AST Series – PC / AV-over-IP Extender

4K60 IP Matrix Extender with Local Out, Audio, IR, RS-232, USB 2.0, PoE, 100m

Model: IPMX-A4HF-T100CP, Transmitter

IPMX-A4HF-R100CP, Receiver

PRODUCT OVERVIEW

The **AST Series PC / AV-over-IP Matrix Extender** is a versatile product series consisting of a transmitter and receiver that extends HDMI, USB 2.0, RS-232, and IR signals over IP networks via standard CATx cables and a Gigabit Ethernet switch. This system supports various configurations, including point-to-point extension, point-to-multipoint distribution, multipoint-to-multipoint multicast, and video wall applications. The installation process is straightforward, involving a networking of IGMP-enabled Gigabit Ethernet switches and CAT5e/6/6a cable to establish an extension, broadcast or matrix system.

This extender is an optimal choice for matrix switching, video walls, and KVM (Keyboard, Video, and Mouse) remote control integration solutions. Matrix switching can be performed via various methods such as keyboard hotkey commands, front panel buttons, or third-party touch panels and control units using API commands.

AV-over-IP extenders offer a versatile and efficient solution for distributing audio and video signals over a network and across longer distances. Its advanced encoder/decoder technology allows for scalability and system expansion, while the modular design provides the flexibility to incorporate additional KVM and A/V products as needed.

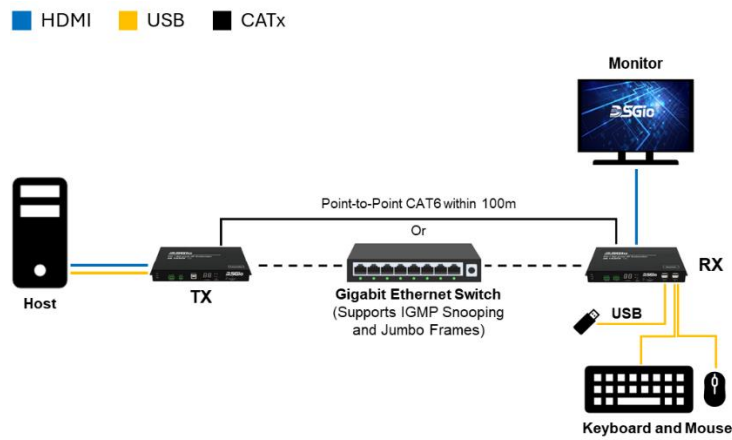# AST Series – PC / AV-over-IP Extender

KEY FEATURES

- HDMI 2.0 and USB 2.0/1.1 over IP extension
- Supports HDMI resolutions up to 4K 60Hz 4:4:4
- HDMI loop-through on Transmitter
- Supports HDR and Dolby Vision
- HDCP 1.4 and 2.2 compliant
- Supports built-in EDID, EDID Copy, Pass-through and Auto-EDID configuration
- Bi-directional RS-232 extension
- IR extension
- Seamless KM switching on Transmitter and Receiver
- Supports KM over IP roaming - Seamless keyboard and mouse control across multiple systems by simply moving the mouse cursor across screen borders
- Ultra-low latency (under 0.5 frames)
- Versatile configurations such as Point-to-Point extension, Point-to-Multipoint distribution, Multipoint-to-Multipoint matrix, and Video Wall system
- Built-in Video Wall Processing (up to 8x8)
- Built-in Scaler on Receiver (decoder)
- Digital LED Indicators with Up and Down Push Buttons for easy source channel selection
- Supports multiple control methods via built-in web interface, front panel buttons, telnet and third party control development via API commands.
- Operates efficiently in a standard networking environment using Gigabit Ethernet switches and CAT5e/6 cables
- Supports up to 100m with CAT6/6a cable extension without Ethernet switch
- Supports external power adapter or Power over Ethernet (PoE 802.3af) for flexible installation options.
- Supports Multimode and Single-Mode SFP Network Transceivers for greater distance.
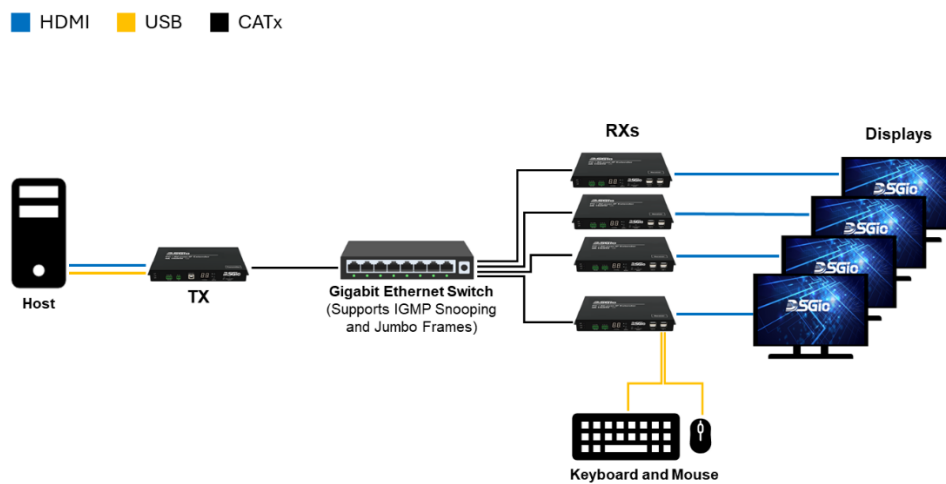
APPLICATIONS

A. Point to Point Extension
B. Point to Multipoint Distribution
C. Multipoint to Multipoint Matrix
D. Billboard & Kiosk, PC to HDMI and USB Interactive Monitor
E. Large Screen Video Wall Application
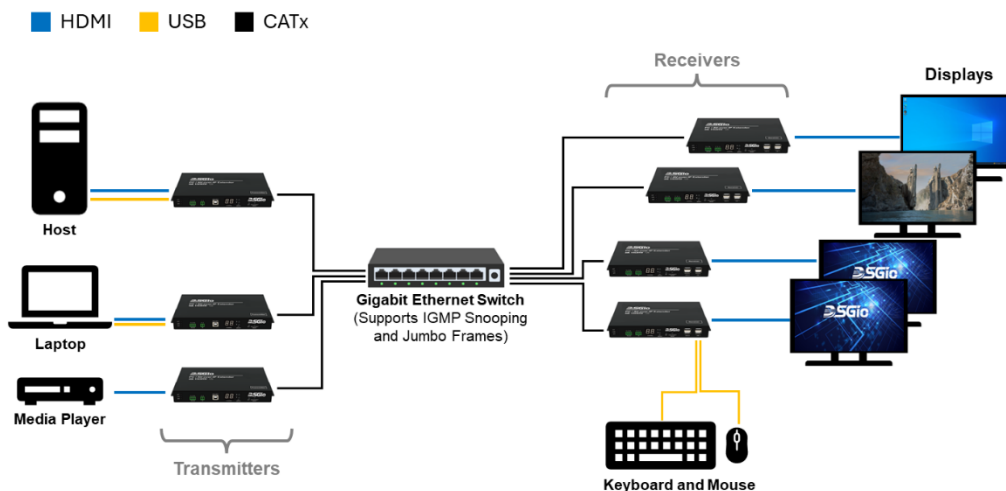
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A. Point to Point Extension
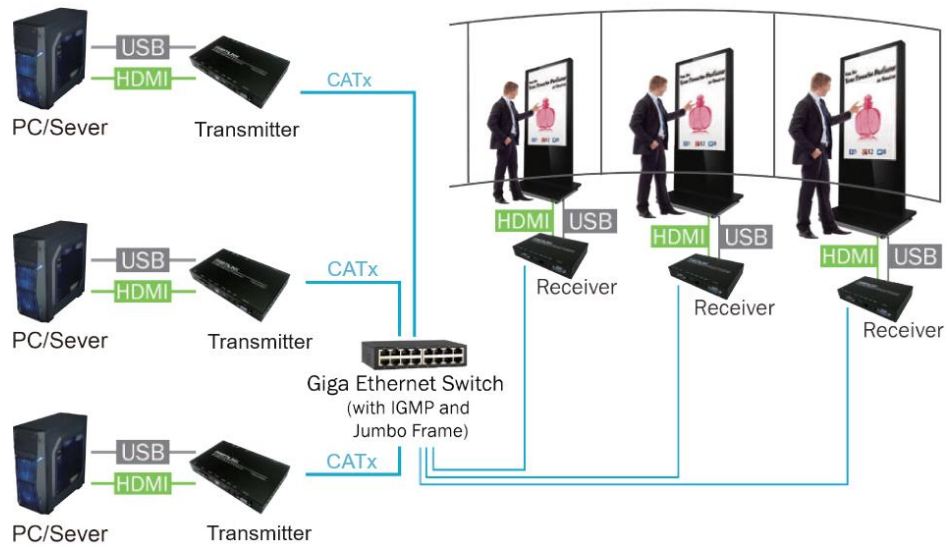

B. Point to Multipoint Distribution

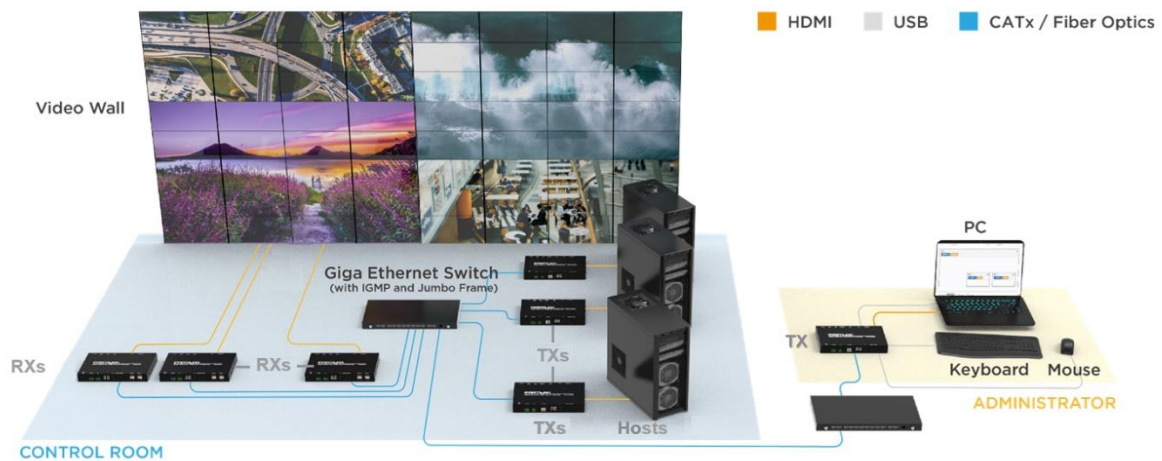## C. Multipoint to Multipoint Matrix

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D. PC to HDMI and USB Interactive Display Application

E. Video Wall Application

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PRODUCT SPECIFICATIONS

MODEL NO	Transmitter Unit IPMX-A4HF-T100CP	Receiver Unit IPMX-A4HF-R100CP
VIDEO INPUT	1 x HDMI Type A	-
VIDEO OUTPUT	-	1 x HDMI Type A
VIDEO LOOP-OUT	1 x HDMI Type A	-
AUDIO INPUT	1 x L/R Audio In 3-Pin Phoenix Connector (Line-In)	1 x L/R Audio In 3-Pin Phoenix Connector (Line-In)
AUDIO OUTPUT	1 x L/R Audio Out 3-Pin Phoenix Connector (Line-Out)	1 x L/R Audio Out 3-Pin Phoenix Connector (Line-Out)
USB INTERFACE	1 x USB Type B (USB 2.0)	2 x USB Type A (USB 2.0) 2 x USB Type A (USB 1.1) Note: 1) KVM can be applied with any USB port. Keyboard and mouse connect to USB 1.1 ports. 2) USB 2.0 webcam works under unicast mode only
RS-232 SERIAL	1 x 3-Pin Phoenix Connector (TXD, GND, RXD)	1 x 3-Pin Phoenix Connector (TXD, GND, RXD)
IR INTERFACE	1 x 2-Pin Phoenix Connector for IR emitter to control source device (P - VCC Power, S - Signal)	1 x 3-Pin Phoenix Connector for IR receiver to control source device (P - VCC Power, G - GND, S - Signal)
LINK INTERFACE	1 x RJ-45 (PoE Supported)	1 x RJ-45 (PoE Supported)
LED INDICATOR	• 1 x Active Power (Blue) • 1 x RJ-45 Link (Green) • 1 x SFP Link (Green) [Not used] • Channel LEDs (Display current Channel Number)	• 1 x Active Power (Blue) • 1 x RJ-45 Link (Green) • 1 x SFP Link (Green) [Not used] • Channel LEDs (Display current Channel Number)
USER CONTROL	• Push Button **Channel Select:** ▲ CH+ / ▼ CH- • Push Button **Set:** Confirm the channel number • Push Button **Disconnect/Reset:** **Disconnect –** Press to disconnect **Reset –** Press and Hold 4 seconds to reset to Factory Default	• Push Button **Channel Select:** ▲ CH+ / ▼ CH- • Push Button **Set:** Confirm the channel number • Push Button **Disconnect/Reset:** **Disconnect –** Press to disconnect **Reset –** Press and Hold 4 seconds to reset to Factory Default
HDMI INPUT RESOLUTION	3840x2160 /60/30/24, 1080p /60/50, 1080p /30/25, 1080i /60/50, 720p /60/50, 480i /60/50, 480p /60/50	
HDMI OUTPUT RESOLUTION	3840x2160 /60/30/24, 1080p /60/50, 1080p /30/25, 1080i /60/50, 720p /60/50, 480i /60/50, 480p /60/50	
HDMI LOOP OUT RESOLUTION	3840x2160 /60/30/24, 1080p /60/50, 1080p /30/25, 1080i /60/50, 720p /60/50, 480i /60/50, 480p /60/50	-

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AUDIO FORMAT	LPCM up to 12-channels, Dolby Digital Plus, Dolby TrueHD, DTS HD Master Audio, Dolby ATMOS	
IP PROTOCOL	TCP, UDP, RTSP, RTP, DHCP, IGMP, Multicast, IPV4	
POWER INPUT	2.0 mm power jack for DC12V/2A	
POE POWER	802.3af	
OPERATING TEMPERATURE	0 ~ 55°C	
STORAGE TEMPERATURE	-20 ~ 85°C	
OPERATING HUMIDITY	Up to 95% RH	
DIMENSION	205.5 x 127.6 x 28.0 mm (L x W x H)	
WEIGHT	0.728 Kg	0.744 Kg

FRONT AND REAR PANEL VIEWS

Transmitter Front and Rear Panel View

Receiver Front and Rear Panel View

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PACKAGE CONTENTS

The Transmitter and Receiver Units are sold separately.

IPMX-A4HF-T100CP Transmitter Unit

- o 1 × AST Series Transmitter Unit
- o 1 × 12V/2A DC Power Adapter
- o 1 × IR Emitter
- o 1 × Phoenix Connectors Set for IR, RS-232 and Audio
- o 1 × Mounting Brackets Set

IPMX-A4HF-R100CP Receiver Unit

- o 1 × AST Series Receiver Unit
- o 1 × 12V/2A DC Power Adapter
- o 1 × IR Receiver
- o 1 × Phoenix Connectors Set for IR, RS-232 and Audio
- o 1 × Mounting Brackets Set

WARRANTY

- 1-Year Limited Warranty
- Advance Replacement Warranty is available and optional

ORDERING INFORMATION

Part Number	Descriptions
IPMX-A4HF-T100CP	AST Series - PC / AV-over-IP Extender, 4K60 HDMI Transmitter Unit with Local Out, Audio, IR, RS-232, USB 2.0, PoE, 100m
IPMX-A4HF-R100CP	AST Series - PC / AV-over-IP Extender, 4K60 HDMI Receiver Unit with Audio, IR, RS-232, USB 2.0, PoE, 100m
(OPTIONAL)	
IPMX-A4HF-CTRL	AST Series - PC / AV-over-IP, Controller Unit
IPMX-A4HF-RMK1U	AST Series - PC / AV-over-IP, Rackmount Kit 1U for 2 Units of AST Series Extender

AST Series – PC / AV-over-IP Extender

CONTACT INFORMATION

For more information, please visit our website or contact our customer service team:

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