



**AC7852**  
**HDMI over IP Extender Set, up to 150 meters**

**en**

Manual

# AC7852 | HDMI over IP Extender Set, up to 150 meters

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## 1.0 Introduction

The AC7852 is a HDMI extender over IP extension kit. It can extend a low latency HDMI signal 1920x1200@60Hz over 150m with IR support. It can be used to distribute one HDMI signal to multiple receivers by using a L3 network switch with IGMP and DHCP support. The H.265 encoding ensures a low-bandwidth and high quality signal distribution. The AC7852 can widely be used in multi-media rooms, conference rooms, schools, control rooms or any other situation where you would like to extend and distribute a HDMI video signal.

### 1.1 Features

- HDMI 1.3 and HDCP 1.4 compliant
- Support 6.75Gbps video bandwidth
- Maximum resolution 1920x1200@60Hz, ratio 16:10, EDID, 4:4:4, video encoding H.264 / H.265
- Additional HDMI output on transmitter for connecting a local display (local loop out)
- Extend your HDMI signal via CATx over a distance up to 150 m
- Multipoint extension via **Gigabit**, layer 3 managed network switch with support of IGMP snooping and Multicast Support one-way IR control signal transmission

### 1.2 Package Contents

The following parts need to be present in the packing:

- 1 × HDMI over IP Extender (transmitter)
- 1 × HDMI over IP Extender (receiver)
- 1 × IR Blaster cable (1.5 meters)
- 1 × 20~60KHz IR Receiver cable (1.5 meters)
- 4 x Mounting Brackets including screws
- 2x 5V/1A Power Adapters

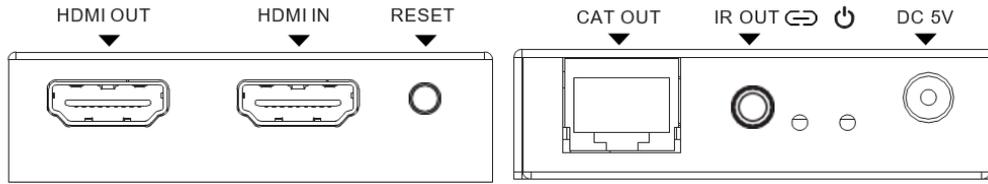
## 2.0 Specifications

Technical	
HDMI Compliance	HDMI 1.3
HDCP Compliance	HDCP 1.4
Video Bandwidth	6.75Gbps
Video Resolution	640x480@60Hz~1920x1200@60Hz
HDMI Audio Formats	LPCM 2.0CH, 32KHz, 44.1KHz, 48KHz
IR Frequency	20Hz ~ 60KHz
Compression Technology	H.264 / H.265
Mandatory for switcher /Router	<b>Gigabit</b> , layer 3 managed network switch with support of IGMP snooping and Multicast
Color Space	RGB, YCbCr 4:4:4, YCbCr 4:2:2
Color Depth	8-bit
Connection	
Transmitter	Input: 1xHDMI IN [Type A 19-pin female] Output: 1xHDMI OUT [Type A 19-pin female] 1xCAT OUT [RJ45 connector] Control:1xIR OUT [3.5mm Stereo Mini-jack]
Receiver	Input: 1xCAT IN [RJ45 connector] Output: 1xHDMI OUT [Type A 19-pin female] Control:1xIR IN [3.5mm Stereo Mini-jack]

Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	88mm (W) × 61.2mm (D) × 16.5mm (H)
Weight	Encoder: 160g, Decoder: 155g
Power Supply	Input: AC100 - 240V 50/60Hz, Output: DC 5V/1A (US/EU standard, CE/FCC/UL certified)
Power Consumption	Encoder: 2.55W, Decoder: 3.7W
Operation Temperature	-10°C ~ 50°C / 14°F ~ 122°F
Relative Humidity	20~90% RH (non-condensing)

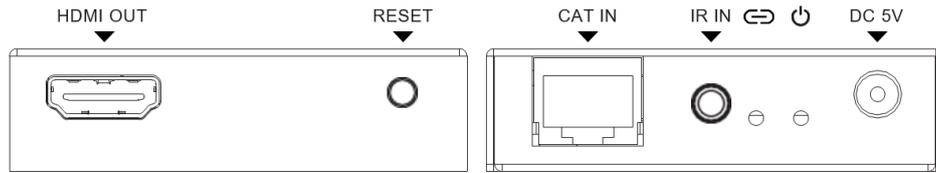
## 3.0 Operation Controls and Functions

### 3.1 Transmitter Panel



Name	Function Description
HDMI OUT	HDMI Loop out port for connecting an HDMI display device.
HDMI IN	HDMI source input port for connecting the HDMI source device.
RESET button	Press and hold the button for 3 seconds to perform a reset. The EDID will restore to default status: 1920*1080@60Hz.
CAT OUT	The CAT OUT port is connected to the CAT IN port from the receiver or to a network switch. For best performance use <b>Gigabit</b> , layer 3 managed network switch with support of IGMP snooping and multicast.
IR OUT	Connect to the IR blaster cable. The IR blaster signal is from IR IN on the Receiver.

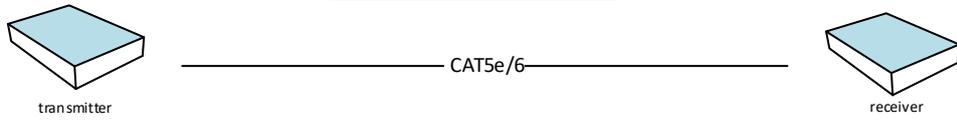
### 3.2 Receiver Panel



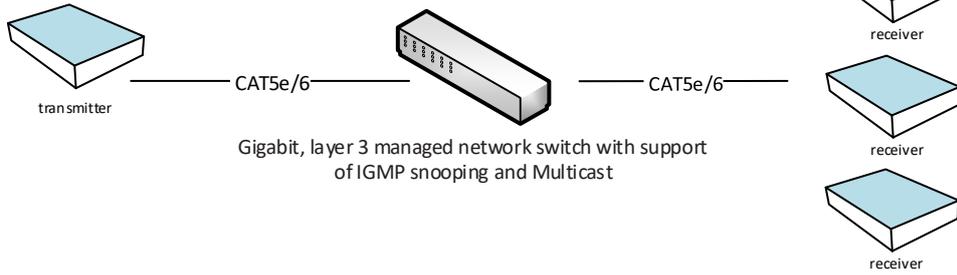
Name	Function Description
HDMI OUT	HDMI output port for connecting the HDMI display device.
RESET button	<ul style="list-style-type: none"> <li>■ Press and hold the button for 3 seconds to reset the product to the factory default status.</li> <li>■ Short press the button to copy EDID from transmitter display device to receiver HDMI source device.</li> </ul>
CAT IN	The CAT IN port is connected to the CAT OUT port from the transmitter or to a network switch. For best performance use <b>Gigabit</b> , layer 3 managed network switch with support of IGMP snooping and multicast.
IR IN	Connect to wideband IR receiver cable. The IR signal is sent to IR OUT port on the transmitter.
LINK LED	The LED will flash blue when transmitter is connected to the receiver or connected to a switch / router / hub.
POWER LED	The LED will illuminate blue when the transmitter is powered on.
DC 5V	Plug the DC 5V/1A power supply into the unit and connect the adapter to an AC outlet.

# 4.0 Setup Examples

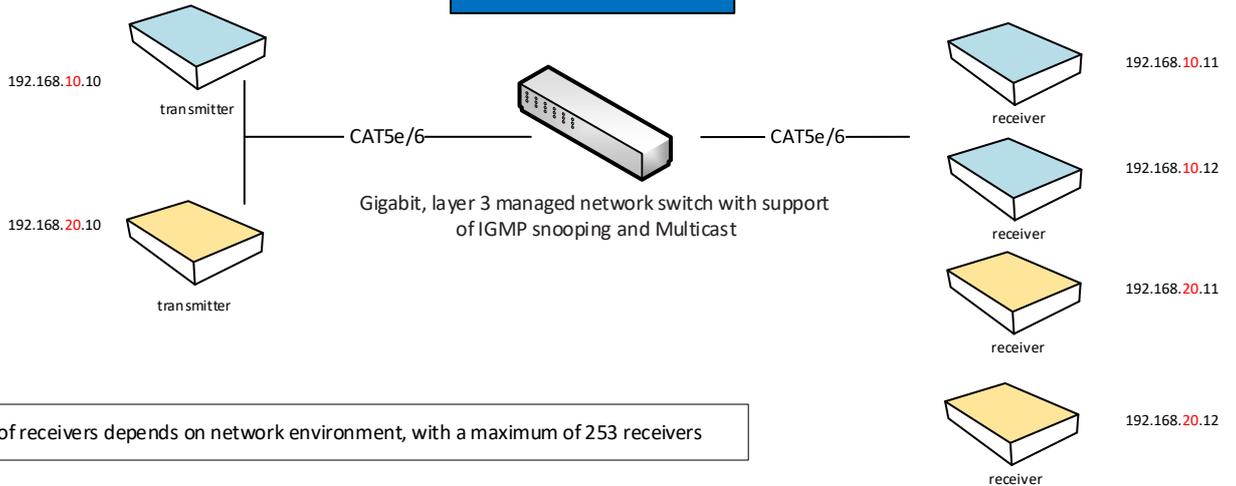
## POINT-TO-POINT



## POINT-TO-MULTIPOINT



## POINT-TO-MULTIPOINT

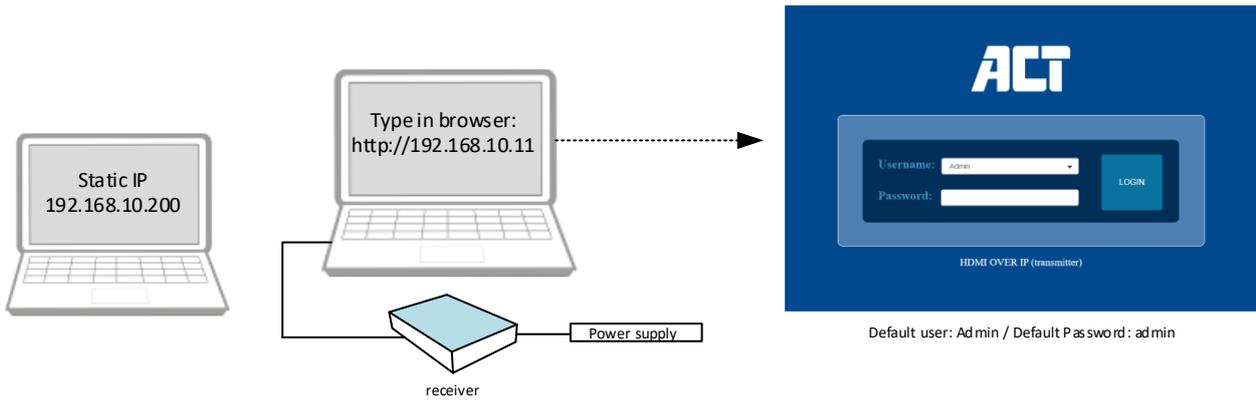


The amount of receivers depends on network environment, with a maximum of 253 receivers

## 5.0 Setup and Connect

If you use the AC7852 set the first time it's not needed to change any settings. The transmitter and receiver will automatically find each other when they are connected point-to-point, or point-to-multipoint. When multiple receivers are connected the same network switch as the transmitter the receivers will automatically adopt a unique IP address.

## 6.0 Receiver Setup



## 6.1 Status Screen

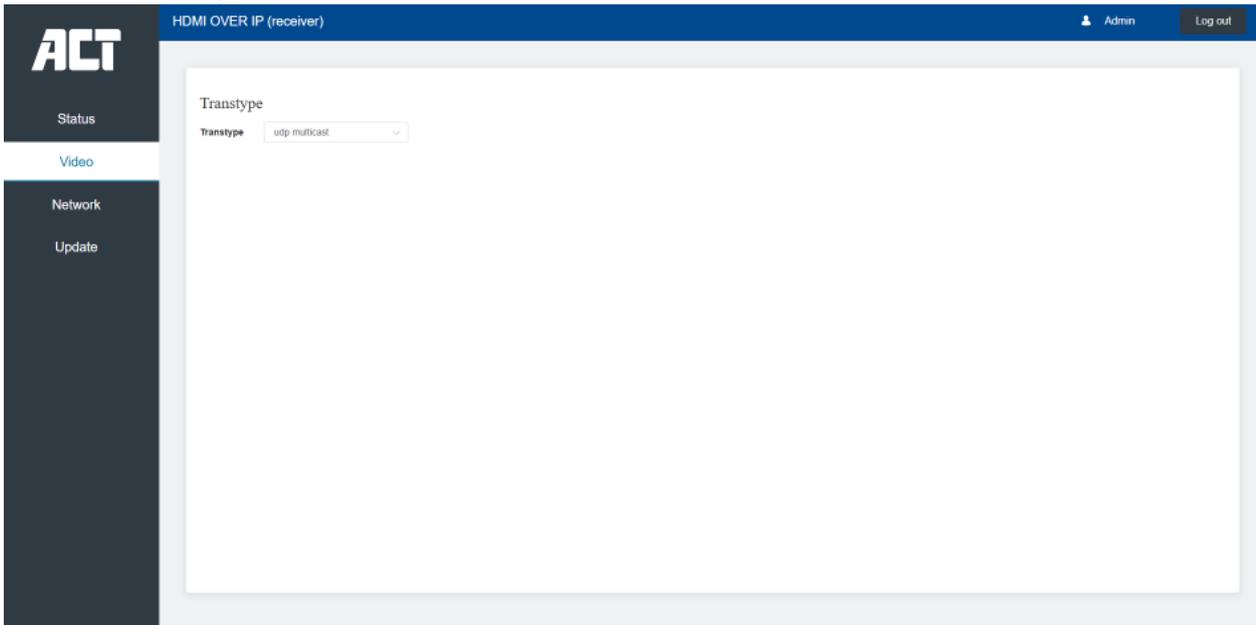
The first screen you see when you login to the WebGUI is the status screen. This screen gives you an overview of the current settings of the receiver.

The screenshot shows the ACT WebGUI interface. The top navigation bar includes the ACT logo, the title "HDMI OVER IP (receiver)", and user information "Admin" with a "Log out" button. A left sidebar contains menu items: "Status" (highlighted), "Video", "Network", and "Update". The main content area displays the "Status" screen with the following information:

Firmware Version	V1.10.02
IP Address	192.168.10.11
Subnet Mask	255.255.255.0
Gateway	192.168.10.1
MAC Address	6c:df:fb:02:e8:a1

## 6.2 Video

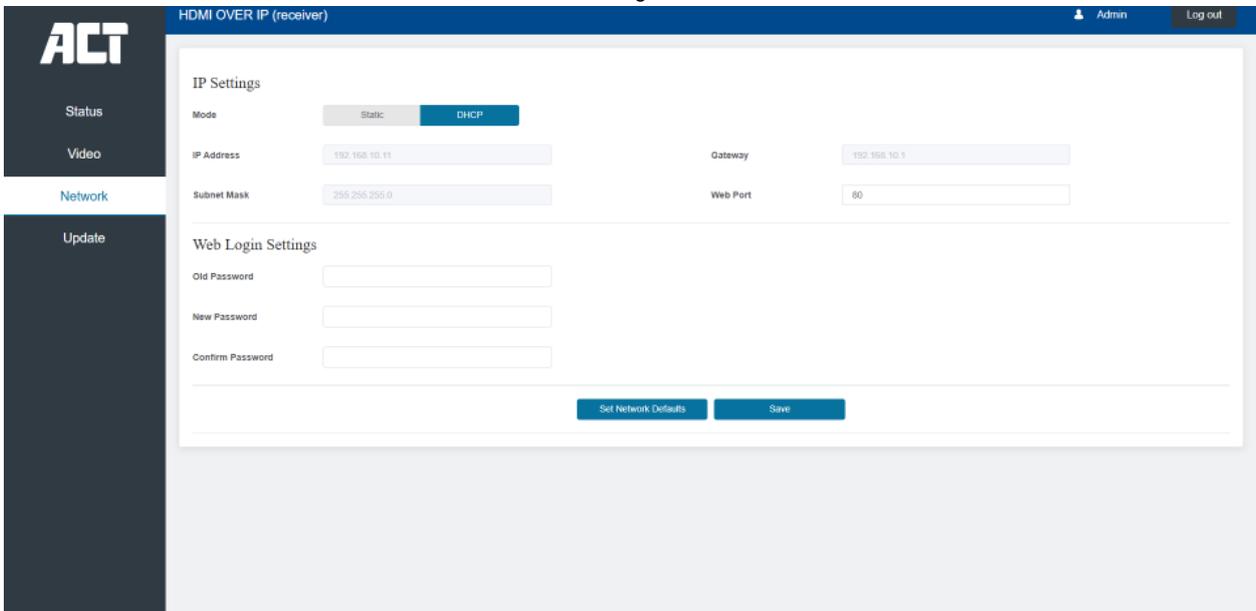
In the video setting you can select the **Transtype**, it can be set to UDP Multicast or UDP Unicast. It's recommended to keep it set to UDP Multicast for best performance.



## 6.3 Network

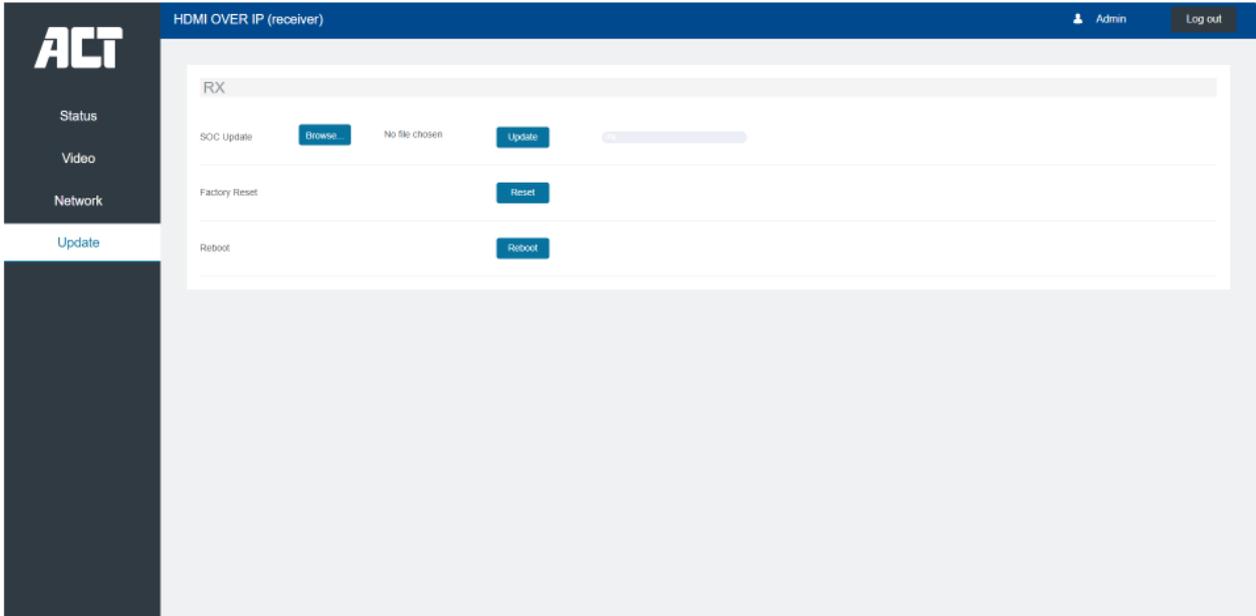
The **IP address** of the **receiver** can be set to **Static** or **DHCP**. When using more than one transmitter and each transmitter has to send its video to its own set of receivers (**point-to-multipoint**) its important that the **transmitter** and the **receivers** are in the **same Subnet range**. One other way to make a **point-to-multipoint** setup is to put the transmitter and the receivers in the same **VLAN** but this requires some alteration in the network settings of your switch. Please refer to the user manual of your network switch to learn how to do this. The **Web Port** can be changed when needed, the **default** setting is **port 80**.

When the **Set Network Defaults** button is clicked, the receiver will go back to its **default IP address : 192.168.10.11**

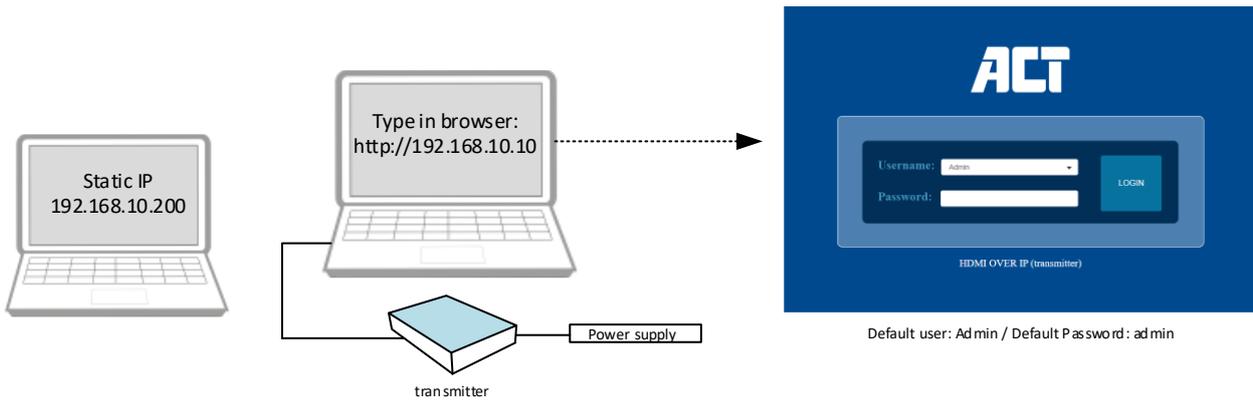


## 6.4 Update

The **Update** option is used to do a **Factory Reset**, **Reboot** or **Firmware Update**. Factory reset can be used to set the IP settings back to DHCP and set the video back to UDP multicast. When a firmware update is available it can be uploaded via the SOC update option. Only use firmware files provided by ACT, if nothing is mentioned on the product website, then no update is available.



## 7.0 Transmitter Setup



### 7.1 Status Screen

The first screen you see when you login to the WebGUI is the status screen. This screen gives you an overview of the current settings of the transmitter.

The screenshot shows the ACT web interface. The top navigation bar includes the ACT logo, the title 'HDMI OVER IP (transmitter)', a user profile icon labeled 'Admin', and a 'Log out' button. A left sidebar contains navigation links for 'Status', 'Video', 'Network', and 'Update'. The main content area displays the 'Status' screen with the following information:

Status	
Firmware Version	V1.10.02
IP Address	192.168.10.10
Subnet Mask	255.255.255.0
Gateway	192.168.10.1
MAC Address	6c:dE:fb:01:e6:7e

## 7.2 Video

There are two streams available, **MainStream** and **SubStream**. The maximum resolution of the **MainStream** is **1920x1080** and for the **SubStream** this is **720x576**. The **Dectype** can be set to **H.264** or **H.265**. We recommend leaving this to H.265 for optimal network load. The **Bitrate** for the **MainStream** can be set within **1024Kb/s ~ 20480Kb/s range**, for the **SubStream** this is **256Kb/s ~ 2048Kb/s**.

The screenshot shows the ACT web interface for an HDMI OVER IP transmitter. The left sidebar contains navigation options: Status, Video, Network, and Update. The main content area displays the following settings:

MainStream		
Dectype	Resolution	Bitrate (1024~20480)Kb/s
H265	Auto	20480

SubStream		
Dectype	Resolution	Bitrate (256~2048)Kb/s
H265	720*576	2048

## 7.3 Network

The **IP address** of the **transmitter** can be set to **Static** or **DHCP**. When using more than one transmitter and each transmitter has to send its video to its own set of receivers (**point-to-multipoint**) its important that the **transmitter** and the **receivers** are in the **same Subnet range**. One other way to make a **point-to-multipoint** setup is to put the transmitter and the receivers in the same **VLAN** but this requires some alteration in the network settings of your switch. Please refer to the user manual of your network switch to learn how to do this. The **Web Port** can be changed when needed, the **default** setting is **port 80**.

When the **Set Network Defaults** button is clicked, the transmitter will go back to its **default IP address : 192.168.10.10**

The screenshot shows the ACT web interface for an HDMI OVER IP transmitter, specifically the Network settings page. The left sidebar contains navigation options: Status, Video, Network, and Update. The main content area displays the following settings:

**IP Settings**

Mode:  Static  DHCP

IP Address:  Gateway:

Subnet Mask:  Web Port:

**Web Login Settings**

Old Password:

New Password:

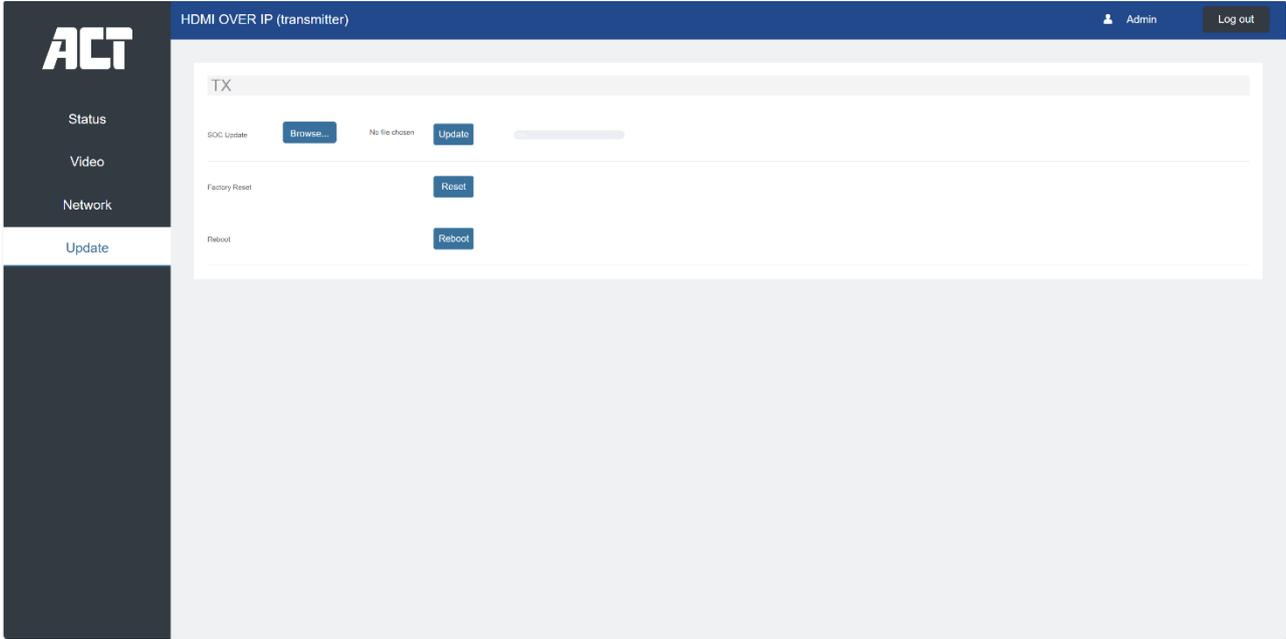
Confirm Password:

Buttons:

## 7.4 Update

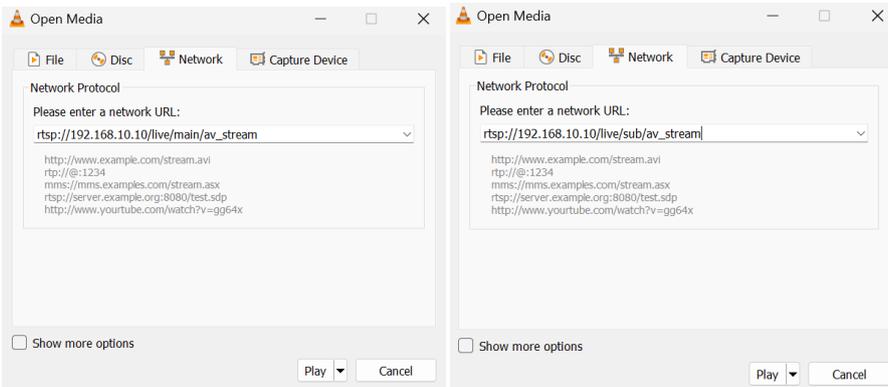
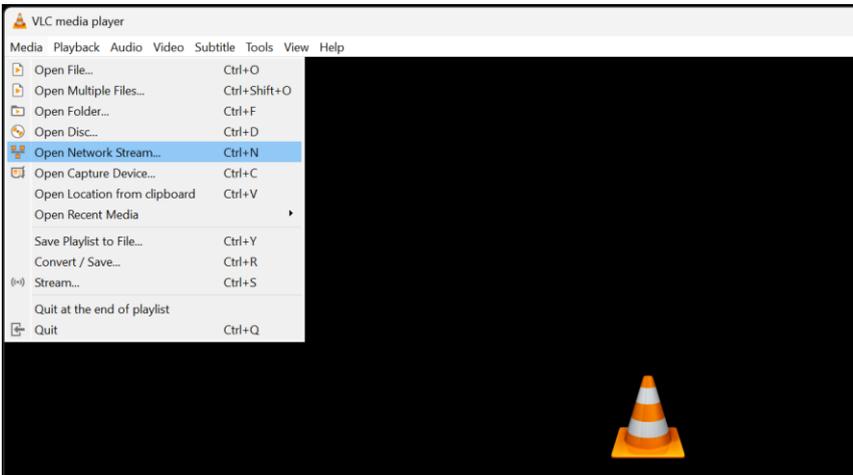
**SOC Update** is used for updating the firmware, use the **Browse** button to upload the firmware file. Only use firmware files provided by ACT, if nothing is mentioned on the product website, then no update is available.

**Factory Reset** will set the transmitter back to **factory default IP : 192.168.10.10** and the **login password** is reset to **admin**. **Reboot** will reboot the transmitter.



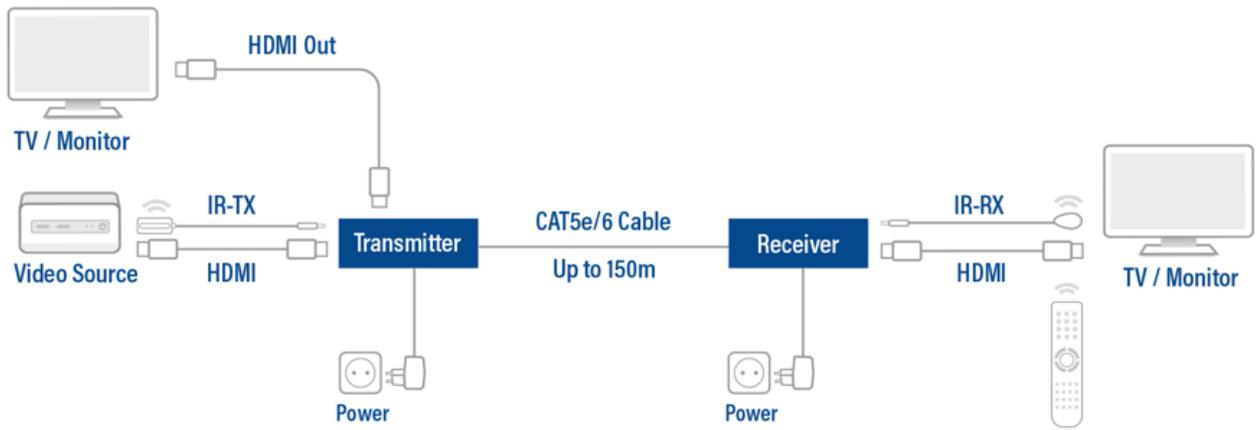
## 8.0 VLC media player instructions

**MainStream** and **SubStream** can be monitored in VLC media player. The **MainStream** link is **rtsp://192.168.10.10/live/main/av\_stream** and the **SubStream** link can be monitored via **rtsp://192.168.10.10/live/sub/av\_stream**. Please note that when you have changed the IP addresses from the transmitter and receiver you need to change the IP address in the rtsp link too. To monitor a stream in VLC media player, you need to go to Media → Open Network Stream



## 9.0 IR Blaster and IR Receiver connection

The AC7852 supports **one-way IR control**, connect the **IR Blaster** to the **transmitter** and the **IR Receiver** to the **receiver**.



## 10.0 Service and support

This user manual has been carefully written by ACT's technical experts. If you have problems installing or using the product, please check the **support** link at the website [www.act-connectivity.com](http://www.act-connectivity.com).

## 11.0 Warning and points of attention



Due to laws, directives and regulations set out by the European parliament, some (wireless) devices could be subject to limitations concerning its use in certain European member states. In certain European member states the use of such devices could be prohibited. Contact your (local) government for more information about this limitations.

Always follow up the instructions in the manual\*, especially where it concerns devices which need to be assembled.

Warning: In most cases this concerns an electronic device. Wrong/improper use may lead to (severe) injuries!

When you connect the device to the mains, make sure it will not be damaged or subject to (high) pressure.

A power socket is needed which should be close and easy accessible from the device.

Repairing of the device should be done by qualified ACT staff. Never try to repair the device yourself. The warranty immediately voids when products have undergone self-repair and/or by misuse. For extended warranty conditions, please visit our website at [www.act-connectivity.com](http://www.act-connectivity.com)

Dispose of the device appropriately. Please follow your countries regulation for the disposal of electronic goods.

Please check below safety points carefully:

- Do not apply external force on the cables
- Do not unplug the device by pulling the power cable
- Do not place the device near heating elements
- Do not let the device come in contact with water or other liquids
- If there is any strange sound, smoke or odor, remove the device immediately from the power outlet.
- Do not put any sharp objects into the venting hole of a product
- Do not use any damaged cables (risk of electric shock)
- Keep the product out of reach of children
- Wipe off the product with soft fabric, not water mop.
- Keep the power plug and outlet clean
- Do not unplug the device from the power outlet with wet hands
- Unplug the device when you don't use it for a long time
- Use the device at a well ventilated place

*\*Tip: ACT manuals are written with great care. However, due to new technological developments it can happen that a printed manual does not longer contain the most recent information. If you are experiencing any problems with the printed manual or you cannot find what you are looking for, please always check our website [www.act-connectivity.com](http://www.act-connectivity.com) first for the newest updated manual.*

*Frequently asked questions (FAQ). Consult **support** on our website [www.act-connectivity.com](http://www.act-connectivity.com) and see if you can find the right information about your product here. It is highly advisable to consult the FAQ section first, the answer is often here.*

## 12.0 Warranty conditions

The ACT warranty applies to all ACT products. After buying a second-hand ACT product the remaining period of warranty is measured from the moment of purchase by the product's initial owner. ACT warranty applies to all ACT products and parts, indissolubly connected or mounted to the product it concerns. Power supply adapters, batteries, antennas and all other products not directly integrated in or connected to the main product or products of which, without reasonable doubt, can be assumed that wear and tear during use will show a different pattern than the main product, are not covered by the ACT warranty. Products are not covered by the ACT warranty when exposed to incorrect/improper use, external influences or when opening the service parts of the product by parties other than ACT. ACT may use refurbished materials for repair or replacement of your defective product. ACT cannot be held responsible for changes in network settings by internet providers. We cannot guarantee that the ACT networking product will keep working when settings are changed by the internet providers. ACT cannot guarantee the working of web services, apps and other third party content that is available through ACT products

### When my product gets defective

Should you encounter a product rendered defective for reasons other than described above: Please contact your point of purchase for taking care of your defective product.