INSTALLATION MANUAL

HD IP Receiver Box





TABLE OF CONTENTS

| SAFETY PRECAUTIONS | 3 |
|--|-----------------------|
| PACKAGE CONTENTS | 3 |
| PRODUCT DESCRIPTION | 4 |
| SPECIFICATIONS UNPACKING and INSPECTION HARDWARE INSTALLATION and CONNECTIONS | 5 .6 .6 |
| Remote Control | 7 |
| Procedure to connect to the Receiver Box via the RF Input port or IP Input port | 8 |
| Steps to setup channel list through USB disk for IPTV1 | 11 |
| Setup channel list through URL for IPTV 1 I Prepare Channel List by Control Center 1 I Steps to Deploy Receiver Box to Retrieve Channel List 1 | 11 11 12 |
| Setup channel list without using Control Center1 | 13 |
| HD Receiver Box Notes | 14 |

SAFETY PRECAUTIONS



The presence of this symbol is to alert the installer and user to the presence of uninsulated dangerous voltages within the product's enclosure that may be of sufficient magnitude to produce a risk of electric shock.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE. DO NOT OPEN THE UNIT. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

- DO NOT apply power to the unit until all connections have been made, all components have been installed and all wiring has been properly terminated.
- DO NOT terminate, change or uninstall any wiring without first disconnecting the unit's power adapter from the device.
- This device is supplied with the appropriately rated 12VDC power supply with the center pin positive. The use of any other power supply could cause damage and invalidate the manufacturer's warranty.
- DO NOT power on the unit until all cables and connections to the device have been properly connected.
- The device should be installed in an environment consistent with its operating temperature specifications. Placement next to heating devices and ducts is to be avoided as doing so may cause damage. The device should not be placed in areas of high humidity.
- DO NOT cover any of the device's ventilation openings.
- If the device has been in a cold environment allow it to warm to room temperature for at least 2 hours before connecting power.



PACKAGE CONTENTS

This package contains:

- One RL-IP6000 Receiver Box
- One Remote Control
- One IR Receiver
- One Power Adaptor
- One installation / configuration manual

Inspect the package before starting installation to ensure there is no damage and all supplied contents are present. Contact your distributor or dealer should the device be damaged or package contents are incomplete.

PRODUCT DESCRIPTION





This HD IP Receiver Box can receive high/standard definition audio/video based on MPEG-2, H.264/AVC content. The receiver box accepts IP Input and with HDMI and/or Component video output to TV. The compact design saves space and is easily controlled via a friendly graphical user interface (GUI) for rapid deployment. It will definitely bring you to the world where you can experience lots of fun and entertainment.

Features:

- ✓ Video resolution: Up to 1080p
- ✓ HDMI and/or Component Output
- ✓ MPEG-2, H.264/AVC HD/SD stream decoding
- ✓ 10/100M Base-T RJ45, Auto MDI/MDIX
- ✓ IGMP multicasting programs
- ✓ Support USB2.0 disk FAT format only
- ✓ Easy installation and use
- ✓ GUI for setup and control
- ✓ Light weight and compact design

SPECIFICATIONS

| | Specifications | | |
|-----------------------|--|--|--|
| Audio | | | |
| Mode | Stereo, Dual, Joint Stereo and Mono | | |
| Audio Format | MEPG-2 Layer 1 and Layer 2, MP3, and Linear PCM (LPCM) | | |
| Output Connection | 1 Set RCA Jack for Base Band | | |
| Volume Control | Stepping Adjustment | | |
| Video | | | |
| | MEPG-2 MP@HL decoding | | |
| Video Format | MPEG-4 Supports up to ASP@L5 HD resolution | | |
| | H.264 Fully compliant with ITU-T H.264, ISO/IEC14496-10 (main and high profile up to level 4.0) | | |
| Display Pixel | 1080P, 1080i, 720P, 576P, 576i, 480P, 480i | | |
| GENERAL | | | |
| Operating temperature | perature -20°C to 70°C | | |
| Storage temperature | age temperature -40°C to 85°C | | |
| Power Supply | upply 12VDC | | |
| Languages | English | | |
| Dimensions | 146mm (W) x 26.9mm (H) x 120mm (D) | | |
| Weight | t 450g | | |

*Specifications subject to change without prior notice

INSTALLATION



System Installer must adhere to Article 820-40 of the NEC that provides guidelines for proper grounding and specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible.

UNPACKING and INSPECTION

Each unit is shipped factory tested. Ensure all items are removed from the container prior to discarding any packing material.

Thoroughly inspect the unit for shipping damage with particular attention to connectors and controls. If there is any sign of damage to the unit or damaged or loose connectors contact your distributor immediately. Do not put the equipment into service if there is any indication of defect or damage.





HARDWARE INSTALLATION and CONNECTIONS

It is highly recommended that quality cables and connectors be used for all video and audio source connections

1. Connect the media source (Satellite STB, Media player, or other media device) to resilinx RL-IP1000 HD IP Streaming Server, then connect to the Receiver Box IP Input.

- 2. Connect the Receiver Box HDMI or Component video with Audio R/L to TV.
- 3. Plug the power adapter to the device and power up
- 4. Network Setup for IP Input

Limitations:

- 1. All devices, including the Receiver Box, HDIP Streaming Server, and the controlling PC, should be located within same network segment/LAN.
- 2. If a DHCP server is present in the private network, the HDIP Streaming Server, Receiver Box will use the IP address assigned by the DHCP server.
- 3. If no DHCP server is present, the Receiver Box should specify the static IP.

Remote Control

- 1. Power On/Off
- 2. Mute
- 3. Color Special Function keys
- 4. Digits
- 5. Status / Information
- 6. List
- 7. Menu
- 8. Escape / Exit
- 9. Channel (Up) / Select (Up)
- 10. Volume (Down) / Select (Left)
- 11. Volume (Up) / Select (Right)
- 12. OK
- 13. Channel (Down) / Select (Down)
- 14. TV / Radio
- 15. Stereo (Left / Right Shift)
- 16. Pause / Play
- 17. Video

Remote Control Function Keys:

- 1. Power On/Off: Power on or power off.
- 2. Mute: Enter Mute mode.
- 3. Color Special Function Keys: Press Red key to Auto Search 16of the channels
- 4. Digits: 0~9
- 5. Status / Information: Show Status when it plays digital movie.
- 6. List: Show Channel list.
- 7. Menu: Function Menu, description follows.
- 8. Escape / Exit: Use the key to exit Menu.
- 9. Channel (Up) / Select (Up): Use the key to select channel at DTV mode and move at Menu mode.
- 10. Volume (Down) / Select (Left): Use the key to adjust volume at DTV mode and move at Menu mode.
- 11. Volume (Up) / Select (Right): Use the key to adjust volume at DTV mode and move at Menu mode.
- 12. OK: Use the key to confirm when setup.
- 13. Channel (Down) / Select (Down): Use the key to select channel at DTV mode and move at Menu mode.
- 14. TV/Radio Shift: Use the key to shift between TV and Radio.
- 15. Stereo (Left / Right Shift): Use the key to shift between right audio and left audio.
- 16. Pause / Play.
- 17. Video: Switch between DVB-T and IP TV.



Procedure to connect to the Receiver Box via the IP Input port

The following procedure will allow the installer to setup the Receiver Box via the GUI

1. After the hardware installation and connection, turn on the TV and power on the Receiver Box.



3. Preference – for setting up Preference



| | Ma | Main Menu | | |
|------------|------------------|-----------|-------------|--|
| | | KD- | 1.1.6. | |
| | OSD Language | English | U yu | |
| | OSD Timeout | 3s | • | |
| Preference | OSD Transparency | 0% | • | |
| Setting | Multimedia | ←' | | |
| | - | | | |
| AV | | 1 | | |
| | -001 | 1 | | |
| | | | | |
| | | | | |
| | | | | |
| | | hnolo | av h | |
| Move | Enter Enter | | Exit Exit | |

4. Setting – for setting up the IP related parameters



| | | Main Menu | |
|------------|-----------------|-----------|-------------|
| | | ND | -201 |
| | Ethernet Config | | |
| | Factory Reset | ← | • |
| Preference | Upgrade | ← | • |
| Setting | Version | ← | • |
| AV | | 1 | |
| | -00 | - | |
| | | | |
| | 990 | | |
| | | | |
| | | chool | adv la |
| Move | (Enter) Ente | r | (Exit) Exit |

Remark: After setting up Ethernet Config for the IP Input, press the video button on the remote control to watch the IPTV.

5. AV



| | Main Menu | | |
|------------|------------------|----------|-----------|
| 1 | | KD- | |
| | Contrast | 12 | ~~~ |
| | Brightness | 12 | • |
| Preference | Saturation | 12 | • |
| Setting | HUE | 0 | Þ |
| Octaing | Video Resolution | 1080p_60 | • |
| AV | | | |
| | Cas | t | |
| 1. 1. | To | chnolo | |
| Move | (Enter) Enter | | Exit Exit |

Steps to setup channel list through USB disk for IPTV

(For Single/few Receiver Boxes and Few Channels)

- Prepare a USB disk. Create a text file, filename is "tvlist.txt", under the root folder of the USB disk.
- > As the following sample format tvlist.txt, the format of the channel list is one channel per line, and each line has the "Channel Name" and the "URL" fields separated by a space.
- > Plug-in the USB disk to the Receiver Box, and power up the unit
- > Click "menu" button on remote control to setup the network/Ethernet config if needed
- > Click "video" button on remote control to watch the channel video

```
UDPMC udp://224.1.5.1:1234

RTPMC rtp://224.1.6.1:1234/?localport=1234

UDPUC udp://169.254.22.198:5763

RTPUC rtp://169.254.22.198:5763/?localport=5763

HTTP1 http://192.168.30.101:8888/VideoInput/play.ts

HTTP2 http://192.168.30.102:8888/VideoInput/play.ts

List 1: Sample format of tvlist.txt
```

Remark :

- 1. Channel name size : Max. 100 bytes, suggest to have less 17 characters for better display,
- 2. url size : Max. 512 bytes,
- 3. buffer : Max. 600 channels

Setup channel list through URL for IPTV

(For In-room-broadcasting System Deployment)

Prepare Channel List by Control Center

- > Install all HDIP Streaming Servers and the Control Center in the same network segment.
- > Execute the Control Center to search all connected HDIP Streaming Servers.
- > Setup the streaming method and related parameters for all HDIP Streaming Servers.
- Modify/Edit the channels' name and channels' number for each HDIP Streaming Server on Control Center.
- > Publish the channel list to all HDIP Streaming Servers.
- PS. Without the Control Center, it is possible to edit the channel list with a text file, named as "channels.csv", and upload it to one web server, which is accessible by all receiver box. Please refer to "Setup channel list without using Control Center"



2 Steps to Deploy Receiver Box to Retrieve Channel List

- > Create text file, named "**outip.txt**", in the root folder of the USB disk.
- Write the URL of the channel list, for example "<u>http://192.168.1.123:8888/channels.csv</u>", to the first line of the text file. (the IP address and port number is where one HDIP Streaming Server located)
- > Plug-in the USB disk in to the receiver box, and power it up.
- > Wait for the device boot-up, and check the channel list of IPTV

Setup channel list without using Control Center

1*Pceliminary Installation annulas weiscostor change.

- 2. Upload it to one web server, which is accessible by all receiver boxes.
- 3. Create text file, named "outip.txt", in the root folder of a USB disk.
- 4. Write the URL of the channel list, for example "http://192.168.1.123:8888/channels.csv", to the first line of the text file. (The IP address and the port number is where the server located.)
- 5. Plug-in the USB disk into the receiver box RB-300 and power it up.
- 6. Wait for the device boot-up, and check the channel list of IPTV.

(PS1. Whenever there are channels changed/added/deleted, please repeat process 1 & 2 and RL-IP6000 needs to be rebooted or press the remote control "video" button to recapture the video. PS2. Whenever web server changing IP, please repeat process 4~6.)

Example:

You make 7 channels of the "channels.csv" file as follows: "ABC NEWS", udp://224.1.5.1:1234 "Extra", udp://224.1.5.2:1234 "PLUS 7", udp://224.1.5.3:1234 "7mate", udp://224.1.5.4:1234 "7TWO" rtp://225.3.4.1:8888/?localport=8888 "GO!", http://172.21.6.70:8888/VideoInput/play.ts "Gem", http://172.21.6.71:8888/VideoInput/play.ts

Upload it to your web server as follows: http://www.xxxx.com/C01/channels.csv

Create the "outip.txt" in a USB as follows: http://www.xxxx.com/C01/channels.csv

Follow process 5 & 6 to finish the channel list setting. (You can make ex.40 channels of the channels.csv for customer 02 to be <u>http://www.xxxx.com/C02/channels.csv</u> The same for others customers 03, 04, 05.....)

You can set access code for each customer to get their own channel list from your website. And, you can update the channels.csv file for each customer whenever adding/changing/deleting channels.

*Preliminary Installation manual, subject to change.