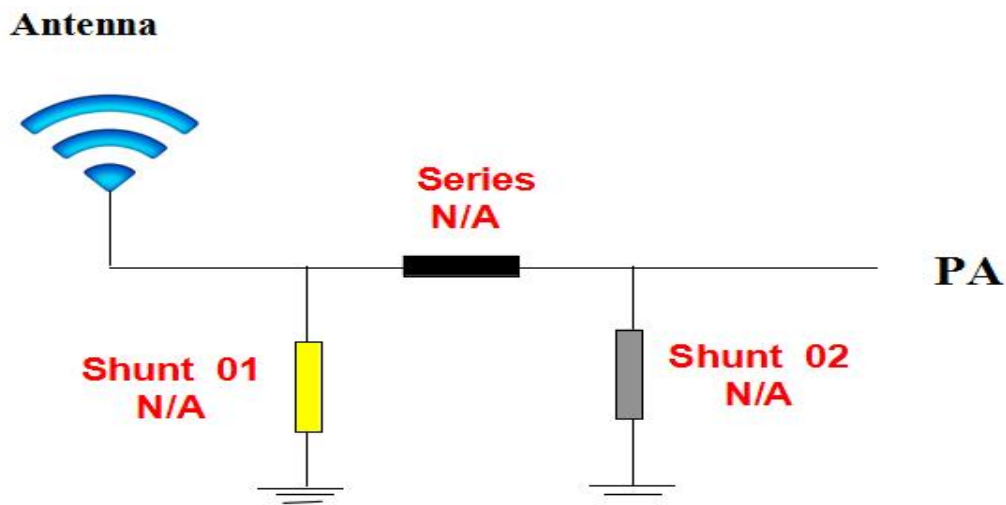
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S11 Parameter-VSWR



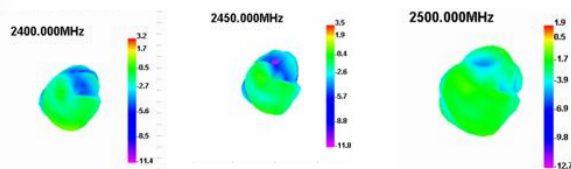
2. 天线匹配网络/Antenna Matching Network





3. Gain & Efficiency

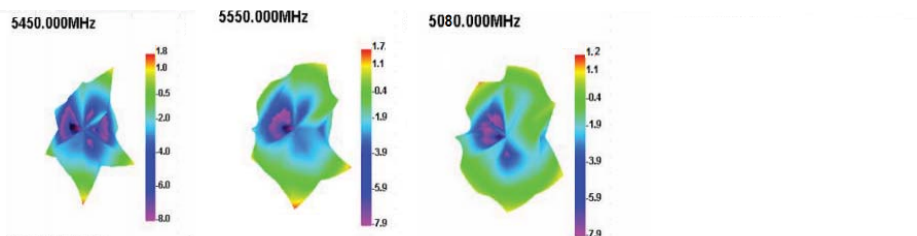
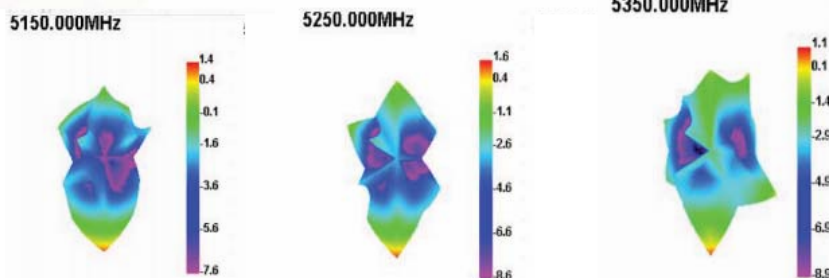
Passive Test For 2.4G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	46.9	-3.29	3.16	1.01	22.318	24.585	3.16	-11.43	49.25	48.85
2450	49.71	-3.04	3.46	1.31	22.77	26.939	3.46	-11.81	49.38	49.16
2500	46.11	-3.36	1.93	-0.22	23.105	23.007	1.93	-12.73	49.46	49.37



Gain & Efficiency

顺达成科技

Passive Test For 5.8G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5100	43.79	-3.59	1.57	-0.58	26.644	17.141	1.57	-18.08	61.56	60.95
5207.14	40.4	-4.04	0.87	-1.28	23.155	16.245	0.87	-20.26	60.8	60.51
5314.28	40.93	-4.33	0.52	-1.63	21.301	15.632	0.52	-17.83	60.49	59.93
5421.43	42.97	-3.67	1.36	-0.79	24.578	18.389	1.36	-21.39	61.44	60.95
5528.57	44.41	-3.53	1.81	-0.28	26.025	18.384	1.87	-22.99	63.27	62.62
5635.71	40.03	-4.31	0.72	-1.43	21.579	15.451	0.72	-21.86	63.73	63.15
5742.85	42.47	-3.72	1.37	-0.78	23.828	18.643	1.37	-21.09	64.06	63.48
5849.99	46.72	-3.3	1.82	-0.33	25.53	21.193	1.82	-18.71	64.26	64





4. WIFI OTA Data

2.4G	802.11b, (2.4G) 11M		
Channel	CH1	CH6	CH11
TRP	12.46	12.98	12.73
TIS	-79.23	-80.6	-80.81
5.8G	802.11a, (5.8G) 54M		
Channel	CH36	CH60	CH161
TRP	10	10.36	10.1
TIS	-69.57	-69.29	-69.6



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可靠性测试报告

Reliability Test Report

测试日期 Test Date	2023. 04. 19	样品数量 Sample Qty.	3	测试人 Inspector	许燕芳	
测试项目 Test Item	要求 Requirement	试验设备 testing equipment	样品 1 Sample 1	样品 2 Sample 2	样品 3 Sample 3	判定 PASS/NG
High temperature storage	Exposed to +85°C for 24H, tested after 2H recovery	temperature and humidity box	OK	OK	OK	Pass
Low temperature storage	Exposed to -40°C for 24H, tested after 2H recovery	temperature and humidity box	OK	OK	OK	Pass
High temperature Work	Work on power for 24H at +60°C	temperature and humidity box	OK	OK	OK	Pass
Low temperature Work	Work on power for 24H at -20°C	temperature and humidity box	OK	OK	OK	Pass
Salt spray test	(5±0.5)% sodium chloride, pH value of 6.5~7.2, experiment Box temperature (35±2) °C□24H □48H	Salt spray testing machine	OK	OK	OK	Pass
Connector riveting and drawing force	1.13 Wire diameter ≥10N 0.81 wire diameter ≥8N RG174 ≥60N RG178 ≥50N	Tensile testing machine	≥10N	≥10N	≥10N	Pass
最终结论 Conclusion						Pass
测试人&日期 Inspector & Date	许燕芳 2023. 04. 19		批准&日期 Approval & Date			

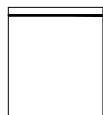


包 装 规 范

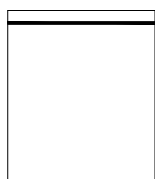
项目名：M616

成品名称：FPC天线

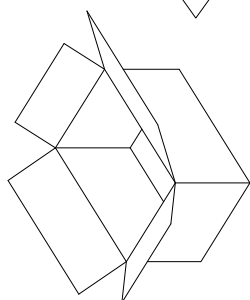
FPC成品天线 (一)



(二) 每PE袋装100pcs产品 (以实际包装为准)



(三) 再将装好的天线小包装袋整齐放入
(图三) 装10小袋 (以实际包装为准)



(四) 包装好的天线放入纸箱，可装5大袋，
每箱可装5000PCS (图四)。(以实际
包装为准)



供应商	
定制单号	
物料编码	
规格型号	
数量	
日期	

(五) 包装完成后需贴上出货标签 (图五) .



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安装事宜或其它

Install Wizard or Other

Installation process:

Take 1PCS product, tear off the release paper on the back of the FPC by hand, and then compare the position of the FPC positioning hole with the position of the shell positioning hole (positioning rib

Position or positioning line) aligned, flatly attached to the shell, the specific location is shown in the figure below: Precautions during installation:

☐ After pasting the antenna, ensure that the FPC is completely attached to the shell;

☐ The positioning hole is aligned with the position of the shell positioning column;

☐ The edge of the FPC is aligned with the edge of the shell;

☐ Antenna with terminal When fastening the terminal to the PCBA terminal of the motherboard, please align the terminal first, and then fasten it vertically.;

☐ When removing the antenna terminal, you need to use tools (such as a special crowbar) to tilt the terminal vertically, and you cannot directly pull the wire to remove it.



ROHS Certification

Certificate

Certificate Number: UNIB22051904HC-01



Product: Fpc antenna
Applicant: ShenZhen ShunDaCheng Technology Co., Ltd.
4th Floor, Building B5, Xinfu Industrial Zone, Fuyong Chongqing Road,
Baoan District, Shenzhen
Manufacturer: ShenZhen ShunDaCheng Technology Co., Ltd.
Model No.: N/A
Trade Name: N/A
Test Methods: IEC 62321-2:2021, IEC 62321-3-1:2013, IEC 62321-4:2013 +A1:2017,
IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015
IEC 62321-7-2:2017, IEC 62321-8:2017

The laboratory tested the product provided by the applicant according to the above test methods. According to the test results, the product conforms to RoHS Directive [(2011/65/EU and Amendment (EU) 2015/863)] issued by the European Commission. It is possible to use CE marking to demonstrate the compliance with RoHS Directive.

The certificate applies to the tested sample above mentioned only and shall not imply an assessment of the whole production. It is only valid in connection with the test report number: UNIB22051904HR-01.

Note: According to the requirements of the applicant for testing, details are shown in the test report.

RoHS

May 27, 2022
Issue Date



Shenzhen United Testing Technology Co., Ltd.

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Certificate of Compliance