User's Manual

High Definition HDMI Extender over IP with PoE

► IHD-210PT / IHD-210PR

Copyright

Disclaimer

FCC Compliance Statement

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 to 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.

CE mark Warning

The is a class A device. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

WEEE

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Trademarks

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Revision

User's Manual of PLANET High Definition HDMI Extender over IP with PoE
Model: IHD-210PT / IHD-210PR
Rev.: 1.0 (April, 2017)
Part No. EM-IHD-210 Series_v1.0

Table of Contents

Chapter 1.   Product Introduction

1.1 Package Contents

The package should contain the following:

■ Media Extender x 1

■ Quick Installation Guide x 1

■ IR Emitter Cable with Transmitter x 1

■ IR Receiver Cable with Receiver x 1

Note	If any of the above items are missing, please contact your dealer immediately.

1.2 Overview

Make Advertising Effective and Easy

PLANET IHD-210 HDMI Extender over IP with PoE delivers a great Full-HD video distribution solution such as bringing an efficient and effective advertising deployment. The IHD-210 series is the combination of the transmitter, IHD-210PT, and the receiver, IHD-210PR. They can distribute HD digital content from multiple sources to practically any number of remote displays on a LAN and deliver ultra high-quality 1080p HDMI video broadcast over IP network. It not only offers vivid 1080p full motion video, but also ensures the sharp images and text give the viewers the maximum visual effect and ease of reading. By cascading multiple Ethernet switches as the backbone of the IHD-210 series, it allows displays to be distributed far away from the source devices while sustaining consistent 1080p video and audio quality. The video sources can be rack centralized, decentralized or even a mixture of both. It thus increases the flexibility, scope and scalability of audio and video distribution via the Ethernet networks.

IR Extension for Controlling Video Source

The IHD-210 series is a perfect solution for audio and video signal extension via the existing LAN. Designed with IR transmitter and receiver interface, it allows users to control the video source at the terminal destination. The IHD-210 series also features bi-directional IR extension and RS232 pass-through allows the user to cascade the system enabling them to extend the transmission distance without signal loss or delay. Its numerical LED indication enables users to recognize immediately the current group ID. It also supports HDMI Local Output function for checking video source conveniently. Besides, with PoE function, there is no additional power supply needed, and the IHD-210 series thus reduces the complexity of cable installation.
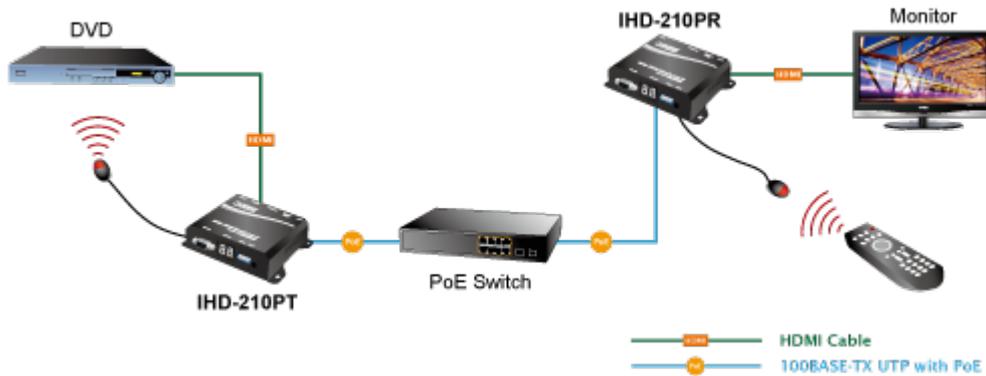
Exclusive Video Transmission by IGMP Snooping Technology

One IHD-210PT in local site can drive multiple IHD-210PRs in remote sites without consuming extra network loading. When connected to PoE switch with IGMP snooping function, the IHD-210 series can offer selectable 64 channels, so video and audio can be transmitted simultaneously. IGMP snooping is an integral part of IP multicast and a communications protocol used by hosts and adjacent routers on IP networks to establish multicast group memberships. IGMP snooping can be used for one-to-many/many-to-many networking applications such as online streaming video and gaming, and allows exclusive transmission and more efficient use of resources.
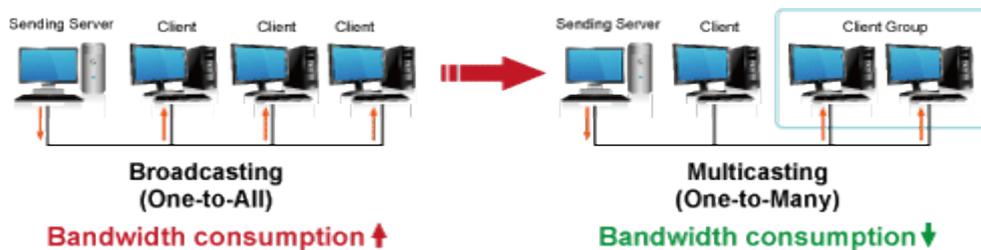
Extended Display Identification Data (EDID) Support

The IHD-210 series adopts Automatic EDID (Extended Display Identification Data) Copy function to make smooth video distribution over different types of display units. EDID is greatly important as it contains information about resources' manufacturer names, serial numbers, product types, maximum image sizes, color characteristics, factory pre-set timings, frequency range limits, etc. In some cases, display problems may occur due to incorrect EDID communication between the display monitor and the transmitting unit or inappropriate EDID data programmed by display manufacturers. Therefore, with Automatic EDID Copy function, the IHD-210 series allows the system to copy EDID information from EDID compliant displays and assures accurate display performance.

Without Extended Display Identification Data
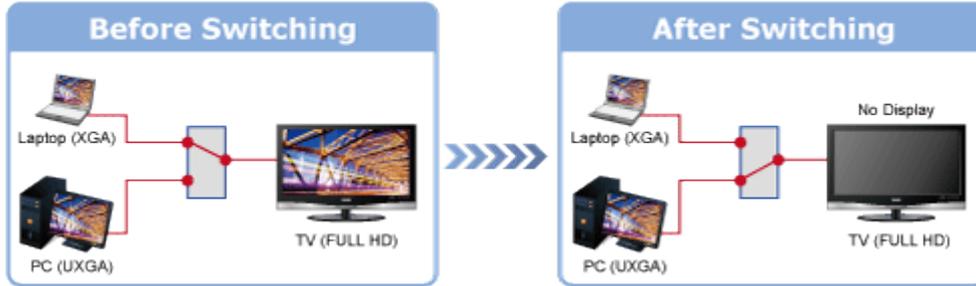
Supports Extended Display Identification Data
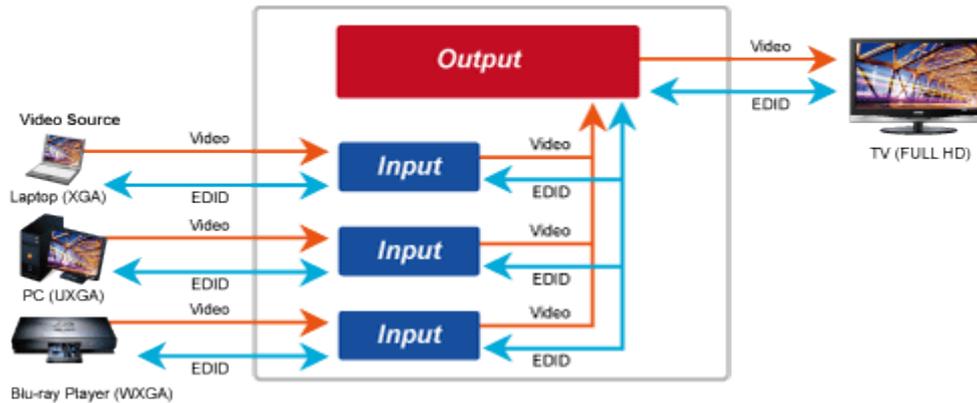
Video Channel Setting Matches Well through Network Configuration

The IHD-210 series network can be configured by a central computer over the same LAN within a certain distance. Fully leveraging the mature Ethernet switches with 802.1Q VLAN function, multi-casting can be performed to allow more video sources/senders in the network and be remotely managed. Just adjust and match video channel setting with the simple DIP switch in both the IHD-210PT and IHD-210PR. The video distribution is easily deployed through Plug and Play.
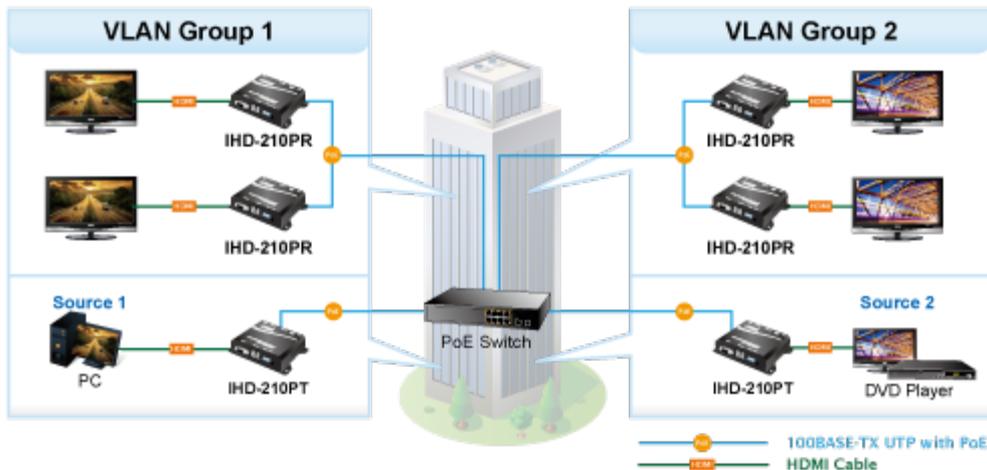
High-quality Output and Performance

The IHD-210 series supports Full HD 1080p, HDCP and blu-ray quality, which have been commonly used for applications that require real-time high video resolution and transmission in long distance. It also includes security and noise immunity as well as HDMI with 2-ch uncompressed audio function to offer the superior video distribution.

1.3 Features

➢ HDMI Network

- 1080p ultra high-quality video transmitter

- Supports IR extension for controlling video source

- Supports RS232 bi-directional remote extension

- Assigns video sources to any monitor of the video extend system

- The selectable 64-channel DIP switch is easily applied for multi-casting group matching

- 1-to-1,1-to-many and multi-casting broadcasting architectures allow to add more displays without increasing LAN bandwidth loading

➢ Video Output Characteristics

- Compatible with HDTV resolution of 1080p and 1080i

- High compression streaming for saving bandwidth

- HDCP compliant and blu-ray ready

- Supports HDMI local output

- Compatible with common screen resolutions from XGA, SXGA, UXGA and WSXGA to Full HD system

- Supports HDMI with 2-ch uncompressed audio

➢ Easy Installation and Management

- Numerical LED indication for identifying group ID

- IEEE 802.3af/at PoE+ function supported; no additional power supply needed

- Automatic EDID (Extended Display Identification Data) configuration

- Simple utility for ease of use

- Supports multi-casting group with Ethernet Managed Switch (IGMP snooping function required)

1.4 Product Specifications

Model	IHD-210PT	IHD-210PR
Hardware Specifications		
Network Interface	RJ45 port (10/100BASE-TX Ethernet) x 1	
Serial Interface	DB-9 female connector for RS232 x 1	
Cabling	Cat5e/6 UTP cable	
LED	Numerical LED display	
Buttons	Reset button x 1	
Video In Interface	HDMI A Type female connector x 1	N/A
Video Out Interface	HDMI A Type female connector x 1	
IR	3.5mm jack for IR emitter cable	3.5mm jack for IR receiver cable
Channel Switching	DIP (64 channels)	
Standards Conformance		
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3af/at PoE+	
HDMI Interface Compliance	HDMI 1.4a	
Video In Resolution	1080p @ 60/50 Hz 1080p @30/25 Hz 1080i @ 60/50 Hz 720p @ 60/50 Hz 480p @ 60/50 Hz 480i @ 60/50 Hz	N/A
Video Out Resolution	1080p @30/25 Hz 1080i @ 60/50 Hz 720p @ 60/50 Hz 480p @ 60/50 Hz 480i @ 60/50 Hz	
Compression	H.264 format for video encoder/decoder. MPEG 1 Layer II format for audio encoder/decoder	
Security	HDCP compliant	
Audio	2-ch uncompressed audio	
Maximum Distance	100 meters	
Management Interfaces	Search Tool	
Media Stream Bandwidth (max.)	15Mbps	

System Expandability (max.)	64 groups
Resolution Identification	EDID (Extended Display Identification Data)
Protocol	TCP, UDP, RTSP, RTP, DHCP, IGMP Snooping, Multicast, IPv4
Environment Specifications	
Operating	Temperature: 0~55 degrees C Relative Humidity: 5~90% (non-condensing)
Storage	Temperature: -10~60 degrees C Relative Humidity: 5~90% (non-condensing)
Power Supply	IEEE 802.3af/at PoE+ 5V DC, 2A
Power Consumption	7W (each unit)
Dimensions (W x D x H)	130 x 82 x 30.25 mm
Weight	290 g
Emission	FCC, CE

1.5   Hardware Interface

1.5.1 Diagrams:

Transmitter:
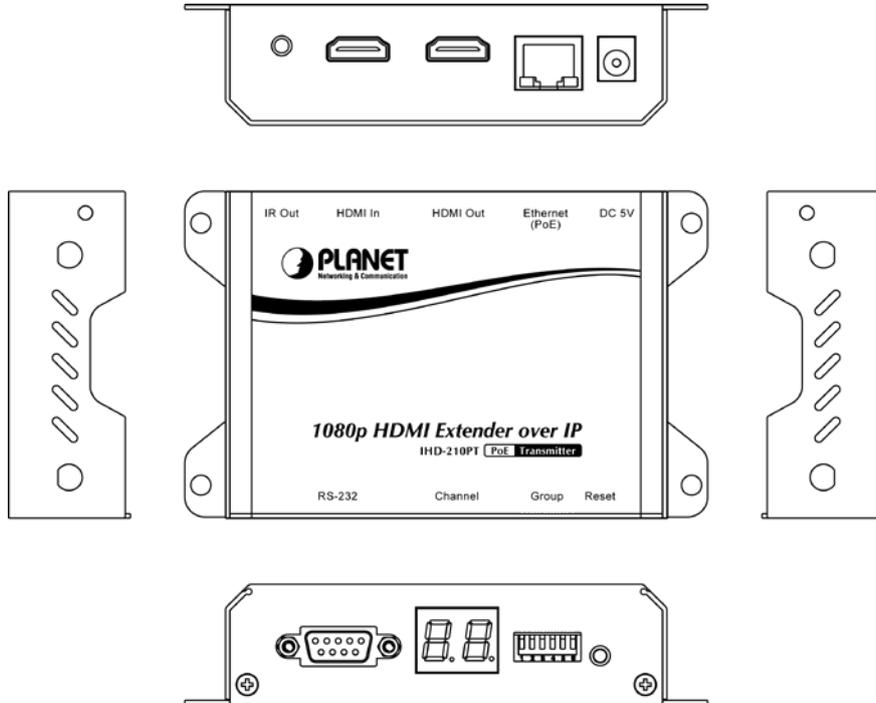
Receiver:

1.5.2 Interfaces:

Transmitter (IHD-210PT)   Receiver (IHD-210PR)
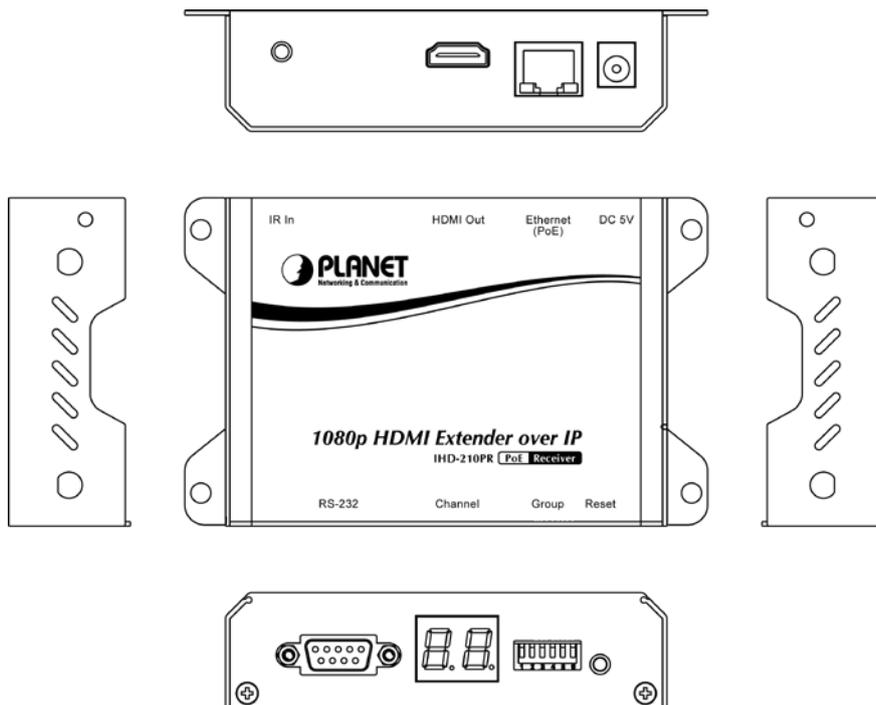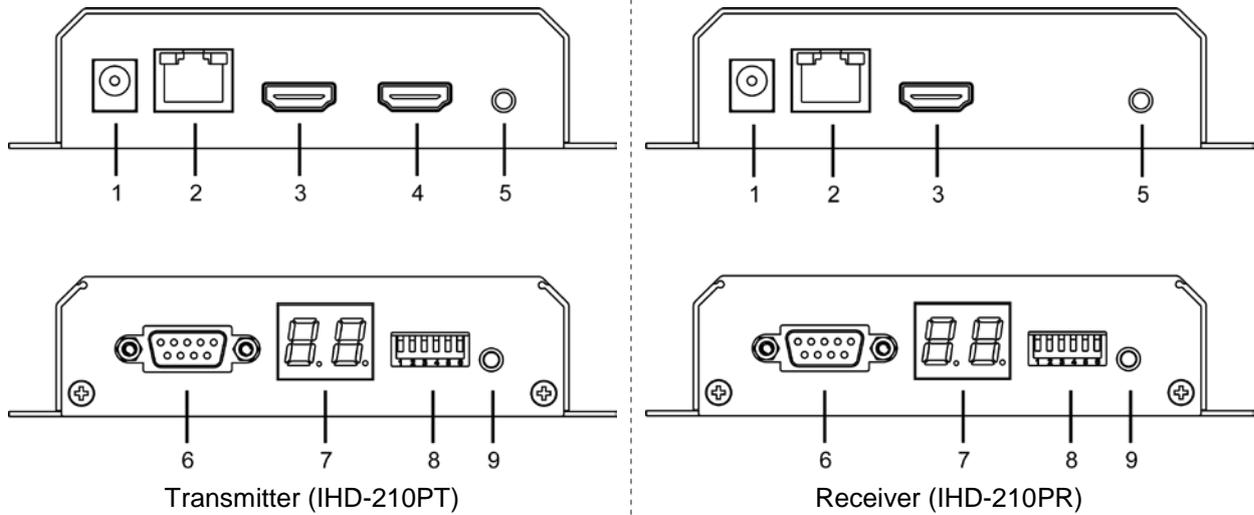
● **Interfaces Definition:**

Position	Description	Function
1	DC 5V	5V/2A DC power input. Only use one power source, either from DC or from 802.3af/at PoE+ Ethernet switch.
2	Ethernet (PoE)	●Connect to a LAN Switch. IGMP snooping and jumbo frame supported Gigabit IEEE 802.3af/at PoE+ Ethernet switch is recommended. ●LED. 1. LAN LED (**green** color): This LED will be flashing while network is accessing via Ethernet. 2. Power LED (**orange** color): When the device is powered on, and the device is connected to Ethernet switch, the LED will be always on.
3	HDMI Out	HDMI Type A female connector for video output.
4	HDMI In	HDMI Type A female connector for connecting to the HDMI source (built in transmitter,
5	IR	Transmitter: 3.5mm jack for IR emitter cable to control video source device. Receiver: 3.5mm jack for IR receiver cable to receive signal from remote controller.
6	RS232	DB-9 female connector for RS232 bi-directional remote extension.
7	Channel	Display group indication.
8	Group	Group configuration, 6-bit switch for 64 stream channel selection.
9	Reset	Power on the device and press the reset button for over one second to restore it to factory default settings.

1.6 Device Connection Topology

PLANET IHD-210PT and IHD-210PR work as a pair to facilitate the management tool and HDMI display over IP Ethernet with PoE.

Video Extender

The IHD-210PT and IHD-210PR are able to send the same video signal to multi-monitors in different locations at the same time. It helps to quickly extend the image and commercial to the public efficiently in such places as expos, food courts, boardrooms, and any public areas.
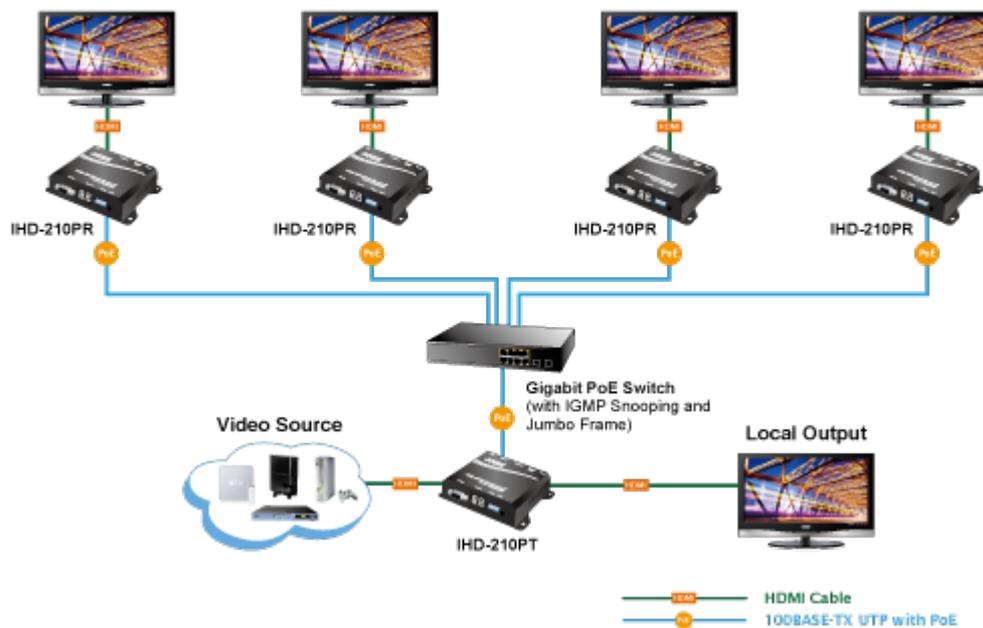
Efficient Control via Selectable 64-channel DIP Switch

Where there is more than one transmitter in the video extend system, the DIP switch in the IHD-210PT and IHD-210PR facilitates distinguishing the pair of the transmitter and receiver units in the same channel. It further enables the broadcasting system to perform multiple video extend systems simultaneously through matching of the IHD-210PT and IHD-210PR.
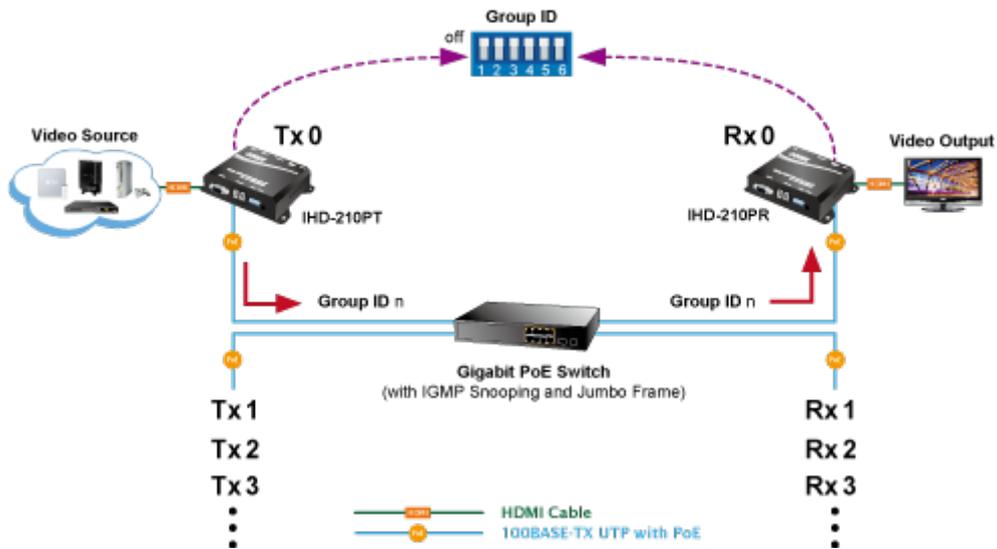
Ideal Solution for Wide Variety of Commercial Installation Environments

The IHD-210 series uses the advanced H.264, which makes it occupy lower bandwidth and play the video more smoothly. It supports 100m over single cat5e/6 cable at point to point, as well as point to many and many to many over Ethernet switch. The video extend solution is ideal for live presentations, public broadcasting, education training, boardrooms, etc.
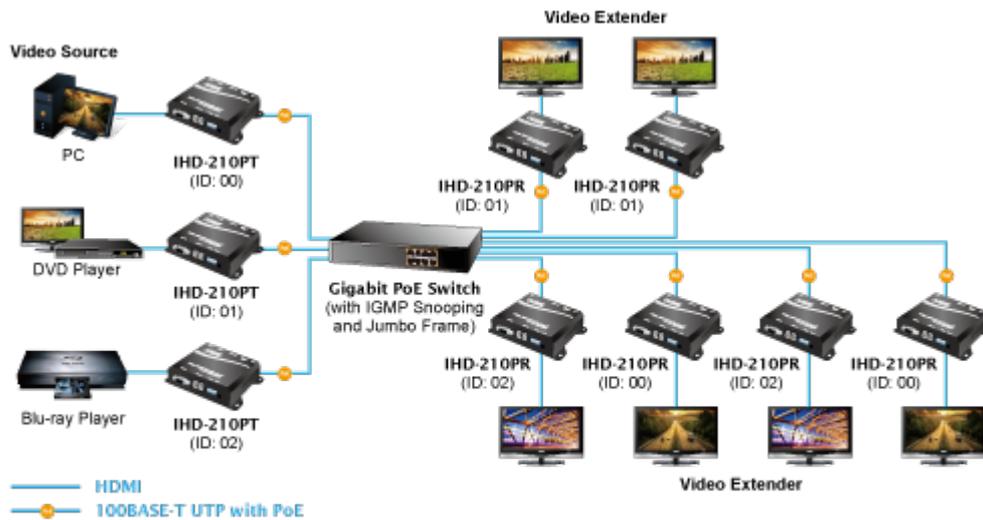
Video Extender: Many to Many

Chapter 2.   Hardware Installation

2.1   Devices Requirements

1. Monitor: HDCP compliant monitors with HDMI interface for the HDCP video source.

2. Ethernet cable: Cat5/5e/6 UTP cable (EIA/TIA 568B industry standard compliant).

3. PoE Switch: Please see the recommended PoE switch.

4. PC OS: Windows XP/7/8.1/10.

Application	Recommended Ethernet Switch
Video Extend Application	Gigabit PoE Switch with IGMP snooping function

Note	The quality of the output signal will depend largely upon the quality of video source, cable and display device used. Low-quality cables degrade output signal causing elevated noise levels. Please use the proper cable and make sure the display device is capable of handling the resolution and refresh rate selected.

2.2   Installation Instructions

1. Connect the video source to the Transmitter (**IHD-210PT**) unit's **HDMI In** interface.

2. Connect the monitor to the Receiver (**IHD-210PR**) unit's **HDMI Out** interface.

3. Use Cat5e/6 cables (EIA/TIA 568B industry standard compliant) for connection between Transmitter/Receiver and the IEEE 802.3af/at PoE+ switch.

4. Set an **identical ID number** on DIP switch for all units of the same group.

5. Connect the IR emitter cable to Transmitter, and connect the IR receiver cable to Receiver. (optional)

6. Apply the proper power to all connecting devices.

Note	1. Ensure that all devices are powered off before connecting to the unit. 2. Make sure all devices connected are properly grounded. 3. Place cables away from fluorescent lights and air conditioners that are likely to generate electrical noise. 4. Please allow adequate space around the unit for ventilation.

Chapter 3.   Preparation

3.1 Downloading IPTV Control Center Software

When you install the IHD-210 series in a LAN environment, you can execute IPTV Control Center to discover IHD-210 series' IP address and set up related parameters in the device.

Please go to PLANET website and download the IPTV Control Center:

http://www.planet.com.tw/en/support/download.php?view=8184&key=IHD-210#list

3.2 Setting TCP/IP on your PC

The default IP address of IHD-210 series is B class networking:168.254.xxx.xxx. Please set up the IP address of the connected PC as static IP, such as 169.254.xxx.xxx and the sub mask as 255.255.0.0. Please refer to the following to set the IP address of the connected PC.
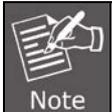
Note	Please do not set more than one IP address in the connected PC.

3.2.1 Windows XP

If you are using Windows XP, please refer to the steps below:

1.   From the desktop, right-click My Network Places > Properties.
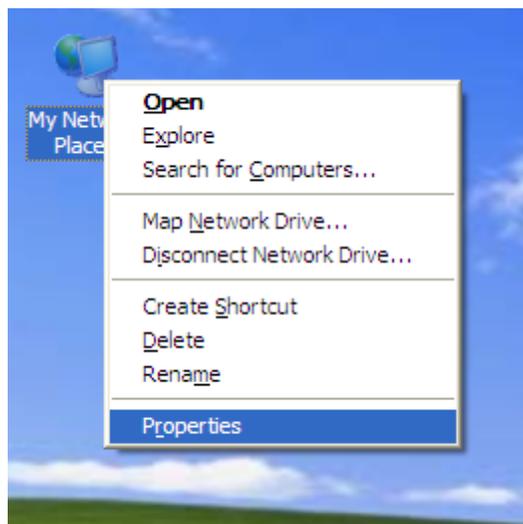
2. Right-click on the Local Area Connection and select Properties.
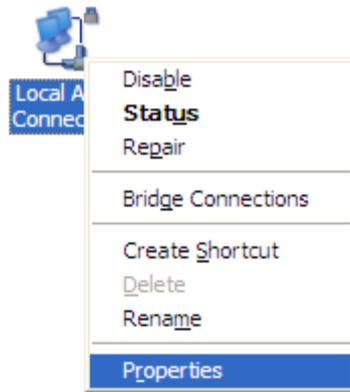
3. Select Internet Protocol (TCP/IP) and click Properties.
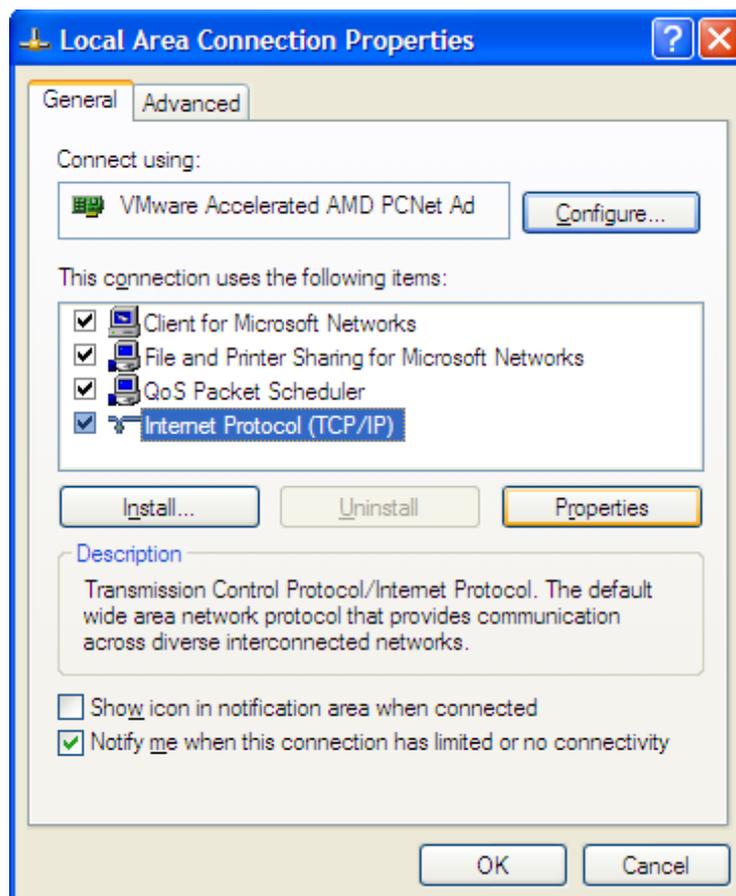
4. Select "Use the following IP address".
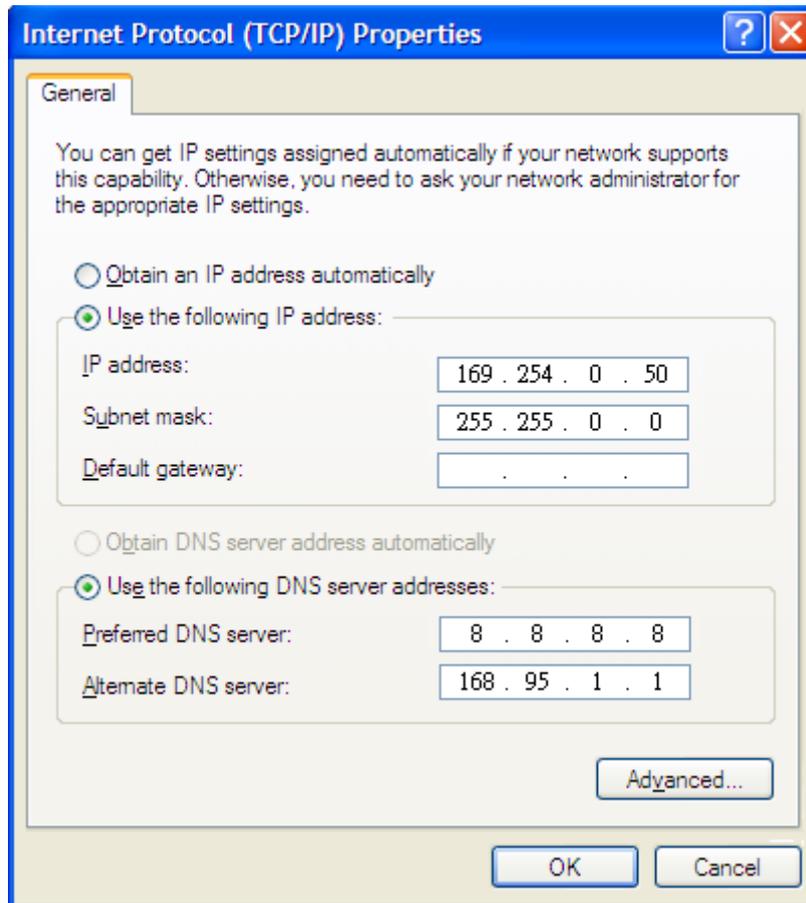
IP address: You have to set the same network segment between your PC's IP address and the transmitter/receiver.

For example, if the transmitter's IP is 169.254.0.157, then you should set your PC's IP address to 169.254.0.xxx where xxx can be any number between 2 and 253. (same as receiver)

Subnet mask: Enter 255.255.0.0.

Note	Please do not set more than one IP address in the connected PC.

3.2.2 Windows 7

If you are using Windows 7, please refer to the following:

1. Click on the network icon from the right side of the taskbar and then click on "Open Network and Sharing Center".
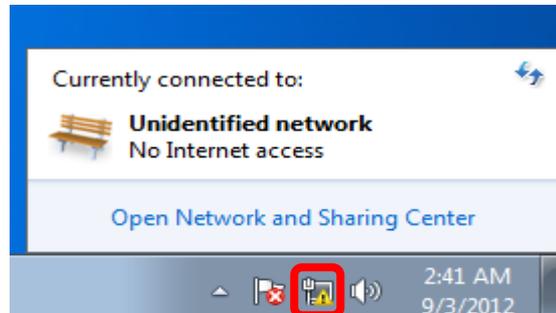
2. Click "Change adapter settings".
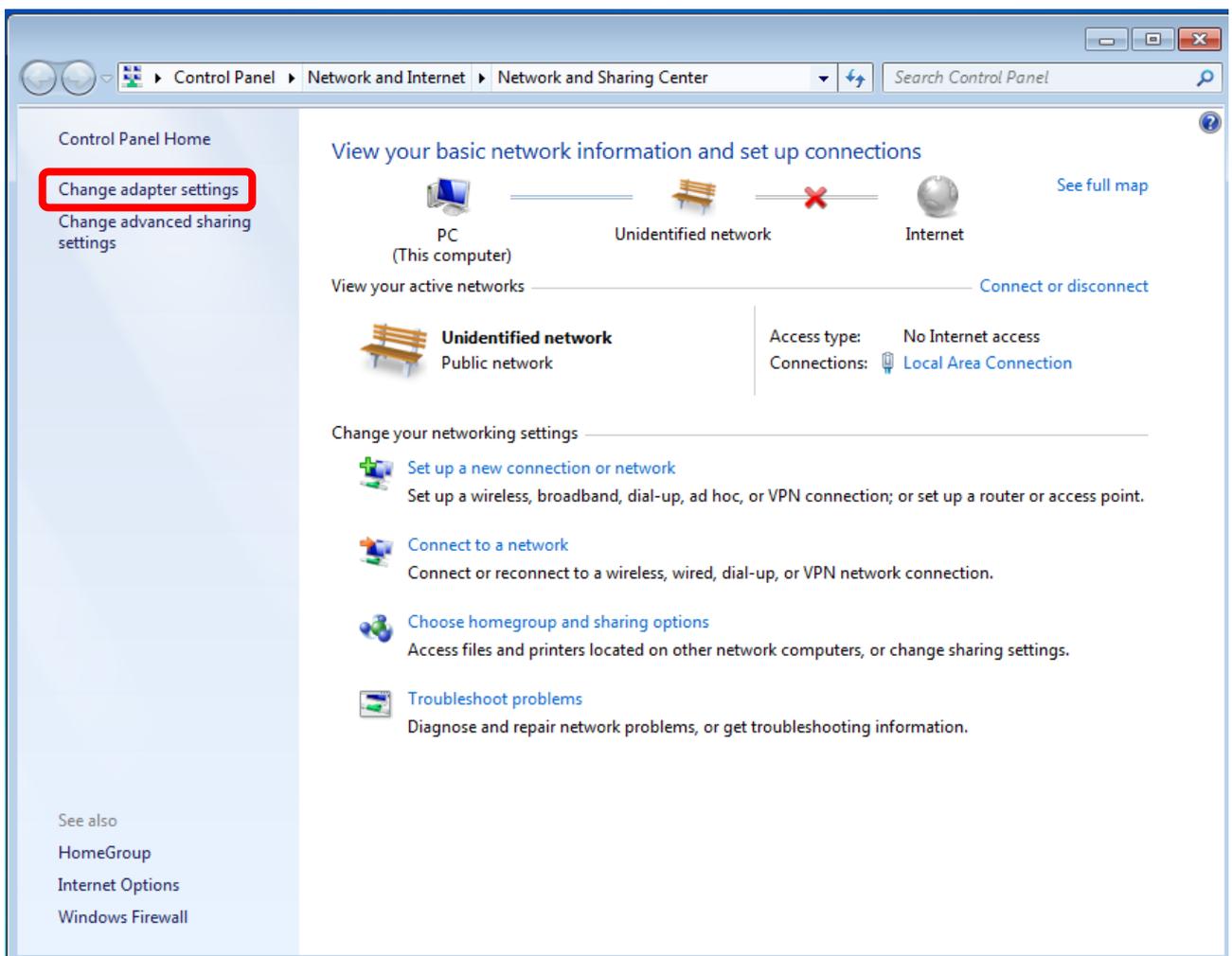
3.   Right-click on the Local Area Connection and select Properties.
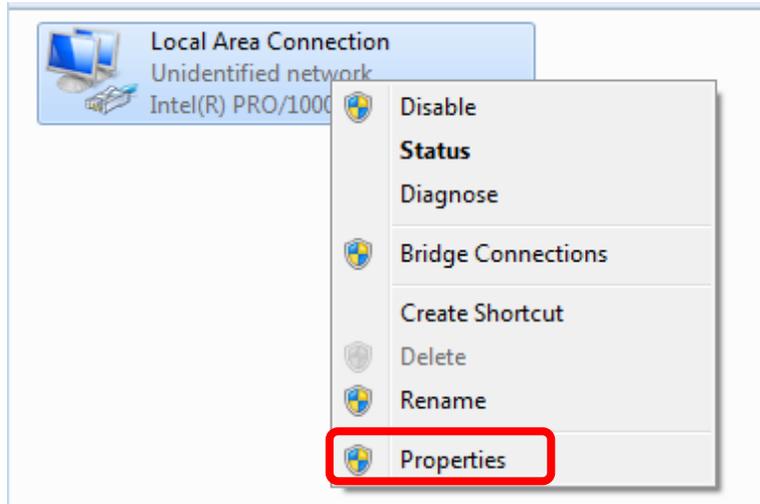
4.   Select Internet Protocol Version 4 (TCP/IPv4) and click Properties or directly double-click on Internet Protocol Version 4 (TCP/IPv4).
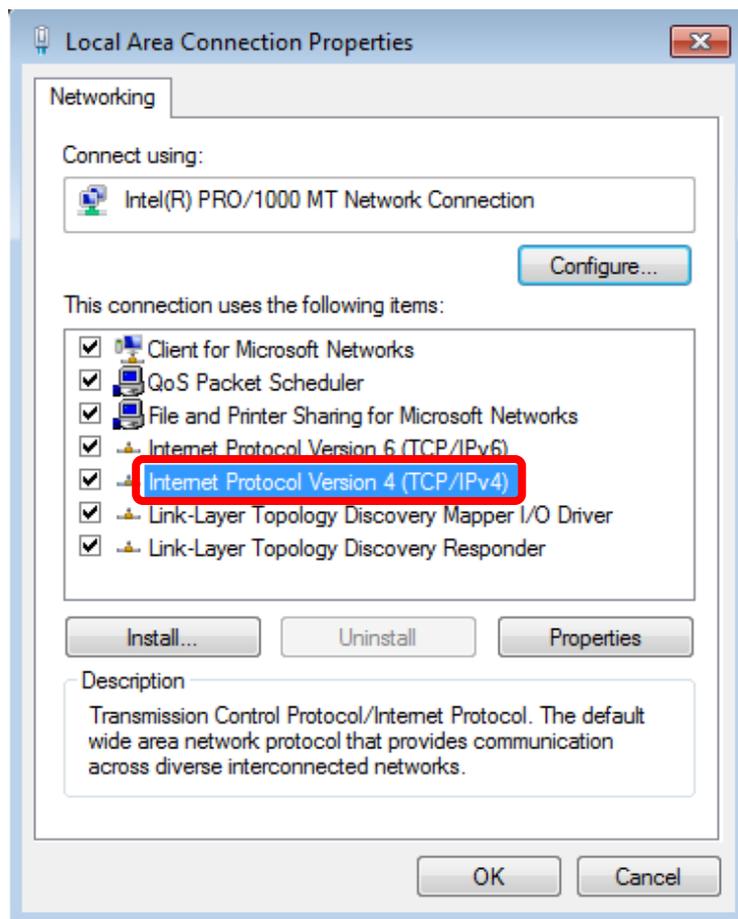
5. Select "Use the following IP address".
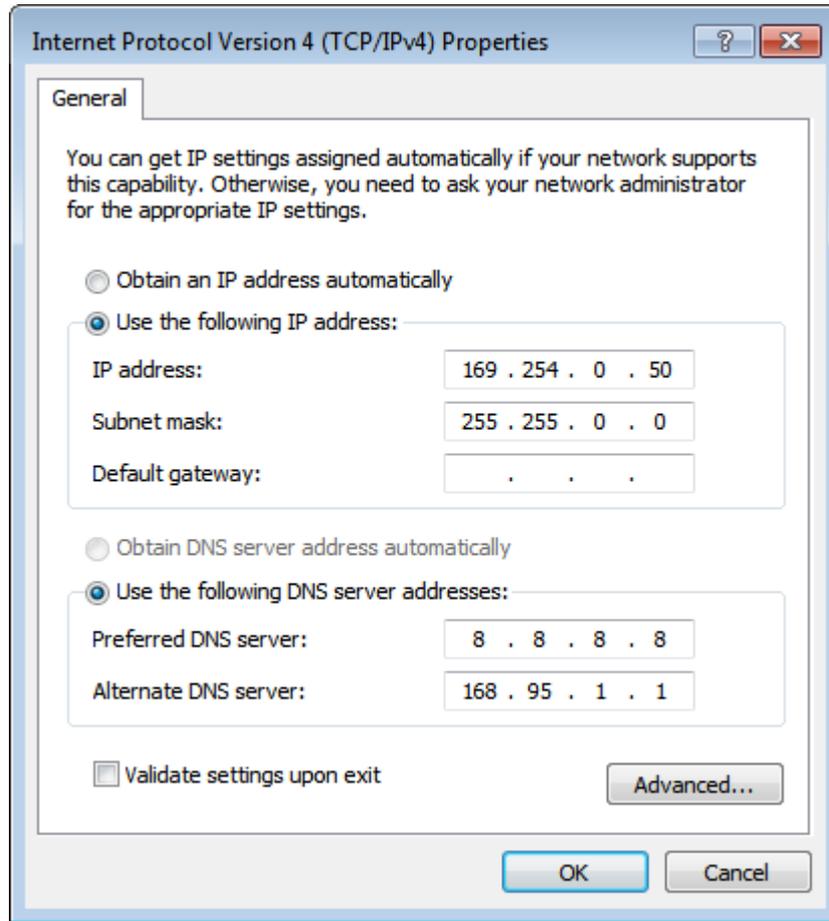
Select "Use the following IP address".

IP address: You have to set the same network segment between your PC's IP and the transmitter/receiver.

For example, if the transmitter's IP is 169.254.0.157, then you should set to 169.254.0.xxx where xxx can be any number between 2 and 253. (same as receiver)

Subnet mask: Enter 255.255.0.0.

Note	Please do not set more than one IP address in the connected PC.

3.2.3 Windows 10

If you are using Windows 10, please refer to the following:

1. In the search box on the taskbar, type View network connections, and then select View network connections at the top of the list.
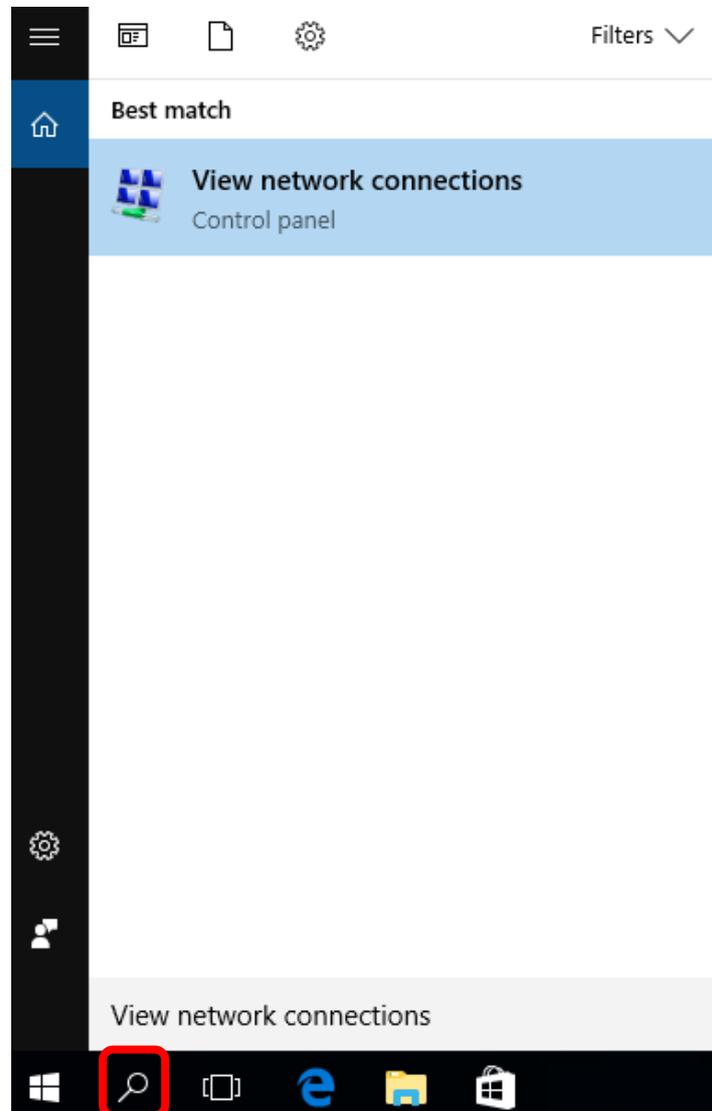
2. Right-click on the Local Area Connection and select Properties.
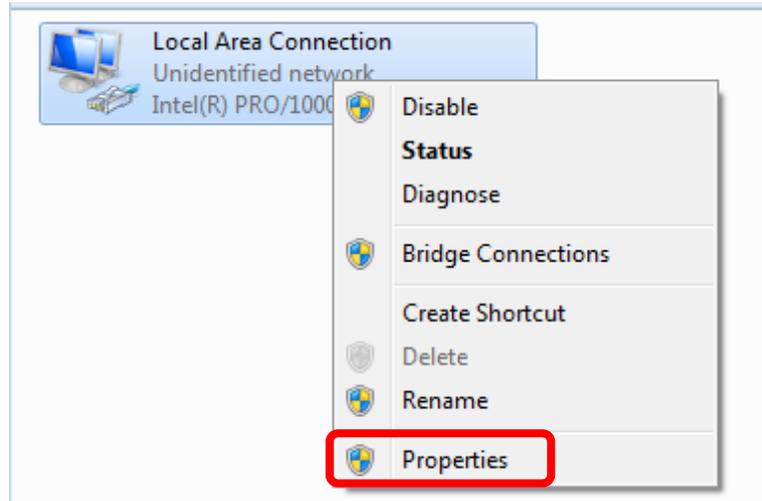
3. Select Internet Protocol Version 4 (TCP/IPv4) and click Properties or directly double-click on Internet Protocol Version 4 (TCP/IPv4).
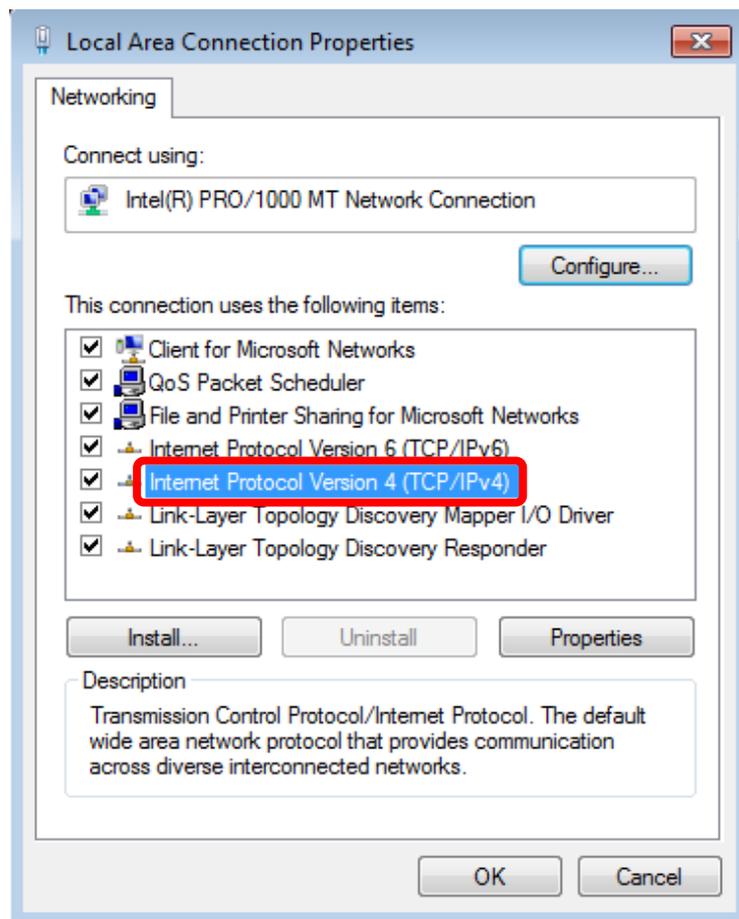
4. Select "Use the following IP address".
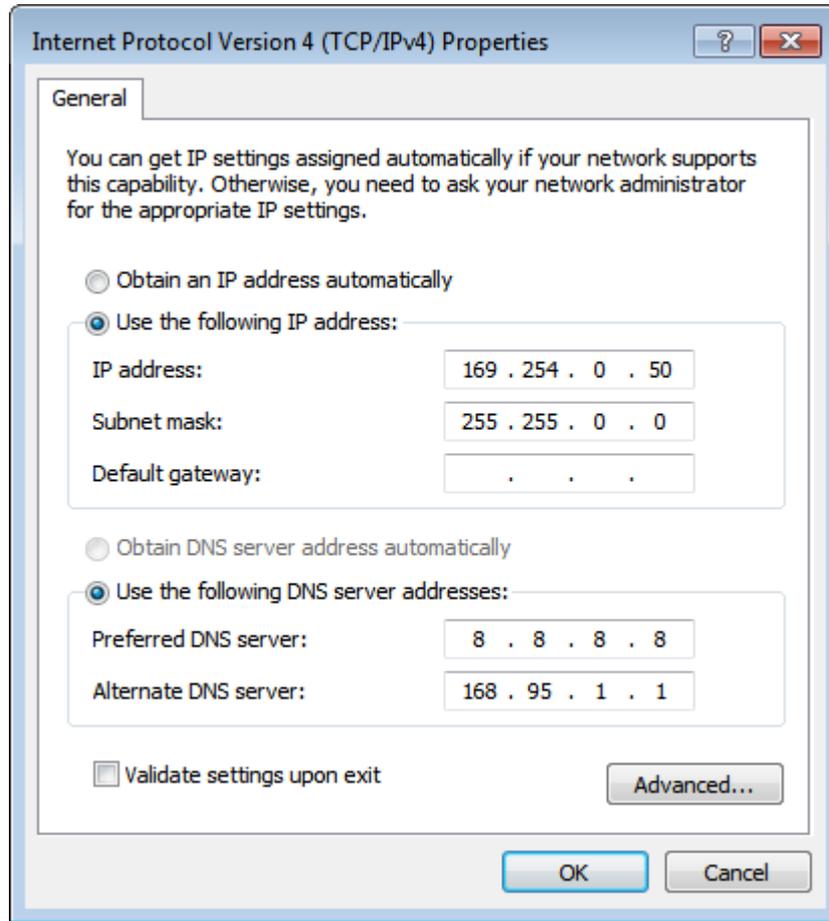
Select "Use the following IP address".

IP address: You have to set the same network segment between your PC's IP and the transmitter / receiver.

For example, the transmitter's IP is 169.254.0.157, then you should set to 169.254.0.xxx where xxx can be any number between 2 and 253. (same as receiver)

Subnet mask: Enter 255.255.0.0.

Please do not set more than one IP address in the connected PC.

Chapter 4.   IPTV Control Center Instructions

Before running the IPTV Control Center, please refer to **Chapter 3: Preparation** to configure the PC's IP address properly. Then activate the tool "IPTV Control Center.exe" to search and set up.

4.1 System

4.1.1 Search

Please run the IPTV Control Center and go to "Device Scan Page", and then click on "Start Scan" to search for the connected devices.
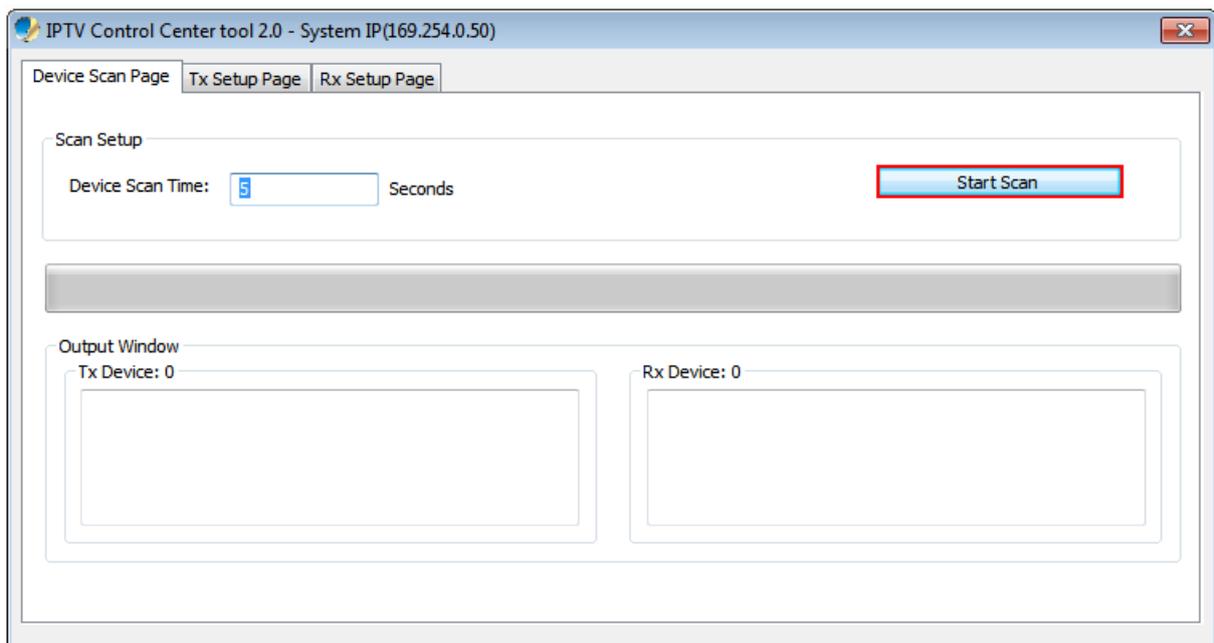
The connected devices will be indicated in the "Output Window" area.
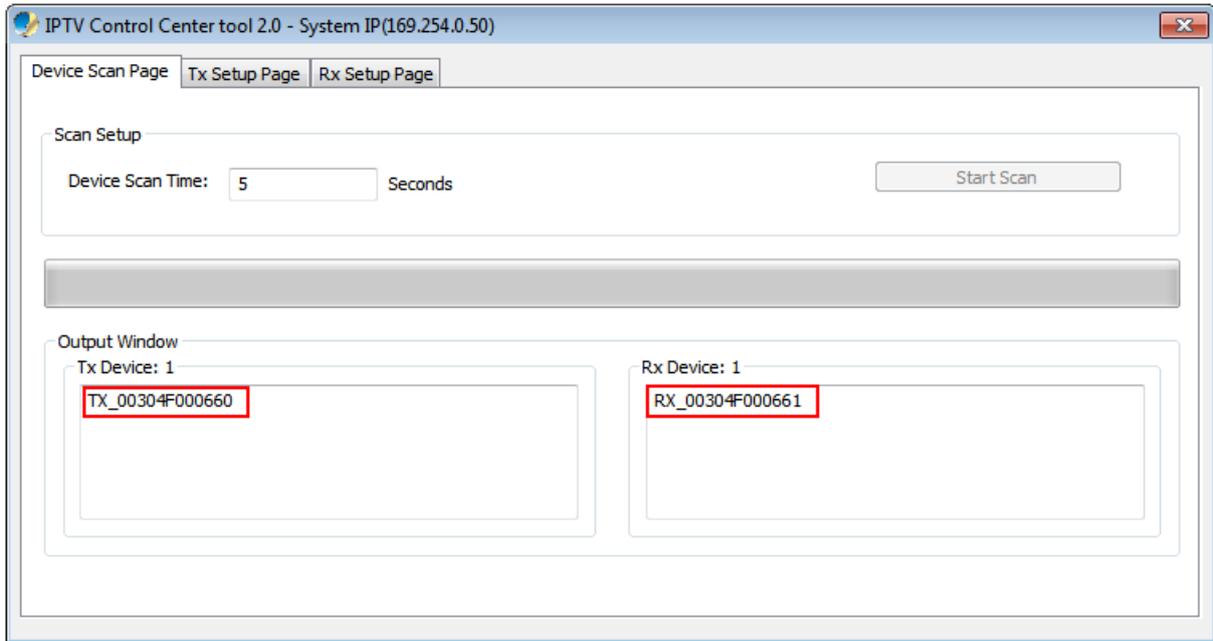
Note	1. If IPTV Control Center can't search any device, please check whether the PC's IP address is in the same subnet as IHD-210PT and IHD-210PR. 2. IPTV Control Center should be closed and run again when user changes the PC's IP address.

4.1.2 Go to Tx/Rx Setup Page

User is able to configure IHD-210PT on the "Tx Setup page" or configure IHD-210PR on the "Rx Setup page".
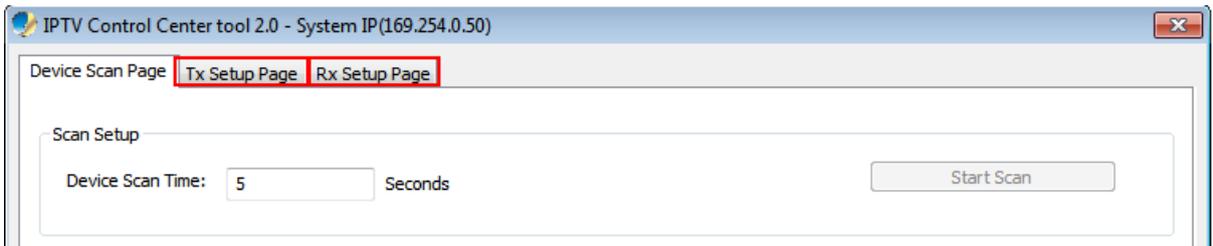
4.1.3 Tx Setup Page

On the "Tx Setup page", please select the Tx device first by the "Tx Device Selection" and then the relevant setting information of the selected Tx device will be shown in the "Tx Device Info" area.

Description	Function
Device IP	Show the selected device's IP address.
Tx Version	Show the firmware version.
Encoder Version	Show the Encoder version.
LAN Status	If the device connects to LAN successfully, it will show "Link Up".
Video Lock	Lock: The video is transmitting. Unlock: There is no transmitting video.
HDCP	If the transmitting video supports HDCP, it will show "on". If the transmitting video does not support HDCP, it will show "off".
IP Setup	Setting the IP address of the selected device -- By default, the IP address is 169.254.xxx.xxx. After changing the setting, please click the update button and then click the reboot button to make the change effective.
Video Bitrate	Setting the resolution's video bit rate of each group on the selected Tx -- After changing the setting, please click the update button to make the change effective.

Description	Function
Device IP	Show the selected device's IP address.
Tx Version	Show the firmware version.
Encoder Version	Show the Encoder version.
LAN Status	If the device connects to LAN successfully, it will show "Link Up".
Video Lock	Lock: The video is transmitting. Unlock: There is no transmitting video.
HDCP	If the transmitting video supports HDCP, it will show "on". If the transmitting video does not support HDCP, it will show "off".
Down Scale Setup	Setting the resolution downscale of each group on the selected Tx -- After changing the setting, please click the update button to make the change effective.
Group ID	Setting the selected Tx group ID – The maximum is up to 64 groups from 0 to 63. After changing the setting, please click the update button to make the change effective. **Note** After rebooting, the Group ID will follow the hardware Group setting.
UART Baud Rate	Setting the baud rate of RS232 extension on the selected Tx -- After changing the setting, please click the update button to make the change effective. Note that the baud rate of Tx and Rx should be the same.
Stream Output Path	Setting the selected Tx video output path -- 1. Loopthrough and Network Output: The HDMI out port of Tx and Rx will output the video. 2. Disable Network Output: Only the Tx's HDMI out port will output the video. 3. Disable Loopthrough Output: Only the Rx's HDMI out port will output the video. 4. Disable All Video Output: The HDMI out port of Tx and Rx will not output the video. After changing the setting, please click the update button to make the change effective.
MAC Address	Display the Ethernet MAC address of the device. Note that user cannot change it.
Device Name	Setting the selected Tx name for identification -- Up to 32 digits is accepted for the device name setting. After changing the setting, please click the update button to make the change effective.

Note If the Tx Device Selection can't load device properly, please make sure the PC's IP address is in the same subnet as IHD-210PT.

4.1.4 Rx Setup Page

On the "Rx Setup page", please select the Rx device first by the "Rx Device Selection" and then the relevant setting information of the selected Rx device will be shown in the "Rx Device Info" area.

Description	Function
Device IP	Show the selected device's IP address.
Rx Version	Show the firmware version.
Tx Device IP	If the Rx connects to Tx successfully, it will show the Tx's IP address.
LAN Status	If the device connects to LAN successfully, it will show "Link Up".
Video Lock	1. Lock: The video is transmitting. 2. Unlock: There is no transmitting video.
HDCP	If the transmitting video supports HDCP, it will show "on". If the transmitting video does not support HDCP, it will show "off".
IP Setup	Setting the IP address of the selected device -- By default, the IP address is 169.254.xxx.xxx. After changing the setting, please click the update button and then click the reboot button to make the change effective.
Screen Mode	Screen On: The device displays the video. Screen Off: The device does not display the video.
OSD	1.Info Display Auto Mode: The selected RX will always show OSD for a while, and

Description	Function
Information	then the OSD will turn off automatically. 2.Info Display On Mode: The selected RX will always show OSD. 3.Info Display Off Mode: The selected RX will not show OSD.
Group ID	Setting the selected Tx group ID -- The maximum is up to 64 groups from 0 to 63. After changing the setting, please click the update button to make the change effective. Note: After rebooting, the Group ID will follow the hardware Group setting.
UART Baud Rate	Setting the baud rate of RS232 extension on the selected Rx -- After changing the setting, please click update button to make the change effective. Note that the baud rate of Tx and Rx should be the same.
MAC Address	Display the Ethernet MAC address of the device. Note that user cannot change it.
Device Name	Setting the selected Tx name for identification – Up to 32 digits is accepted for the device name setting. After changing the setting, please click the update button to make the change effective.

Note: If the Rx Device Selection can't load device properly, please make sure the PC's IP address is in the same subnet as IHD-210PR.

4.1.5 Factory Reset

When the system is unstable or setting incompletely, please click on "Factory Reset" to recover the initial default of the system.
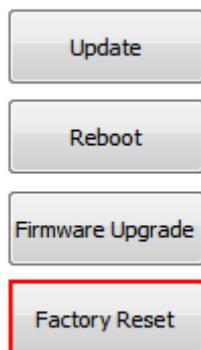
4.1.6 Firmware Upgrade

User is able to upgrade firmware via IPTV Control Center.

Please refer the the steps below:

1. Stop transmitting video between IHD-210PT and IHD-210PR.

2. Click on "Firmware Upgrade".
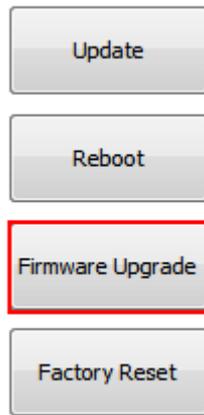
3. Click on the "…" button to select the correct firmware.

Note that the IHD-210PT has a different firmware from the IHD-210PR, please do not upgrade the wrong firmware.

4. Click on "Upgrade Tx/Rx Firmware" to start upgrading firmware procedure.

The upgrade progress information will be displayed on the screen.
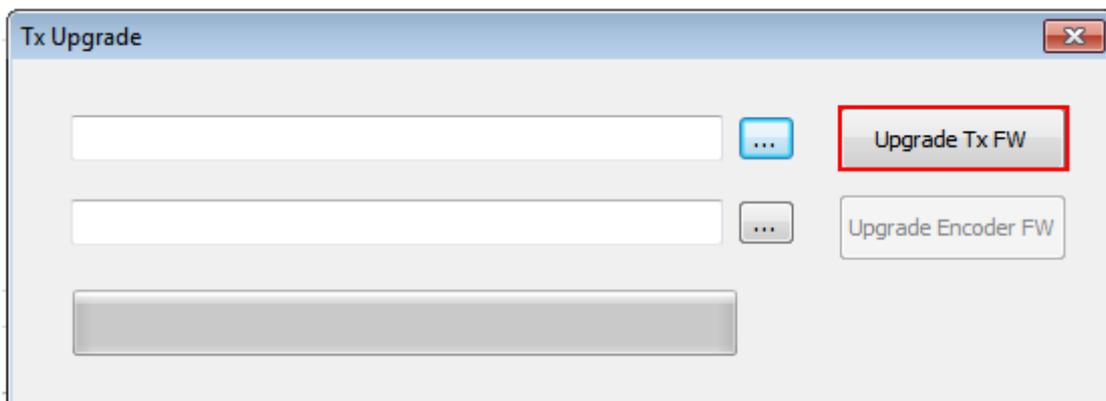
5. After upgrading firmware, it is recommended to restore the device to default setting.

	The upgrading firmware procedure cannot be interrupted. If the power or network connection is broken during the upgrading firmware procedure, it might possibly cause serious damage to the device. Please be aware that you should not turn off the power during updating the firmware and waiting for the upgrading firmware procedure done. Furthermore, do not try to upgrade new firmware if necessary.
Note	

APPENDIX A. Troubleshooting & Frequently Asked Questions

Q1: Where is the IPTV Control Center Software?

A:
Please go to PLANET website and download it:
http://www.planet.com.tw/en/support/download.php?view=8184&key=IHD-210#list

Q2: What kind of switch should user use for this product?

A:
It is recommended to use the switch which supports Gigabit PoE and IGMP snooping function (V2 is fine).

Q3: What is the default IP address of IHD-210PT and IHD-210PR?

A:
The default IP address of IHD-210PT and IHD-210PR is B class Networking:168.254.xxx.xxx, please set up the IP address of the connected PC as static IP, such as 169.254.xxx.xxx and the sub mask as 255.255.0.0.

Q4: How to find out the IHD-210PT or IHD-210PR's IP address?

A:
Please refer to the steps below:
1. Please connect a HDMI monitor to IHD-210PR
2. Power on IHD-210PT and IHD-210PR by the same PoE switch; IHD-210PT and IHD-210PR will connect to each other by default setting.
3. The monitor will show the IP address of Tx (IHD-210PT) and Rx (IHD-210PR).

Q5: How can I convert the video source?

A:
There are three ways to convert the video source. One is to use DIP switch, while the other is to set VLAN port and go with HDMI splitter (matrix).

1. A Tx (transmitter) supports DIP switch for 64 channels, and every time when you convert the source you have to switch DIP of all units to the same number.
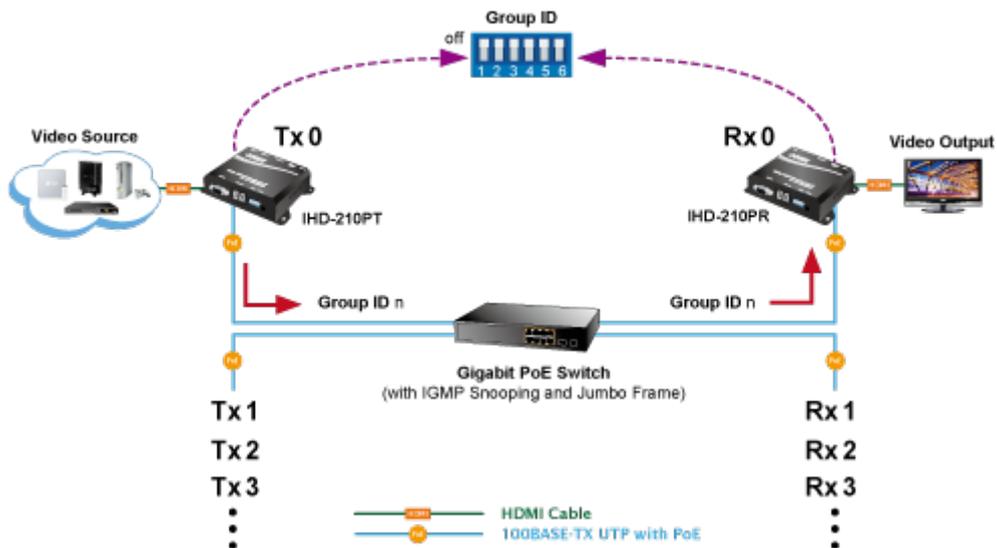
2. You can set VLAN to convert the video source, please refer to the topology below and imagine that the concept is based on your issue.
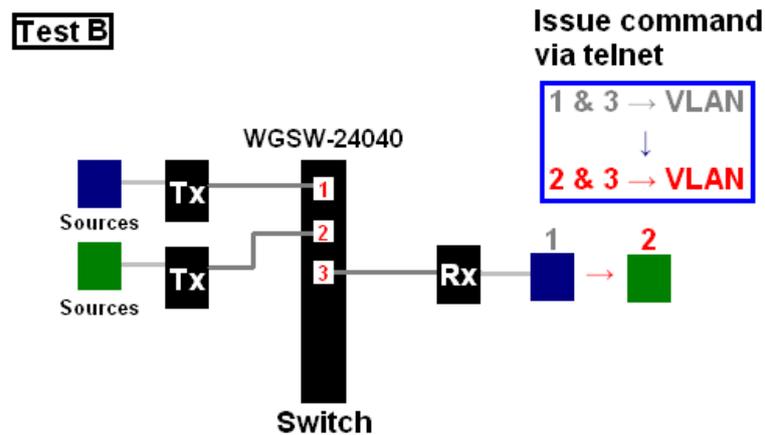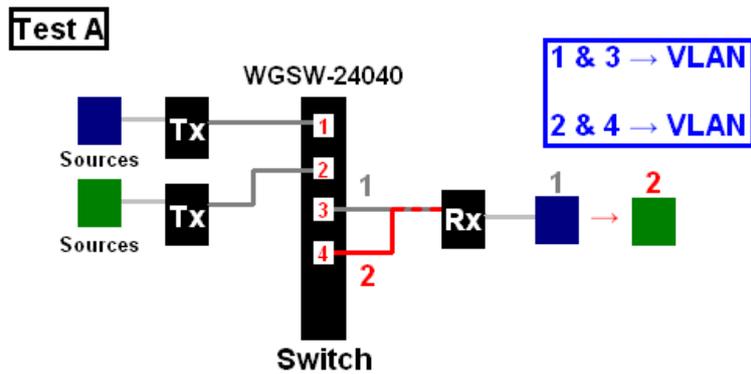
You can set up port-based VLAN for the transmitter (IHD-210PT), and then for the receiver (IHD-210PR). You can just dynamically swap the receiver port to a different VLAN for video source change. You can swap VLAN via Web interface of the switch.

However, to be faster and easier to swap the sources, you can consider using Telnet or RS232 console via CLI (command line).

Since the commands are just fixed commands, you can record those commands into a macro, and

just double-click on specified macro, and then the commands will be sent to the switch in a very short time, thus swapping your video source. By the way, in this setting, all the transmitter(s) and receiver should set as the same group.

Instructions about the topology above:

As for Test A, we set port1 and port3 to a VLAN, and set port2 and port4 to another VLAN. The Rx will convert the source if we change the connection of Rx and switch from port3 to port4.

As for Test B, we set port1 and port3 to a VLAN, and the Rx will convert the source if we issue the command via telnet to set port2 and port3 to a VLAN.

3. You also could use HDMI splitter (matrix) for converting the sources.
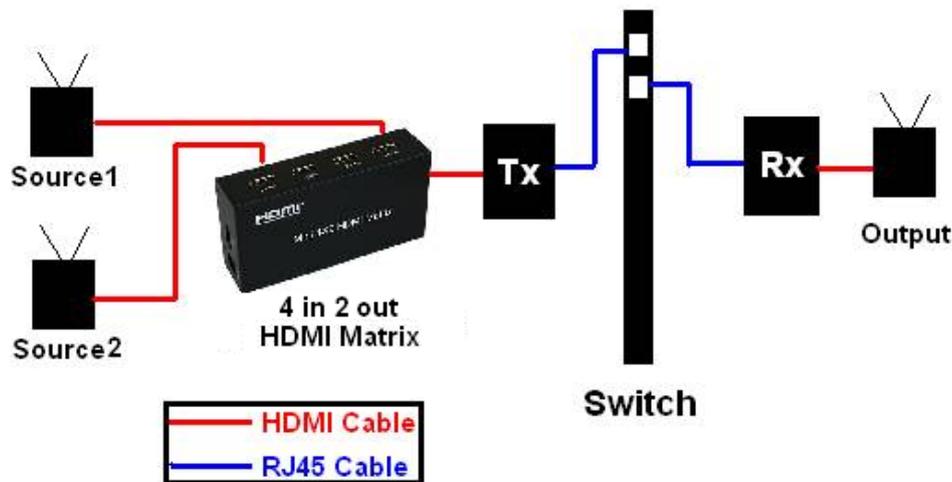
As you see, two sources are connected to the input of HDMI matrix and output to Tx, and then Tx and Rx are all connected to the switch. In this case, we use the HDMI matrix controller to select the source.

Q6: Users encounter no screen display in computer connection.

A:
1. Make sure the device cables are correctly and firmly attached.
2. Set your display device's (TV, monitor, etc.) input source as HDMI.
3. Check the PC BIOS configuration about the video output setting.
4. Connect HDMI monitor to the Tx's HDMI output port to check if the video signal gets through.
5. Slide the DIP switch to the correct position.
6. Please reboot or disconnect and connect again.

Q7: Why can't the IPTV Control Center find out IHD-210PT or IHD-210PR?

A:
Please check the following:
1. The PC installed IPTV Control Center is not in the same LAN as IHD-210PT or IHD-210PR.
2. The IP address of PC might be in a different subnet from Tx/Rx. Please set the PC's IP address in the same subnet as Tx/Rx.
3. IPTV Control Center should be closed and run again when user changes the PC's IP address.

Q8: What's the maximum limit distance between input video source and output video?

A:
The maximum distance from the Tx to PoE switch and from the Rx to PoE switch is 100 meters. So the maximum distance between Tx and Rx is 200 meters.

Q9: What's the maximum of Rx units can be linked via one Tx unit?

A:
Theoretically, 1000 are the most, as long as each Rx unit is assigned to an IP from 65534 IP.

Q10: Why did it fail when upgrading firmware?

A:
1. The IHD-210PT has a different firmware from the IHD-210PR; please choose the correct firmware before upgrading firmware.
2. Do not interrupt the upgrading procedure.
3. User should upgrade firmware to every unit. (For example, if there are 3 Rx's, user should update for 3 times.)

Q11: Why can't I send data via RS232?

A:
Please check the following:
1. The Tx and Rx should connect to each other successfully.
2. The baud rate of Tx and Rx should be the same.

Q12: How to restore IHD-210PT or IHD-210PR to factory default setting

A:
Please refer the steps below:
1. Power on the unit.
2. Press the hardware reset button for over one second.
3. The unit will reboot. When the unit is rebooting, the Channel LED will change to "- -"one second.
4. After rebooting, the unit will be back to factory default setting.

Q13: About HDCP issue.

A:
The system will disable the video output signal when it detects non-HDCP compliant display(s) playing the HDCP video source. All the connected output displays must be HDCP compliant while the video source is HDCP compliant.

Q14: Why is Full HD video source watched on a non Full HD monitor is so blur or choppy?

A:
We suggest user do not use the low-resolution monitor to watch the higher quality video source. The screen resolution can only be backward compatible, not forward compatible. So please adjust the video source resolution appropriate for the output screen resolution.

Q15: Why can't the Tx/Rx Device Selection load properly?

A:
The IP address of PC might be in a different subnet from Tx/Rx. Please set the PC's IP address in the same subnet as Tx/Rx.

Q16: How to use IR extension on IHD-210PT and IHD-210PR

A:
Please refer the steps below:
1. Connect the IR emitter cable to IHD-210PT, and make IR emitter cable focus to video source device.
2. Connect the IR receiver cable to IHD-210PR.
3. Power on IHD-210PT and IHD-210PR.

4. Make them connect to each other.
5. Use the remote controller of video source device to control video source device via IR receiver cable.