



深圳市嘉华利电子有限公司

TOPWAY EM ENTERPRISE LTD.

## 产品使用说明书

Manual

产品名称 **Apellation:** 蓝牙耳机 Bluetooth Earphone

型号 **Model:**17LY71

编拟 Layout: 温家祺 日期 Date: 2018/10/17

复核 Review: 日期 Date: \_\_\_\_\_

审核 Auditing: 日期 Date: \_\_\_\_\_

批准 Authorize: 日期 Date: \_\_\_\_\_

# 1、主控方案 Bluetooth chipset controller :NY010



## 2、产品关键参数 Headset Specifications

规格列项 Items	规格参数说明 Description	备注 Remark
蓝牙版本 Bluetooth version	V4.2	
蓝牙协议 Bluetooth profile	HFP A2DP HSP AVRCP	
蓝牙耳机类型 Product type	立体声蓝牙耳机 Stereo Bluetooth Headphone	
工作频率 Working Frequency	2.402GHz-2.480GHz	
产品尺寸 Product dimension	TBD	
产品重量 Product weight	TBD	
额定电池容量 Battery capacity	100mAh / 3.7V	
电池类型 Battery type	可充电锂电池 Rechargeable Lithium	
充电电流 Charging current	≤70mA	
充电时间 Charging time	1.5 hours	
关机后静态电流 Quiescent current	≤ 0.5uA	
待机电流 Standby current	0.3-1mA	
整机工作电流 Operating current	≤10mA	播放音乐或通话状态
音乐播放时间 Playback music time	8-9 hours	测试条件: 用 iPhone 手机, 音量为最大音量的 70% 播放音乐 Test condition: used with iPhone playback music for 70% maximum volume
通话时间 Talk time	8-9 hours	
待机时间 Standby time	Up to 80 hours	
无障碍蓝牙通话距离 Effective communication range	正向 Forward ≥9M, 背向 Backwards ≥7M	
无障碍蓝牙播放音乐距离 Effective	正向 Forward ≥10M, 背向 Backwards ≥	
接收灵敏度 Receiving sensitivity	>-85dBm	
麦克风 Microphone	4015 @ 42+/-3 dB (电容咪头)	
喇叭 Speaker type	Φ9mm (DLBR-09ND06-005)	
阻抗 Impedance	16□ ± 15%	
喇叭声压灵敏度 Sound pressure	89±3dB @1mw 1kHz with IEC318	
频响范围 Frequency response	20 - 20,000 Hz	
额定输入功率 Rated input power	3mW	
最大输入功率 Maximum input power	10mW	
声道平衡度 Channel balance	≤ 3dB @ 1kHz	
失真度 Distortion	< 5% @ 1kHz 1mW	
工作温度 Operating temperature	-10~+45°C	
储存温度 Storage temperature	-20~+60°C	

### 3、产品主要功能特点 Product main function

功能特点	描述
蓝牙立体声 (Stereo)	入耳式立体声蓝牙耳机 Bluetooth Headphone
蓝牙通话(Talking)	支持使用蓝牙耳机通话 Support talking function
电量指示(Battery indication)	支持蓝牙耳机的电量在 IOS 手机上显示 Support battery capacity indication
中/英文切换	无 NC
蓝牙配对名称	配对名: 17LY71

### 4、产品提示音、LED 指示灯状态

序号 No	功能 Function	提示音 tone	LED 状态 LED status	备注 Remark
1	开机 Powering on	滴	蓝灯快闪 Blue LED flashing fast	
2	配对 pairing	/	红蓝灯交替闪烁 Red and Blue LED flashing alternately	
3	关机 Powering off	滴	蓝灯闪一下 Blue LED flashing once	
4	连接成功 Connected	Connected	蓝灯闪 Blue LED flashing	
5	断开连接 Disconnected	Disconnected	蓝灯闪 Blue LED flashing	
6	来电 Incoming call	嘟嘟嘟/苹果同步手机铃声	蓝灯闪 Blue LED flashing	
7	拒接电话 Reject call	/	蓝灯闪 Blue LED flashing	
8	挂断电话 End call	嘟	蓝灯闪 Blue LED flashing	
9	末码重拨 Last number redial	/	蓝灯闪 Blue LED flashing	
10	播放音乐 Play music	/	蓝灯闪 Blue LED flashing	
11	低电提醒 Low battery alert	Low charge	红灯闪 Red light flashing	
12	充电 Charging	/	红灯常亮 Red LED is lit	
13	充满电 Fully charged	/	蓝灯常亮 Blue LED is lit	
14	最大音量 Maximum Volume	滴	/	
15	最小音量 Minimum Volume	/	/	

### 5、产品使用功能列表 User Guide

序号 No	实现功能 Function	耳机状态 headset status	操作 Operation	备注 Remark
1	开机/配对 Powering on/pairing	关机状态下 Under Powering off	长按“Power”键 4 秒, 自动进入配对状态; 打开手机蓝牙搜索设备名, 点按设备名进入连接 Long Press "Power" button for 4 seconds, the Headphone into POWER ON, then it enter pairing mode, Open mobile phone setting, searching Bluetooth device name, click device name and then the headphone connected	
2	关机 Powering off	开机状态下 Under Powering on	长按 Power 键 3 秒 Long Press "Power" button for 3 seconds	

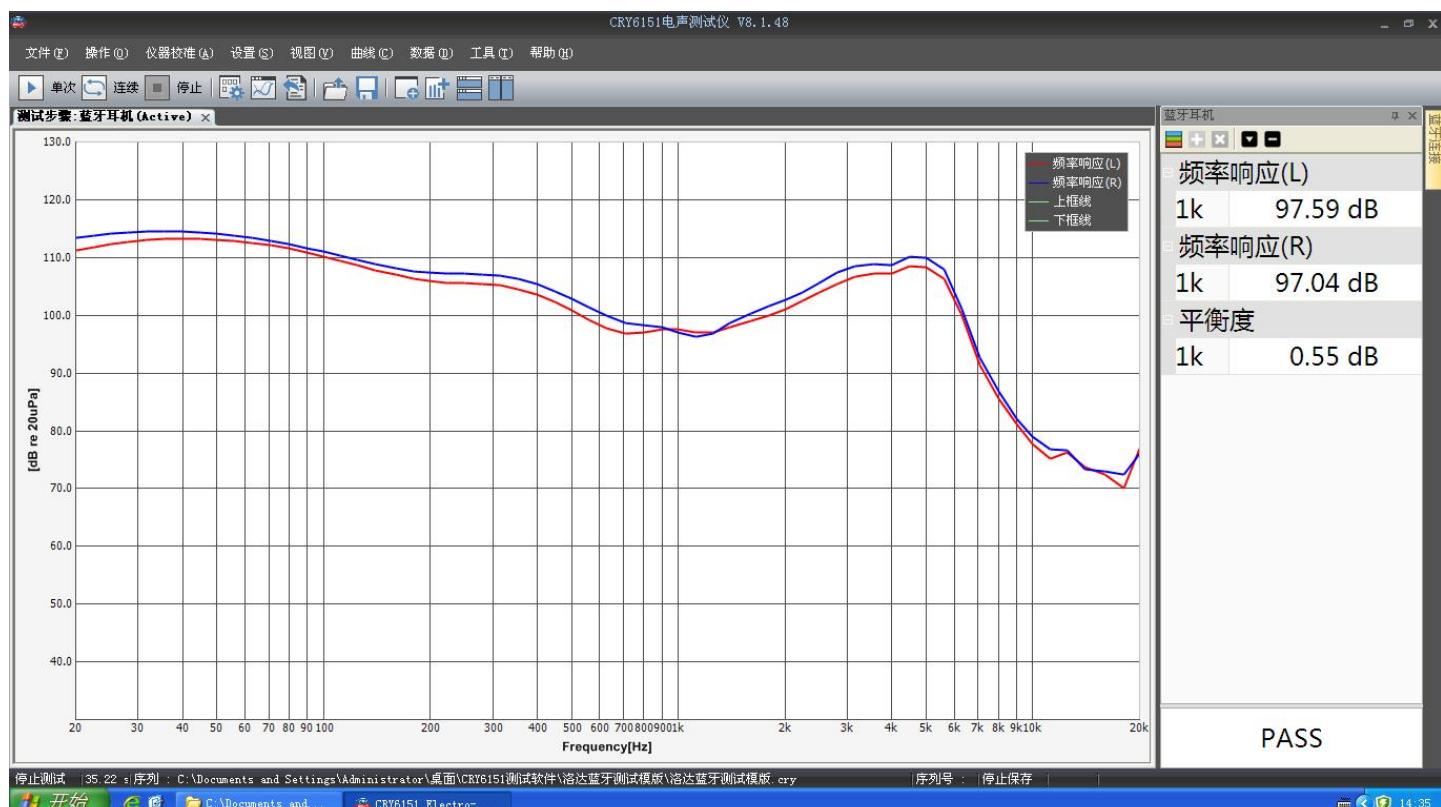
3	末码重拨 Last number redial	待机状态 Standby mode	双击“Power”键一下 Double click on “Power” button once	
4	接听电话 Answer call	来电中 Incoming call	短按“Power”键一下 Click “Power” button once	
5	挂断电话 End call	通话中 On calling	短按“Power”键一下 Click “Power” button once	
6	拒接电话 Reject call	来电中 Incoming call	长按“Power”键约2秒 Long Press “Power” button for 2 second	
7	低电提醒 Low battery alert	开机状态 Power On	当电池电压低到3.3V时,有提示音 When battery voltage less than 3.3V, the Headphone will be warning and have tone speak out from speaker.	
8	自动关机 Automatically powering off	开机状态 Under Powering on	耳机无连接或断开蓝牙连接3分钟耳机将自动关机 Once headphone no connection or disconnected over 3minutes, Headphone will shut down automatically 耳机电池电压低到3.0V时耳机将自动关机 Battery voltage less than 3.0V, the Headphone will power-off automatically.	
9	充电 Charging	关机状态下 Under powering off	将Micro USB充电线插入充电口即可实现充电 Micro USB cable Plug into charging port.	
10	充电 Charging	任何开机状态下 Under any powering on status	将Micro USB充电线插入充电口即可实现充电,耳机不会关机。 Micro USB cable Plug into charging port , The Earphone will not shut down .	
11	充电饱和 Fully charged	充电状态下 Under Charging	电池充饱电 Fully charged	
12	音量+ Volume +	通话中/播放音乐中 Under calling / music mode	长按音量+键 Long press the volume + button	
13	音量- Volume -	通话中/播放音乐中 Under calling / music mode	长按音量-键 Long press the volume - button	
14	播放/暂停 Play/Pause	待机播放 Under Standby mode	单击“power”键 Click “power” button	耳机使用正常状态 headphone in normal operation status
15	上一曲 Previous track	音乐中 Under music mode	短按音量-键 Click the volume- button	
16	下一曲 Next track	音乐中 Under music mode	短按音量+键 Click the volume + button	
17	开机自动回连功能 Auto reconnected when power on	在关机状态下 Under powering off	在接受范围内,耳机开机会自动回连到已连接的手机 Within effective communication range, when the Headphone POWER ON , it will reconnected automatically.	

## 6、故障排除说明和常见现象 Trouble Shooting and Common Situations

序号 No	常见现象 Common Situations	故障排除说明 Trouble Shooting
1	耳机不开机 Earphone can not power on	耳机电量可能耗尽,请充电30分钟后再开机 Battery drain,please charge the device for 30 minutes, and then powering on.
2	手机无法搜索到蓝牙耳机 Mobile phone can not search Bluetooth Earphone	1. 确认耳机处于开机配对状态(指示灯红蓝交替闪烁) 2. 删除手机中存在的蓝牙名称,再次搜索 3. 如果仍无法搜索到,请重启耳机和手机再次尝试 1. Confirmed Earphone in pairing mode. 2. Delete pairing list in smartphone and searching headphone again. 3. If it still can not be found, please restart smartphone and headphone again.

3	手机与耳机成功连接后断开 Earphone will be disconnected from time to time	1. 耳机电量差不多耗尽 2. 耳机与手机超出有效连接距离 (10 米) 1. The battery drain. 2. The headphone is beyond the communication range(10M)
4	接通电话无声 No sound on talk mode	1. 确认通话时连接的音频设备为蓝牙耳机，而不是手机或扬声器； 2. 增大耳机或手机音量 3. 手机模式不是蓝牙模式 4. 手机音频未打开 1. Confirmed the headphone connected and with earpiece mode on talking. 2. Try to increase headphones or smartphone volume. 3. Smartphone is not via Bluetooth mode. 4. Do not open Smartphone voice.
5	音乐播放无声音 No sound with music playback	1. 增大耳机或手机音量 2. 耳机与手机连接出现问题，重新连接 1. Try to increase headphones or smartphone volume. 2. Earphone is disconnected with smartphone, Reconnected again.
6	耳机无法充电 Can not charger for Earphones	1. 充电线两端未连接好 2. 充电线故障 1. The charger cable connected was not well. 2. Charging line was damaged.

## 7. Frequency response curve



左通道	Left Channel	阻抗	Impedance
右通道	Right Channel	灵敏度框	Sensitivity
频率	Frequency	名称	Name
平衡度	Channel Balance	极性	Polarity
通道合格	Channel Qualified	判定	Judging

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 to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications not expressly approved by the party responsible

for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.