ATSC 3.0 6000L Broadband Gateway

Installation and Description Guide

Version 2.0

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2021. Jul. Version 2.0

Set-Top-Box Model: ASTC 3.0 Broadband Set-Top-Box **Certified by**

Federal Communication Commission Interference 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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's 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.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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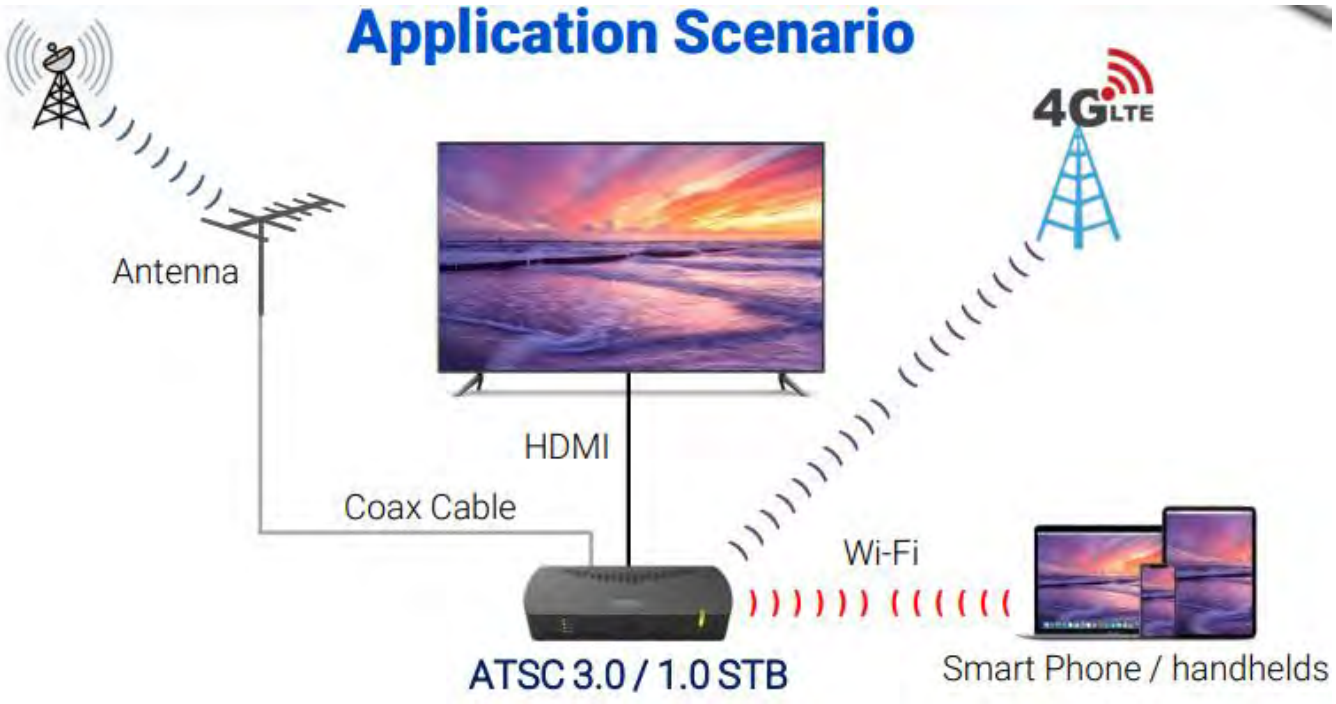
1 Important Safety Instruction and Precaution

- Read through all the instructions carefully before use.
- Operate this product only in the manner described.
- Only a Water-dampened soft-cloth is recommended to clean the surface of this product.
- Do not expose this product excess vibration.
- Keep this product in well ventilated areas.
- The following substance or condition will cause the damage to this product:
  - any liquid such as water or moisture
  - extreme heat, cold, humidity
  - dusty or sandy environments
- During lightning storms, disconnect this product from electrical mains and antenna.
- Only place this device on stable surfaces and ensure that any attached cables are secure and will not cause the device to fall.
- There are no user serviceable parts in this product.
- Any un-authorized attempt to disassemble or repair this product will void product warranty and may cause dangerous electric shock.
- Retain the manuals for future reference.
- ONLY remove any power or data cords by pulling them from the plug.
- Using this product near other electronic devices may cause interference.
- When recording images or video using this product, please bear in mind
  - The copyright requirements
  - The restrictions which are applied to each program in your area
- Images shown in this document are for references only and there may be differences between images and actual products.
- Do not mix old and new batteries in the IR remote control.

2 Knowing Your Set-Top-Box

2.1 Theory of Operation



2.2 Model Specification

Tuner Input	ATSC1.0/3.0 Dual Mode Tuner	X2
	Frequency Range	42MHz ~ 1002MHz
Video (optional)	Decode	MPEG2 (ATSC 1) HEVC 4Kp60 (ATSC 3)
	Output	HDMI 2.0
Ethernet	10/100M	RJ-45
Wi-Fi	2.4G 802.11n	802.11n
	Antenna	2T2R
LTE		Cat4
DC Power Adaptor	DC Jack	12V / 1.5A
Peripheral	USB 3.0	USB Type A
LED indicator		ON: Green, Standby: Red
Remote Control	IR	32 Keys
Dimension		211 x 80 x 36.2 (mm)

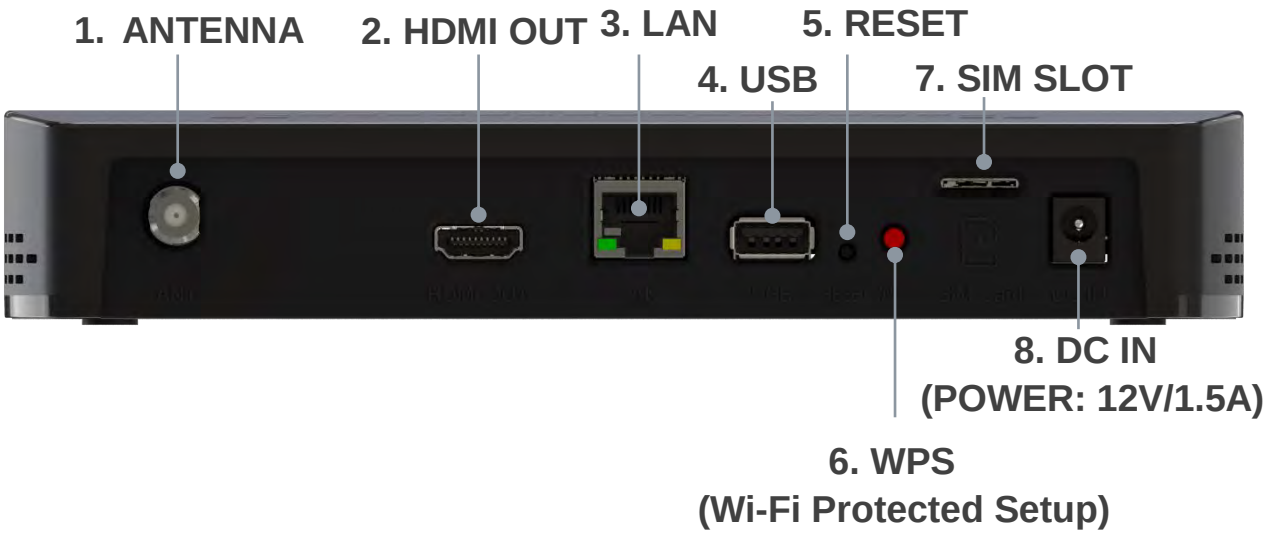
2.3 Features

- Emergency alerting system
- ATSC 3.0 broadcast application compliant
- ATSC 3.0 / 1.0 receiving capability
- 4k UHD Video; Dolby AC4 Audio
- Streaming to client Devices
- 4G LTE Internet Connection
- Remote learning Application

2.4 Package Contents

- 1 x STB-ASTC 3.0 Broadband Set Top Box
- 1 x IR Remote Control
- 1 x Power Adaptor (12V/1.5A)
- 1 x Installation and Description Guide (This Document)

2.5 Panel Specification



- **1. Antenna port** is to connect the cable from your aerial
- **2. HDMI out port** is to connect the cable from your display
- **3. LAN port** is for Ethernet (RJ45) network or internet access
- **4. USB port** is for peripherals such as thumb drive, storage devices and so on
- **5. RESET button** is to reboot the device manually
- **6. WPS (Wi-Fi Protected Setup) button** is for wireless network connection
- **7. SIM SLOT** support 4G-LTE SIM card from your mobile phone for the internet access
- **8. DC IN is** to connect the power adapter (12V/1.5A) to provide power to the Set-Top-Box

3 Finding Out the IR Remote Control

IR Key	Function
POWER	Power Key
AUDIO	Audio Track Key
CLOSE CAPTION	Close Caption
ALERT	Alert Key
E-LEARNING	E-Learning
1	Number keys 1
2	Number keys 2
3	Number keys 3
4	Number keys 4
5	Number keys 5
6	Number keys 6
7	Number keys 7
8	Number keys 8
9	Number keys 9
0	Number keys 0
Heart (Icon)	Favorite
EPG	EPG (Guide) Key
VOL+	Volume Up Key
VOL-	Volume Down Key
CH+	Channel Up Key
CH-	Channel Down Key
Setting	Setting Key
HOME	Home Key
Mute	Volume mute
Menu	Menu Key
Up (Icon)	Up Key
Down (Icon)	Down Key
OK	Select Key
Right (Icon)	Right Key
Left (Icon)	Left Key
BACK	Back Key
INFO	Info. Key

POWER
AUDIO
CLOSE CAPTION
ALERT
E-LEARNING
1
2
3
4
5
6
7
8
9
0
EPG
VOL
SETTING
CH
HOME
MUTE
MENU
OK
BACK
INFO
ZINWELL

4 Installing Your Set-Top-Box

4.1 Installing Instruction in 3 Steps

*Before Reading the Instructions

- Refer to the **Section 2.5 Panel Specification** for the **location** of **each port** or **button** mentioned below

Step 1. Connect your **Coaxial Cable** to the **Antenna Port**

Step 2. Insert your **HDMI cable** from **HD TV** into **HDMI OUT Port**

Step 3. Plug the **power adaptor** into **DC IN Port** while the other end into power socket

Please refer to the **Image** below for the **Completion of Installation**.

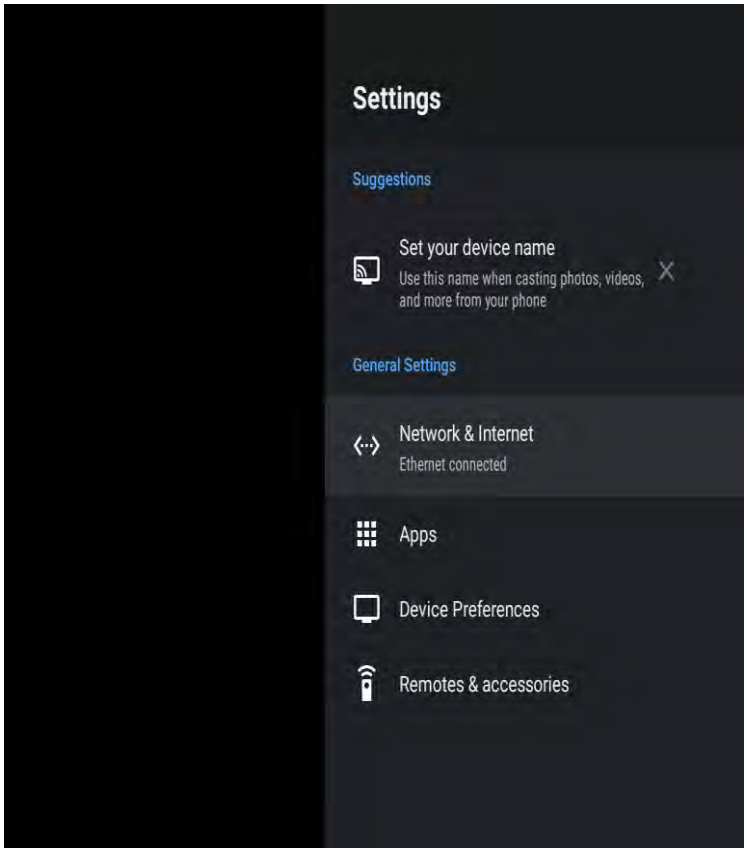
4.2 Connecting Your Set-Top-Box for Internet Access

4.2.1 LTE Mode (ON) - AP / Router Mode

*Before Reading the Instructions

- SIM Card Size: **Micro SIM Card**
- Refer to the **Section 2.5 Panel Specification** for the **location** of **each port** or **button** mentioned below

Turn **ON** the Power of Set-Top-Box and wait for about **ONE** minute (IF it's the First Time Installation) -> Press the "**SETTING**" button on the remote controller (Refer to the Image on the right side)



Select **Network & Internet** -> Press **OK** on the remote control to confirm

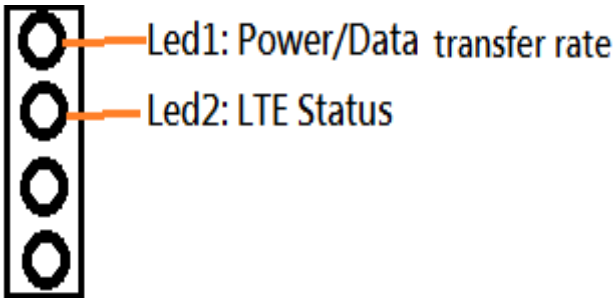
- Ensure your **SIM Card HAS NO PASSCODE** before inserting your **Micro SIM Card** into the **SIM Slot** on the Set-Top-Box.
- IF your SIM Card **requires PASSCODE**, please refer to the Section 4.2.2 Setting Up SIM Card APN and PIN Code for more details

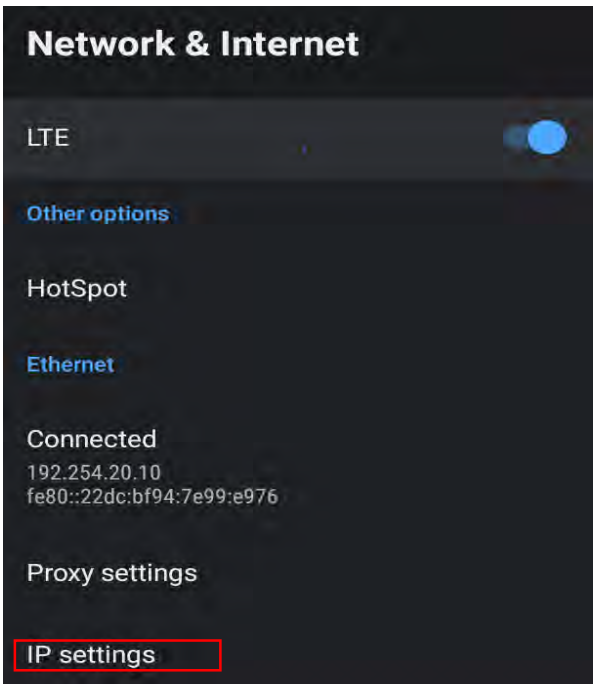
Ensure the **Micro SIM Card** is **in the direction** and **the side of SIM Card Chip facing toward you** (Refer to the image on the left side) before **inserting your Micro SIM Card** to the **SIM Slot** on the Set-Top-Box

Use **Cursor Keys** (▲▼◄ ►) on the remote control to **Enable LTE Mode** and wait for about **ONE** minute.

Check the status of **the LED indicator** on the Set-Top-Box (Refer to the image on the right side).

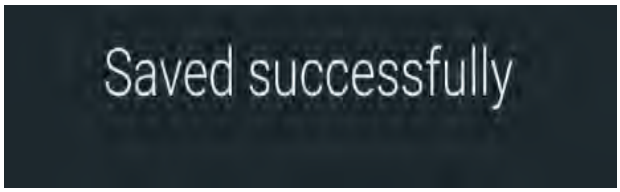
When the **GREEN LIGHT** from **LED2** is **illuminated**, it indicates that the SIM Card has been connected to your telephone service successfully.





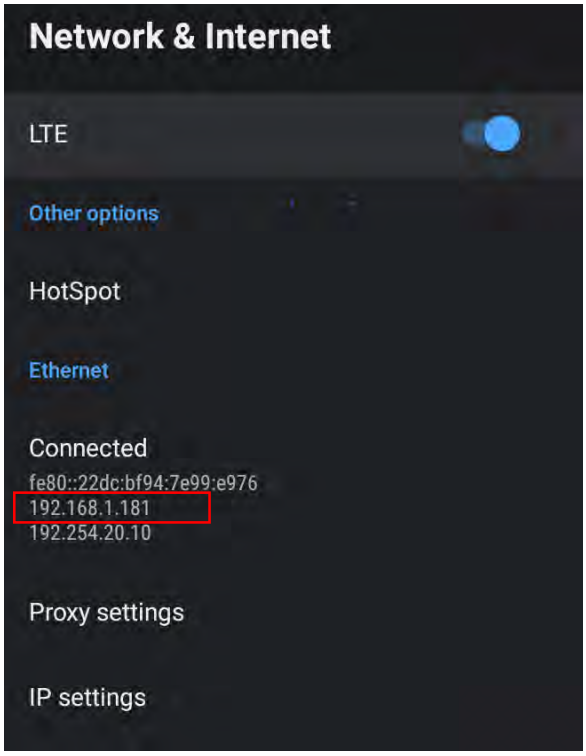
Use **Cursor Keys** (▲▼◄ ►) on the remote control to **MOVE** to **IP settings** (Refer to the picture on the left side) -> Press **OK** on the remote control to confirm

Use **Cursor Keys** (▲▼◄ ►) on the remote control to SELECT **DHCP** -> Press **OK** on the remote control to confirm



The message will appear when **DHCP** option is **SELECTED** and **SAVED** successfully
(Refer to the image on the left side)

Ensure that IP 192.168.1.xxx (last 3 digits are randomly generated by the system) **APPEARS** on the setting screen for Internet Access Function. (Refer to the picture on the right side)



The IP is Auto-Generated from Set-Top-Box when **LTE Mode** is **ENABLED (ON)** and **able to connect with the internet**.

- Now your Set-Top-Box is in **AP** (**Access Point**) / **Router Mode**
- When **LTE Mode** is **ENABLED (ON)** and **SIM Card** is **INSERTED** to the Set-Top-Box:

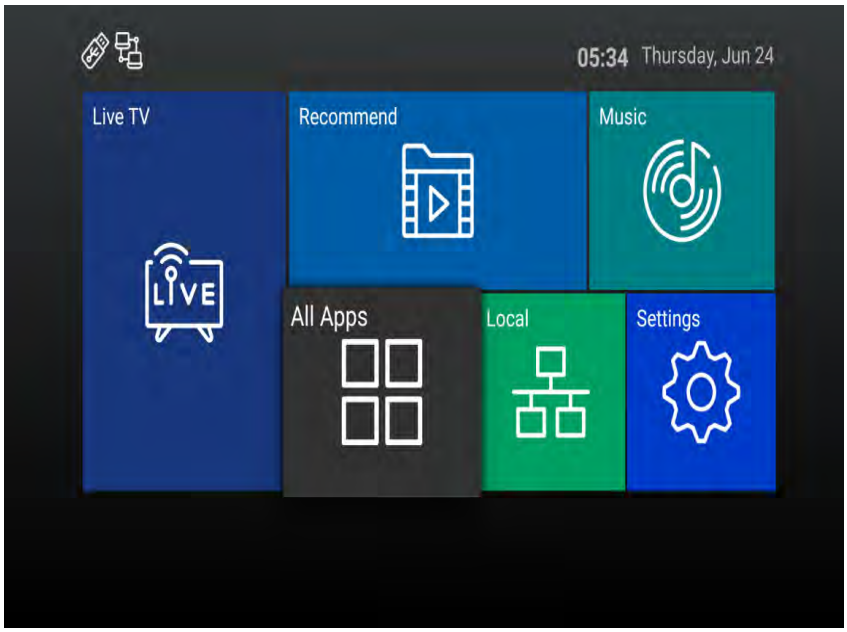
Internet Connectivity	**Internet Access** via **4G-LTE Data** from **your Phone Plan**
Set-Top-Box	**Internet Sharing** is available for **Your PED** (Personal Electronic Devices)
Hot Spot in Network & Internet	Sharing Internet to **Your PED**
	Nil Setting Action is required

- Connecting Your PED to the Internet Access from Set-Top-Box

  Enable WiFi function of Your PED -> Search for WiFi Network: AndroidAP_xxxx (last 4 digits is the default serial numbers of your Set-Top-Box). Default Password: TBA from RD -> Connect it for the Internet Access

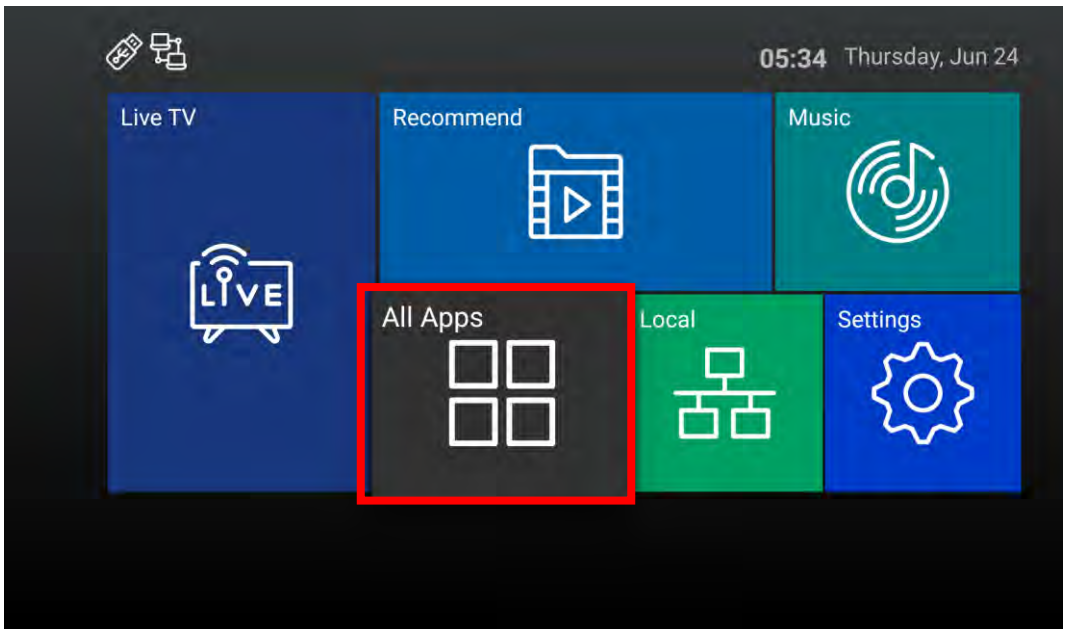
- If you wish to CHANGE Password or Name for the WiFi Network, kindly refer to Section 4.2.3 - Hot Spot - Password and Name Setting for more details

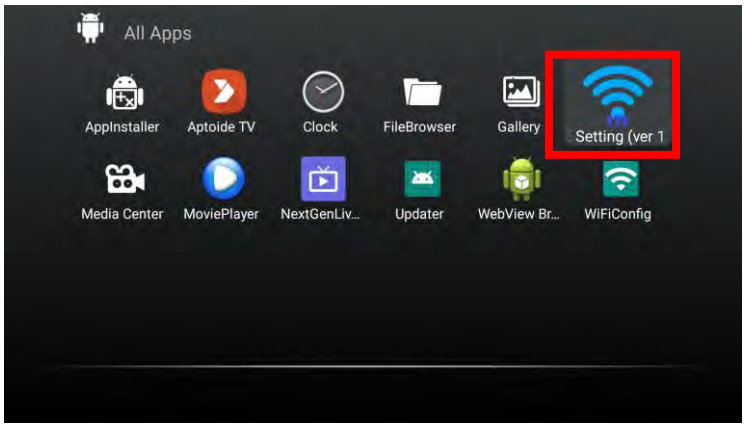
4.2.2 Setting Up SIM Card APN and PIN Code



Press the "**HOME**" button on the remote controller to enter the **Menu Screen** (Refer to the Image on the left side) ->

Use **Cursor Keys** (▲▼◄ ►) on the remote control and MOVE to **All Apps** -> Press **OK** on the remote control to confirm



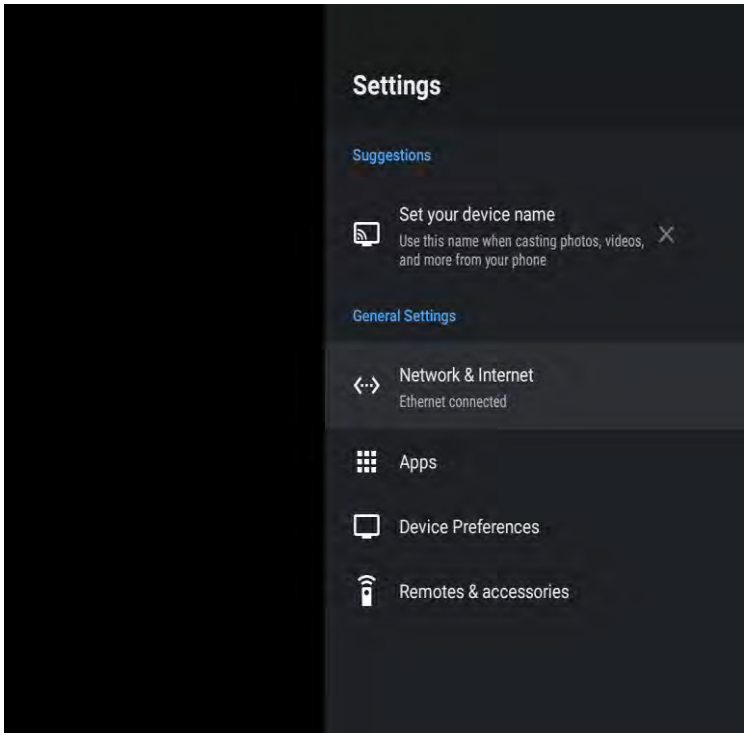


Use **Cursor Keys** (▲▼◄ ►) on the remote control and MOVE to **LTE AND WIFI** -> Press **OK** on the remote control to confirm

Current Setting Information of **your SIM Card** will be shown (Refer to the picture on the right side)

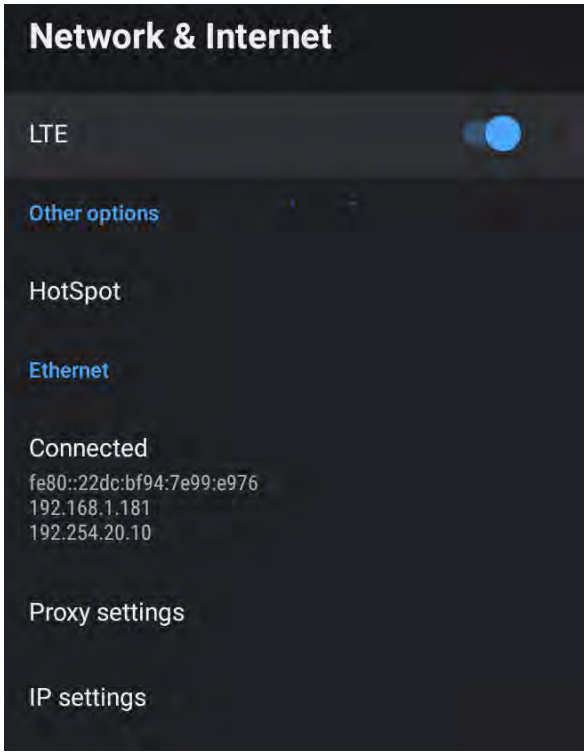
Use **Cursor Keys** (▲▼◄ ►) on the remote control to enter the APN (Access Point Name) and "PIN Code of your SIM Card (In most of use cases, only the PIN Code is required) -> Select **APPLY** to confirm

4.2.3 Hot Spot - Password and Name Setting



Press the "**SETTING**" button on the remote controller (Refer to the Image on the left side)

Select **Network & Internet** -> Press **OK** on the remote control to confirm



Use **Cursor Keys** (▲▼◄ ►) on the remote control to **MOVE** to **HotSpot** (Refer to the picture on the Right side) -> Press **OK** on the remote control to confirm

Default Hot Spot Name: **AndroidAP_xxxx (NO Password)**

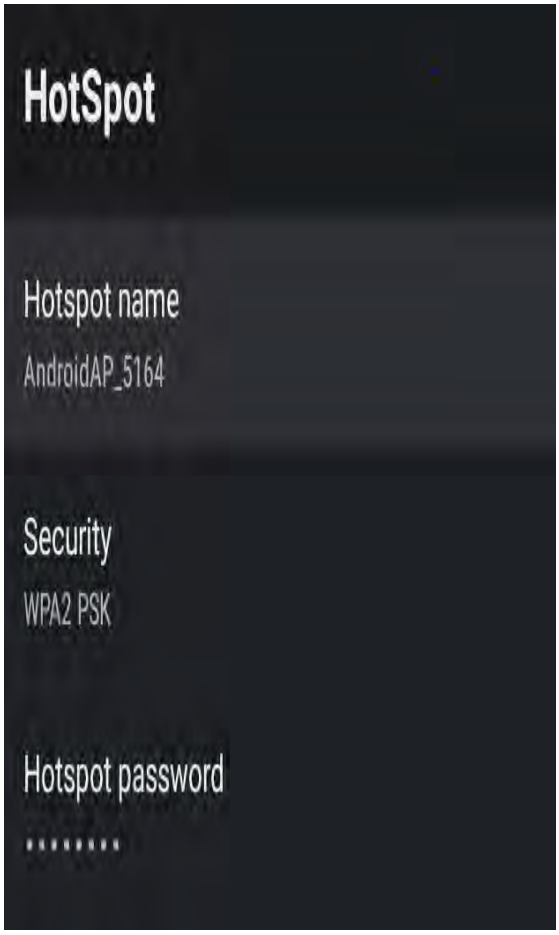
(In order to enhance the Security of your Internet Access, it is recommendable to SET UP a Password)

If you wish to change your **Hotspot Password**,

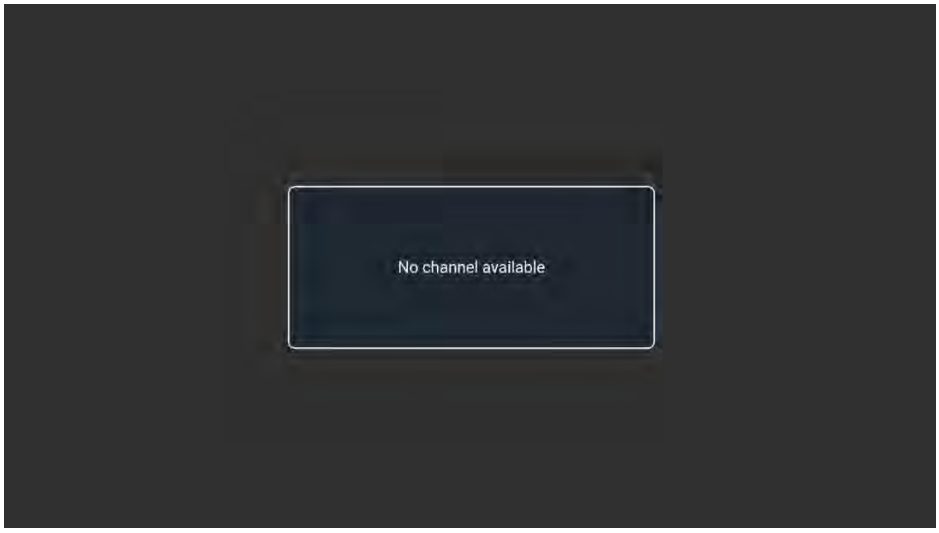
Use **Cursor Keys** (▲▼◄ ►) on the remote control to **MOVE** to **HotSpot password** and enter your password)

If you wish to change your **Hotspot Name**,

Use **Cursor Keys** (▲▼◄ ►) on the remote control to **MOVE** to **HotSpot Name** and enter your preferred name



5 Setting up the Program System

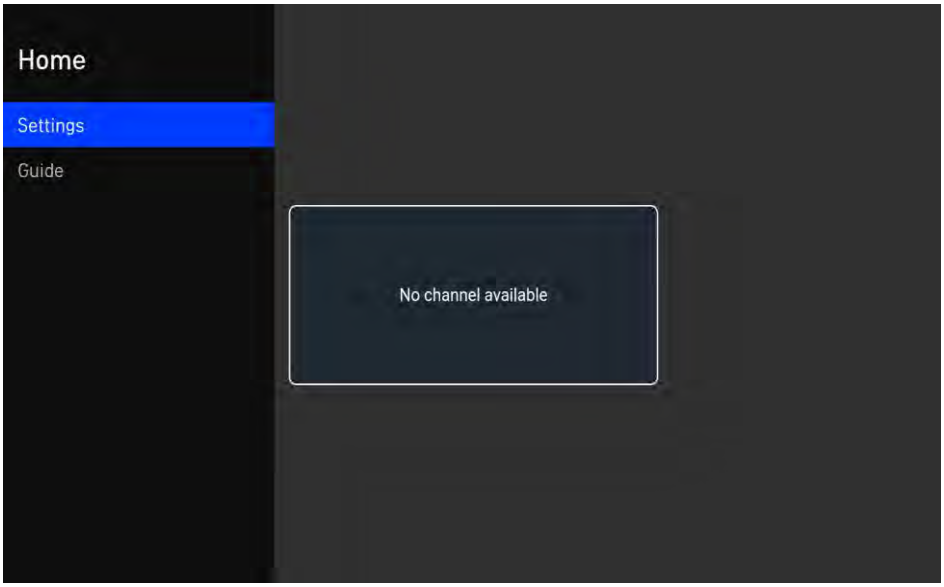


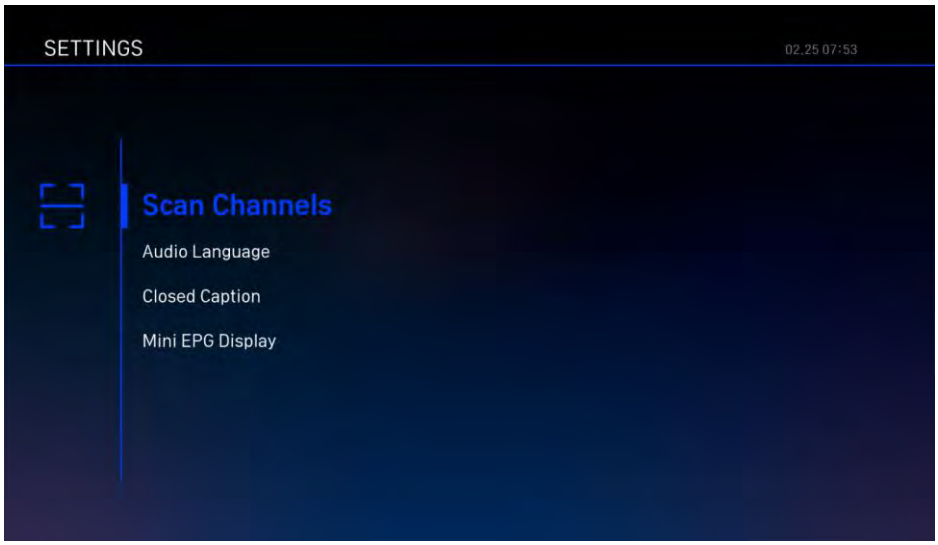
Step 1.

Turn ON the Power of Set-Top-Box and wait for about **ONE** minute.

Step 2.

Press the **Menu** button on the remote control.



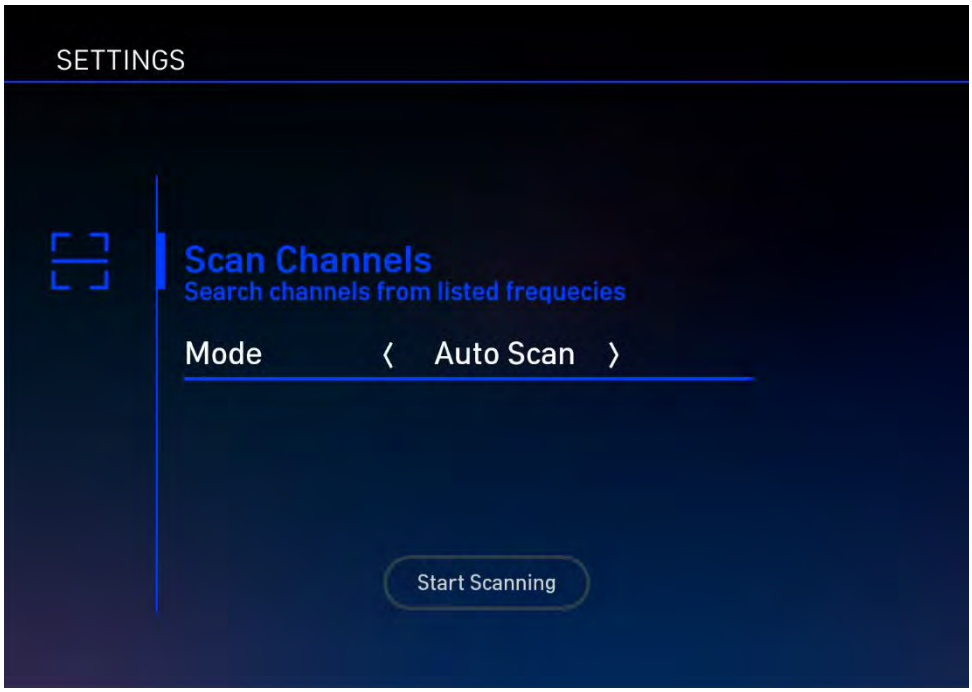


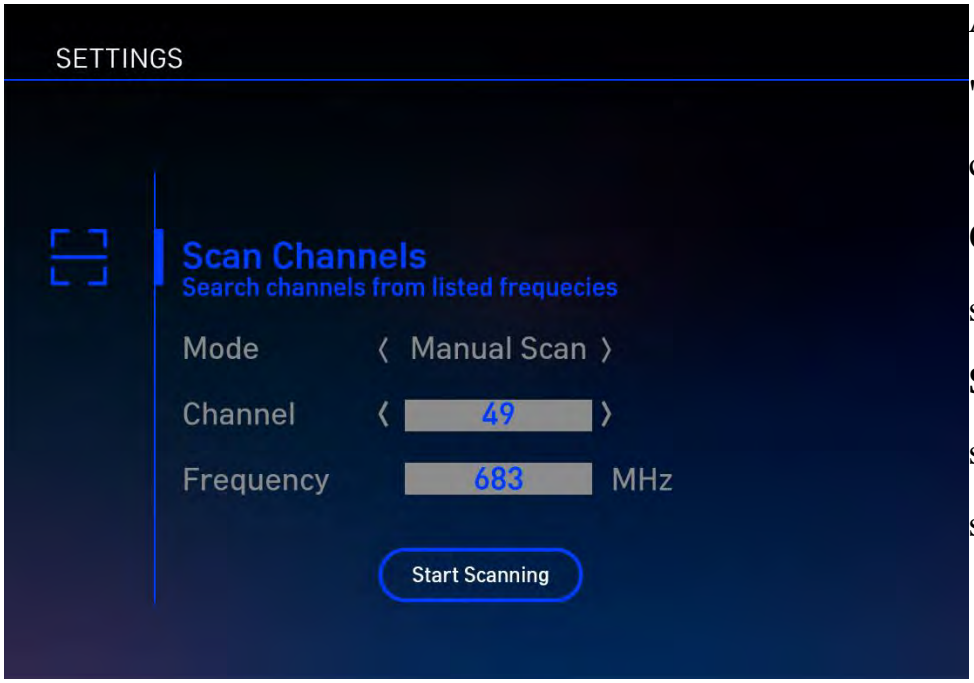
Step 3.

Press **OK** for moving next to the **SETTING** page, then select **Scan Channels**

Step 4.

Select “**Auto Scan**” in the scan channels. Press “**Start Scanning**” button, to start the process of scanning channels.

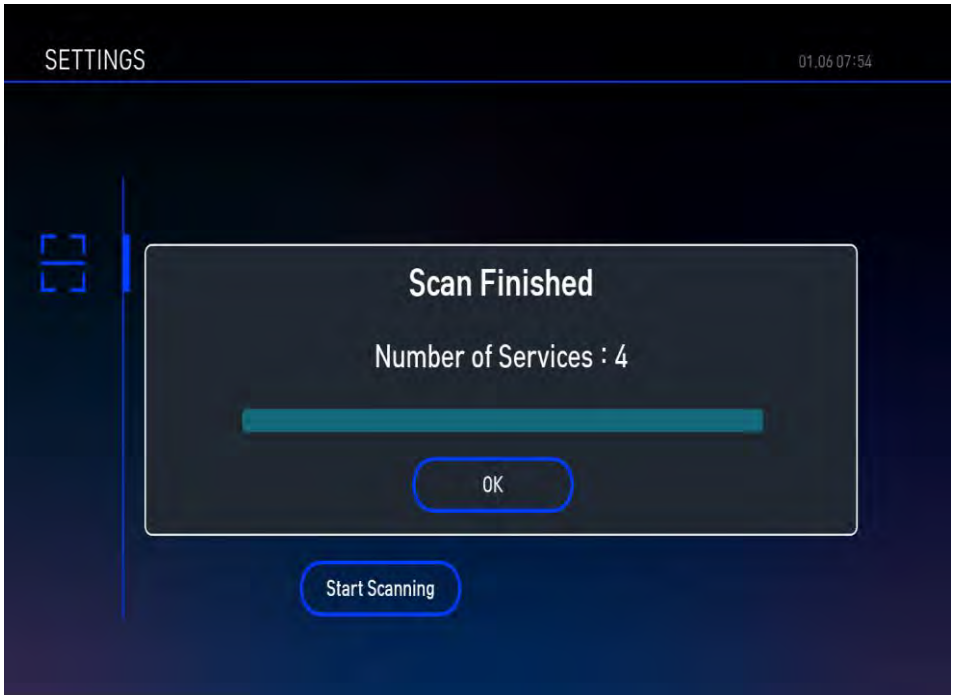




Alternatively, select "**Manual Scan**" in the scan channel. Change the **Channel Number** to be scanned. Select the "**Start Scanning**" in order to starting the process of scanning the channel

Step 5.

In the completion of scanning, the scan bar will reach 100% and the services of channel are found. On the remote control, press **OK** and **BACK** in order to exit the setting page.

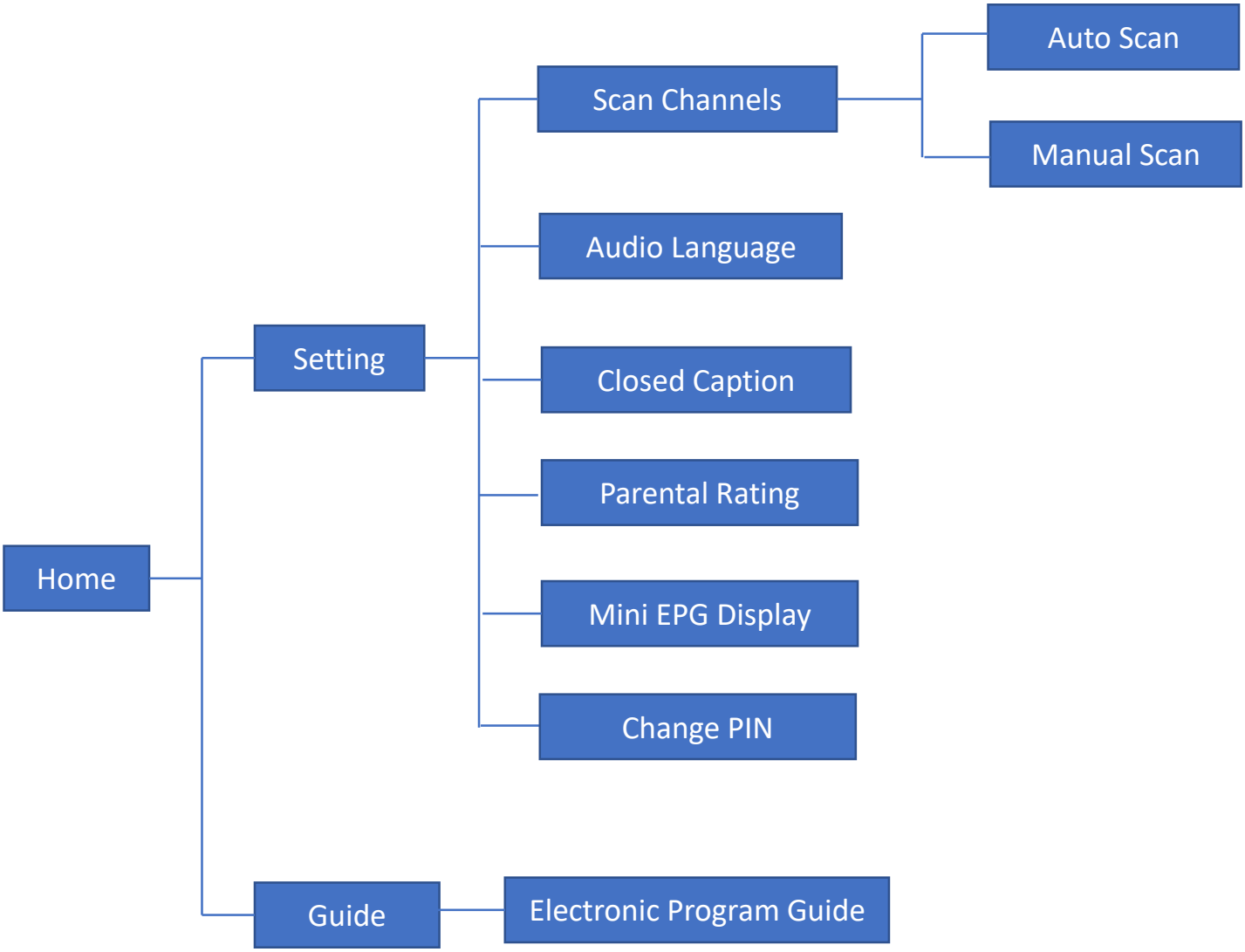


Step 6.

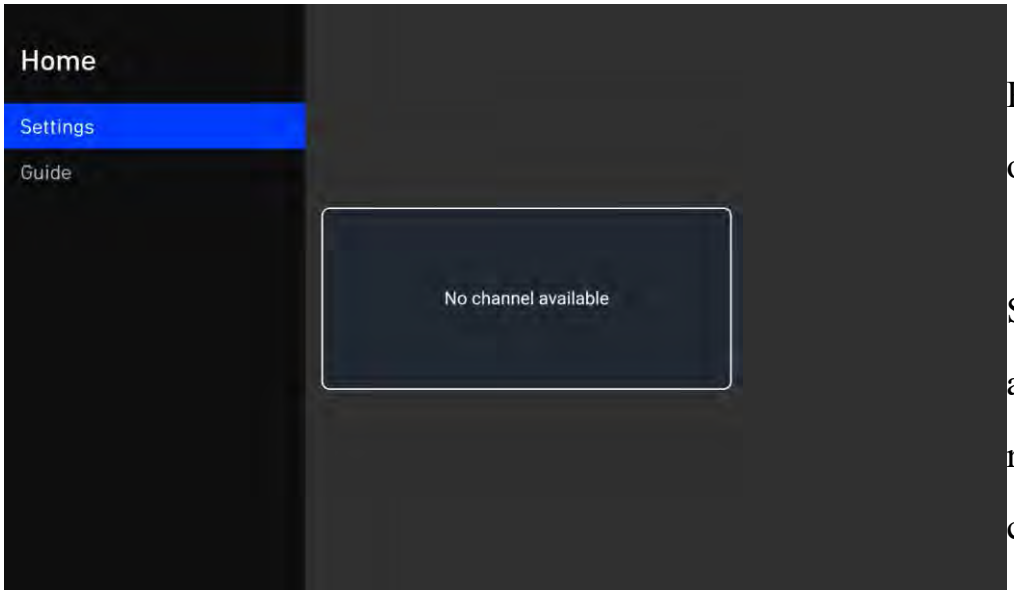
Select any channel in service to ensure program running smoothly

6 Exploring the Function in Setting System

6.1 Function Overview



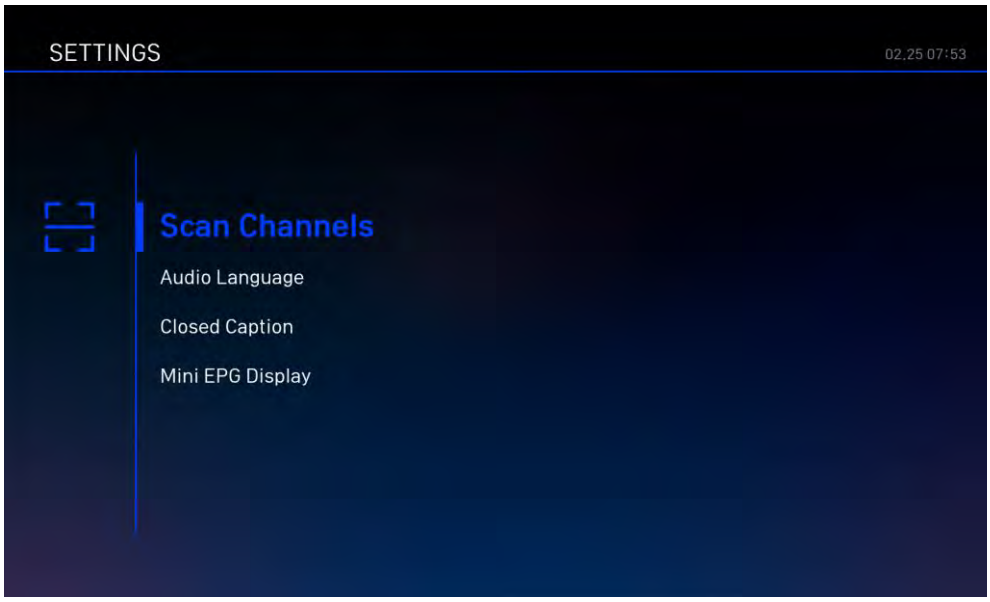
6.2 Guide to the Setting System



Press the **Menu** button on the remote control.

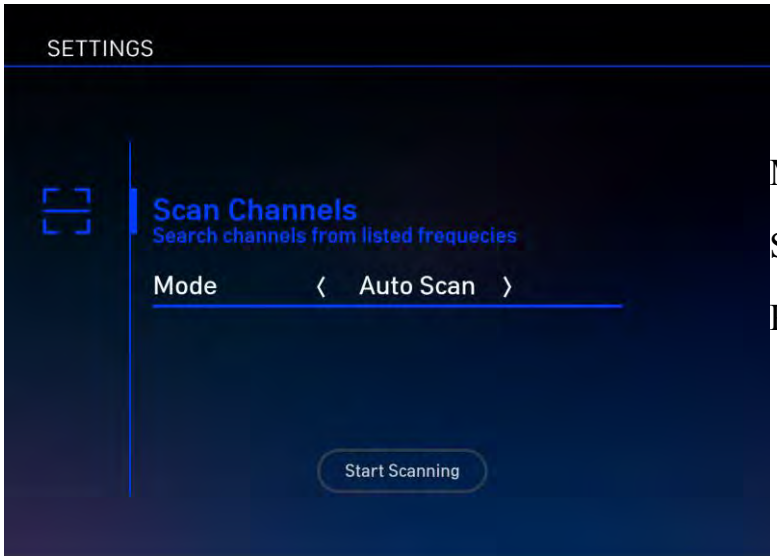
Select **SETTINGS** and Press **OK** on the remote control to confirm

The image on the right side is the screen of **SETTINGS**



6.3 Other Functions

6.3.1 Searching for the Available Channels (Auto Scan)



Main Menu -> Settings ->

Scan Channels -> Mode: **Auto Scan** ->

Press **Start Scanning**

6.3.2 Searching for the Available Channels (Manual Scan)

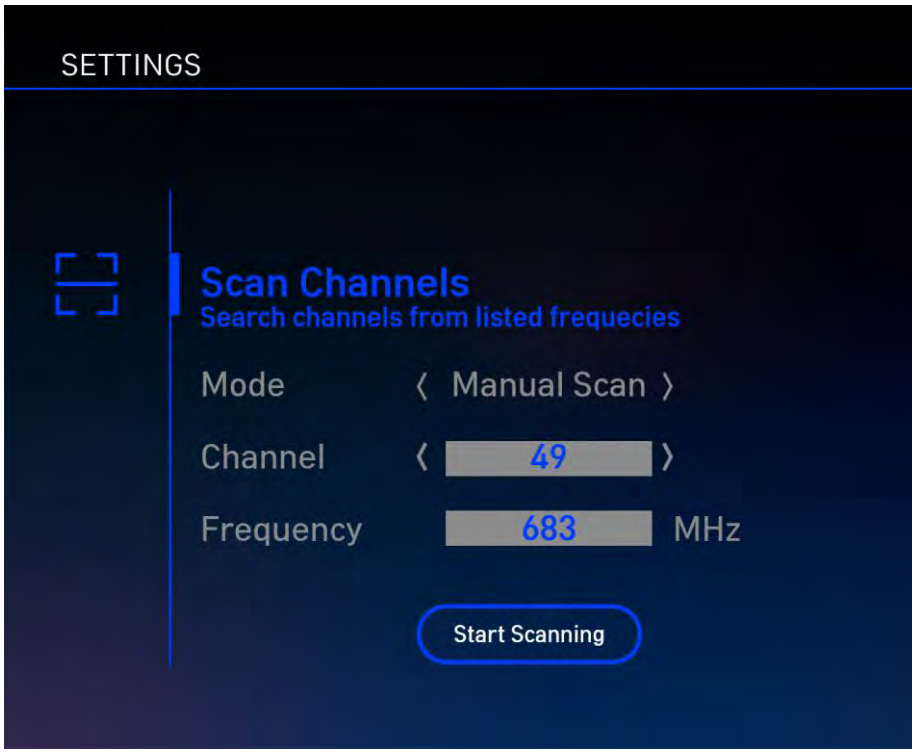
Main Menu -> Settings ->

Scan Channels ->

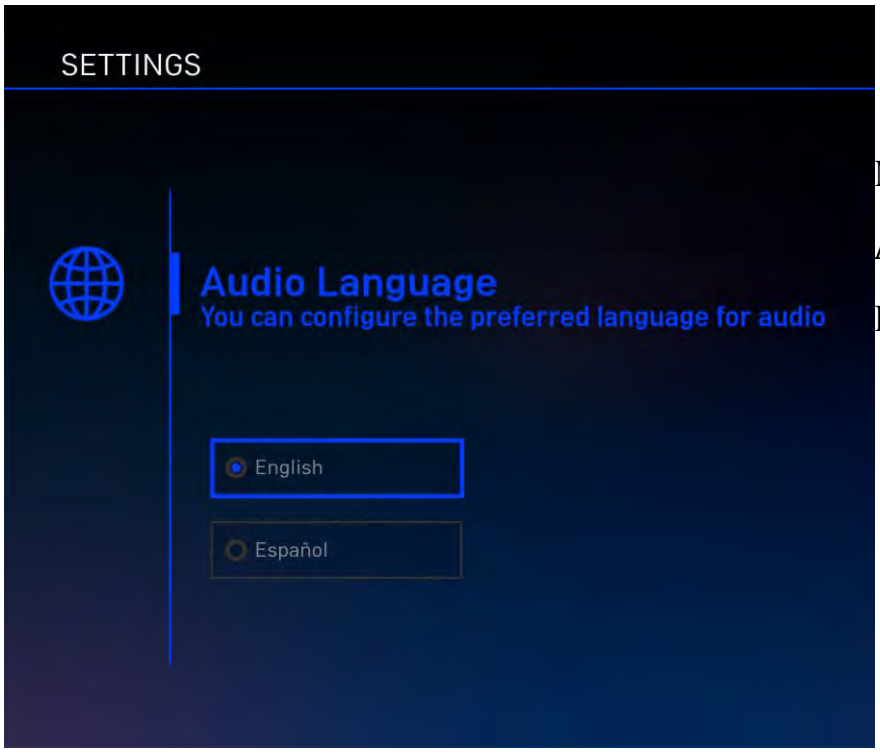
Mode: **Manual Scan** ->

Select Channel Number ->

Press **Start Scanning**



6.3.3 Selecting Your Preferred Language for Audio



Main Menu -> Settings ->

Audio Language ->

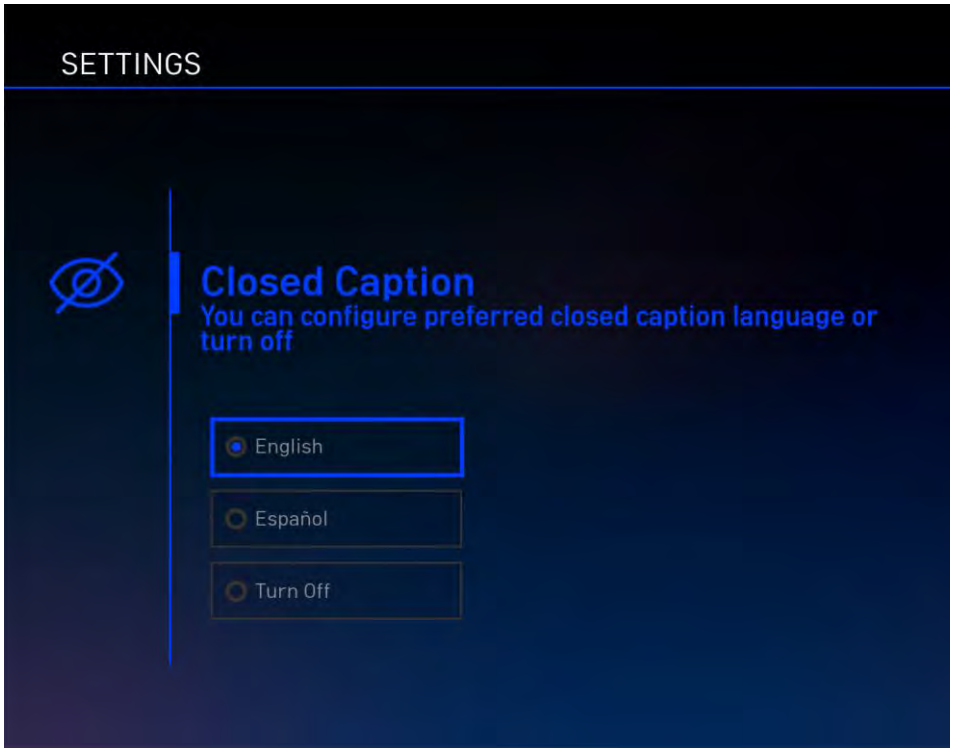
Press **OK** to confirm

6.3.4 Turning Off the Caption

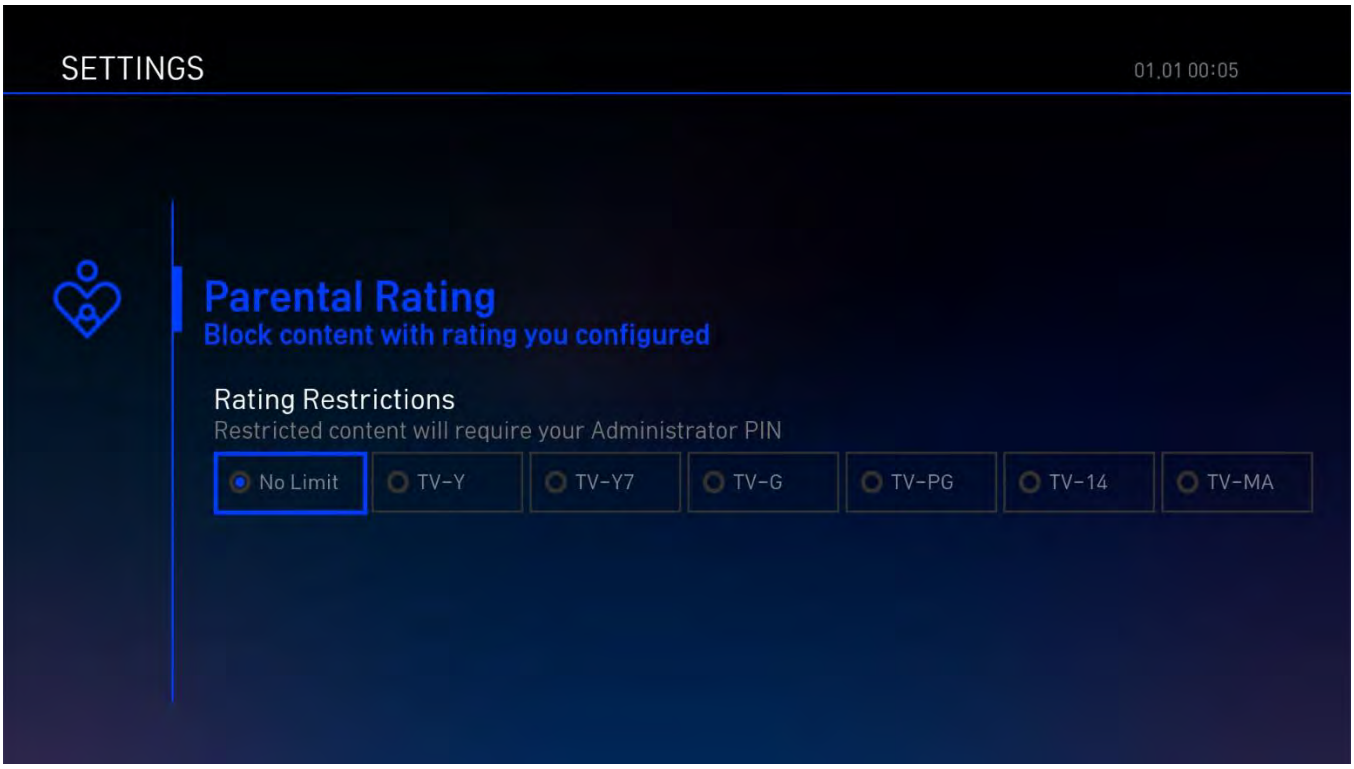
Main Menu -> Settings ->

Closed Captions->

Press **OK** to confirm.



6.3.5 Selecting the Parental Rating

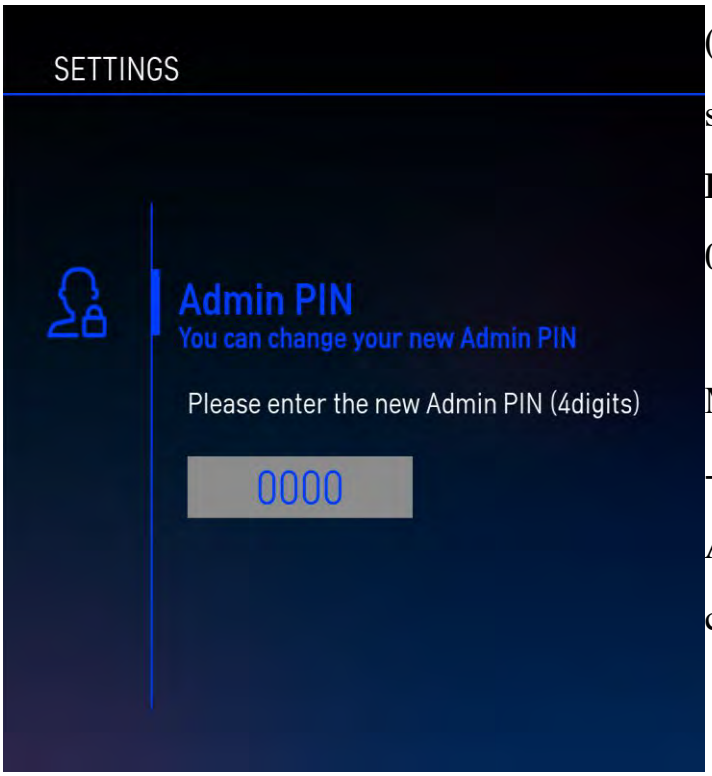


Main Menu -> Settings -> Parental Rating (The **Admin PIN** MUST be **ENTERED** before entering the Parental Rating screen (The default password is: 0000) -> Select the Rating Restriction -> Press **OK** to confirm.

6.3.6 Setting the Display Duration of Mini EPG

Main Menu -> Settings -> Closed Captions -> Select the display duration -> Press **OK** to confirm

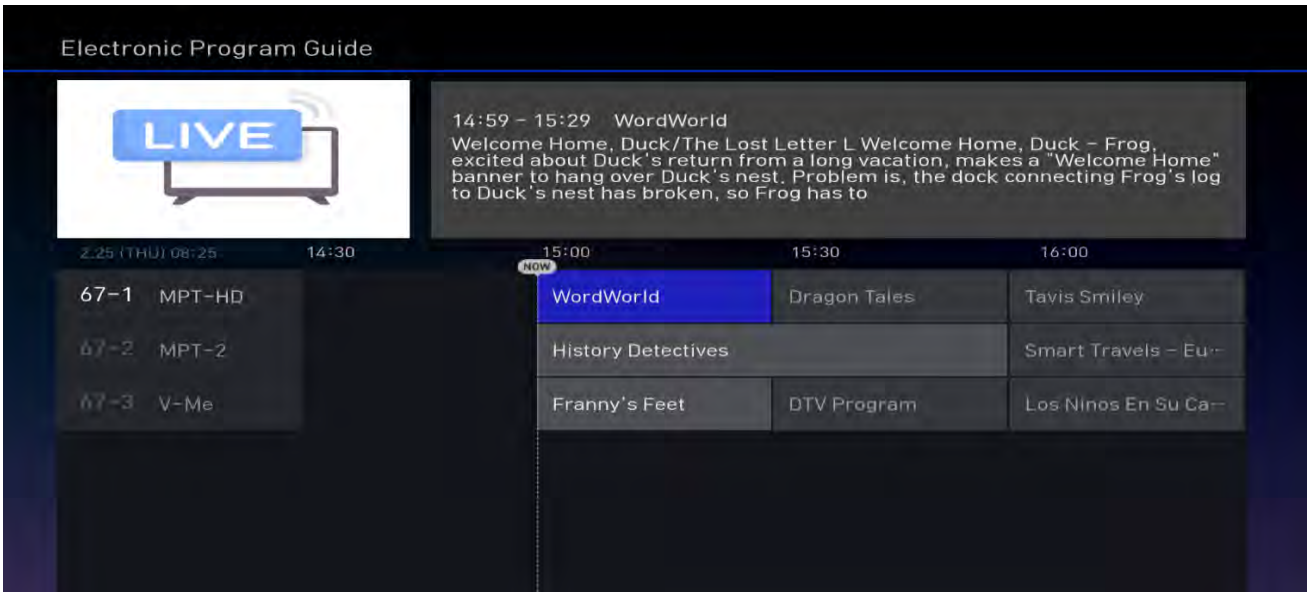
6.3.7 Changing the Administrator PIN



(Before entering the Change PIN screen, the **Admin PIN** MUST be **ENTERED** (the default password is: 0000))

Main Menu -> Settings -> Change PIN -> Press **OK** and enter the NEW Administrator PIN -> Press **OK** to confirm.

6.3.8 Obtaining the Program Content Introduction



Main Menu -> Guide -> Electronic Program Guide -> Use **Cursor Keys** (▲▼◄ ►) to select the different program blocks for getting the program content introduction.

7 Updating the New Live TV in APK

Step 1.

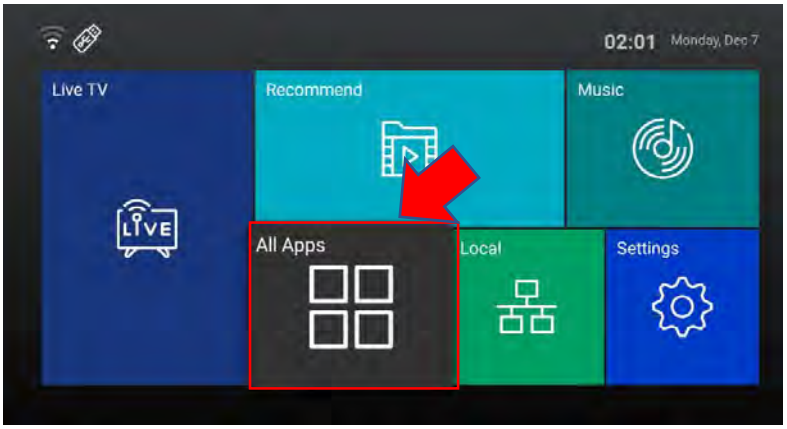
➔ Put the APK in a USB storage device

➔ Insert the USB storage device into the USB port of the Set-Top-Box

➔ Turn ON the Power of Set-Top-Box and wait for about one minute

➔ Press the HOME button on the remote control

➔ The following screen will appear



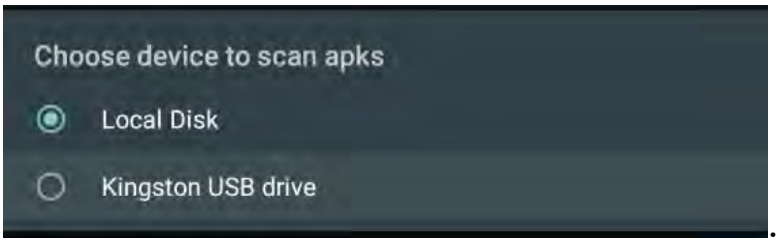
Step 2.

➔ Use the remote control to select "All Apps" (Refer to the above image at Step 1). Press OK to go to the next step.

➔ In the "All apps" screen, find the App Installer icon

and select it.

➔ The chosen device's screen will appear as below:



Step 3.

➔ Select the USB storage device (such as Kingston USB drive) and press **OK** to select.

➔ App Installer will list all APKs from the USB storage device

➔ Select "Next Gen LiveTV" and press **OK** to start the installation.

Step 4.

The installation screen is as below. Find the "**INSTALL**" button at the bottom right corner of the screen. Press **OK** to install.

Step 5.

Select “DONE” to complete the APK installation process.

8 Trouble Shooting

Device Failure	Possible Cause	Solution
No Picture	Power is not connected	Connect the power and ensure the device has been turned on.
No Picture but Sound OK	Nil or incorrect video cable connections	Ensure cables are connected correctly.
“No Signal” Appear on the Screen	Antenna cable is not connected	Connect the antenna cable and check the connection to the rear of Set-Top-Box
Picture is breaking up	Signal is weak and unstable	Check the antenna connection
Remote Control is not responding	Batteries are flat	Replace the batteries. * Do not mix old and new batteries in the IR remote control
USB device is not detected	Not powered correctly	Check the power source (if fitted) or reconnect
Movie Payback out of sync	File too large for Set-Top-Box	Re-encode the file at data rate and/or lower resolution
	Faulty File	Check the file to ensure there is no encoding issue

9 Contacting Us

Please kindly reach out us via the **Contact Us** function in our website: https://www.zinwell.com.tw/us/