NEXIS

4x2 HDMI™/USB-C 4K60 Seamless Presentation Switch with HDBaseT 3.0 70m Out

HP4270



1. Introduction

The 4x2 seamless presentation switch supports video resolutions up to 4K@60Hz 4:4:4 8bit deep color and HDCP 2.3 compliant, it features multi-view function for multi sources can be displayed on single screen. This presentation switch supports two HDMI outputs and one HDBaseT 3.0 mirrored with HDMI OUT2 output and HDBaseT 3.0 extending uncompressed 4K60Hz 4:4:4 up to 132ft/40m or 4K30Hz/1080P60Hz up to 230ft/70m via single Cat6A cable.

This presentation switch features four video inputs: two USB-C and two HDMI inputs. Each USB-C input supports DisplayPort alternate mode A/V up to 4K@60Hz 4:4:4 8bit deep color, USB 3.2 Gen 1 5Gbps data and up to 60 watts power charging to USB-C source device. It also features 1Gbps Ethernet over USB-C functionality to allow USB-C source device to access internet seamlessly. Local USB 3.2 KVM switching and extending USB 2.0 high speed over HDBaseT 3.0 can be allowed to connect external USB 2.0 devices or cameras from RX remote side for video conference.

This presentation switch supports audio embedded and de-embedded, it built-in audio DSP with audio mixing, matrixing, independent EQ/volume/delay adjustment. It also supports Dante 2x2 audio input and output interface, and it can be seamlessly connected to any existing audio processing system with Dante enabled.

This presentation switch can be controlled via front panel buttons, IR remote control, API commands using RS-232 or TCP/IP. A Web server / GUI is built in that features A/V control, automatic display control and input EDID management. The product is ideal for software-based video teleconference rooms.

2. Features

☆ Video resolution up to 4K@60Hz 4:4:4, as specified in HDMI 2.0b
☆ HDCP 2.3, DP 1.4 and HDBase 3.0 compliant
☆ USB 3.2 Gen 1 up to 5Gbps
☆ 4x2 seamless switching (single screen) and fast switching (multiview) function
☆ Manual switching or auto switching mode
☆ Multiple multiview display modes: Auto/Single/PIP/PBP/Triple/Quad/Custom
☆ Input: 2x USB-C, 2x HDMI, 1x Analog audio, 1x Dante 2ch
☆ Output: 1x HDMI, 1x HDMI + HDBaseT mirrored, 1x Analog audio, 1x Dante 2ch
☆ USB-C supports DisplayPort Alternate mode for A/V, USB 3.2, 1G LAN and 60W charging
☆ Local USB 3.2 switching and extending USB 2.0 over HDBaseT 3.0
☆ Local USB KVM hotkeys and mouse switching
☆ Uncompressed 4K60 4:4:4 over HDBaseT 3.0 up to 132ft/40m via single CAT6A cable
☆ Uncompressed 1080P&4K30 over HDBaseT 3.0 up to 230ft/70m via single CAT6A cable
☆ Audio embedded and de-embedded
☆ Audio DSP for gain, equalizer, volume and delay
☆ Dante 2x2 audio input and output
☆ CEC/RS-232 control external devices ON/OFF
☆ Advanced EDID management
☆ Support standard PoE power supply from TX to RX (TX_PSE, RX_PD)
☆ Flexible control via front panel buttons, IR remote, RS-232, TCP/IP or Web GUI

3. Package Contents

① 1x 4x2 Seamless Presentation Switch
② 1x HDBaseT Receiver
③ 1x IR Blaster Cable (1.5 meters)
④ 1x IR Wideband Receiver Cable (1.5 meters)
⑤ 3x 3pin-3.5mm Phoenix Connector (male)
⑥ 3x 5pin-3.5mm Phoenix Connector (male)
⑦ 4x Mounting Ear
⑧ 8x Machine Screw
⑨ 1x 24V/8A Desktop Power Supply & 1 x AC Power Cord (1.5 meters)
⑩ 1x IR Remote
⑪ 1x User Manual

4. Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.3
DP Version	DP 1.4
Video Bandwidth	18Gbps
USB Bandwidth	USB 3.2 Gen 1 up to 5Gbps
Network Bandwidth (LAN and USB-C Connection)	1Gbps
Video Resolution	Up to 4K@60Hz 4:4:4
IR Level	12Vp-p
IR Frequency	Wideband 20K-60KHz
Color Depth	8/10/12-bit
Color Space	RGB, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0
Audio Formats	**USB-C/HDMI/HDBT:** Digital audio, 32-192kHz/24bit, LPCM 2CH **LINE IN:** Analog audio, Balanced/unbalanced 2CH, Max input level 2Vrms **LINE OUT:** Analog audio, Balanced 2CH (Max output level 2Vrms)/unbalanced 2CH (Max output level 1Vrms) **DANTE:** Digital audio 2x2 in/out, LPCM 2CH 44.1K-96KHz 16/24Bit]
Transmission Distance	**HDBT:** 230ft/70m (1080P&4K30), 131ft/40m (4K60) **HDMI:** 9.8ft/3m **USB-C:** 9.8ft/3m
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) , ±4kV (Contact discharge)

TX Analog Audio	
Input Impedance	10K Ohms
Output Impedance	330 Ohms
Line Input Level (Maximum)	8.2dBu (2Vrms) @ balanced or unbalanced audio
Line Output Level (Maximum)	8.2dBu (2Vrms) @ balanced audio 2.2dBu (1Vrms) @ unbalanced audio
Frequency Response	(+0.5 dB, -1 dB) 20 Hz to 20 kHz
Audio Output Sync Delay	< 1ms
Audio S/N Ratio	93dB @ 2Vrms, 1kHz A-weighted
Audio THD+N	<0.1% @ 0dBV, 1kHz
RX Analog Audio	
Output Impedance	330 Ohms
Line Output Level (Maximum)	8.2dBu (2Vrms) @ balanced audio 2.2dBu (1Vrms) @ unbalanced audio
Frequency Response	(+0.5 dB, -1 dB) 20 Hz to 20 kHz
Audio Output Sync Delay	0 to 50ms
Audio S/N Ratio	93dB @ 2Vrms, 1kHz A-weighted
Audio THD+N	<0.1% @ 0dBV, 1kHz
Dante Audio	
Audio Formats	LPCM 2CH
Sample Rate	44.1/48/88.2/96KHz at 24 bits
Audio Delay	2/3/4/5/10ms
Network Bandwidth	100Mbps
Connection	
Transmitter	Input: 2x HDMI IN [HDMI Type A, 19-pin female] 2x USB-C IN [Type C, 24-pin female] 1x LINE IN [5pin-3.5mm phoenix connector] 1x DANTE IN [RJ45] Output: 2x HDMI OUT [HDMI Type A, 19-pin female] 1x HDBT OUT [RJ45, 48V POE/PSE] 1x LINE OUT [5pin-3.5mm phoenix connector] Control: 1x RS-232 [3pin-3.5mm phoenix connector] 1x RS-232 CTL [3pin-3.5mm phoenix connector] 1x LAN [RJ45] 2x USB 3.2 HOST [USB Type B, 9-pin female] 3x USB 3.2 DEVICES [USB Type A, 9-pin female] 2x USB 1.1 KVM [Type A, 4-pin female] 1x USB-C DEVICE [Type C, 24-pin female] 1x IR IN [3.5mm audio jack, 12V level] 1x IR OUT [3.5mm audio jack, 12V level]

Receiver	Input: 1x HDMI IN [Type A, 19-pin female] 1x HDBaseT IN [RJ45, 48V POE/PD] Output: 1x HDMI OUT [Type A, 19-pin female] 1x LINE OUT [5pin-3.5mm phoenix connector] Control: 1x RS-232 [3pin-3.5mm phoenix connector] 1x USB HOST [Type B, 4-pin female] 2x USB DEVICES [Type A, 4-pin female] 1x SERVICE [Micro USB, 5-pin female] 1x IR IN [3.5mm audio jack, 12V level] 1x IR OUT [3.5mm audio jack, 12V level]
Mechanical	
Housing	Front panel: Aluminum; Rear case: Metal Enclosure
Color	Black
Dimensions	Transmitter: 220mm [W] × 220mm [D] × 44.5mm [H] Receiver: 140mm [W] × 105mm [D] × 21.5mm [H]
Weight	Transmitter: 1.78Kg; Receiver: 424g
Power Supply	Input: AC100 - 240V 50/60Hz Output: DC 24V/8A (US/EU standard, CE/FCC/UL certified)
Power Consumption	170W (Max)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-40°C ~ 60°C / -40°F ~ 140°F
Operating Humidity	20%~80% (relative humidity, non-condensing)
Storage Humidity	10%~90% (relative humidity, non-condensing)

5. Connection Diagram

