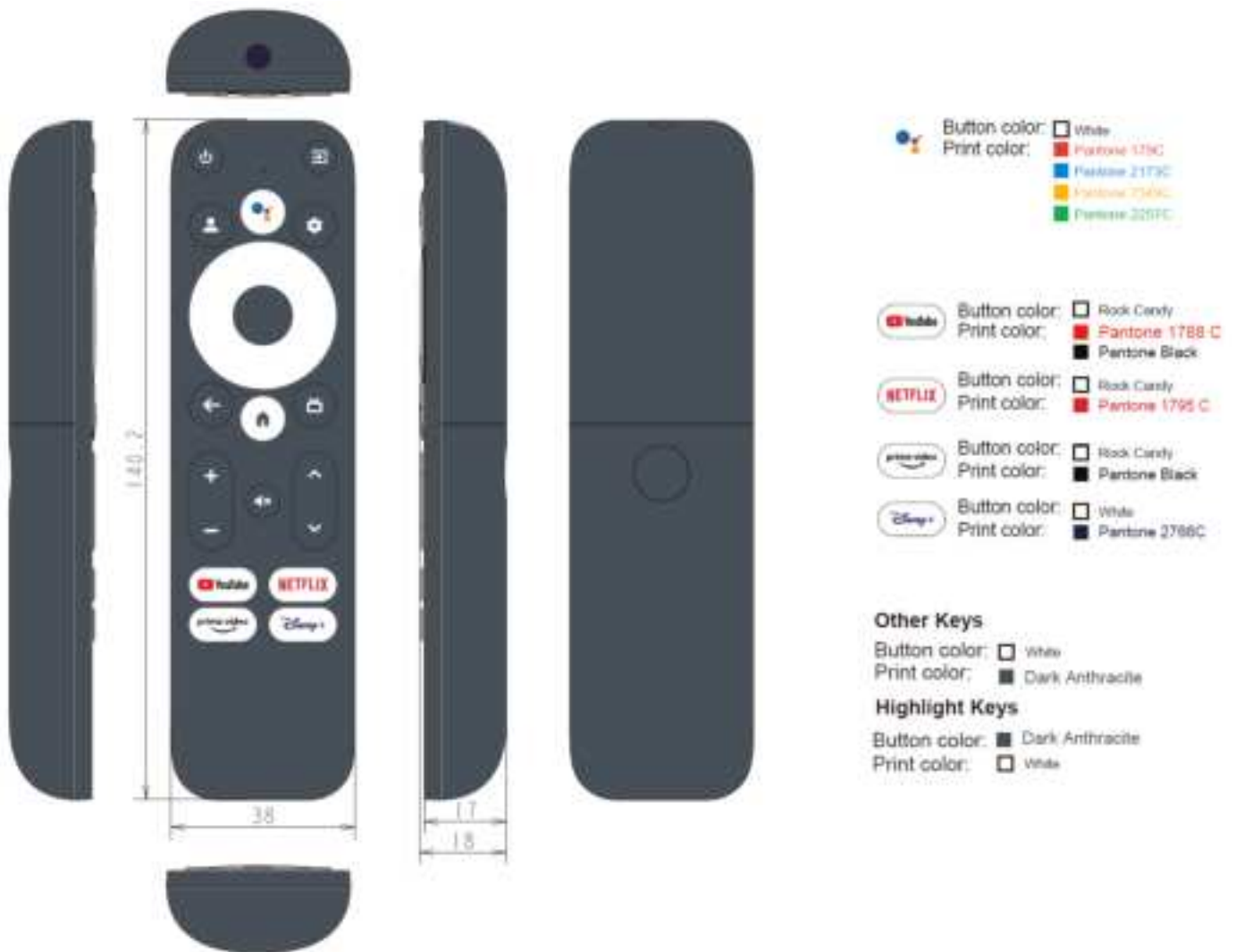
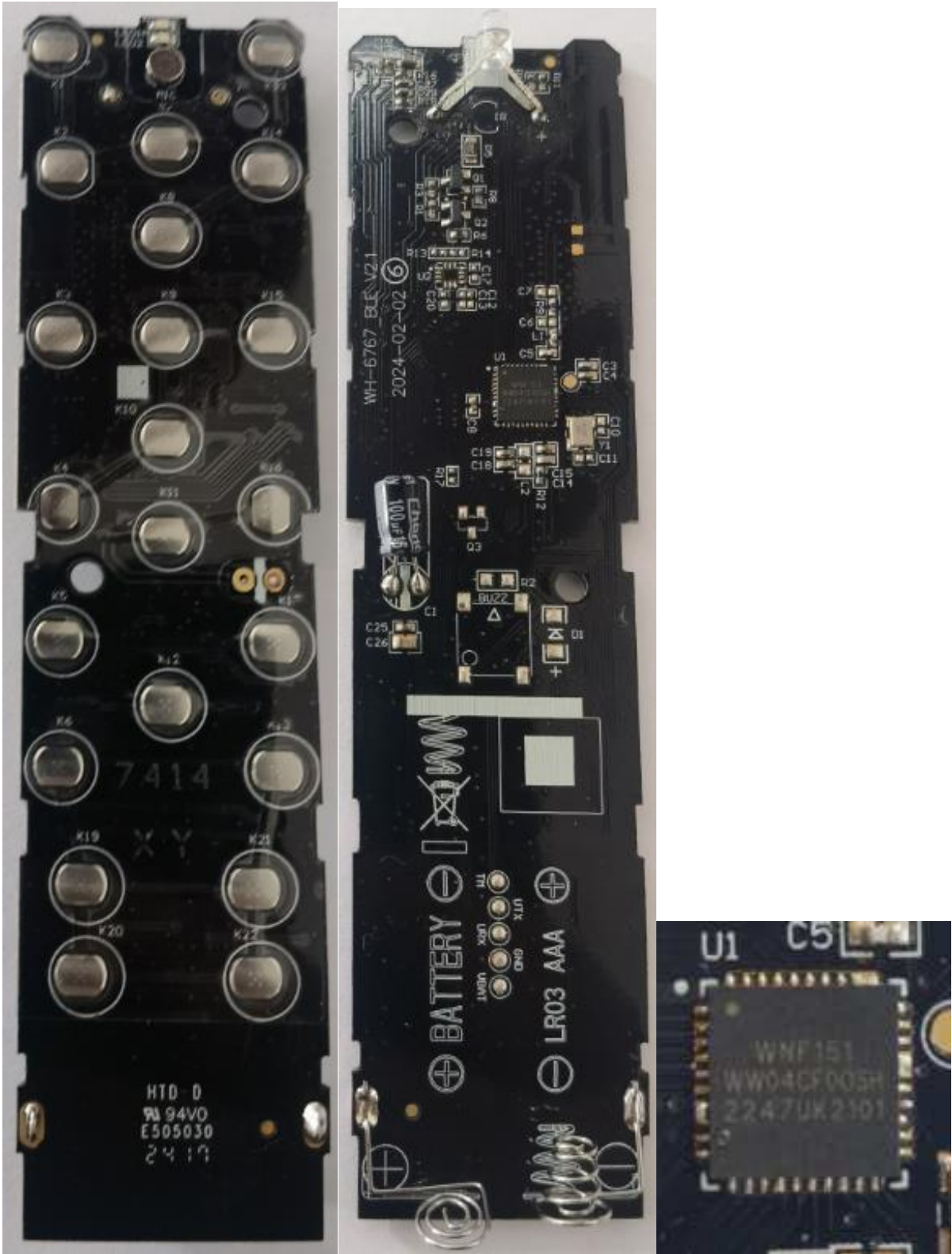


## 5、遥控器外观图及码值

### 外观:



PCB:




键值:

编码格式: NEC

载波: 38KHz

客户码: 0X8877

No.	Funtion	IR	Usage Page	Usage ID
1	Power	0X21	0X0C	0X0030
2	Input	0X60	0X0C	0X01BB
3	Profile	0X59	0X0C	0X0229
4	Google assistant	0X46	0X0C	0X0221
5	Dashboard	0X10	0X0C	0X009F
6	UP	0X15	0X0C	0X0042
7	Down	0X16	0X0C	0X0043
8	Left	0X17	0X0C	0X0044
9	Right	0X18	0X0C	0X0045
10	OK	0X19	0X0C	0X0041
11	Back	0X48	0X0C	0X0224
12	Home	0X47	0X0C	0X0223
13	Live tv Guide	0X32	0X0C	0X008D
14	Volume up	0X23	0X07	0X0080
15	Volume down	0X24	0X07	0X0081
16	Mute	0X25	0X0C	0X00E2
17	Channle up	0X33	0X0C	0X009C
18	Channle down	0X34	0X0C	0X009D
19	Youtube	0X64	0X0C	0X0077
20	Netflix	0X63	0X0C	0X0078
21	Prime video	0X67	0X0C	0X0079
22		0X68	0X0C	0X007A

指定 HID 的 pid 和 vid

Vender ID:0x0957

Product ID:0x000F

## 操作说明：

### 1.遥控器基本要求 Basic requirements for remote control

1).当连上蓝牙，遥控器发送蓝牙键值；未连接上蓝牙，则发送红外键值。

1). When Bluetooth is connected, the remote control sends the Bluetooth key value; when Bluetooth is not connected, the infrared key value is sent.

2).指示灯：红外：红色，每按一次按键，指示灯闪一下。蓝牙：绿色，每按一次按键，指示灯闪一下

2). Indicator light: infrared: red, each time you press the button, the indicator light flashes. Bluetooth: green, the indicator light flashes every time you press the button

3). 低电压提醒：电量低于 2.4V 时，指示灯快速闪烁，只要还在操作，就一直保持闪耀状态，当不再对遥控器进行操作后，闪烁 5 次或闪烁 3 秒后，停止并熄灭。

3). Low voltage reminder: When the battery is lower than 2.4V, the indicator light flashes quickly, as long as it is still in operation, it will keep flashing. When the remote control is no longer operated, it flashes 5 times or flashes for 3 seconds and then stops And goes out.

### 4).配对方法：

a.同时按住“HOME”+“BACK”键 4 秒，按住键的同时绿色指示灯保持点亮，进入配对模式时（蓝牙未连接状态）绿色指示灯闪烁，如果配对成功指示灯停止闪烁，并且遥控器开始在蓝牙中工作。

b.如果两分钟（重新配对）或者 10 分钟（配对）未成功进行配对，则绿色 LED 停止闪烁，红色 LED 闪烁 4 次，遥控器停止配对并且返回到之前的状态。

c.如果缺少 PIN 或者密钥，则在断开连接后，遥控器以配对模式发送 2 分钟或者 10 分钟的非直接广告数据

d.取消配对模式：与 STB 取消配对清除“远程控制”绑定缓存，删除设备绑定缓存（手动方法-可选），插入电池时，按住【BACK】键。

e.连接间隔时间：12.5ms；连接从属延迟：99（1s）；连接监控超时：4s；

f.重新连接：如果意外断开与机顶盒的连接，则遥控器应自动尝试重新连接机顶盒；建议在断开

连接后的前 30~60 秒内，遥控器使用较大的广告间隔（例如 20 毫秒）。如果 30 到 60 毫秒后未重新建立连接，则遥控器可能会切换到更省电的广告间隔。如果未检测到用户的干预（例如按按钮），则遥控器可能会在 2 分钟的间隔后停止尝试连接；如果未连接遥控器，并且用户通过按遥控器上的按钮来启动遥控器的建立和连接，则遥控器成功建立连接后，应缓存按钮按下事件并且将其转发给 STB；

#### **4). Pairing method:**

**a. Simultaneously press and hold the "HOME" + "BACK" buttons for 4 seconds, while pressing the button, the green indicator light keeps on. When entering the pairing mode (Bluetooth is not connected) the green indicator light flashes, if the pairing is successful, the indicator light stops, And the remote control starts to work in Bluetooth.**

**b. If the pairing is unsuccessful in two minutes (re-pairing) or 10 minutes (pairing), the green LED stops flashing, the red LED flashes 4 times, the remote control stops pairing and returns to the previous state.**

**c. If the PIN or secret key is missing, after disconnecting, the remote control will send 2 minutes or 10 minutes of indirect advertising data in pairing mode**

**d. Cancel pairing mode: cancel pairing with STB to clear the "remote control" binding cache, delete the device binding cache (manual method-optional), when inserting the battery, press and hold the [BACK] key.**

**e. Connection interval: 12.5ms; connection dependent delay: 99 (1s); connection monitoring timeout: 4s;**

**f. Reconnect: If accidentally disconnected from the set-top box, the remote control should automatically try to reconnect the set-top box; it is recommended that the remote control use a larger advertising interval (for example, 20 milliseconds) within the first 30 to 60 seconds after disconnection ). If the connection is not re-established after 30 to 60 milliseconds, the remote control may switch to a more power-efficient advertising interval. If the user's intervention (such as pressing a button) is not detected, the remote control may stop trying to connect after an interval of 2 minutes; if the remote control is not connected, and the user presses the button on the remote control to initiate the establishment and Connected, after the remote control successfully establishes a connection, the**

event of the button press should be cached and forwarded to the STB;

5).按键超时：如果连续按下一个或多个按键超过 30 秒，则遥控器停止传输以保护电池放电。

5). Key timeout: If one or more keys are continuously pressed for more than 30 seconds, the remote control will stop transmission to protect the battery from discharging.

6).遥控距离：≥10m

6). Remote control distance: ≥10m

7). 蓝牙设备名称：RemoteG10

7). Bluetooth device name: RemoteG10

8).Bug Report:按下【D-PAD CENTER】+【BACK】键 1 秒钟以上，以获得 STB 错误报告；在 IR 模式下，发送的代码数据为 0X96。

8).Bug Report: Press 【D-PAD CENTER】+【BACK】key for more than 1 second to get STB error report; in IR mode, the code data sent is 0X96.

10).支持连接蓝牙版本为 5.0 的设备

10). Support to connect to devices with Bluetooth version 5.0

11). 取消配对模式：与 STB 取消配对清除“远程控制”绑定缓存，删除设备绑定缓存（手动方法-可选），插入电池时，按住【BACK】键。

11). Cancel pairing mode: cancel pairing with STB to clear the "remote control" binding cache, delete the device binding cache (manual method-optional), when inserting the battery, press and hold the [BACK] key.

12).恢复出厂设置：按下【D-PAD CENTER】+【MUTE】键超过四秒钟，绿色指示灯闪烁 2 次，

以确认它正在删除现有的配对表（其设置值）。

12). Restore factory settings: Press [D-PAD CENTER] + [MUTE] key for more than four seconds, the green indicator light flashes twice to confirm that it is deleting the existing pairing table (its setting value).

### 13).蓝牙开机广播包 Bluetooth boot broadcast package

Element	Byte	Value	Description
Adv Type Flags	Byte0	0x02	Length of the following payload bytes in this data block
	Byte1	0x01	The data type = Advertising Type Flags
	Byte2	0x04	EDR_NOT_SUPPORTED(0x04)
UUID 16Bits	Byte3	0x03	Length of the following payload bytes in this data block
	Byte4	0x03	The data type = Complete list of 16-bit UUIDS
	Byte5	0x12	LSB of UUID value
	Byte6	0x18	MSB of UUID value
Appearance	Byte7	0x03	Length of the following payload bytes in this data block
	Byte8	0x19	The data type = Appearance
	Byte9	0x80	LSB of Appearance value (Generic: Remote Control)
	Byte10	0x01	MSB of Appearance value (Generic: Remote Control)
Manufacturer Specific	Byte 11	0x0d	Length of the following payload bytes in this data block
	Byte12	0xff	The data type = Manufacturer Specific
	Byte13-Byte14	0x5d,0x00	Manufacturer ID
	Byte15-Byte17	0x03,0x00,0x01	Additional Data 0x01: for power key 0x02: for netflix wakeup
	Byte18	0x01	Key Press Counter
	Byte19-Byte24	STB BT Address	STB BT Address

数据格式 03 00 01 \* + 盒子的bt mac:

### 14).取消谷歌升级机制

### 15)辅助功能快捷键

a 按[D-PAD DOWN]+[BACK]键超过 1 秒开启或关闭机顶盒的辅助功能快捷键。

b.在 RF 模式下，发送的代码数据为[D-PAD DOWN]和[BACK]按动事件。

### 15) Shortcut keys for auxiliary functions

Press the [D-PAD DOWN]+[BACK] keys for more than 1 second to turn on or off the auxiliary

function shortcut keys of the set-top box.

b. In RF mode, the code data sent is the [D-PAD DOWN] and [BACK] press events.

## 2.SSU 功能 SSU function

谷歌 ssu

### 1).闪灯要求:

进行 ssu 学习后, ssu 的功能键按下红绿灯同时闪烁。

未进行 ssu 学习后或者删除学习记录时, ssu 的功能键蓝牙未连接时闪烁红灯, 蓝牙连接时闪烁绿灯。

### 1). Flashing requirements:

After ssu learning, press the ssu function key and the red and green lights flash at the same time.

After ssu learning is not performed or when the learning record is deleted, the function key of ssu flashes red when Bluetooth is not connected, and flashes green when Bluetooth is connected.

2).SSU 功能键: Power、VOL+、VOL-、Mute、Input

2). SSU function keys: Power, VOL+, VOL-, Mute, Input

## 3.语音方式 Voice mode

### 1).ATV 语音初始化 (功能)

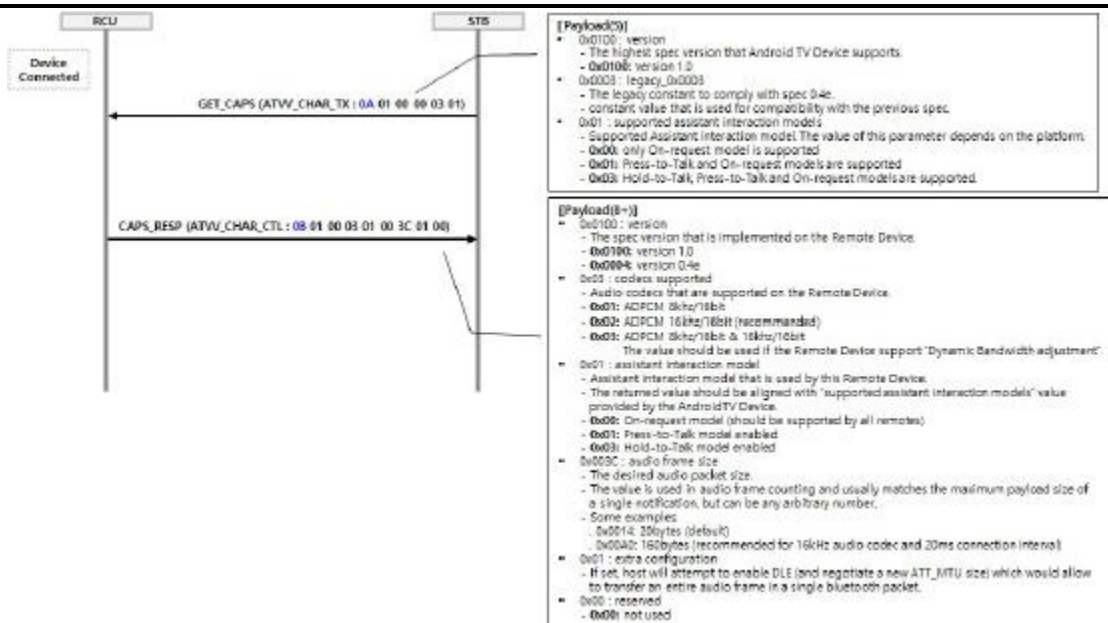
a).配对并连接了远程控制设备后, 机顶盒将向其发送命令以获取远程控制功能。

b).该命令将通过 ATVV\_CHAR\_TX 特性发送。

c).然后, 遥控器应使用 ATVV\_CHAR\_CTL 通知响应其功能。

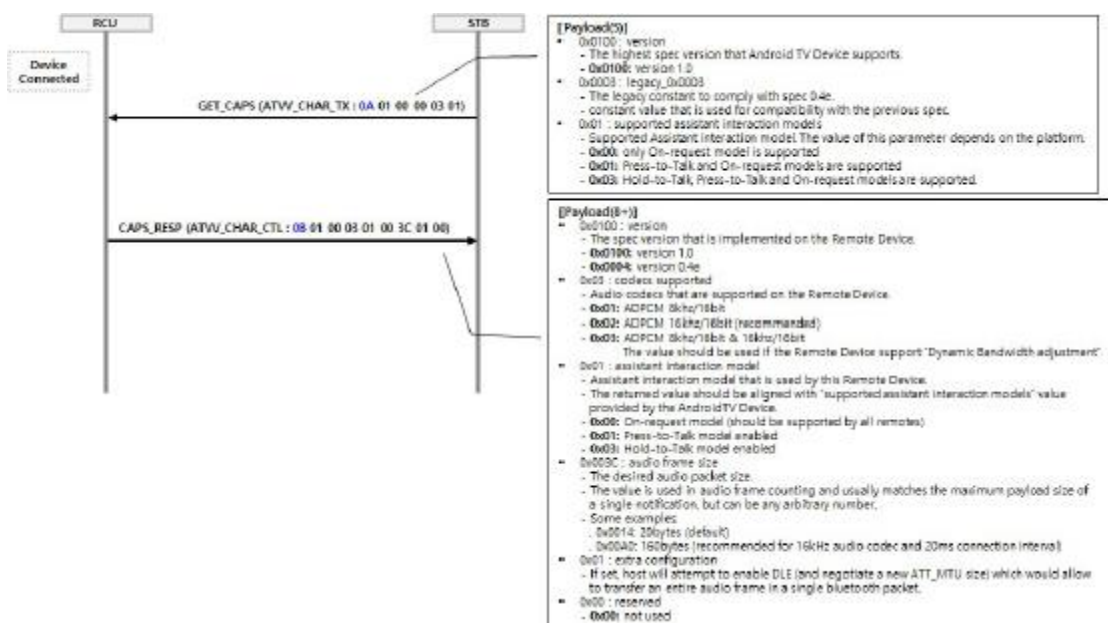
d).流程图





## 1).ATV voice initialization (function)

- After the remote control device is paired and connected, the set-top box will send commands to it to obtain the remote control function.
- The command will be sent through the ATVV\_CHAR\_TX feature.
- Then, the remote control should use ATVV\_CHAR\_CTL notification to respond to its function.
- Flow chart



## 2).遥控器发起的语音搜索（按需，旧版）

- 对于语音功能，建议距离接收超过 10 米。
- 嘴和麦克风之间的距离应在 5 到 30 厘米之间。

c).如果按下【ASSISTANT】键，则遥控器首先将 START\_SEARCH 命令发送给 STB，然后将 HID\_KEY\_EVENT 发送给 STB，然后将 STB 将 MIC\_OPEN 命令发回给遥控器。

d).绿色指示灯亮起，遥控器发送 **AUDIO START** 命令并传输语音数据，持续时间为 15 秒。

e).超时持续时间或遥控器从机顶盒收到 MIC\_CLOSE 命令后,遥控器将 AUDIO\_STOP 命令发送到机顶盒,绿色指示灯熄灭。

### f).流程图



## 2). Voice search initiated by the remote control (on demand, old version)

**a). For the voice function, it is recommended to receive more than 10 meters away.**

**b). The distance between the mouth and the microphone should be between 5 and 30 cm.**

c). If you press the [ASSISTANT] key, the remote control will first send the **START\_SEARCH** command to the STB, then send the **HID\_KEY\_EVENT** to the STB, and then the STB will send the **MIC\_OPEN** command back to the remote control.

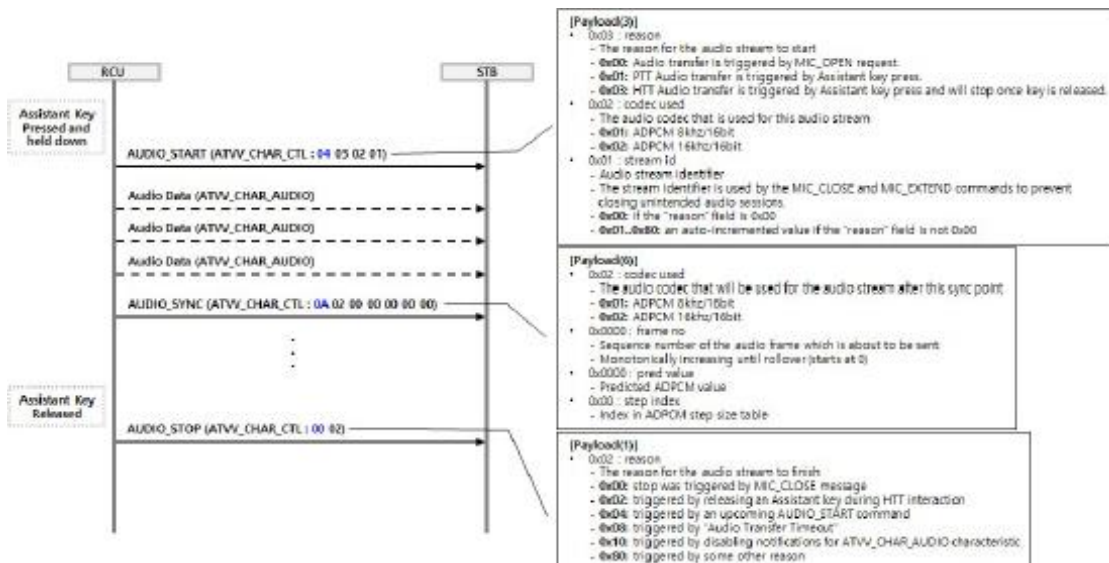
**d). The green indicator light is on, the remote control sends the AUDIO\_START command and transmits voice data, the duration is 15 seconds.**

e). After the timeout duration or the remote control receives the MIC\_CLOSE command from the set-top box, the remote control sends the AUDIO\_STOP command to the set-top box, and the green indicator light goes out.

**f). Flow chart**







#### 4). The remote control initiates a voice search (HTT, keep the call)

a). For the voice function, it is recommended to receive more than 10 meters away.

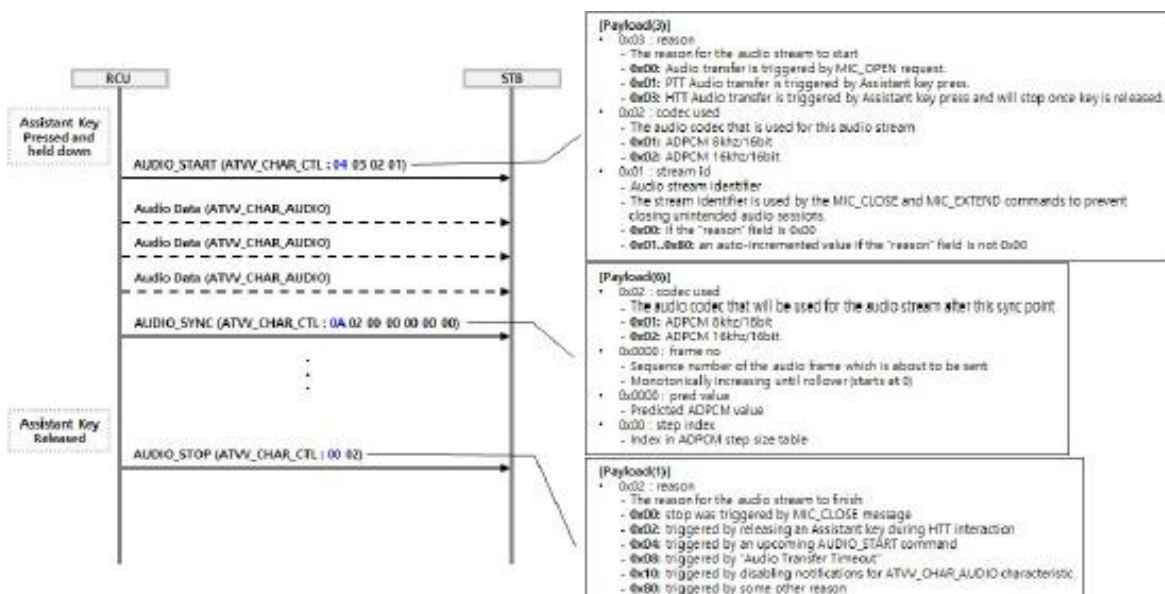
b). The distance between the mouth and the microphone should be between 5 and 30 cm.

c). If you hold down the [ASSISTAN] (auxiliary) key, the green LED lights up.

d). The remote control sends the AUDIO\_START command and transmits voice data.

e). If you release the [ASSISTAN] key, the remote control will send AUDIO\_STOP to STB, and the green LED indicator will go out.

f). Flow chart.



#### 5).启动器启动的语音搜索

a).对于语音功能，建议距离接收超过 10 米。

b).嘴和麦克风之间的距离应在 5 到 30 厘米之间。

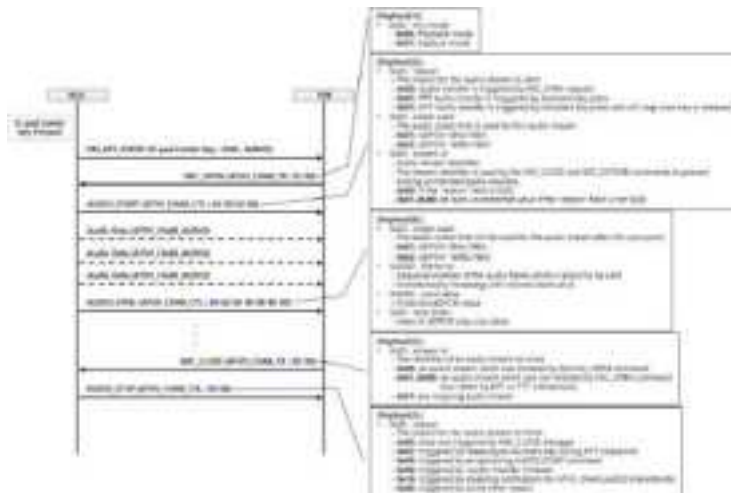
c).用户使用导航和【DPAD CENTER】键选择并验证启动器上的语音搜索。

d).遥控器将 HID\_KEY\_EVENT 发送到机顶盒，机顶盒将 MIC\_OPEN 命令发送回遥控器。

e).绿色指示灯亮起，遥控器发送 AUDIO\_START 命令并在 15 秒的超时时间内发送语音数据。

f).超时持续时间或遥控器从机顶盒收到 MIC\_CLOSE 命令后，遥控器将 AUDIO\_STOP 命令发送到机顶盒，绿色指示灯熄灭。

g).流程图



5). Voice search initiated by the launcher

a). For the voice function, it is recommended to receive more than 10 meters away.

b). The distance between the mouth and the microphone should be between 5 and 30 cm.

c). The user uses the navigation and [DPAD CENTER] key to select and verify the voice search on the launcher.

d). The remote control sends HID\_KEY\_EVENT to the set-top box, and the set-top box sends the MIC\_OPEN command back to the remote control.

e). The green indicator light is on, the remote control sends the AUDIO\_START command and sends voice data within 15 seconds of timeout.

f). After the timeout duration or the remote control receives the MIC\_CLOSE command from the set-top box, the remote control sends the AUDIO\_STOP command to the set-top box, and the green indicator light goes out.

g). Flow chart





WIFI 吞吐量正常;

3). **Anti-interference function requirements:** there must be no problems that greatly affect the host's WIFI throughput, please ensure that the host's WIFI throughput is normal when connecting the remote control;

4). **性能要求:** 要求支持 $\geq 10\text{m}$ , 不得存在语音通话卡顿, 丢失以及遥控器按键卡顿、丢码或连键等问题;

4). **Performance requirements:** It is required to support  $\geq 10\text{m}$ , and there must be no voice call jams, loss, and remote control button jams, missing codes, or continuous keys;

5). **功耗要求:** 遥控器可持续使用至少 6 个月以上

5). **Power consumption requirements:** the remote control can be used continuously for at least 6 months

6). **语音:** 16Khz voice sample with 16-bit sampling, 短按语音键(彩色键)可以开始录音, 遥控器收到语音引擎下发的停止录音指令后停止录音。语音超时 30s 保护, 强制退出录音。

6). **Voice:** 16Khz voice sample with 16-bit sampling, short press the voice button (color button) to start recording, and the remote control will stop recording after receiving the stop recording command from the voice engine. The voice timeout is protected for 30s, and the recording is forced to exit.

7). **盒子软件可以控制 MIC 打开及关闭。**

7). **The box software can control the opening and closing of the MIC.**

8). **支持遥控器 MIC 和其他 MIC (如手机 apk 上的录音键) 交替、切换语音输入。**

8). **Support the remote control MIC and other MIC (such as the recording key on the phone apk) to alternate and switch voice input.**



#### FCC Statement

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 to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

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.

#### RF Exposure Information

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.