

UHD 4K HDMI USB Matrix Extender over IP

IP-controlled matrix switching 4K HDMI USB extension

Model No. : **HSE-1020-4K**

HSE-1020-4K is the state-of-the-art Over-IP HDMI USB Matrix Extender which can simultaneously support the extensions of HDMI 4K, USB2.0 and audio line-in/out via a single Cat 5 cable in all LAN topologies.

With the advanced IP-based AV/PC extension technology, HSE-1020-4K features the visually lossless image quality HDMI-over-IP extension, hardwired USB-over-IP extension, 4-port USB hub, IP-controlled connection management, low video stream latency and flexible function customization.

HSE-1020-4K is capable of the varied connection topologies on the LAN by using Ethernet Gigabit Switch, including (1) 1x1 (extending up to 100m) (2) daisy chain (3) broadcasting (4) matrix (5) any-size video wall. Besides, HSE-1020-4K has the built-in Web UI supporting the easy, convenient and friendly SW control for connection and video wall management.

Features

- Supported HDMI resolution up to 4096 x 2160 (**4K / 2K**)
- Daisy chain extension over IP
- Matrix switching extension over IP
- Any size video wall matrix extension over IP
- Image snapshot of the extended video
- Web UI for connection and video wall management
- Dual link I/F (CAT5 & Fiber) with auto hot-swap
- Point-to-point extension distance up to 100 meters (330 feet) via CAT5 cable; up to 30 kilometers via Fiber Optic cable
- All 3D image format supported
- Compatible with USB 2.0 data transmitted rates up to 480 Mbps and backward with USB 1.1 (Transmitter : 1 port USB-B type Host Interface / Receiver : 4 ports USB-A type Device Interface)
- Wall-mount housing design with rack mountable bracket for easy and robust installation.
- Audio supports 7.1CH LPCM, DTS, Dolby, analog LINE-IN/LINE-OUT.
- Automatic Display Mode Detection.
- Supports both of Interlaced and Progressive Display Modes.

- Supports DDC/DDC2B, Hot-Plug Detection (HPD) and HDCP 2.2 compliant.
- Supports Default EDID and EDID copy function for optimal PC-to-Screen performance.
- Bidirectional Infrared Remote (IR) signal and RS232 control communication (Transmitter & Receiver).
- 7-segment LED display for video channel indication
- IR remote control for video channel setting
- **Supports PD/POE (option)**

Advanced features:

- i. Web UI shows the connection status included all of Transmitter (TX) and Receiver (RX).*
- ii. Connection switching control by operation of web-UI, push buttons or IR remote control.*
- iii. Visualize video wall configuration.*
- iv. Firmware upgraded by web-UI control.*
- v. The Transmitter (TX) unit supports HDMI-in and monitoring HDMI-out synchronized.*
- vi. Redundant Flash ROM for F/W (firmware) recovery from the failed update.*
- vii. Remotely away operational KVM USB switching to selective PC/sources.*
- viii. Displaying mapping status on LED display shown for both of Transmitter(TX) & Receiver(RX).*

Package Contents

1. HDMI Extender Transmitter (TX) x 1
2. HDMI Extender Receiver (RX) x 1
3. Lockable Power Supply DC 5V / 3A (TX & RX pair units) x 2
4. IR cables (IR blaster cable x 1; IR receiver cable x 1)
5. USB 2.0 cable x 1
6. Audio/Mic cable x 1
7. Remote Control x 1
8. User Manual x 1

Specifications

HDMI		Transmitter (TX)	Receiver (RX)
Console Connection	Video Output	■ HDMI Type A 19-pin , female x 1	■ HDMI Type A 19-pin , female x 1
	Serial Control Port (RS-232)	D-SUB 9pin, female x 1, Baud Rate 115,200bps	D-SUB 9pin, male x 1, Baud Rate 115,200bps
Host Connection	Video Input	■ HDMI Type A 19-pin , female x 1	N/A
Extension Port	RJ-45	HDMI 2.0a Ultra HD Video 4K/2K Audio + IR + RS-232 + USB extension over IP	
Optic Fiber Link		1	
USB Interface	Host	USB Type B, female x 1	N/A
	Device	N/A	USB Type A, female x 4 ■ Keyboard x 1 ■ Mouse x 1 ■ Device x 2
Audio		2-way analog audio ■ Line IN x1 ■ Line Out x1	2-way analog audio ■ MIC IN x1 ■ Line Out x1
		Supports High Definition Audio (HD) 5.1/6.1/7.1 Surround Sound ■ Dolby Atmos® ■ DTS:X™ LPCM audio up to 7.1 channels 192kHz.	
Hardware Switch	Set / Reset	Push Button	
	Function Selection	Push Button	
	Video Channel	Push Button (CH+/CH-)	
Infrared Remote (IR)		Bi-directional, thru. 20~60KHz, Two way Pass-Thru.	
LED Indicators	Status Monitoring	■ Power : Blue LED ■ Link : Green LED	

	Function Selection	<input type="checkbox"/> EDID Copy : Green LED (use Local port)	<input type="checkbox"/> EDID Update : Green LED
		<input type="checkbox"/> SFP Status : Green LED	
		<input type="checkbox"/> Video Mode Selection (Video or graphic): Green LED	
		N/A	<input type="checkbox"/> USB Link (Up-Stream) : Green LED
DDC Supported	DDC, DDC2, DDC2B		
Extension Cable Type & Length	CAT.5e/CAT.6 Extending Distance : 330 ft (100m) Fiber Optic (SFP module) single-mode up to 30 Km		
Max. Video Resolution	Ultra HD 4K/2k		
Wide Screen Supported	Yes		
OS Compatibility	OS Independent		
Power Supply	External DC 5V / 3A Power Supply		
Dimension (L x W x H)	7.34"(180mm) x 3.58"(98mm) x 1.25" (32mm)		
Weight	470g	471 g	
Housing material	Chassis Metal		
Operating Temperature	32 ~ 122 °F (0 ~ 50 °C)		
Storage Temperature	-4 ~ 140 °F (-20 ~ 60 °C)		
Humidity	0% - 80% RH		

Panel Diagram

Transmitter (TX) :



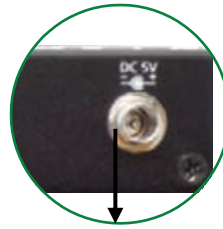
Receiver (RX) :



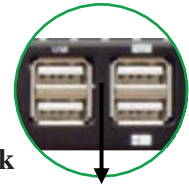
Functionalities features:



Link Mapping Indication



DC Power Locking Jack



USB Compatible 1.1 & 2.0



Fiber Optic

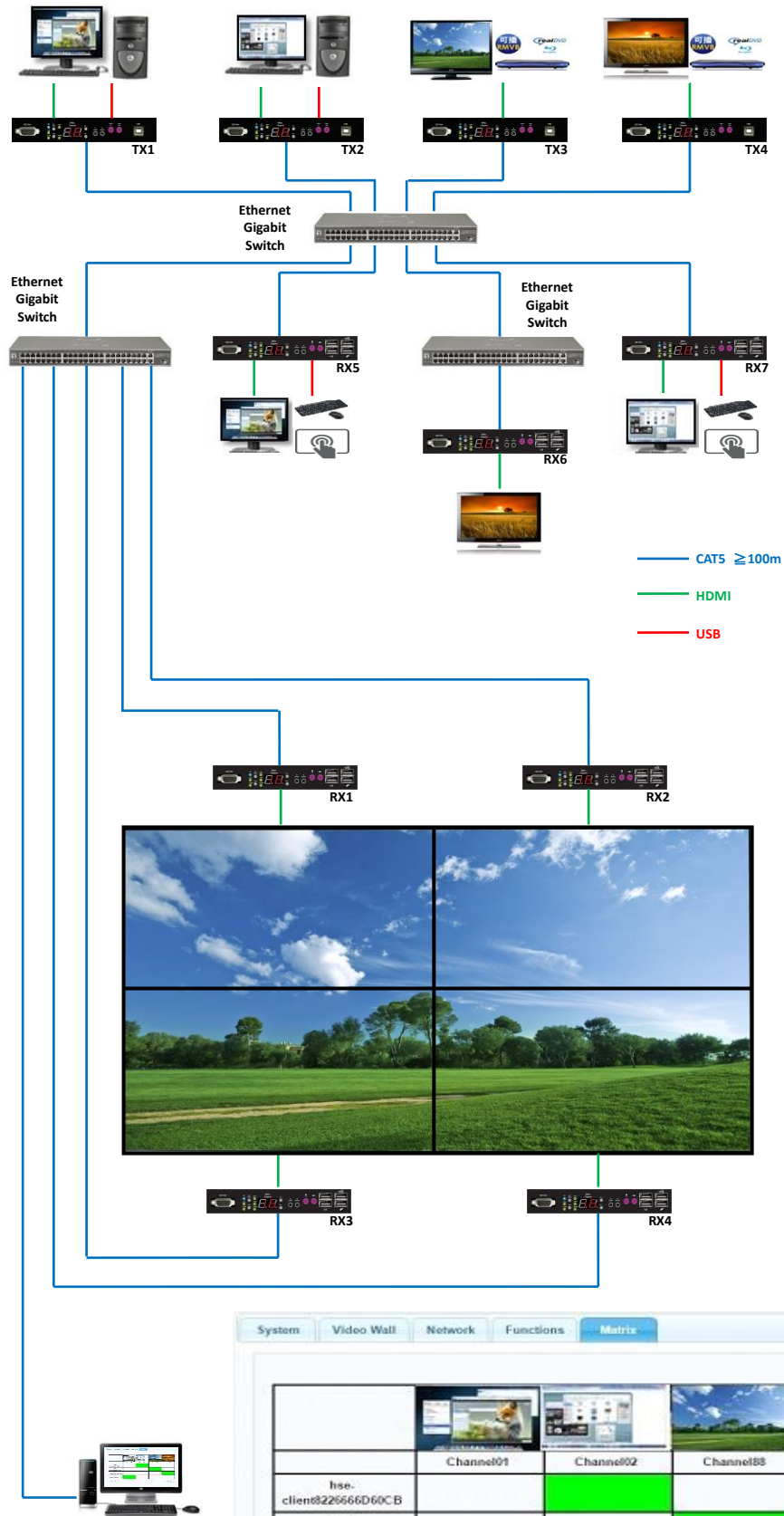
(compatible for SFP module either single-mode or multi-mode alternative)



(Optional)



Application Diagram



System Video Wall Network Functions **Matrix**

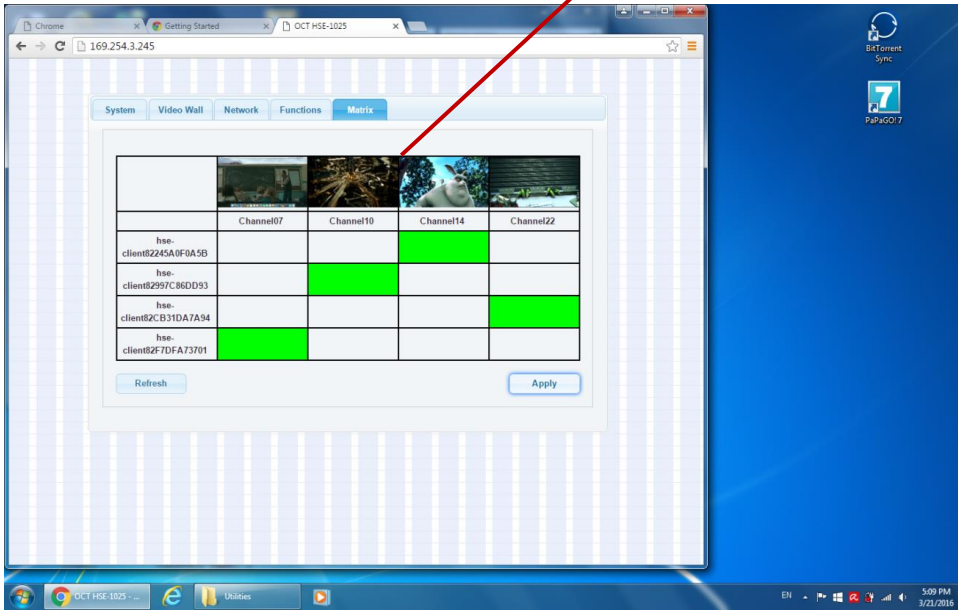
	Channel01	Channel02	Channel08	Channel09
hse-client822666D60CB				
hse-client822E35139E00				
hse-client82997C86DD93				
hse-client82CB31DA7A94				

Refresh Apply

Video Walls Matrix – easing visual and intuitive interface of user with mouse clicking on block.

Video Wall Matrix Settlement

Sources pictures Snap-shot being identified viewing



To use mouse clicking to complete the remote screens content allocated from sources away, and upper row displaying pictures snapping-shot being remarkable view.

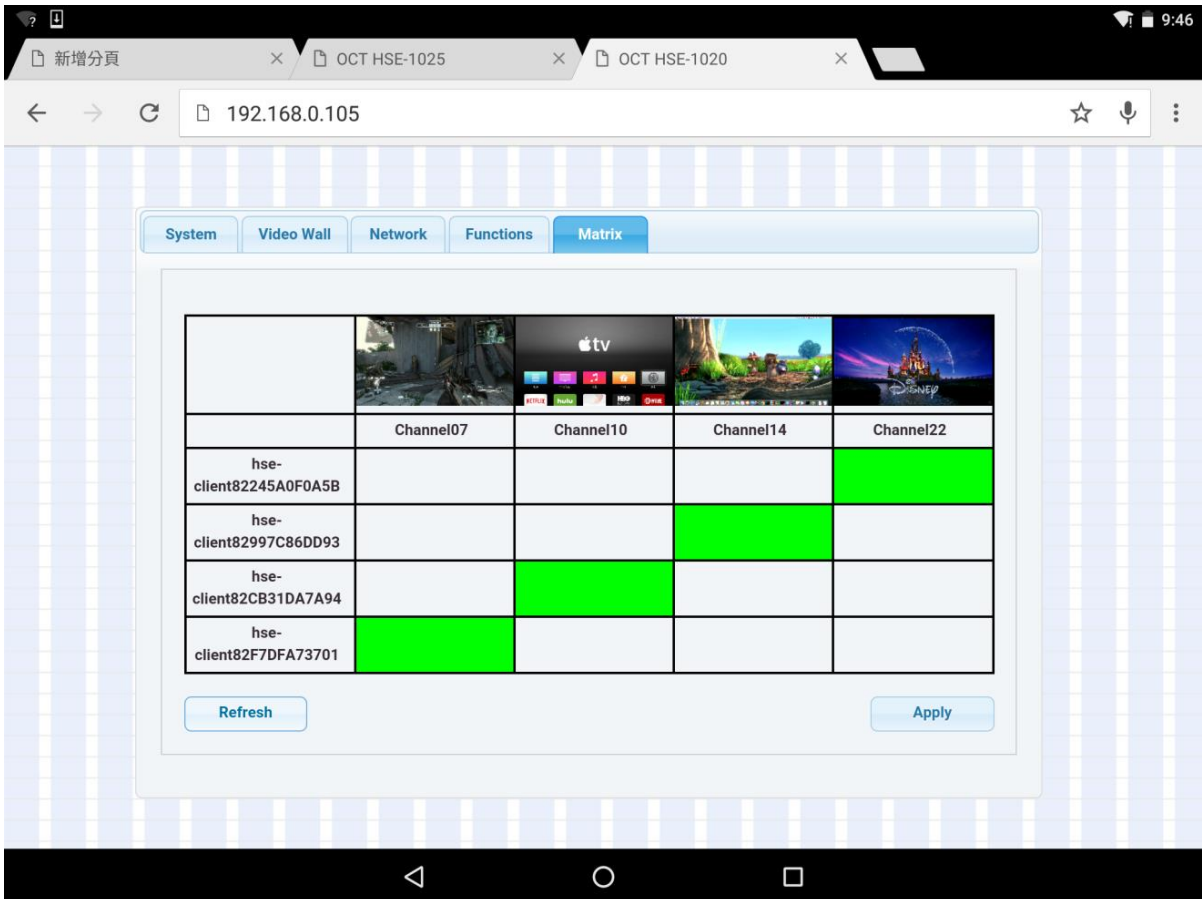
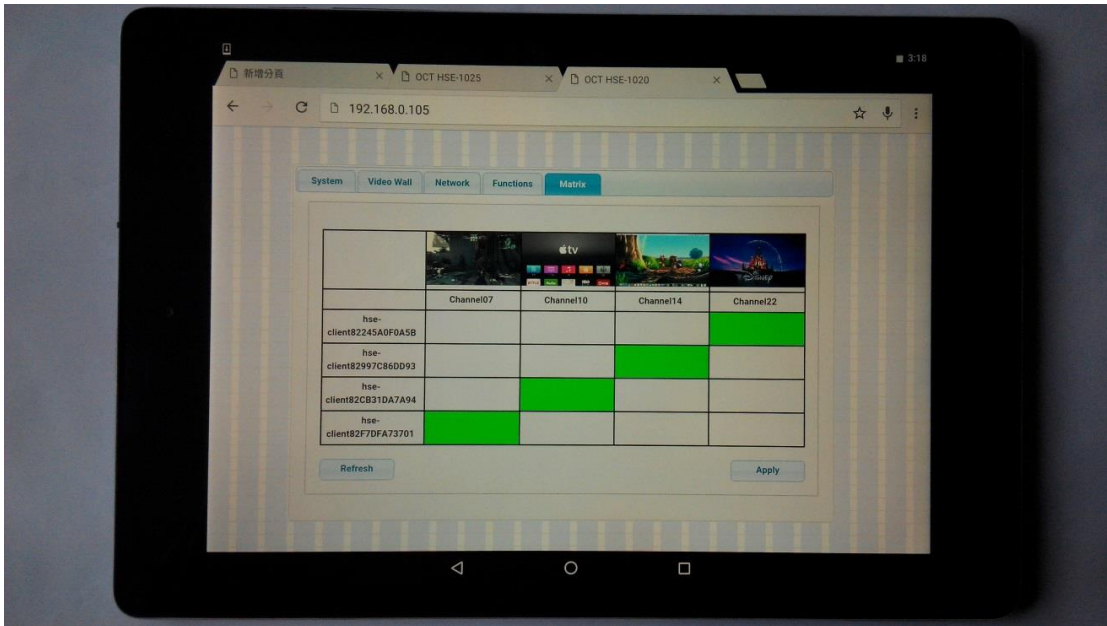


Table PC / Mobile Phone are both suitable for web-UL operation of video wall settlement.



Application Scenario

Sports Bar



Super Market



Plant Automation Control Room

