

NetworkHD 500 Series (JPEG2000)

NHD-500-TX v2 | NHD-500-RX v2



Key Features

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

In the Box

- 1x NHD-500-TX or NHD-500-RX
- 1x IR Emitter
- 1x IR Receiver
- 1x Pair of Rack Brackets
- 2x Pair of Wall Brackets
- 1x 3-pin Terminal Block
- 1x 5-pin Terminal Block

- Dante AV-A available on both Encoder and Decoder. (license required)
- 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-510-TX



Key Features

- HDMI/USB-C with 4K60 4:4:4 8bit and HDCP 2.2 compliance over Gigabit network.
- Supports full function USB-C for video/audio/USB 2.0/Ethernet data
- USB-C 60w charging with external power adapter
- Ability to auto switch between USB-C and HDMI inputs for encoding

In the Box

- 1x NHD-510-TX Encoder
- 1x Pair of Rack Brackets
- 2x Pair of Wall Brackets
- 1x 4-pin Terminal Block
- 1x 5-pin Terminal Block

- HDMI Video Loop out from active video input
- Ethernet or Fiber connections (550m with OM3 MMF or 10km with SMF)
- Dante AV-A available (license required)
- Ultra-low latency transmissions of 4ms

NHD-500-DNT-TX



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 with OM3 MMF or 10km with SMF)

In the Box

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

- USB connectivity for extension and routing of USB peripheral devices
- Ultra-low latency transmissions of 4ms
- High definition preview streams for control system interfaces

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



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

In the Box

- 1x NHD-500-E-TX or NHD-500-E-RX
- 1x IR Emitter (TX only)
- 2x Pair of Wall Brackets 1x Pair of Rack Brackets
- 1x 3-pin Terminal Block (RX only)
- 1x 5-pin Terminal Block (TX only)
- 1x Pair of Wall Brackets
- 1x Pair of Rack Brackets

- Balanced audio de-embed for connecting external audio systems
- Dante AV-A available on both Encoder and Decoder. (license required)

NHD-500-IW-TX v2



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-C 60w charging with external power adapter

In the Box

- 1x NHD-500-IW-TX v2 Encoder
- 1x Decora Face Plate
- 1x Mounting Plate
- 2x Sets of Mounting Screws
- 1x 2-pin Terminal Block

- USB extension and routing for peripheral USB devices
- Dedicated stereo input for connecting external audio devices
- Dante AV-A available (license required)

Specifications

Audio and Video						
	NHD-500-TX v2	NHD-500-RX v2	NHD-500-E-TX/RX	NHD-510-TX	NHD-500-DNT-TX	NHD-500-IW-TX v2
Inputs/Outputs	1x HDMI In 1x HDMI Loop Out 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	TX 1x HDMI In 1x 5-pin Balanced Analog Out RX 1x HDMI Out	1x HDMI In 1x USB-C In 1x HDMI Loop Out 1x 5-pin Balanced Analog Out	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	*5120x2160@60Hz 4:2:0 CVT 4096x2160@60Hz 8bit 4:4:4 or RGB 3840x2160@60Hz 12bit 4:2:2 Dolby Vision 3840x2160@60Hz 10bit 4:2:2 HDR10/HLG 1920x1080@60Hz 12bit *5K resolution only support in pass-through mode					
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 (Dante AV-A or DNT-TX)					
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	4ms video latency @4K60 (pass-through mode) 1-2 video frames latency (scaler/VW mode)					
Communication and Control						
HDMI	HDMI 2.0b HDCP 2.2 CEC EDID ARC					
Network	1x 1GbE RJ45 1x 1GbE RJ45 for Dante 1x 1Gbps SFP	1x 1GbE RJ45	Same as NHD-500-TX/RX v2	1x 1GbE RJ45		
	Supported SFP Modules: 1000Base-SX: 550m using OM3 multi-mode 1000Base-LX: 5km using single-mode 1000Base-LX10: 10km using single-mode					
RS-232	1x 3-Pin Phoenix Connector 2-way API Programmable	Only Rx	1x 4-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	Only TX	Same as NHD-500-TX/RX v2	N/A		
USB	1x USB 2.0 Type B (Up to 200Mbps upstream)	2x USB 1.1 Type A 2x USB 2.0 Type A	N/A	1x USB 2.0 Type B 1x USB 2.0 Type C (Up to 200Mbps upstream)	1x USB 2.0 Type B (Up to 200Mbps upstream)	1x USB 2.0 Type C (Up to 200Mbps upstream)
Security Protocols	AES 256 SSH HTTPS					
Power						
Power Supply	12V DC 1A 802.3at PoE+ Compliant	12V DC 1A/3A(with USB loads) 802.3at PoE+ Compliant	12V DC 1A 802.3af PoE Compliant	20V DC 6A 802.3at PoE+ Compliant	12V DC 1A 802.3af PoE Compliant	20V DC 6A 802.3af PoE Compliant
Power Consumption	8.5w	7w 20.8w(with USB load)	TX: 6w RX: 7.5w	8.5w 73w(with external PSU 60w charging)	9w	7w 70w(with external PSU 60w charging))
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(L x W x H) & Weight	Dimensions: 215 x 160 x 25 mm Weight: 1.75lbs	Dimensions: 215 x 120 x 25 mm Weight: 1.63lbs	Dimensions: 215 x 160 x 25 mm Weight: 2.22lbs	Dimensions: 215 x 120 x 25mm Weight: 1.63lbs	2-gang US J-Box Height x Width x Depth: 121 x121 x 51.4mm Weight: 1lbs	
Regulatory						
Safety and Emission	CE FCC RoHS EAC RCM UKCA					