Pioneer of IP Innovation

HDMI / Video Wall over IP with PoE

IHD-200PT / IHD-200PR

Presentation Outlines

◆ **Product Overview**
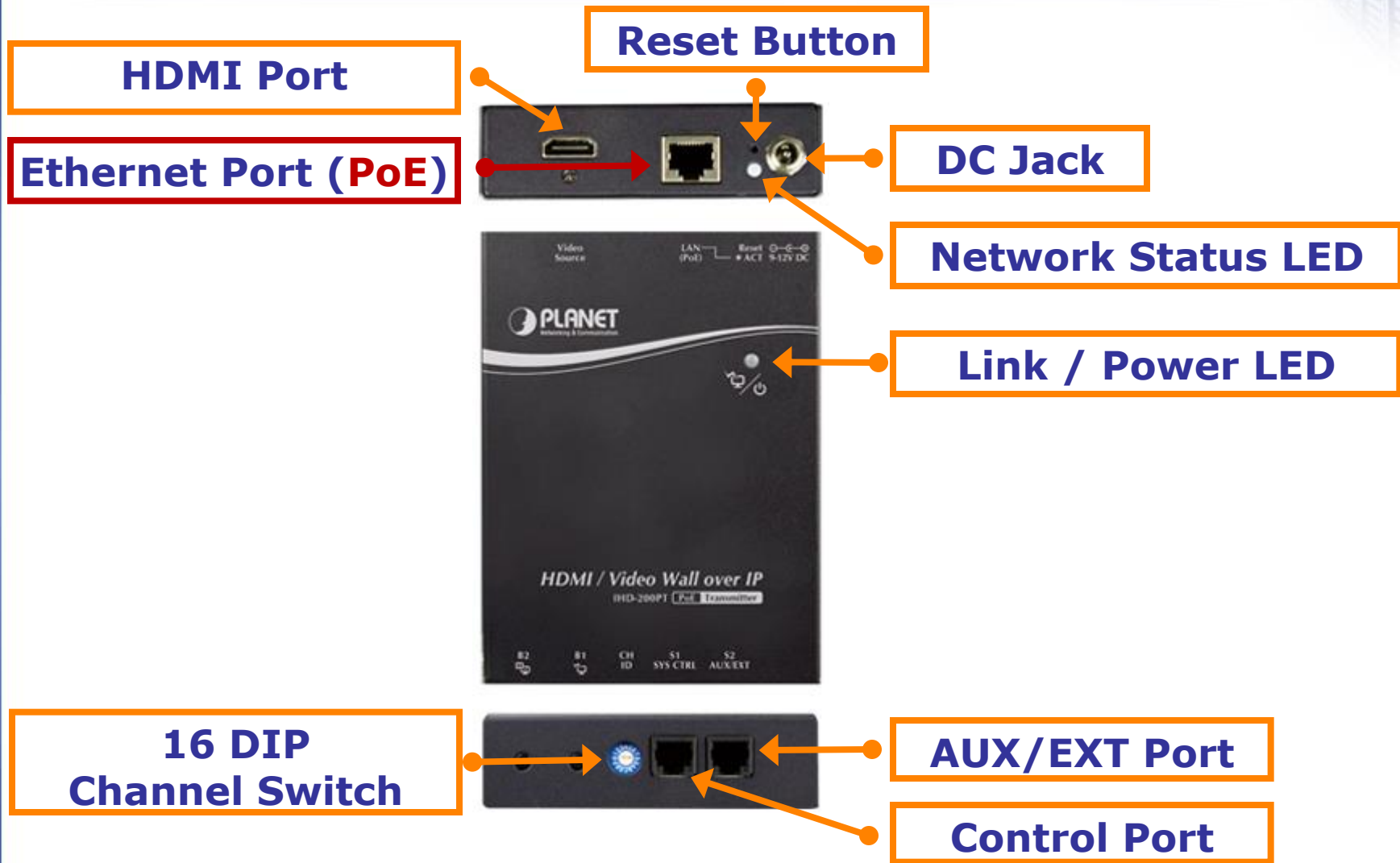
◆ **Product Benefits**

◆ **Product Features**

◆ **Applications**

Product Overview

HDMI Port

Reset Button

Ethernet Port (PoE)

DC Jack

Network Status LED

Link / Power LED

16 DIP Channel Switch

AUX/EXT Port

Control Port

Product Benefits

PoE

Gigabit Ethernet

Blu-ray & dts.

Full HD

Plug and Play

Video Source Extension

No Distance Limitations

Multi-resolution Compatibility
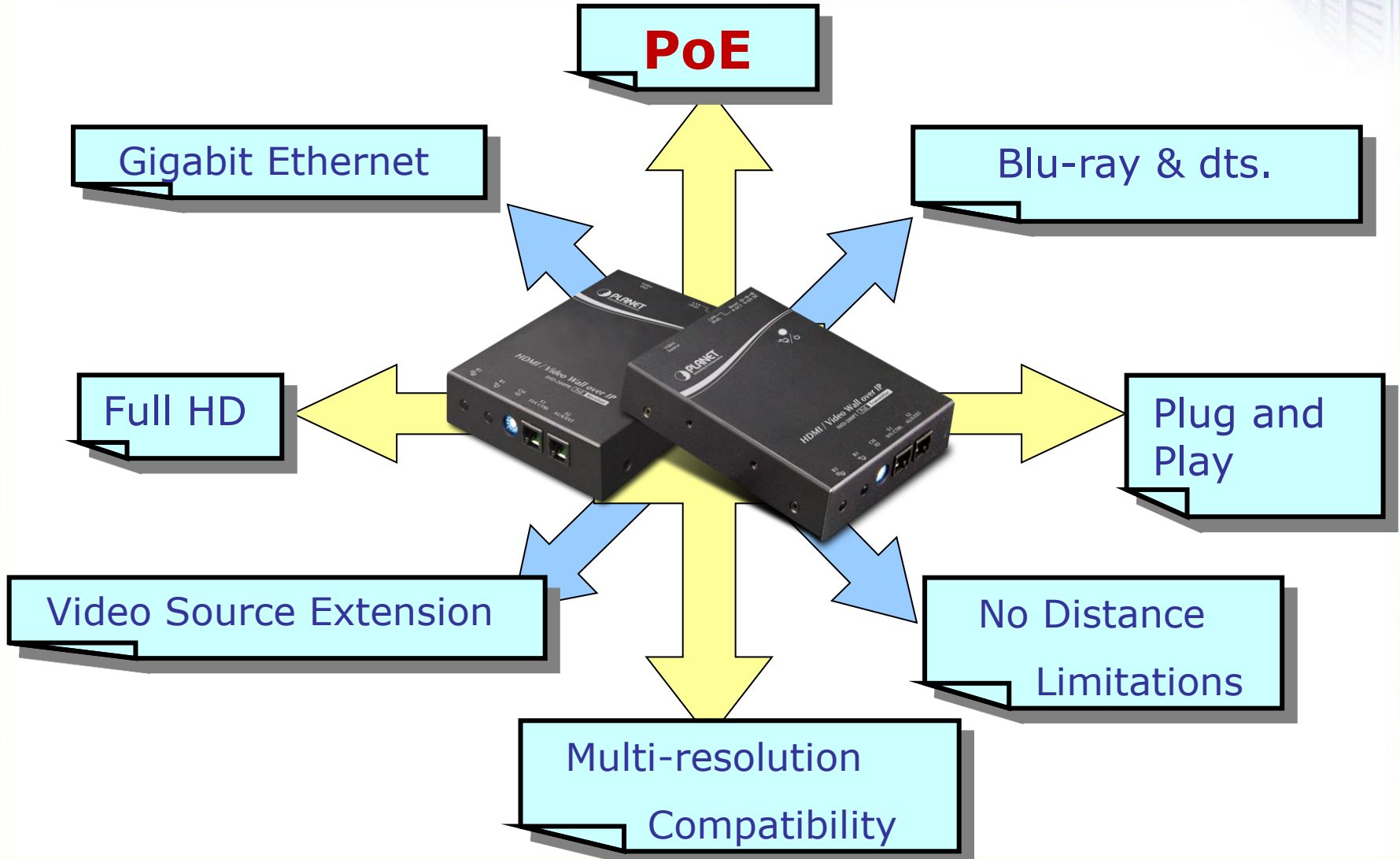
Product Features

◆ **HDMI Network**

✓ **1080P Ultra High Quality** Video transmitter

✓ Extend high definition video signal over **Gigabit LAN** and **IGMP**

✓ Assign video sources to any monitors of the video wall

✓ Up to **8x8** screen array supported

✓ **16 selectable DIP** switch for easy multi-casting group matching

✓ **Point-to-Point**, **Point-to-Many** and **Many-to-Many** broadcasting architectures, adding more displays without adding LAN bandwidth loading

✓ Supports longer playing time

Product Features

◆ **Video Output Characteristics**

- ✓ **HDCP**-compliant and **Blu-ray** ready

- ✓ Supports HDMI with dts (2ch. audio)

- ✓ Compatible with many screen resolutions: XGA, SXGA, UXGA and WSXGA to the latest Full HD system

◆ **Easy Installation & Management**

- ✓ **Power over Ethernet** function supported; no additional power supply needed

- ✓ Supports auto, static IP and DHCP IP settings

- ✓ **Automatic EDID** (Extended Display Identification Data) configuration

- ✓ Friendly Web UI and simple utility (really easy to use)

- ✓ Multi-casting group with Gigabit Ethernet managed switch (802.1q VLAN & IGMP function required) supported

Product Features

High-Speed Ethernet Connection via Gigabit LAN

◆ Based on Gigabit LAN structure, it supports super-high speed transmission, via existing LAN system
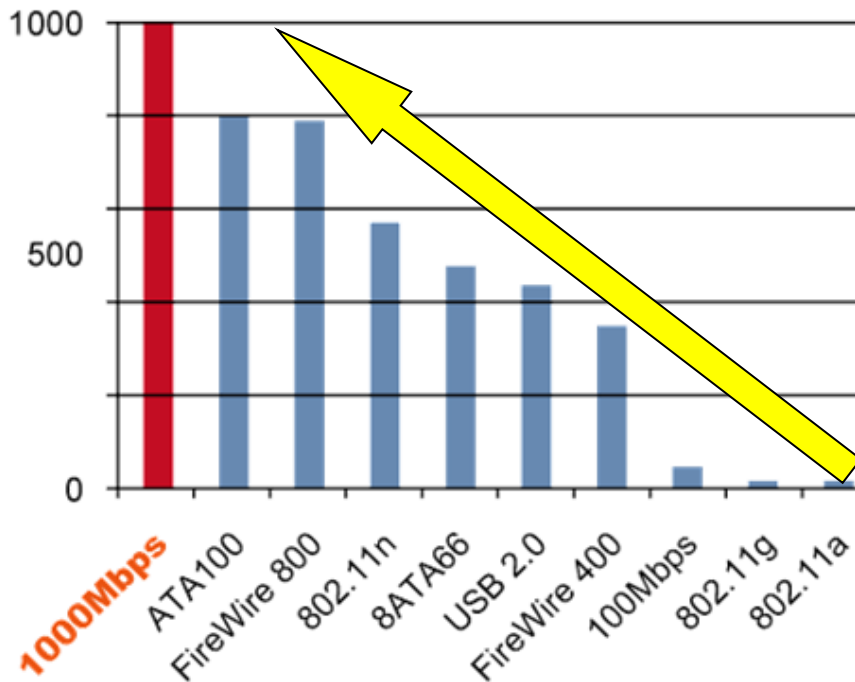
Product Features

IGMP Multicast Technology

◆ Via IGMP Gigabit Switch, for each source device a local unit is required, and a remote unit is needed for each display device

Broadcasting (One-to-All) → Multicasting (One-to-Many)
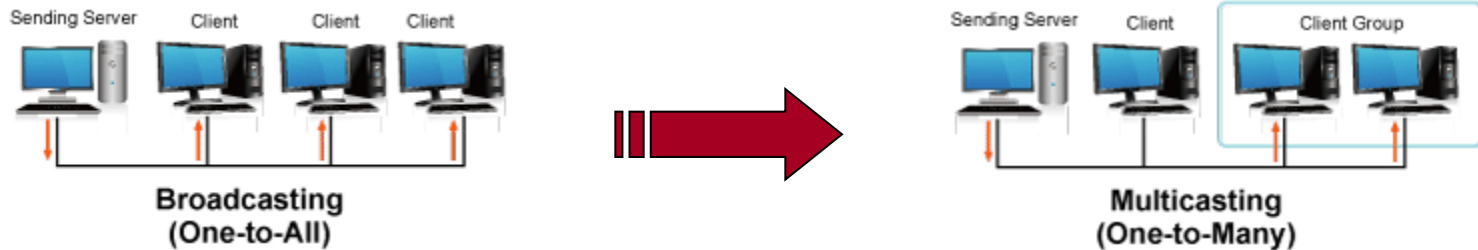
Bandwidth consumption↑   **Bandwidth consumption↓**

| Application	Recommended Ethernet Hub
Video Wall Application	Gigabit PoE Switch with IGMP & Snooping function
Multiple Video Wall Application	Gigabit PoE Switch with IGMP, Snooping function & VLAN function

Product Features

Network Configuration

◆ By using computer to do network configuration, as long as over the same LAN (high quality switch recommended), multi-casting can be done by Managed Gigabit Switch which provides control remotely with more video sources / senders allowed
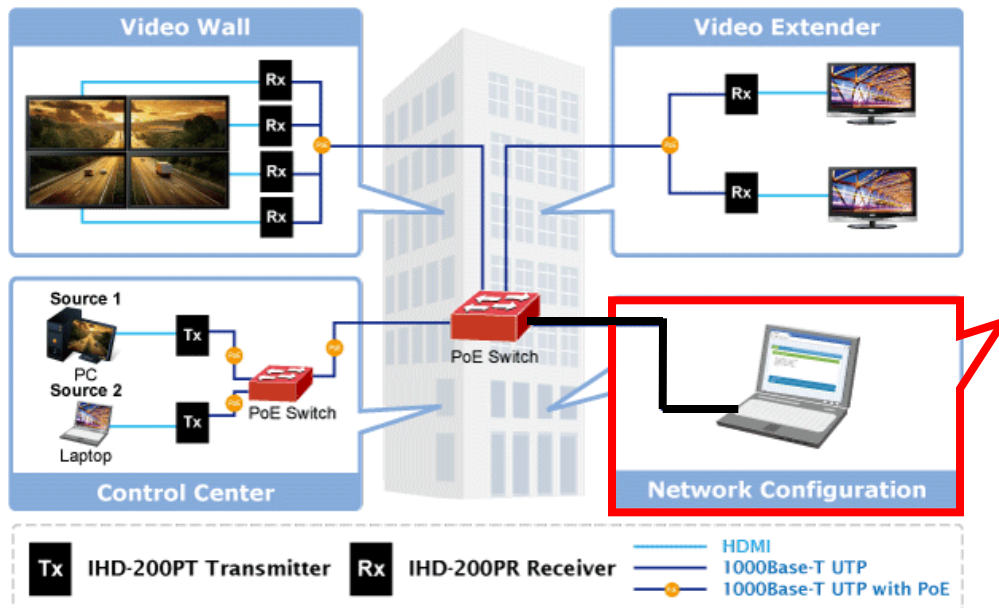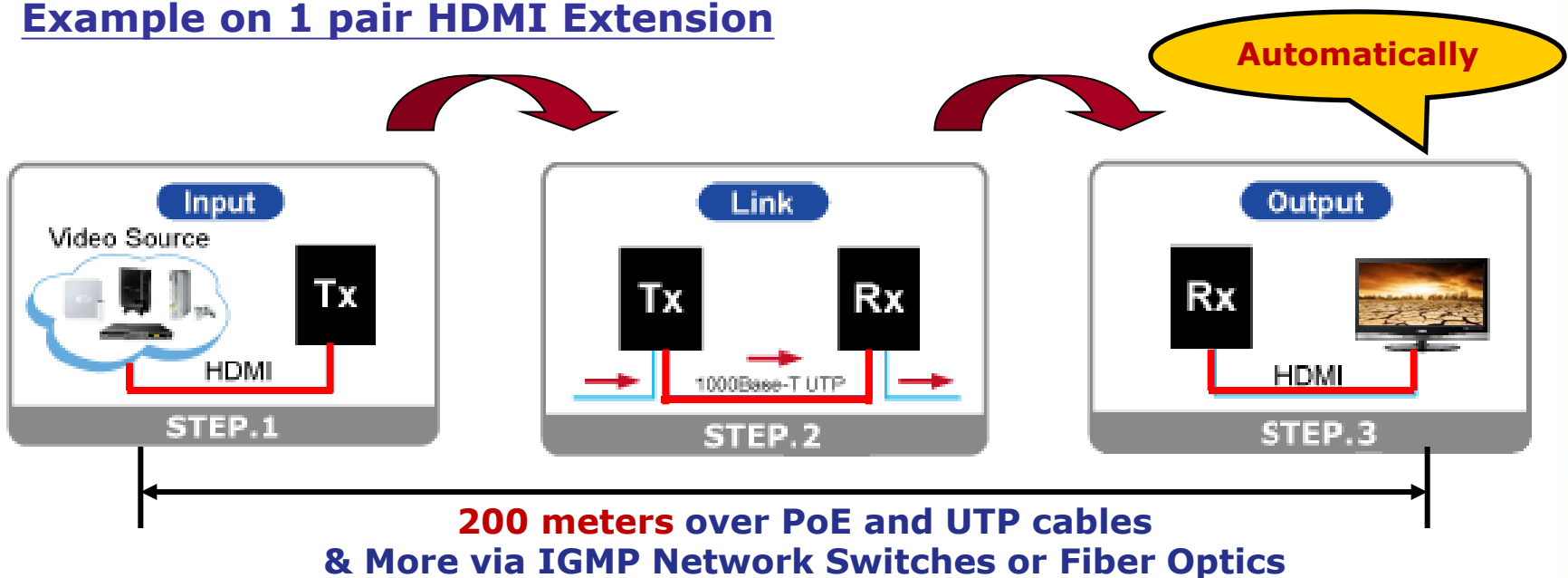

Web UI Configuration
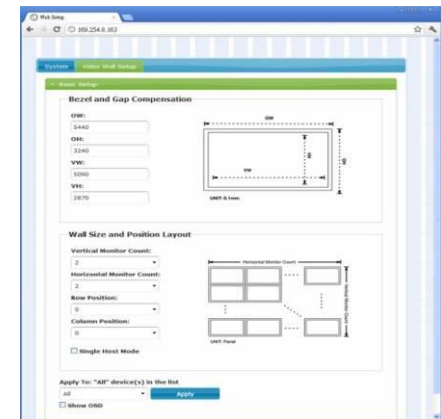
Product Features

Plug and Play

◆IHD-200 PoE Series supports PnP (Plug and Play). If the installation is correct, the device will connect other devices and search for source automatically unless the Tx unit or Rx unit is disconnected

Example on 1 pair HDMI Extension

Automatically

Input — Video Source — Tx — HDMI — **STEP.1**

Link — Tx — Rx — 1000Base-T UTP — **STEP.2**

Output — Rx — HDMI — **STEP.3**

200 meters over PoE and UTP cables
& More via IGMP Network Switches or Fiber Optics

Product Features

Supports EDID (Extended Display Identification Data)

◆By adopting "EDID COPY" function, it will allow the system to copy EDID information from EDID compliant displays in order to assure accurate display performance

Supports Extended Display Identification Data

Different Resolutions

Convert...
EDID Copy

Still Working
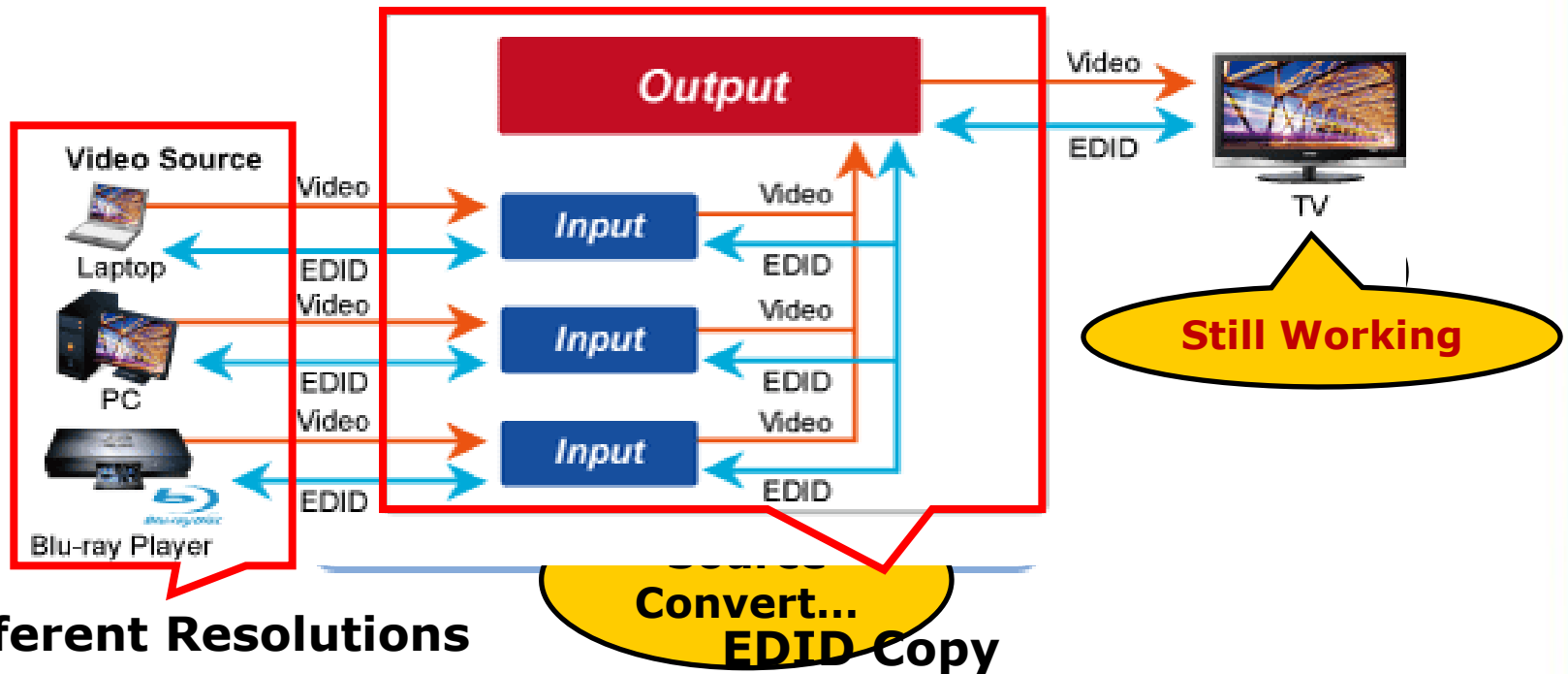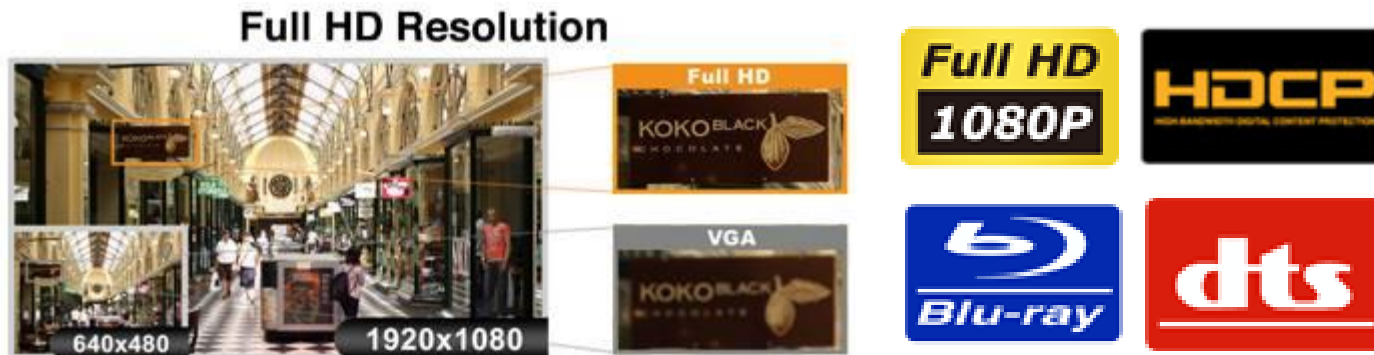
Product Features

Compatible with many screen resolutions such as XGA, SXGA, UXGA, WSXGA...Full HD system
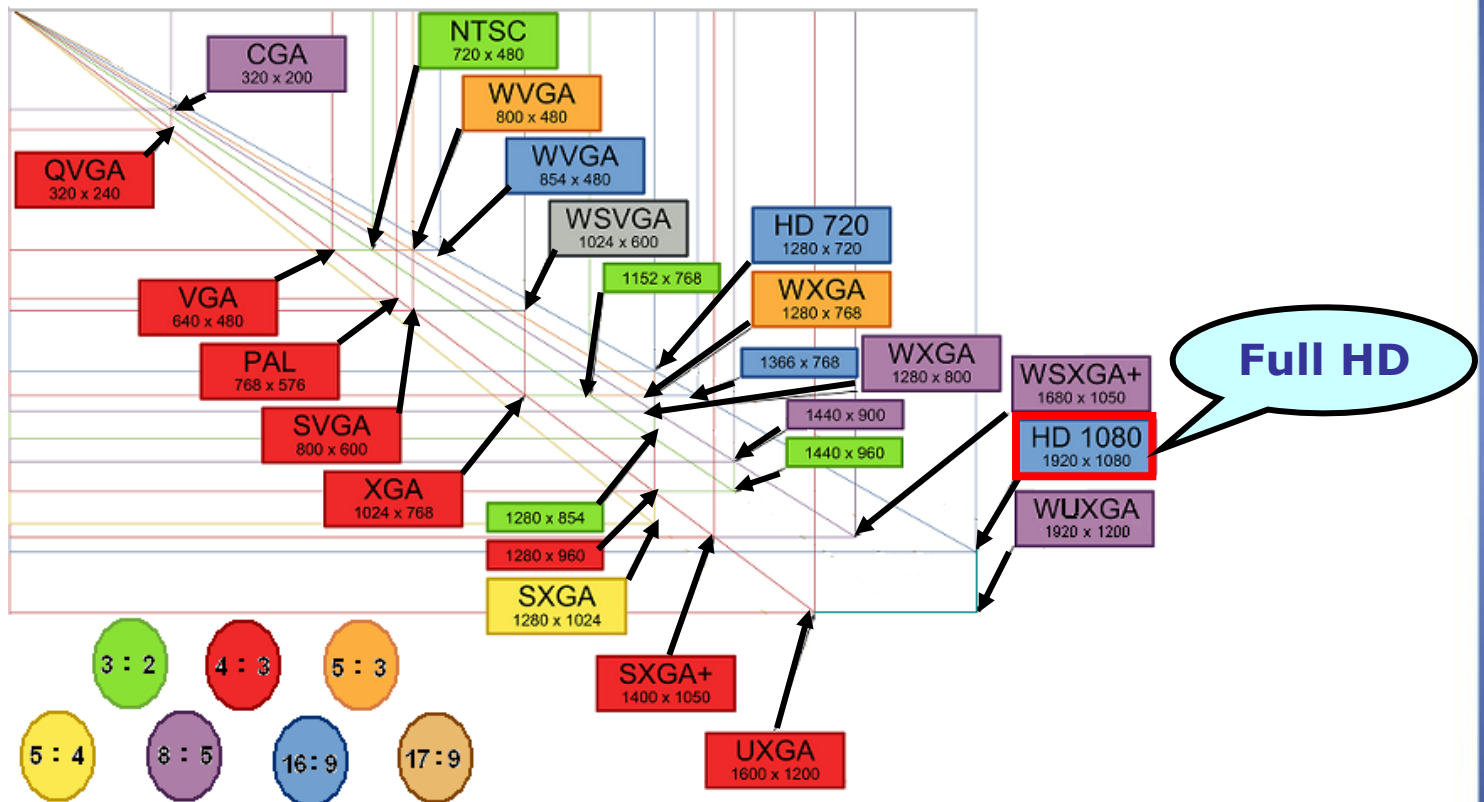
Product Features

High Quality Output and Performance

◆ Features Stunning Ultra High Quality 1080P HDMI Video broadcast over IP network, and CD quality level audio (2ch. Audio dts.). Moreover, they are HDCP (High-Bandwidth Digital Contents Protection) and Blu-ray compliant. The high speed transmission, real-time high video resolution, security, and noise immunity are sure to give the viewer the maximum visual presenting impact and easy clear reading.

Full HD Resolution

Full HD
KOKO BLACK

VGA
KOKO BLACK

640x480   1920x1080

Full HD 1080P   HDCP HIGH BANDWIDTH DIGITAL CONTENT PROTECTION

Blu-ray   dts

Product Features

Tearing Delay Improvement

◆ Setting up Tearing Delay value via GUI control.

Te

Recover

Web UI

10000~16000

Applications

Anti–Dither

◆It'll probably cause "Motion Blur" or "Broken Map" when user plays the high quality video, but after "Anti–Dither" adjustment is made, it can be improved.

There are three levels: off>1>2

**Anti-Dither 2
(Not enough)**

Product Features

**Anti-Dither 1
(Better)**

**Anti-Dither off
(Best)**

Product Features

Graphic Mode & Video Mode

◆Graphic Mode：It's usually for the static state video. Pictures are the main display contents, and the pixel update processing is not so fast. The CPU consumption is lower than video mode.

◆Video Mode：It's usually for the dynamic state video. Videos are the main display contents, and the pixel update processing is fast. The CPU consumption is higher than graphic mode.

After changing modes and adjusting Anti-Dither, we can improve the display quality.

Here is the performance from the worst to the best.

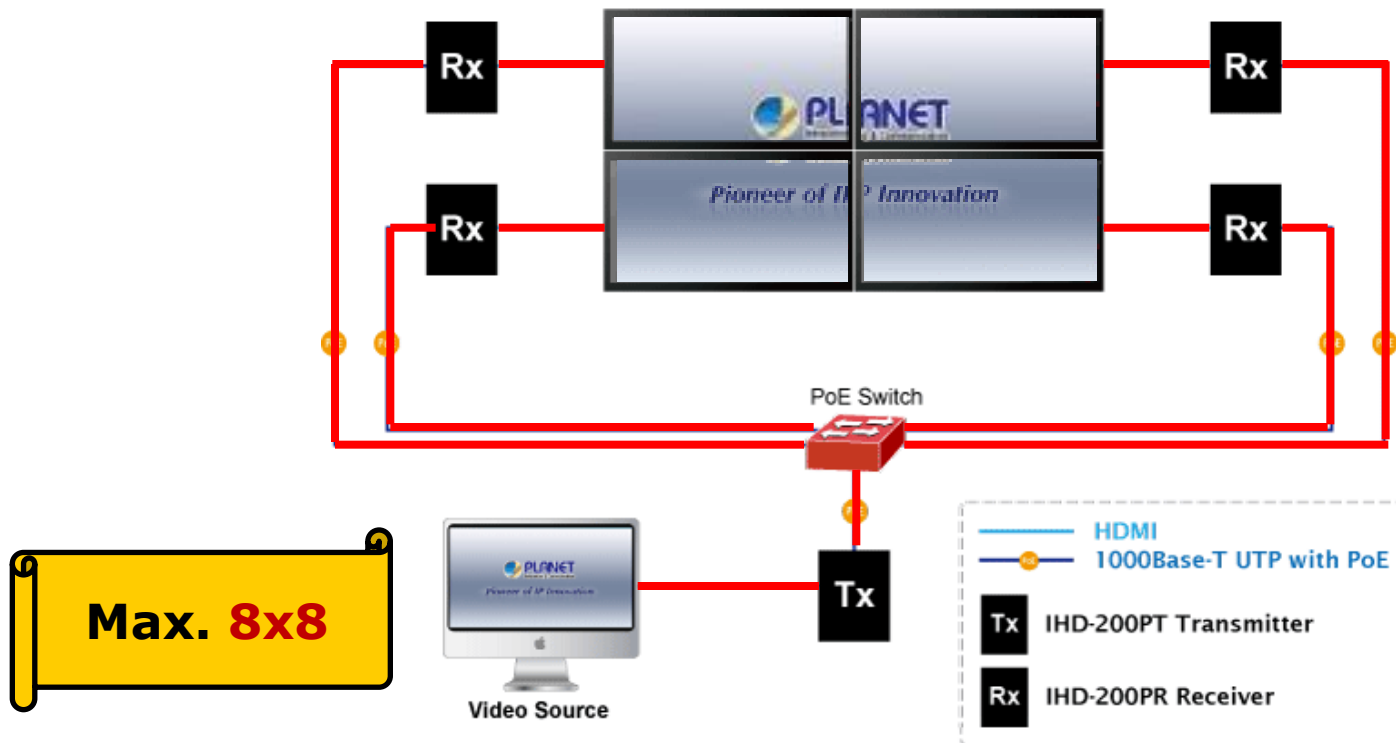| Graphic Mode	Graphic Mode	Graphic Mode	Video Mode	Video Mode	Video Mode
Anti-Dither 2	Anti-Dither 1	Anti-Dither off	Anti-Dither 2	Anti-Dither 1	Anti-Dither off
WORST					BEST

Applications

Video Extender

◆ As shown in the topology, the video can be simultaneously broadcasted from one same source to multi-monitors. It can be used in expo, food courts, boardrooms, and any public area. (A maximum of 1000 Rx units via one Tx can be displayed.)


Max. 1000
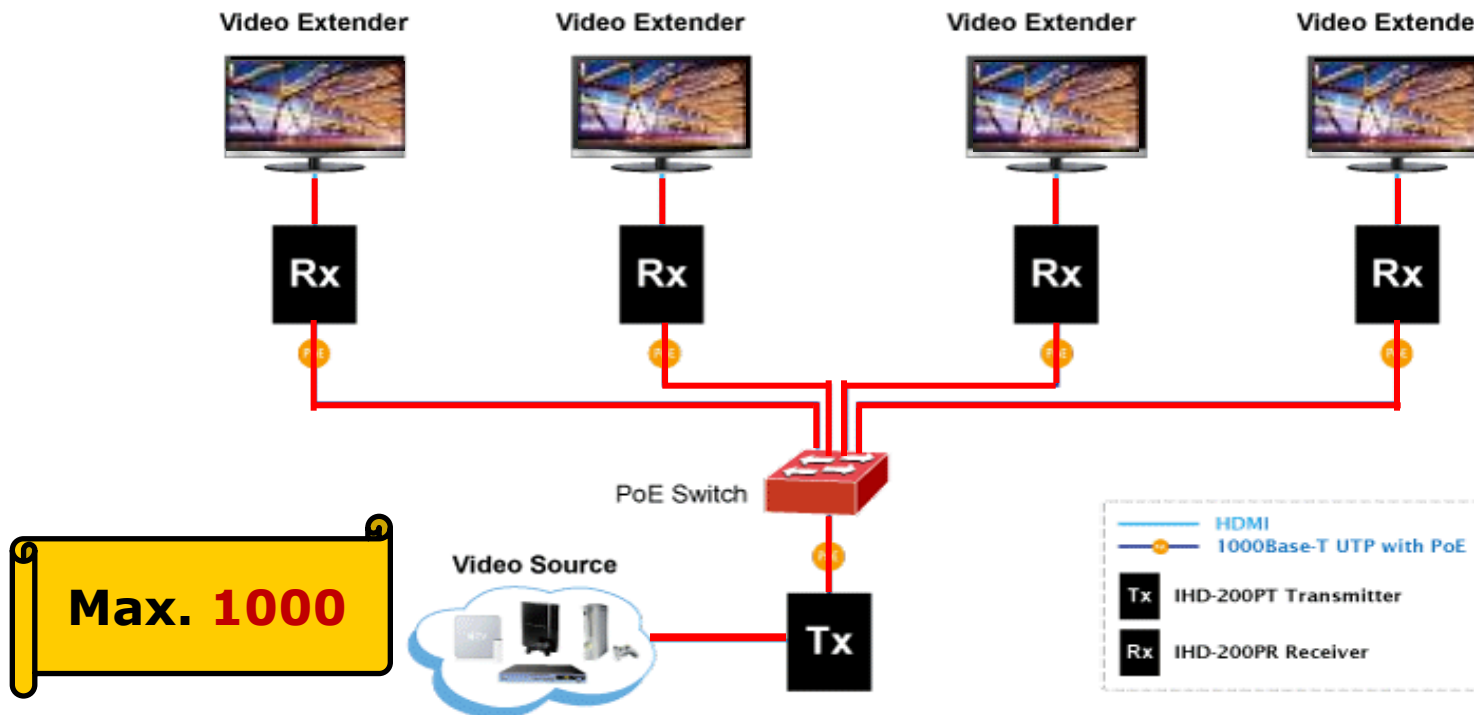
Applications

Video Wall

◆ As shown in the topology, splitting video signal to many screens is suitable for video wall solution. It is great for department stores, movie theaters, etc. (A maximum of 64 Rx's via one Tx can be set up.)

Max. 8x8

Video Source

PoE Switch

	HDMI
	1000Base-T UTP with PoE
Tx	IHD-200PT Transmitter
Rx	IHD-200PR Receiver

# Applications

16 Channels Selectable (DIP Switch) Provided

◆ By sliding the Rotary DIP Switch to the correct number, you can distinguish the transmitter and receiver units into the same group of pairs in the same channel when there is more than one transmitter.
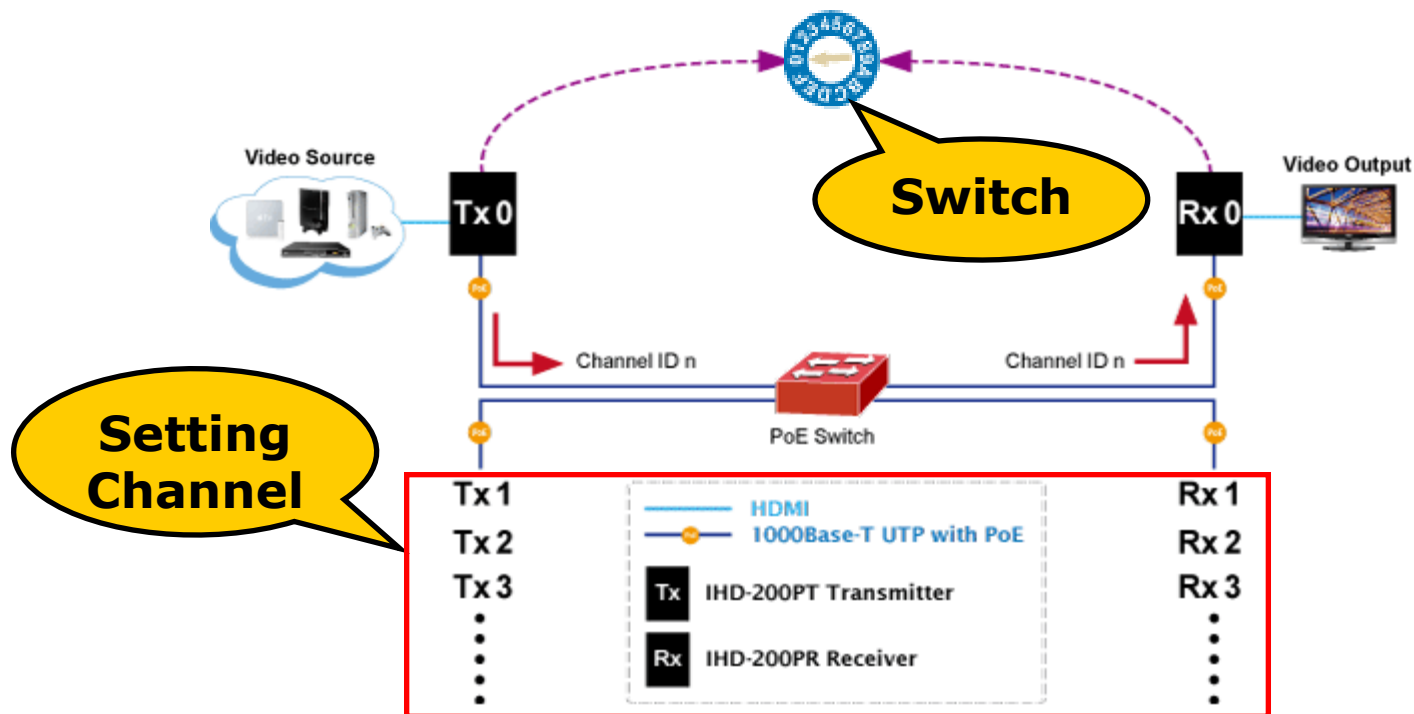
Applications

Combination of the Two Functions

◆ By using the 16 channels selectable (DIP) way to combine the two main functions as shown in the following diagram:
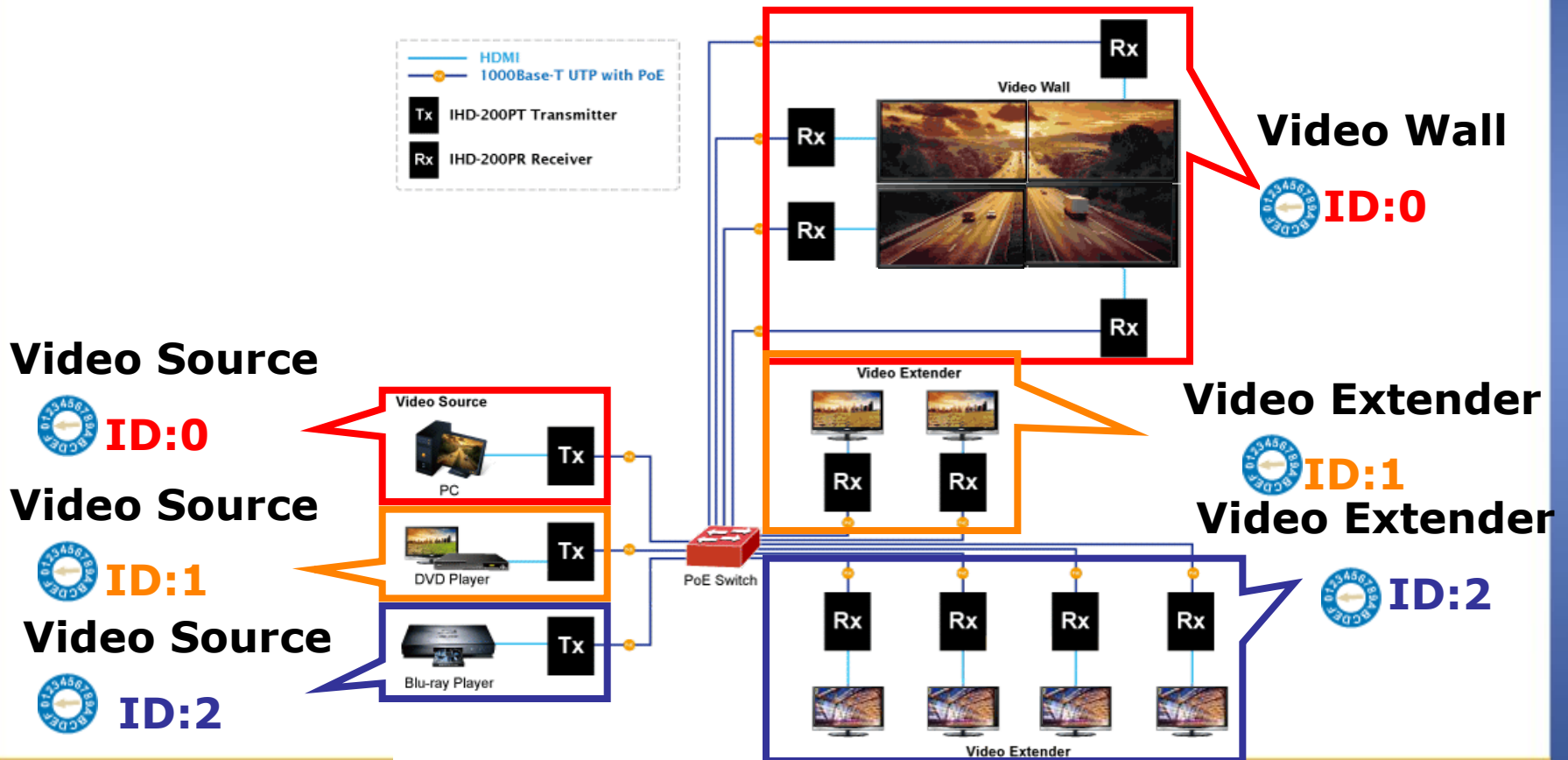
Appendix - Sales Target

Hospital / Bank
Deliver medical / commercial information to patients and visitors

Public Transportation / Escalator
Display arrival/departure info and provide advertising

Appendix - Sales Target

Restaurant / Bookstore
Digital menu board and advertising display

Retail Store
Highlighting discount and promotional items

Appendix

◆ **Ordering Information**

Model Name	Description
IHD-200PT	HDMI/VIDEO Wall over IP Transmitter with PoE
IHD-200PR	HDMI/VIDEO Wall over IP Receiver with PoE
IHD-200T	HDMI/VIDEO Wall over IP Transmitter
IHD-200R	HDMI/VIDEO Wall over IP Receiver

Activating IP Power