High Definition HDMI Extender over IP with PoE

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.

HDMI Network

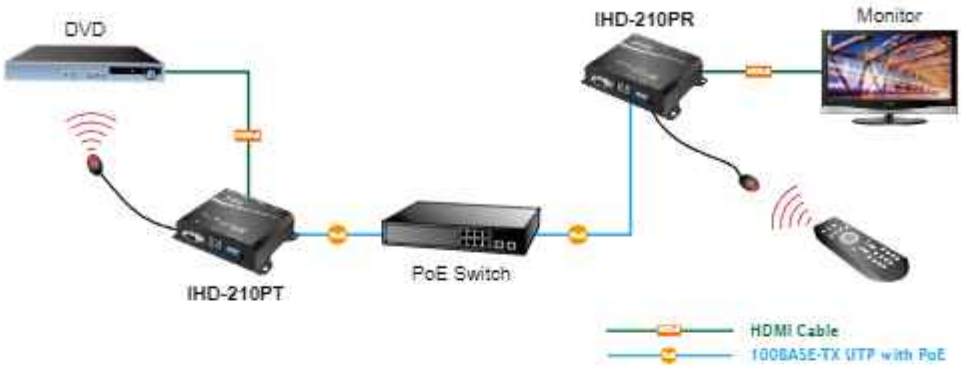
- 1080p ultra high-quality video transmitter
- Supports IR extension for controlling video source
- Supports RS232 bi-directional remote extension
- Assigns video sources to any monitor of the video extend system
- The selectable 64-channel DIP switch is easily applied for multi-casting group matching
- 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

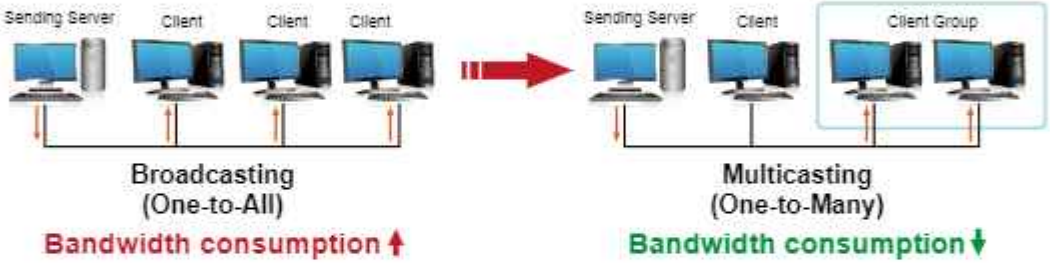
Easy Installation and Management

- 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)



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. Integrated with PoE switch built-in with IGMP snooping function, there are 64 channels selectable via the IHD-210 series, 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.

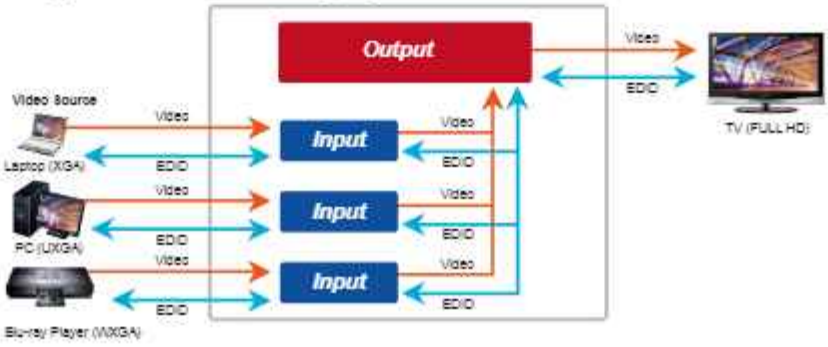


Extended Display Identification Data (EDID) Support

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

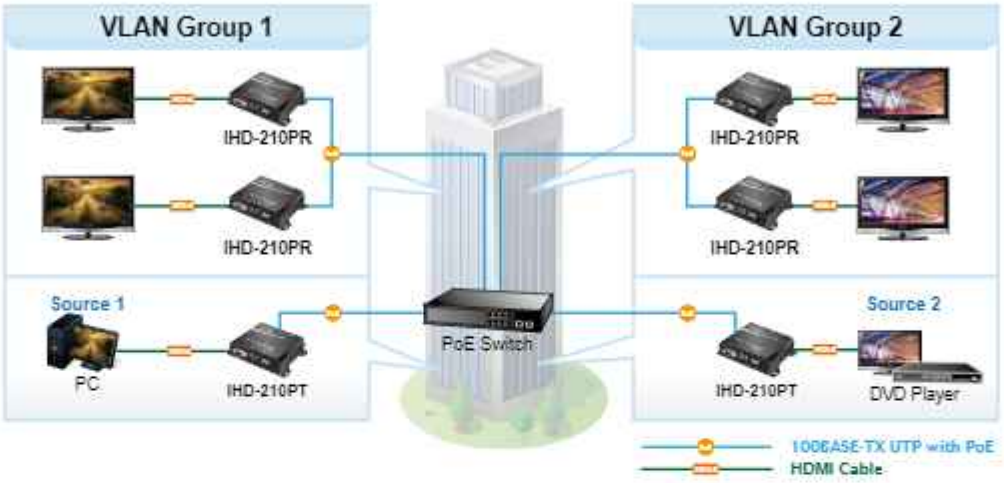
Supports Extended Display Identification Data



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.

Network Configuration



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.

Full HD Resolution

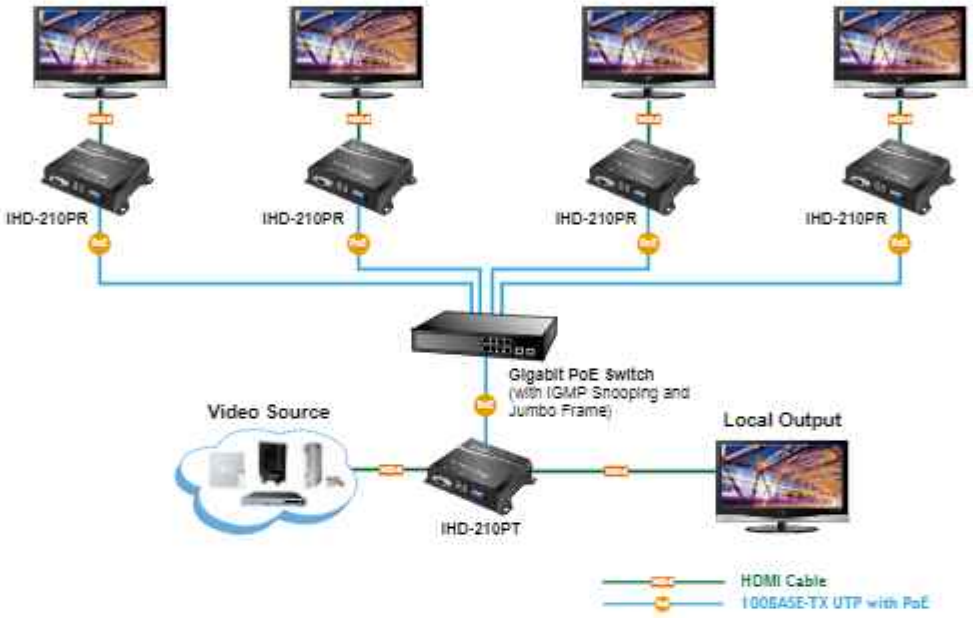
Applications

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

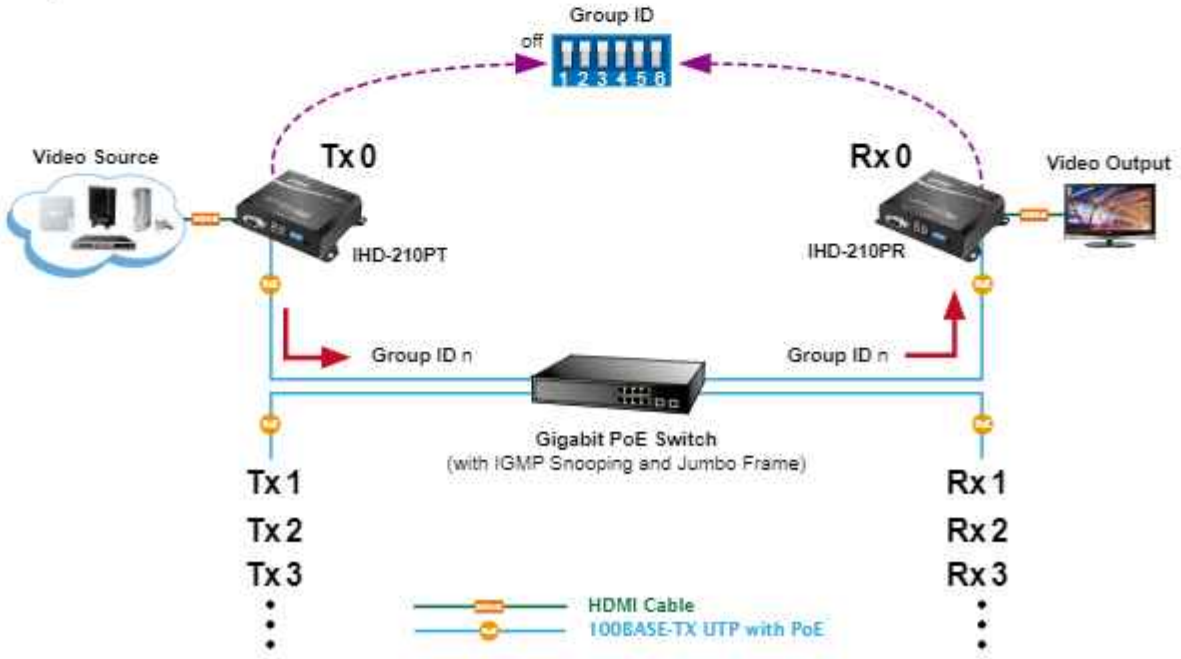
The IHD-210PT and IHD-210PR are able to send the same video signal to multi-monitors in different locations at the same time. It helps to quickly extend the image and commercial to the public efficiently in such places as expos, food courts, boardrooms, and any public areas.

Video Extension from One to Many Units



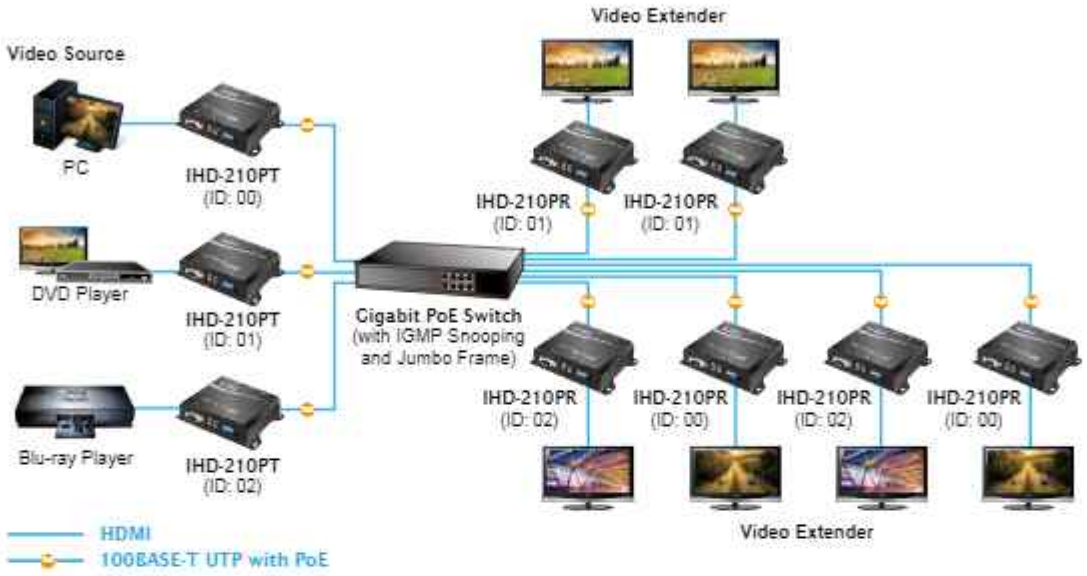
Efficient Control via Selectable 64-Channel DIP Switch

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 as the compression type, 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

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	
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)	
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	
Video and Audio		
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	
Audio	2-ch uncompressed audio	
General		
Management Interfaces	Search Tool	
System Expandability (max.)	64 groups	
Resolution Identification	EDID (Extended Display Identification Data)	
Security	HDCP compliant	
Media Stream Bandwidth (max.)	15Mbps	
Maximum Distance (between unit and PoE switch)	100 meters (330 feet) over CAT5e/6 cable	
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	
Protocol	TCP, UDP, RTSP, RTP, DHCP, IGMP Snooping, Multicast, IPv4	
Cabling	Cat5e/6 UTP cable	
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)	
Emission	FCC, CE	
Standard Accessories		
Packet Contents	Media Extender x 1 Quick Installation Guide x 1 IR Emitter Cable x 1	Media Extender x 1 Quick Installation Guide x 1 IR Receiver Cable x 1

** Product specifications are subject to change without notice.

Ordering Information

IHD-210PT	High Definition HDMI Extender Transmitter over IP with PoE
IHD-210PR	High Definition HDMI Extender Receiver over IP with PoE

Related Products

IHD-410PT	Video Wall Ultra 4K HDMI/USB Extender Transmitter over IP with PoE
IHD-410PR	Video Wall Ultra 4K HDMI/USB Extender Receiver over IP with PoE
NVR-3685	H.265 36-Ch Network Video Recorder with 8-Bay Hard Disks
GS-4210-16P4C	16-Port 10/100/1000T 802.3at PoE + 4-Port Gigabit TP/SFP Combo Managed Switch/220W
GS-5220-8P2T2S	L2+ 8-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch
GS-4210-24P4C / GS-4210-24PL4C	24-Port 10/100/1000T 802.3at PoE + 4-Port Gigabit TP/SFP Combo Managed Switch

PLANET Technology Corporation

11F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)
Tel: 886-2-2219-9518 Fax: 886-2-2219-9528
Email: sales@planet.com.tw www.planet.com.tw