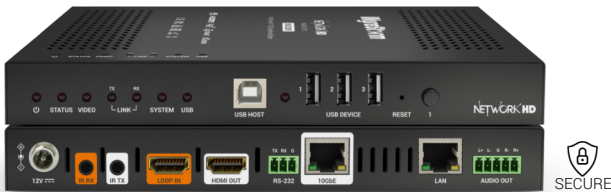


NetworkHD 600 Series (SDVoE)

NHD-610-TX | NHD-610-RX



Key Features

- Pixel-perfect transmissions up to 4K60 4:4:4 8bit with Dolby Vision/HDR compatibility
- High speed USB 2.0 connectivity for extension of USB peripheral devices
- 2CH Dante/AES67 audio output on NHD-610-TX encoder

In the Box

- 1x NHD-610-TX or NHD-610-RX
- 1x IR Emitter
- 1x IR Receiver
- 1x Pair of NHD-000-RACK4 Brackets
- 1x Pair of Wall Brackets
- 1x 12V DC Power Supply (US/UK/EU/AU)
- 1x 3-pin Phoenix Connector (for RS-232)
- 1x 5-pin Phoenix Connector (for analog audio)

NHD-600-TRX | NHD-600-TRXF



Key Features

- Operates as a transceiver that can encode and decode simultaneously
- Transmissions up to 4K60 4:4:4 8bit with Dolby Vision/HDR compatibility
- USB HID connectivity for extension of keyboard and mouse
- Zero latency A/V transmissions using Genlock processing
- Instant matrix switching speeds using Fast Switch processing
- Native video wall (8x8) and multiview processing (16 windows)

In the Box

- 1x NHD-600-TRX or NHD-600-TRXF
- 1x IR Emitter
- 1x IR Receiver
- 1x Pair of Wall Brackets
- 1x Pair of NHD-000-RACK4 Brackets
- 1x 12V 2A DC Power Supply (US/UK/EU/AU)
- 1x 3-pin Phoenix Connector (for RS-232)
- 1x 5-pin Phoenix Connector (for analog audio)

TRXF Additional Features

- Fiber transport supporting up to 300m distance using OM3 multimode
- High speed USB 2.0 connecting for extension of USB peripherals over the network

NetworkHD 500 Series (JPEG 2000)

NHD-500-TX | NHD-500-RX



Key Features

- HDMI 2.0 encoding/decoding up to 4K60 4:4:4 8bit with Dolby Vision/HDR compatibility
- Ethernet or Fiber connections (550m w/ OM3 MMF or 10km with SMF)
- USB connectivity for extension and routing of USB peripheral devices
- Ultra-low latency transmissions of less than a single video frame

In the Box

- 1x NHD-500-TX or NHD-500-RX
- 1x IR Emitter
- 1x IR Receiver
- 1x Pair of NHD-000-RACK4 Brackets
- 1x Pair of Wall Brackets
- 1x 3-pin Phoenix Connector (for RS-232)
- 1x 5-pin Phoenix Connector (for analog audio)

- NHD-500-RX decoder capable of 16x16 video wall processing, including mosaic
- High definition preview streams for control system interfaces
- Audio Return Channel via HDMI or Toslink

NHD-500-DNT-TX



In the Box

- 1x NHD-500-DNT-TX Transmitter
- 1x IR Emitter
- 1x IR Receiver
- 2x Wall Mounting Brackets
- 2x Rack Mounting Brackets
- 1x 3-pin Terminal Block
- 1x 5-pin Terminal Block

Key Features

- HDMI 2.0 encoding/decoding up to 4K60 4:4:4 8bit with Dolby Vision/HDR compatibility
- 2CH Dante/AES67 network audio output
- Ethernet or Fiber connections (550m w/ OM3 MMF or 10km with SMF)

- USB connectivity for extension and routing of USB peripheral devices
- Ultra-low latency transmissions of less than a single video frame
- High definition preview streams for control system interfaces

NHD-500-E-TX | NHD-500-E-RX



In the Box

- 1x NHD-500-E-TX or NHD-500-E-RX
- 1x 5-pin Terminal Block
- 1x IR Emitter
- 1x Pair of Wall Brackets
- 1x Pair of Rack Brackets

Key Features

- Supports encoding full HDMI 2.0 content up to 4K60 4:4:4 8bit
- Compatible with Dolby Vision, HDR10 & HLG content up to 60Hz

- Essential connectivity for streamlined audio and video distribution
- Balanced audio de-embed for connecting external audio systems

NHD-500-IW-TX



In the Box

- 1x NHD-500-IW-TX
- 1x 2-pin phoenix connector

Key Features

- Supports encoding full 4K60 4:4:4 8bit or RGB content
- 2-Gang US style in-wall form factor
- HDMI and USB-C Switchable inputs

- USB extension and routing for peripheral USB devices
- Dedicated stereo input for connecting external audio devices

Multiview Processor

NHD-0401-MV



In the Box

- 1x NHD-0401-MV Multiview Processor
- 1x 12V Power Supply (US/EU/AU/UK)
- 1x IR Remote
- 1x IR Receiver Cable
- 1x 3-pin Terminal Block
- 2x Mounting Brackets
- 1x QuickStart Guide

Key Features

- 4-Inputs supporting 4K60 source content
- Multiview processing up to 4 inputs simultaneously

- Works seamlessly with NetworkHD 400 & 500 series
- Can be used as a standalone multiview processor

NetworkHD 400 Series (JPEG 2000)

NHD-400-TX | NHD-400-RX



Key Features

- Encoding/decoding up to 4K30 4:4:4 with HDR10/HLG compatibility
- USB connectivity for extension and routing of USB peripheral devices
- Ultra-low, single frame latency
- NHD-400-RX decoder capable of 16x16 video wall processing, including

In the Box

- 1x NHD-400-TX or NHD-400-RX
- 1x Pair of Wall Brackets
- 1x Pair of NHD-000-RACK4 Brackets
- 1x IR Emitter
- 1x IR Receiver
- 1x 5-pin Phoenix Connector (analog audio) RX only
- 1x 4-Pin Phoenix Connector (RS232) RX only

NHD-400-E-TX | NHD-400-E-RX



Key Features

- Lite' versions of the NHD-400-TX/RX with only essential I/O
- Encoding/decoding up to 4K30 4:4:4 with HDR10/HLG compatibility
- Ultra-low, single frame latency

In the Box

- 1x NHD-400-E-TX or NHD-400-E-RX
- 1x Pair of Wall Brackets
- 1x Pair NHD-000-RACK4 Brackets
- 1x 4-pin Phoenix Connector (RS232) RX only

NHD-400-DNT-TX



Key Features

- NHD-400-TX with added 2CH Dante/AES67 network output
- Includes additional stereo audio input (switchable)
- Encoding up to 4K30 4:4:4 with HDR10/HLG compatibility

In the Box

- 1x NHD-400-DNT-TX Encoder
- 1x 3-pin Phoenix Connector (RS232)
- 1x Pair of NHD-000-RACK4 Brackets
- 1x Pair of Wall Brackets
- 1x IR Emitter Cable
- 1x IR Receiver Cable

NHD-400-TX-IW



Key Features

- 2-Gang US style wall plate
- Dual input VGA & HDMI with auto switching
- 4K encoding up to 4K30 4:4:4 with HDR10/HLG compatibility

In the Box

- 1x NHD-400-TX-IW Encoder
- 1x 12V DC Power Supply (US | UK | EU)
- 1x 2-Pin Terminal Block (DC Power)
- 1x 3.5mm Stereo TRS Plug to 3-pin Terminal Block RS-232 Adapter
- 1x White Decorative Plate with 4 Screws

NetworkHD 100/200 Series (H.264/5)

NHD-250-RX



Key Features

- Multiview processor supports up to 9 unique PiP windows
- Fully customizable multiview layouts

In the Box

- 1x NHD-250-RX Decoder
- 1x 12V DC Power Supply (US | UK | EU)
- 3x 3-pin Phoenix Connectors (RS232 & analog audio)
- 1x Pair of NHD-000-RACK4 Brackets
- 1x Pair of Wall Brackets

NHD-140-TX



Key Features

- Quad encoder helps reduce amount of separate components
- Combines all four inputs into a single ethernet output
- Low bandwidth H.264 1080p60 encoding

In the Box

- 1x NHD-140-TX Encoder
- 1x 12V DC Power Supply (US | UK | EU)
- 1x Pair of NHD-000-RACK4 Brackets

NHD-120-TX | NHD-120-RX



Key Features

- Transmits AV streams up to 4k 30Hz using H.264 or H.265 encoding
- AV streams can be encrypted using an AES 128-bit algorithm
- Compatible with the NHD-000-RACK4 for professional rack mounting of up to 12 encoders per rack
- Powers via PoE from compatible network switch using 802.1af

In the Box

- 1x NHD-120-TX Encoder
- 2x 3-pin Terminal Block
- 2x Wall Mounting Brackets
- 2x Rack Mounting Brackets
- 1x IR Transmitter
- 1x IR Receiver
- 1x Quickstart Guide

NHD-110-TX | NHD-110-RX



Key Features

- Low bandwidth 1080p60 encoding/decoding
- Dual encoding options allow either H.264 or HEVC H.265
- Instant matrix switching with no freeze frames

In the Box

- 1x NHD-110-TX or NHD-110-RX
- 1x IR Emitter
- 1x IR Receiver
- 2x 3-pin Phoenix Connector (RS232 & analog audio)
- 1x Pair of Wall Brackets
- 1x Pair of NHD-000-RACK4 Brackets

- NHD-110-RX supports video wall processing up to 16x16
- Discrete routing of all signal flows including video, audio and control signals

NHD-000-CTL (Controller)



In the Box

- 1x NHD-000-CTL Controller
- 1x Pair of NHD-000-RACK4 brackets
- 1x Quickstart Guide
- 1x 6-pin Terminal Block
- 1x 12V Power Supply (US/UK/EU/AU)

Key Features

- Provides automatic discovery of NetworkHD encoders and decoders
- Simple browser management of encoders and decoders
- Integrates with major control systems, including the NetworkHD Touch™ control app

- Dual Ethernet ports for complete isolation of control and AV network traffic
- PoE or DC power options

NHD-CTL-PRO (Controller)



In the Box

- 1x NHD-CTL-PRO Controller
- 1x Pair of Rack Brackets
- 1x Power Supply (US/UK/EU/AU)
- 1x 6-pin Terminal Block

Key Features

- Auto discovery of all NetworkHD endpoints
- Powerful web-based UI for intuitive control & management
- Isolated AV and control LAN ports for seamless integration into any

- network
- LED screen for access to system info
- 1U chassis for easy installation into equipment racks

Specifications

Audio and Video				
	NHD-610-TX	NHD-610-RX	NHD-600-TRX	NHD-600-TRXF
Inputs/Outputs	1x HDMI 2.0 Input 1x HDMI 2.0 Loop Output 1x 5-pin Balanced analog audio In/Out	1 x HDMI 2.0 Output 1x HDMI 2.0 Switchable Input 1x 5-pin Balanced analog audio In/Out	1x HDMI 2.0 Input 1x HDMI 2.0 Output 1x 5-pin Balanced Analog Audio In/Out	1x HDMI 2.0 Input 1x HDMI 2.0 Output 1x 5-pin Balanced Analog Audio In/Out
Maximum Pixel Clock	600Mhz			
Video Encoding	SDVoE Pixel Pipeline Dante/AES67 proprietary protocols	SDVoE Pixel Pipeline	SDVoE Pixel Pipeline	SDVoE Pixel Pipeline
Encoding Data Rate	1080p@60Hz 8bit - 3.4Gbps 4K UHD@30Hz 4:4:4 8bit - 6.4Gbps 4K UHD@60Hz 4:4:4 8bit - 8.7Gbps (with light compression)			
Max End to End Latency	Genlock Mode: Uncompressed = 30us, Compressed <120us Fast Switch Mode: 1~2 video frames = min. between 16.7 – 33.4ms @ 60fps			
Max Video Resolutions	4096x2160p @ 60Hz 8bit 4:4:4 or RGB 3840x2160p @ 60Hz 12bit 4:2:2 Dolby Vision 3840x2160p @ 60Hz 10bit 4:2:2 HDR10/HLG 1920x1080p @ 60Hz 12bit			
Supported Standards	RGB DCI USB			
Communication and Control				
HDMI	HDMI 2.0b HDCP 2.2 CEC EDID			
Network	1x 10GbE RJ45 (AV) 1x 1GbE RJ45 (LAN/Dante) <i>Dante only available on 610-TX</i>			1x 10Gbps SFP+ (AV) 10GBASE-SR: 300m OM3 MMF 1x 1GbE RJ45 (LAN)
RS-232	1x 3-pin Phoenix Connector 2 Way Broadcast Routed API Programmable			
IR	1x IR TX 3.5mm TS Mono Jack API Programmable 1x IR RX 3.5mm TRS Stereo Jack API Programmable			
USB	3 x USB 2.0 Type A 1 x USB 2.0 Type B Host USB Bandwidth: 480Mbps	3 x USB 2.0 Type A 1 x USB 2.0 Type B Host USB Bandwidth: 480Mbps	3x USB 1.1 Type A 1x USB 1.1 Type B Host	3x USB 2.0 Type A 1x USB 2.0 Type B Host USB Bandwidth: 480Mbps
Security Protocols	AES 128 SSH TLS HTTPS			
Power				
Power Supply	12V 2A DC PSU 802.3at PoE+ compliant	12V 2A DC PSU 802.3at PoE+ compliant	12V 2A DC PSU 802.3at PoE+ compliant	12V 2A DC PSU
Power Consumption	Max: 24w Average: 10w			
Environmental				
Operating Temperature	+32°F ~ +104°F (0°C ~ +45°C) 10% ~ 90% non-condensing			
Storage Temperature	-4°F to ~ 140°F (-20°C ~ +70°C) 10% ~ 90% non-condensing			
Maximum BTU	34 BTU/hr			
Dimensions & Weight	Length x Width x Height: 215mm x 140mm x 25mm Weight: 1.75lbs			
Regulatory				
Safety and Emission	CE FCC RoHS RCM EAC			

Specifications

Audio and Video				
	NHD-500-TX	NHD-500-RX	NHD-500-DNT-TX	NHD-500-IW-TX
Inputs/Outputs	1x HDMI In 1x 3.5mm TRS Analog In 1x 5-pin Balanced Analog Out 1x Toslink Digital Out	1x HDMI Out 1x 5-pin Balanced Analog Out 1x Toslink Digital In	1x HDMI In 1x 3.5mm TRS Analog In 1x 5-pin Balanced Analog Out 1x Toslink Digital Out	1x HDMI In 1x USB-C In 1x 3.5mm TRS Analog In
Maximum Pixel Clock	600Mhz			
Max Video Resolutions	4096x2160p @ 60Hz 8bit 4:4:4 or RGB 3840x2160p @ 60Hz 12bit 4:2:2 Dolby Vision 3840x 2160p @ 60Hz 10bit 4:2:2 HDR10/HLG 1920x1080p @60Hz 12bit			
Audio Formats	Passthrough: 2ch PCM and up to DTS:X and Dolby Atmos ARC: 2ch PCM and up to Dolby Digital+ and DTS 5.1 Dante/AES67: 2CH PCM (DNT-TX only)			
Supported Standards	RGB DCI USB 1.1, 2.0 BT.2020			
Output Video Encoding	JPEG 2000			
Encoding Data Rate	Max: 850Mbps (Configurable)			
End to End Latency	1 video frame latency (pass-through mode) 16ms @ 4K60 2 video frames latency (scaler/VW mode)			
Communication and Control				
HDMI	HDMI 2.0b HDCP 2.2 CEC EDID ARC			
Network	1x 1GbE RJ45 1x 1Gbps SFP Supported SFP Modules: (1000Base-SX: 550m using OM3 multi-mode) (1000Base-LX: 5km using single-mode) (1000Base-LX10: 10km using single-mode) 1x 1GbE RJ45 Dante Out (DNT-TX only)			1x 1GbE RJ45
RS-232	1x 3-Pin Phoenix Connector 2-way API Programmable			1x 3.5mm 2-way API Programmable
IR	1x IR TX 3.5mm TS Mono Jack API Programmable 1x IR RX 3.5mm TRS Stereo Jack API Programmable			N/A
USB	1x USB 2.0 Type Host (Max 300Mbps upstream)	2x USB 1.1 Type A 1x USB 2.0 Type A	1x USB 2.0 Type Host (Max 300Mbps upstream)	1x USB-C Host (Up to 300Mbps upstream)
Security Protocols	AES 128 SSH TLS HTTPS			
Power				
Power Supply	12V DC 1A 802.3af PoE Compliant			
Power Consumption	Max: 15.4w Average: 8w			
Environmental				
Operating Temperature	0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing			
Storage Temperature	-20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing			
Maximum BTU	51.18 BTU/hr			
Dimensions & Weight	Length x Width x Height: 215mm x 120mm x 25mm Weight: 1.75lbs			2-gang US J-Box Height x Width x Depth: 121mm x 121mm x 51.4mm Weight: 1lbs
Regulatory				
Safety and Emission	CE FCC RoHS EAC RCM			

Specifications

Audio and Video				
	400 Series	400-E Series	NHD-400-DNT-TX	NHD-400-TX-IW
Inputs/Outputs	TX 1x HDMI Input 1x HDMI Output 1x Audio In: 3.5mm (1/8in)	TX 1x HDMI Input	1x HDMI Input 1x Audio In: 3.5mm (1/8in) 1x IR In: 3.5mm (1/8in) 1x Audio Out: 3.5mm (1/8in)	1x HDMI Input 1x VGA Input 1x Audio In: 3.5mm (1/8in)
	RX 1x HDMI Output 1x Audio Out: 5-Pin Phoenix	RX 1x HDMI Output		
Maximum Pixel Clock	300MHz			
Output Video Encoding	JPEG 2000			
Encoding Data Rate	Max: 850Mbps (Configurable)			
Max End to End Latency	1 video frame latency (pass-through mode) 16ms @60fps 2 video frames latency (scaler/VW mode)			
Max Video Resolutions	3840x2160p @ 60Hz 8bit 4:2:0 3840x2160p @ 30Hz 8bit 4:4:4 or RGB 3840x2160p @ 30Hz 10bit 4:2:2 HDR/HLG 1920x1080p @ 60Hz 12bit			
Communication and Control				
HDMI	HDMI 2.0 HDCP 2.2 CEC EDID			
Ethernet	1x 1GbE 8-pin RJ-45			
RS-232	1x RS-232: 4-pin Phoenix (RX only)		1x RS-232: 3-pin Phoenix	1x RS-232: 3.5mm (1/8in) TRS Stereo 2 Way
IR	1x IR TX: 3.5mm TS Mono 1x IR RX: 3.5mm TRS Stereo Bidirectional Over Ethernet	N/A	1x IR TX: 3.5mm TS Mono 1x IR RX: 3.5mm TRS Stereo Bidirectional Over Ethernet	N/A
USB	RX: 2x USB Device: USB Type A TX: 1x USB Host: USB Type B Power: 5v 500ma per port Data Rate: Max 9MB/s	N/A	1x USB Host: USB Type B Data Rate: Max 9MB/s	1x USB Host: USB Type B Data Rate: Max 9MB/s
Security Protocols	AES 128 SSH TLS HTTPS			
Power				
Power Supply	12V DC			
PoE	IEEE 802.3af			
Power Consumption	8W			
Environmental				
Operating Temperature	0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing			
Storage Temperature	-20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing			
Maximum BTU	51.18 BTU/hr			19.45 BTU/hr
Dimensions & Weight	Length x Width x Height: 220mm x 140mm x 25mm Weight: 1.75lbs			2-gang US J-Box H x W x D: 108mm x 91mm x 45mm Weight: 1lbs
Regulatory				
Safety and Emission	CE FCC RoHS EAC RCM			

Specifications

Audio and Video				
	NHD-250-RX	NHD-140-TX	NHD-120 Series	NHD-110 Series
Inputs/Outputs	1x HDMI Output 1x Audio Out: 3-Pin Phoenix	4x HDMI Input	TX	TX
			1x HDMI Input 1x Audio Out: 3-Pin Phoenix	1x HDMI Input 1x Audio Out: 3-Pin Phoenix
			RX	RX
			1x 8-pin RJ-45 female 1x HDMI Output 1x Audio Out: 3-Pin Phoenix	1x HDMI Output 1x Audio Out: 3-Pin Phoenix
Output Video Encoding	N/A	H.264	H.264/H.265	H.264/H.265
Encoding Data Rate	N/A	120Mbps (30Mbps per encoder)	H.264: 30Mbps H.265: 5Mbps	H.264: 30Mbps H.265: 5Mbps
Max End to End Latency	~80ms (low latency mode) ~300ms (high quality mode)		1080p LLM: 80ms HQM: 250ms 4K LLM: 150ms HQM: 300ms	LLM: ~80ms HQM: ~300ms
Max Video Resolutions	3840x2160p @60Hz (Tile mode) 1920x1080p @60Hz	1920x1080p @60Hz 8bit	1920x1080p @ 60Hz 3840x2160p @ 30Hz 4:2:0 8bit	1920x1080p @60Hz 8bit
Communication and Control				
HDMI	HDMI 1.4 HDCP 1.4 CEC	HDMI 1.4 HDCP 1.4	HDMI 1.4 HDCP 2.2 EDID CEC	HDMI 1.4 HDCP 1.4 CEC
Ethernet	1x 1GbE 8-pin RJ-45			
RS-232	1x RS-232: 3-pin Phoenix Routed API Programmable	N/A	1x RS-232: 3-pin Phoenix API Control	1x RS-232: 3-pin Phoenix Routed API Programmable
IR	N/A	N/A	1x IR TX: 3.5mm TS Mono 1x IR RX: 3.5mm TRS Stereo Routed API Programmable	1x IR TX: 3.5mm TS Mono 1x IR RX: 3.5mm TRS Stereo Routed API Programmable
Security Protocols	AES 128 SSH TLS HTTPS			
Power				
Power Supply	12V DC			
PoE	IEEE 802.3af	N/A	IEEE 802.3af	IEEE 802.3af
Power Consumption	8.3W	19.44W	3.6W	6W
Environmental				
Operating Temperature	0 to +45°C (32 to +113 °F), 10% to 90%, non-condensing			
Storage Temperature	-20 to +70°C (-4 to +158 °F), 10% to 90%, non-condensing			
Maximum BTU	31 BTU/hr	68 BTU/hr	20.47 BTU/hr	20.47 BTU/hr
Dimensions & Weight	L x W x H: 220mm x 140mm x 25mm Weight: 1.75lbs	L x W x H: 260mm x 210mm x 25mm Weight: 2.25lbs	L x W x H: 175mm x 100mm x 25mm Weight: 1.25lbs	
Regulatory				
Safety and Emission	CE FCC RoHS EAC RCM			

	NHD-CTL-PRO v2	NHD-000-CTL
Communication and Control		
Network	2x 1GbE RJ45 (Control & AV)	2x 1GbE RJ45 (Control & AV)
RS-232	1x RS-232 6-Pin Phoenix Connector	
HDMI	Reserved for future use	N/A
USB	Reserved for future use	N/A
Security Protocols	Telnet Telnet over TLS SSH HTTPS	
Power		
Power Supply	12V DC 1A	12V DC 1A
PoE	802.3af PoE Compliant	
Power Consumption	N/A	Max: 15.4w Average: 5w
Environmental		
Operating Temperature	0 to +45°C (32 to +113 °F), 10% to 90%, non-condensing	
Storage Temperature	-20 to +70°C (-4 to +158 °F), 10% to 90%, non-condensing	
Maximum BTU	N/A	20 BTU/hr
Dimensions & Weight	Length x Width x Height: 215mm x 120mm x 25mm Weight: N/A	Length x Width x Height: 140mm x 90mm x 25mm Weight: 1lbs
Regulatory		
Safety and Emission	CE FCC RoHS EAC RCM	