产品规格书
SPECIFICATION

客户：
CUSTOMER ：

东莞安瑞创智能科技有限公司
（Dongguan Anycon Technology Co.,Ltd.）

产品名称：
DESCRIPTION：

南美 中性 英文 黑色 数模智能 蓝牙语音遥控器 RC-IS02-27 协议:NEC
客户码:4040 无客户LOGO+无型号丝印 38KHz 27系列 Android TV 平台 (Telink：TLSR8275)

产品编码：
MATERIAL CODE:

AN4806-0KG-001

供应商产品名称：
SUPPLIERPRODUCT NAME:

蓝牙语音遥控器

供应商物料编码：
SUPPLIERMATERIAL CODE:

AN4806

送样日期：
RECEIVED DATE:

2022-05-12

东莞安瑞创智能科技有限公司 （Dongguan Anycon Technology Co.,Ltd.）		
承认 ACCEPT	审核 CHECKED BY	批准 APPROVE BY

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REMARK: Please send us one (or copy) of this approval with stamp after accepting, other copies filed by the customer.

修订履历
REVISION HISTORY

版本/次 REVISION	修改项次 DESCRIPTION	修改日期 DATE
A0	首次发行 Firstime to issue	2022/05/12

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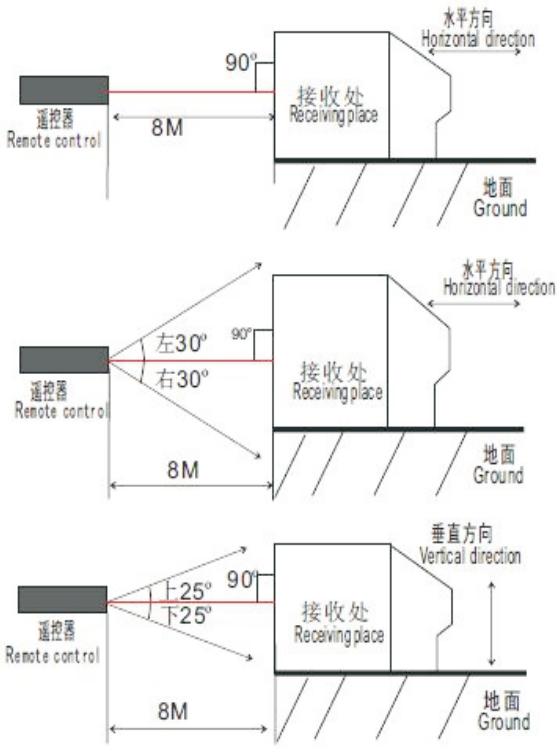
四.产品信息及要求/PRODUCT INFORMATION AND REQUIREMENTS

编号/NUMBER	项目/ITEM	内容/CONTENT	判定标准/JUDGEMENT STANDARD	测试结果 /test result
1.结构外观 ENGINEERING DRAWING	尺寸,净重,毛重(带包装袋) Size,net weight,gross weight(with package)	尺寸：48*246.2*16mm 净重：87.9g 毛重：89.7g	按包装要求 According to packing requirements	正常
	遥控器包装及标签 Remote control package and label	见包装说明报告 SEE PACKING SPECIFICATION	按图文资料	正常
	按键材质(金属锅仔片/塑胶锅仔片/碳粒) Button material (metal pan pieces/plastic pan pieces/carbon particles)	金属锅仔片 metal pan pieces	弹力130g±20g Elastic force130g±20g	正常
	外观 Appearance	下列项目均目测确认： The following items were visually confirmed: 1.划伤、沾污、割裂、变形 1.Scratch, contamination, rupture, deformation 2.应刷图形及文字 2.Printed graphics and text 3.壳体配合 3.Shell fit 4.表面 4.surface	1.无上述各现象 1.None of the above phenomena 2.清晰、均匀、整齐，色差不允许超过两个色号 2.Clear, uniform, neat, Chromatic aberration isn't allowed more than two Pantone Num 3.无翘起、变形、裂缝 3.Without tilting, deformation and crack 4.材质均匀、颜色一致 4.Materialis uniform, the color is consistent	正常
	材质 Material	遥控器发射盖：PC50%黑色高光，表面高光处理 Remote control emission cover: PC50% black highlight, surface highlight treatment 遥控器面壳：采用材料ABS+黑色哑光烛火花纹，烛纹以亮纹处理 Remote control shell: ABS+ black matte candle pattern is used, and the candle pattern is treated with bright pattern 遥控器按键：黑色硅胶材质，普通抛光，按键高度1mm Remote control buttons: made of black silicone, polished, with a button height of 1mm 遥控器底壳：采用材料ABS+黑色哑光，烛火花纹 Remote control bottom shell: ABS+ black matte, candle pattern 蚀纹的规格是VD130 The etching specification is Vd130	符合 RoHS&REACH Comply RoHS&REACH	正常

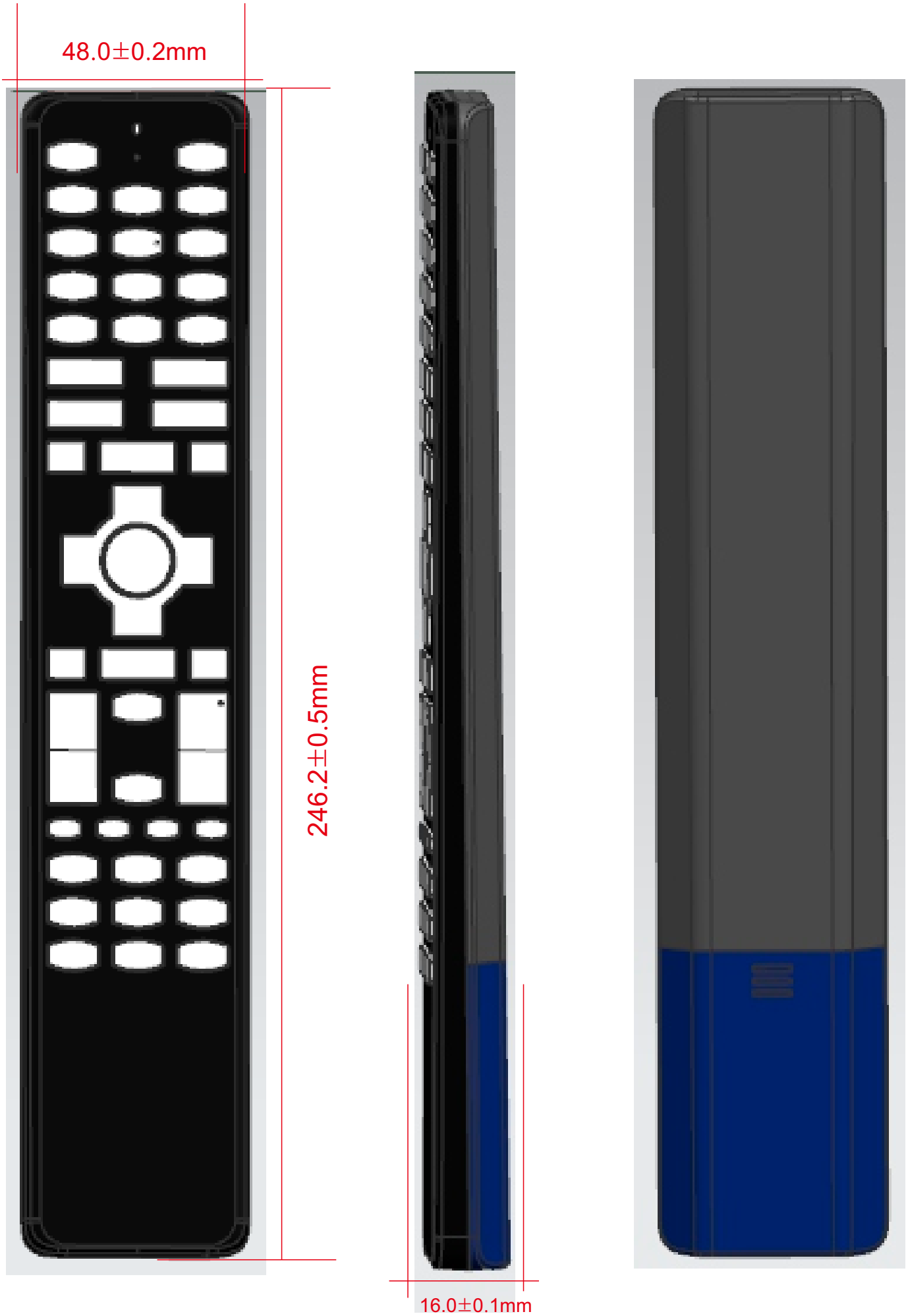
2.**机械性能** MECHANICAL BEHAVIOR	按键工作的负荷力 Buttons force	按键工作的负荷力，按键平面中央垂直施加的最小负荷力F=130g±20g； Load force of key operation, in key planeMinimum load force applied vertically by the center F=130g±40g;	测定时以中心为基准 To center as a benchmark	正常
	按键高度 Buttons height	按键未按下的高度H＜3mm /height h button unpressed H＜3mm 按键按下起作用时的高度H1不能低于上盖面 /height H1 shall not be lower than the upper cover when the button is pressed and the RC is working	① H =1.0±0.2mm ② H1=0.5±0.2mm	正常
	按键强度 Buttons strength	在按键平面中央垂直施加30N的负荷力3 分钟 Apply 30N vertically in the center of the buttons plane for 3 minutes	按键无损坏，各功能正常 Buttons are not damaged, all functions should be normal	正常
	按键的负荷寿命 Life of Buttons	以3-5次/秒的按压频率按键≥20万次，不到位次数小于或等于0.5% Press the button with the frequency of 3-5 times /second more than 200,000 times, and the number of times not in position is less than or equal to 0.5%	按键无损坏，各功能正常 Buttons are not damaged, all functions should be normal	正常
	按键的复位 Reset button	分别在按键平面1/4 位置的左端和右端及按键的左、右、前、后侧面施加10N的力，按压三分钟 Apply 10N force on the left end and right end of 1/4 position of the button plane and the left, right, front and back side of the button respectively, press for 3 minutes	按键无损坏，各功能正常 Buttons are not damaged, all functions should be normal	正常
	遥控器耐压强度 Remote control pressure resistance	遥控器整体的耐压强度，遥控器装好电池,对其正面和底面分别施加100N垂直力15 秒, Remote control overall pressure strength, remote controlInstall the battery on the front and bottom of the deviceApply 100N vertical force for 15 seconds,	遥控器无损坏且功能正常 Remote control is not damaged and all functions should be normal	正常
	电源盖板插拔寿命 Power cover plug life	以2-3次／分钟插拔频率插拔电源盖板不少于100次 Plug and cover the power cover at a frequency of 2-3 times/min not less than 100 times	无异常 Without exception	正常

3.使用规格 USE GUAGE	工作环境 Work environment	-10℃-50℃	无异常 Without exception	正常
	贮存温度 storage temperature	-20℃-60℃	无异常 Without exception	正常
	电池规格 Battery Specification	锰或碱干电池7号×2 个 2 Pcs manganese or alkaline dry battery 7	符合国标电池 (standard battery)	正常
4.电气参数 ELETRICAL PARAMETERS	蓝牙芯片型号 Bluetooth chip model	Mk8275	封装QFN32	正常
	静态电流 Static Current	电源电压 DC3V Power supply voltage DC3V	＜3uA	正常
	工作电流 Working current	电源电压 DC3V Power supply voltage DC3V	＜30mA	正常
	工作电压 Working voltage	DC 3V	2.4V-3.3V	正常
	工作功率 Working power	正常工作 Normal working	≤100mW	正常
	载波频率 Carrier frequency	2400-2483MHz DC3V	规定值±0.5 KHZ	正常
	发射距离 Emission distance 电源电压DC3V，解码仪 Power supply voltage DC3V，decoder instrument			正常
	无线匹配性测试 Wireless matching test	在无干扰源状态下与整机100次匹配 Matching with the machine 100times without in the state of no interference source	不出现匹配失败，且每次匹配成功后功能正常 Matching failure does not allowed to occur, and the function should be normal after each test	正常
	无线连接稳定性测试 Stability of wireless connection test	与机器匹配后连接12小时 Connect with the machine for 12 hours after matching	中间断开次数不得超过10次，每次时长不得超过6S The number of intermediate disconnection shall not exceed 10 times, and not longer than 6S per time.	正常
	红外光峰值辐照度 Peak irradiation of infrared light	额定工作电压 rated operational voltage	轴上≥40μW/cm² 圆锥角＞30°，≥20μW/cm² Infrared: On the Stalk≥40μW/cm² cone angle＞30°，≥20μW/cm²	正常
	欠压状态:红外光峰值辐照度 Undervoltage state: Peak irradiation of infrared light	额定工作电压的75% 75% of rated operational voltage	轴上≥20μW/cm² 圆锥角＞30°，≥10μW/cm² Infrared: On the Stalk≥20μW/cm² cone angle＞30°，≥10μW/cm²	正常

5.**耐候性能** WEATHERING PERFORMANCE	高温贮存 High temperature storage	在温度55℃下搁置48小时，恢复2小时后测试 Put the RC under the temperature of 55 ℃ for 48 hours,then test the RC after 2 hours' recovery	无异常 Without exception	正常
	恒定湿热贮存 Constant heat and humidity storage	在温度40℃下，相对湿度98%的条件下搁置48小时，恢复4小时后测试 Put the RC under temperature 40 ℃, relative humidity 98% for 48 hours，then test the RC	无异常 Without exception	正常
	低温贮存 Low temperature storage	在温度-25℃下搁置48小时，恢复2小时后测试 Put the RC under the temperature of -25 ℃ for 48 hours,then test the RC after 2 hours' recovery	无异常 Without exception	正常
	温度变化贮存 Varying temperature storage	遥控器承受如下的温度变化实验5个循环后，即： 室温->-10℃（3小时）->40℃(3小时）->室温，恢复2小时后测试 RC experiment under the following temperature changes after five cycles : room temperature - > - 10 ℃ (3 hours) - > 40 ℃ (3 hours) - > at room	无异常 Without exception	正常
	振动实验 The vibration test	a.水平方向振动 ：频率10-20-10Hz 位移0.75mm,轴线扫频5个周期 A. Frequency of 10 - 20 - 10HZ,displacement is 0.75mm, axis frequency sweep 5 cycle	无异常 Without exception	正常
		b.频率30-55-30Hz 位移0.75mm,轴线扫频5个周期 B.The frequency of 30-55-30Hz is displaced by 0.75, and the axis frequency is swept for 5 cycles	无异常 Without exception	正常

5.**耐候性能** WEATHERING PERFORMANCE	跌落试验 Drop test	在遥控器装有电池的条件下，不带包装，从80cm 高度自由跌落在不小于3cm厚木板上，遥控器的跌落面应与冲击面平行，每个面(共6个面)各跌落三次 Under the condition of remote control with batteries, without packing, free fall on a height of 80 cm on the plank thicker than 3cm, the fall of the remote control surface should be parallel to the strike face, each side (total 6 sides) fell three times	结构应无断裂，功能正常 The structure should be faultless,all functions should be normal	正常
	耐温水 Heat water resistance	能耐60℃的温水，60℃的温水滴在遥控器表面三个不同的部位上包括字符图形符号部位，用软布擦干 It can withstand 60 degrees of warm water, 60 degrees of warm water dripping on the surface of the remote control three different parts including characters and symbols , then wipe with soft cloth.	遥控器的表面色调不起变化，字符标志不被擦掉 The surface color of the remote control should not change, and character marks should not be erased.	正常
	字符、标志、涂饰部分的附着力 The adhesion of characters, signs, and finishing parts	用粘附力为2－3.5N/cm的透明胶带粘遥控器的字符、标志和涂饰部分 Use the adhesive tape with 2 to 3.5N/cm to stick the character, logo and finishing part of the remote controller.	3M胶纸粘贴,按压垂直拉起,重复三次,无脱落现象 Paste with 3M adhesive tape, press and pull vertically, repeat three times. No falling off	正常
	耐溶剂性 Solvent resistance	1.用浸有20%的食盐水、无水乙醇分别擦拭遥控器表面三个不同部位上包括字符图形符号部位30次 Wipe three different parts on the surface of the remote control respectively with 20% salt water and anhydrous ethanol, including the symbol parts of characters and figures 30 times 2.将食用油用滴管滴在遥控器表面三个不同部位包括字符图形符号部位，1h 后用软布擦干 Drop the cooking oil into three different parts on the surface of the remote control, including the characters and symbols. Dry with a soft cloth after 1h	95%酒精粘软布,500g重力垂直，对丝印字符来回30次摩擦 表面硬度和外观无异常 字符图形符号清晰 95% alcohol adhesive soft cloth, 500g gravity vertical, 30 times friction on silk screen characters, no abnormal surface hardness and appearance, clear character graphic symbols	LOGO＞100次 硅胶黑色OK键＞200次其它硅胶丝印按键＞100次。合格 Logo ＞ 100 times, silica black OK key ＞ 200 times, other silica screen printing keys ＞ 100 times. qualified

五.外观尺寸图/DIMENSIONS FIG



六.软件功能software function

6.1 配对及解配Pairing and unmatching

同时按住遥控器的 ← 和音量- − 3 秒，遥控器清单配对信息，进入配对模式，配对过程中的红灯闪烁频率，配对过程中红灯以2Hz频率闪烁，配对距离为 20 厘米到 1.5 米。如配对成功，遥控器红灯长亮3秒；如 30 秒后配对失败，红灯熄灭。设备名： ‘RC-27’ 。工厂测试中，测试完毕后，测试软件会发出命令清除遥控器的配对信息。

At the same time, press and hold the remote controller for ← 和 − 3 seconds, The remote controller lists the pairing information, enters the pairing mode, and the flashing frequency of the red light in the pairing process is 2Hz in the actual pairing process, and the pairing distance is 20 cm to 1.5 meters. If pairing is successful, the red light of the remote control stays on for 3 seconds; if pairing fails after 30 seconds, the red dot goes out Equipment name: ‘RC-27’ during factory test, after the test is finished, the test software will issue a command to clear the pairing information of the remote controller.

6.2 回连Huilian

在 4米处遥控器与电视机保持连接至少 1 小时，不出现断连；在有配对信息并且蓝牙连接断开的情况下，按"power键”和“配对组合键”不发回连广播。 其余任意键发送5秒回连广播，回连成功，指示灯闪3次.

Keep the remote control connected with the TV set at 4m for at least 1 hour without disconnection; When there is pairing information and the Bluetooth connection is disconnected, Press the "power key" and "pairing combination key" to not send the back connection broadcast. Any other key sends the back connection broadcast for 5 seconds, the back connection is successful, and the indicator flashes for 3 times

6.3 休眠及唤醒Sleep and wake up

未进行任何数据交互时，遥控器保持连接1小时后主动进入休眠断连状态， 按任意键可唤醒遥控器，如还在连接状态，则发送对应按键的蓝牙码值；如已进入蓝牙连接断开状态，则进入回连状态，回连成功后，按下任意键发送对应蓝牙码值；

Without any data interaction, the remote control keeps connected for 1 hour and then enters into the state of sleep disconnection, press any key to wake up the remote control, if still connected, then send the corresponding key Bluetooth code value; If you have entered the Bluetooth connection disconnect state, you will enter the backconnect state,After successful connection,Press any key to send the corresponding Bluetooth code value;

6.4 OTA

在电视机开机启动时，检测遥控器升级文件，若存在升级文件，遥控器进行 OTA 升级，LED 灯呈呼吸灯闪烁。此时遥控器不可使用，任何按键无响应，升级成功后，LED 灯停止闪烁，此时遥控器可正常使用，若升级失败下次开机时再次检测并升级。OTA 失败后，LED 灯停止闪烁，遥控器退回老版本正常运行。

When the TV is turned on, the upgrade file of the remote controller is detected. If the upgrade file exists, the remote controller performs OTA upgrade, and the LED lamp flashes in breathing light Shuo. At this time, the remote controller can't be used, and any buttons don't respond. After the upgrade is successful, the LED light stops flashing, and the remote controller can be used normally at this time. If the upgrade fails, it will be detected and upgraded again at the next boot. After OTA fails, the LED light stops flashing, and the remote controller returns to the old version for normal operation.

6.5低电压提示 Low voltage prompt

电池电量低于 2.4V 时，每次用户按键，则红灯闪烁3s，频率1Hz

When the battery power is lower than 2.4V, Every time the user presses a key, Press any key, the red light flashes for 3s, and the frequency is 1Hz

6.6 单载波测试

久按“音量- − ”，遥控器进入单载波模式，发送频率为 2440MHz 、发送20秒，功率为芯片最大功 率的单载波，松开 “音量-”后退出单载波模式。

Press "volume − " for a long time, and the remote control enters the single carrier mode. The transmission frequency is 2440mhz, the transmission time is 20 seconds, and the power is the single carrier with the maximum power of the chip. Release "volume -" and exit the single carrier mode.

6.7 指示灯状态Indicator status

红外模式Infrared mode	按键Key	按键不亮灯Keys do not light up
蓝牙模式Bluetooth mode	按键Key	按键不亮灯Keys do not light up
配对Pair	配对Pair	红灯闪烁 30秒，频率 2Hz The red light flashes for 30 seconds at a frequency of 2Hz
	配对成功Pairing succeeded	红灯长亮 3 秒The red light stays on for 3 seconds
	配对失败Pairing failed	红灯熄灭The red light goes out
低电压状态 Low voltage state	按键Key	按任意键红灯闪烁 3 秒，频率 1 Hz Press any key and the red light flashes for 3 seconds at a frequency of 1 Hz

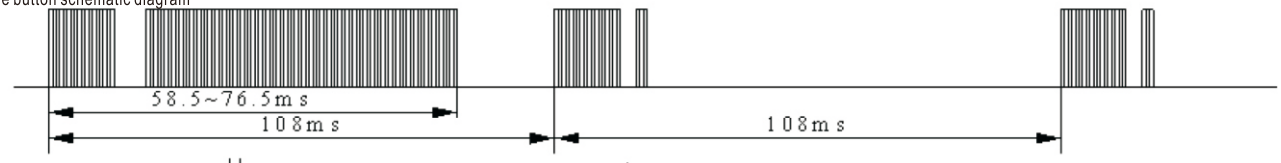
6.8 多按键不发码Multi-key does not send code

不要求多按键不发码功能.Multi-key no-code function is not required.。

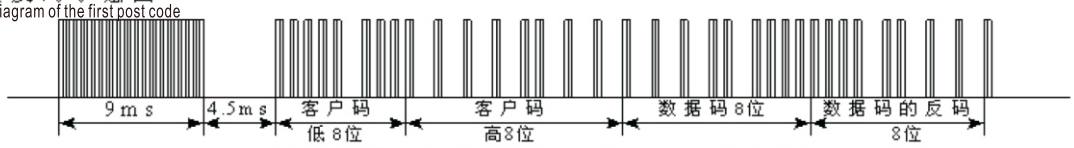
七.发码格式与波形/HAIR CODE AND WAVEFORM FORMAT

发码格式及波形
Code format and waveform

长按键发码示意图
Long press the button schematic diagram

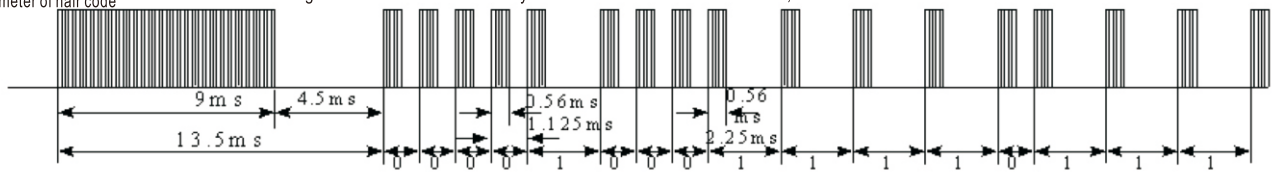


第一桢发码示意图
Schematic diagram of the first post code



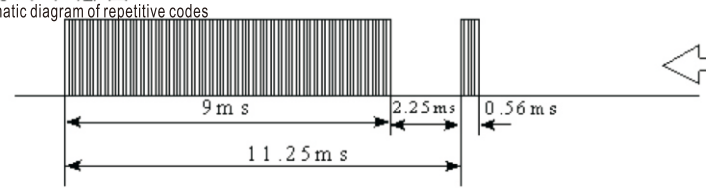
发码时间参数图
Time parameter of hair code

上图中发码16进制读数为客户码10 EF H,数据码为17H
The figure of the hair code 16 binary readout for customer code 10 H EF, the data code is 17 H



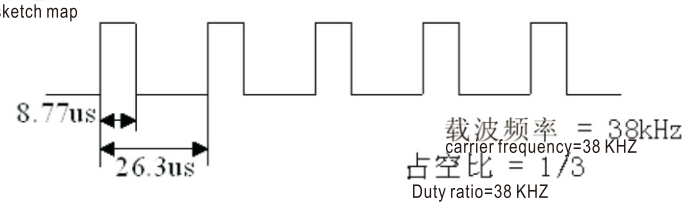
上图中16位客户码为：C0/C1/C2/C3/C4/C5/C6/C7/C8/C9/C10/C11/C12/C13/C14/C15=0000100011110111
Figure 16 customer code:
16进制从高位往低位读数为10 EFH
16 hex from the high to low reading of 10 EFH

重复码示意图
Schematic diagram of repetitive codes

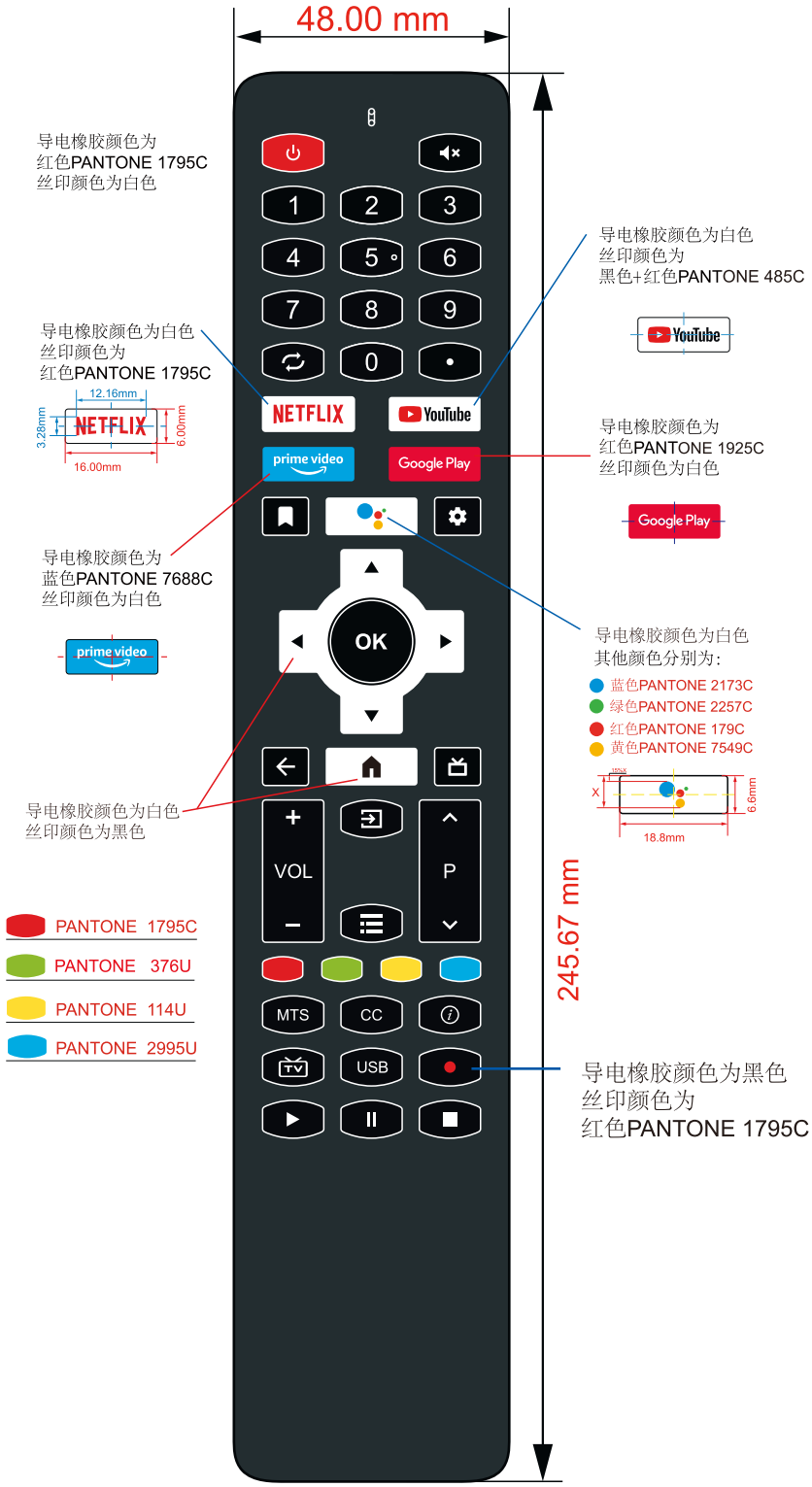


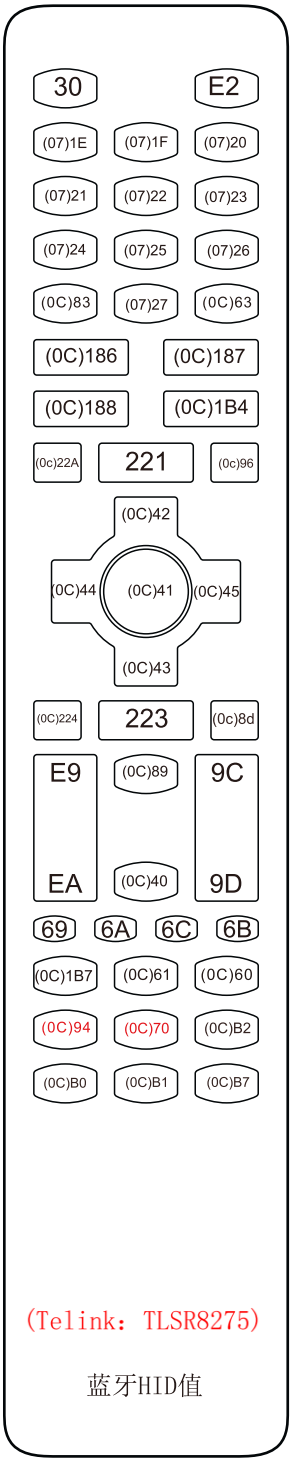
发码数据参数示意图
Sketch map of hair code

载波示意图
Carrier sketch map



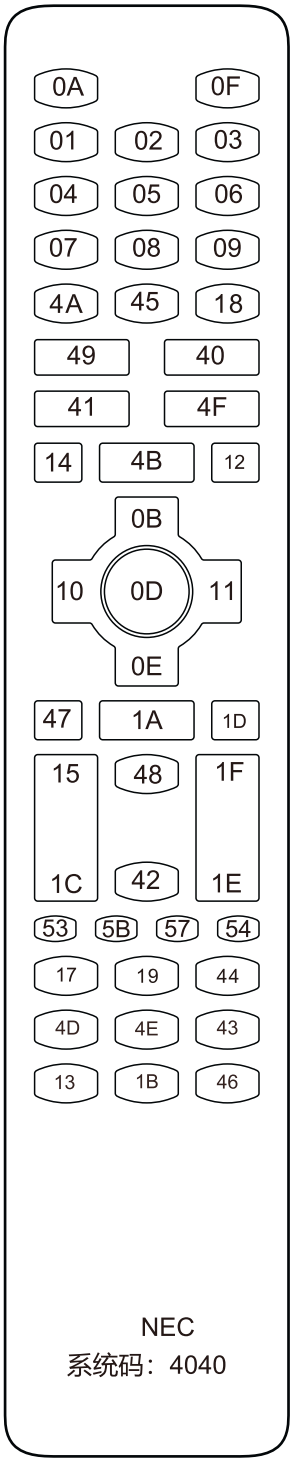
八．图纸与码值表/DRAWING AND CODE VALUES TABLE





(Telink：TLSR8275)

蓝牙HID值



NEC
系统码：4040

红外模式下：OK+ ← 能发出0x62
蓝牙模式下：OK+ ← 能发出指定值0xEC

客户料号：7601-Z7S022-03440001
产品名称：159-T13
外壳型号：159-GK素材
硅胶型号：159-GD03
PCB 型号：YDX—159—LYD—V1.1 软件号：KG-159-G13(8275)

南美 中性 英文 黑色 数模智能 蓝牙语音遥控器 RC-IS02-27
协议：NEC 客户码：4040 无客户LOGO+无型号丝印 38KHz 27系列
Android TV 平台 (Telink：TLSR8275)

注意事项：所有丝印图片与按键需居中对齐，无特殊说明的导电橡胶按键，颜色都是黑色，丝印颜色为白色。

2022.01.19 版本号：A01

九、有害物质检测报告清单

List of hazardous substances test reports

序号 No.	物料BOM的名称及型号 Name and model of material BOM	KTC供应链管理系统编号 Supply chain management system coding	报告类型 Report type
1	黑色外壳	YDX07601RA0-20110190	RoHS
2	亮黑色镜片	YDX07601RA0-20110190	RoHS
3	PCB涂层	YDX07601RA0-20110190	RoHS
4	PCB本体	YDX07601RA0-20110190	RoHS
5	Ic本体	YDX07601RA0-20110190	RoHS
6	Ic金属引脚	YDX07601RA0-20110190	RoHS
7	LED透明胶体	YDX07601RA0-20110190	RoHS
8	LED金属引脚	YDX07601RA0-20110190	RoHS
9	胶体	YDX07601RA0-20110190	RoHS
10	丝印涂层	YDX07601RA0-20110190	RoHS
11	锡	YDX07601RA0-20110190	RoHS
12	弹簧	YDX07601RA0-20110190	RoHS
13	金属锅仔片	YDX07601RA0-20110190	RoHS
14	锅仔片透明黏胶	YDX07601RA0-20110190	RoHS

说明：
1."物料BOM的名称及型号"是指以均质材料为单位的物料清单，如IC由晶源、包封料、引脚、电镀材料、油墨等均质材料组成。
2."KTC供应链管理系统编码":深圳康冠科技集团供应链管理系统（网址：https://scm.ktc.cn）-供应商管理-有害物质检测报告模块，当上传环保报告时会自动产生"报告编号"（应商代码+流水号），如307R1109-19080001。注意必须填写KTC GP工程师审核合格后的编号，如果未审核由采购通知GP工程师处理。
3.报告类型：如RoHS、REACH等，电子料要符合RoHS、REACH要求。
4.供应商确认此物料的"有害物质检测报告"在KTC SCM系统中有"报告编号"（应商代码+流水号），则点击"编辑"在"物料明细"增加此料号；如果没有要重新上传"有害物质检测报告"产生新的"报告编号"。

十.遥控器(物料清单)/REMOTE CONTROL (BOM)

产品规格书
Specification

品名：材料清单
Name: Material list

序号 NO.	物料名称 Material name	材料编号 Material number	规格 Specifications	位置 Position	单位 Company	用量 Use level	备注 Remark
1	PCB	YDX—159—LYD—V1.1	厚度:1.2mm		PCS	1	
2	发射管 LED	5W2SC-12(新绿)	F5大功率	LED	PCS	1	
3	模块 Modular	YDX-MK8275-V1.5	厚度:0.8mm	J1	PCS	1	
4	外壳 Shell	159-GK素材			PCS	1	
5	导电胶 Conductive adhesive	159-GD03			PCS	1	
6	锅仔片 metal dome	YDX—159—LY	130g±20g		PCS	1	
7	后焊弹簧(+) Rera welding spring(+)	159 #（+）			PCS	1	
8	后焊弹簧(-) Rera welding spring(-)	159 #（-）			PCS	1	
9	连极(±) Connecting pole(±)	159 #（±）			PCS	1	
10	镜片 Lens	镜片/159	黑色		PCS	1	
11	咪头 Sent it	后焊	EM-4015-P Φ4.0×1.5(H)(后焊) (-40±2dB)		PCS	1	
12	胶袋 adhesive tape	7.5*32CM			PCS	1	

工单重要备注:

FCC Statement:
This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to
Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correct the interference by one or more of the following measures:
- Reorient the receiving antenna.- Increase the separation between the equipment and receiver.- Connect the equipment into and outlet on a circuit different from that to which the receiver is connected.- Consult the dealer or an experienced radio/TV technician for help.Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

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