NEXIS

HK100PR & PR

4K over IP 1GbE with Video Wall Processing



1. Introduction

This product is based on JPEG2000 technology. Encoder input supports up to 4K60, audio embedding or audio out. Decoder output supports up to 4K30, audio extracting or audio in transmitted to Encoder audio out. The product supports USB2.0/KVM, 1G Ethernet, bidirectional RS-232, two-way IR control and POE function. Guest mode control of RS-232, IR, CEC supported. Built-in secondary H.265 stream which supports plenty API commands to achieve flexible configurations is useful for 3rd party control Apps to preview video content. As the H.265 stream can be accessed in a different domain from JPEG2000 main stream via tagged its LAN ID, this makes it possible to isolate the network systems of main stream which works in Video LAN and secondary stream which works in Control LAN.
The system is based on Linux for software development, provides flexible control methods, that are based on the intelligent networking of 1G Ethernet Switch.

2. Features

- ☆ HDMI 2.0b, HDCP 2.2 compliant
- ☆ Support 18Gbps video bandwidth
- ☆ Input supports up to 4K60 4:4:4, output supports 4K30 4:4:4
- ☆ Transmit video, audio, IR , RS-232, CEC and USB signals over Ethernet
- ☆ Support unicast and multicast functions
- ☆ Support point-to-point, video matrix and video wall functions (video wall supports up to 9x9)
- ☆ Intelligent video wall class management makes it achievable of wall-in-wall or novel layout of wall configurations
- ☆ JPEG2000 Main Stream and standard H.265 codec Secondary Stream (SS)
- ☆ Support Secondary Stream VLAN tagging and parameters configuration
- ☆ Support 1G Ethernet Switch, router and hub device transmission
- ☆ Support POE function
- ☆ Flexible control through Web GUI/TCP/RS-232/IR and third-party controller
- ☆ HDMI audio formats: LPCM 2.0/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-96/24, DTS-EX DSD, DTS High Res, DTS-HD Master, DTS:X
- ☆ Smart networking design for easy and flexible installation.

3. Package Contents

Qty	Item
1	4K over IP 1GbE Encoder
1	IR Receiver cable (1.5 meters)
1	IR Blaster cable (1.5 meters)
3	3-pin 3.81mm Phoenix connectors
1	12V/1A Locking Power adapter
2	Mounting ears
4	Machine screws (KM3*4)
1	User Manual

or

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4. Specifications

Technical	
HDMI Compliant	HDMI 2.0b
HDCP Compliant	HDCP 2.2
Video Bandwidth	18Gbps
Video Compression Standard	JPEG2000
Video Network Bandwidth	1G
Video Resolution	480i ~1080p@50/60Hz, 4K@24/30Hz, support 4K@50/60Hz input
Color Depth	8/10/12-bit
Color Space	RGB, YCbCr 4:4:4 / 4:2:2, YUV 4:2:0
HDMI Audio Formats	LPCM 2.0/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-96/24, DTS-EX DSD, DTS High Res, DTS-HD Master, DTS:X
Transmission Distance	100M CAT5E/6/6A/7
IR Level	12Vp-p
IR Frequency	Wideband 20K - 60KHZ
ESD Protection	Human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)

Connection			
Encoder	Input: 1×HDMI Type A [19-pin male] 1x L/R Audio IN [3.81mm Phoenix connector] 1x IR IN [3.5mm Audio Jack] Output: 1×HDMI Type A [19-pin male] 1x L/R Audio OUT [3.81mm Phoenix connector] 1x IR OUT [3.5mm Audio Jack] Control: 1x RS-232 [3.81mm Phoenix connector] 1×LAN [RJ45 jack] 1×USB [USB TypeB]		
Decoder	Input: 1x IR IN [3.5mm Audio Jack] 1x L/R Audio IN [3.81mm Phoenix connector] Output: 1×HDMI Type A [19-pin male] 1x IR OUT [3.5mm Audio Jack] 1x L/R Audio OUT [3.81mm Phoenix connector] Control: 1×LAN [RJ45 jack] 2×USB1.1 [USB-A male] 2×USB2.0 [USB-A male] 1x RS-232 [3.81mm Phoenix connector]		
Mechanical			
Housing	Metal enclosure		
Color	Black		
Dimensions	204mm [W] x 100mm [D] x 21.5mm [H]		
Weight	TX:509g, RX:496g		
Power Supply	Input: AC100 - 240V 50/60Hz, Output: DC 12V/1A (US/EU standards, CE/FCC/UL certified)		
Power Consumption	Encoder: < 8W, Decoder: < 4W		
Operating Temperature	32 - 104°F / 0 - 40°C		
Storage Temperature	-4 - 140°F / -20 - 60°C		
Relative Humidity	20 - 90% RH (no condensing)		
Resolution / Cable Length	**4K60 - Feet / Meters**	**4K30 - Feet / Meters**	**1080P60 - Feet / Meters**
HDMI IN / OUT	16ft / 5M	32ft / 10M	50ft / 15M
The use of “Premium High Speed HDMI” cable is highly recommended.			

5. Application Example

