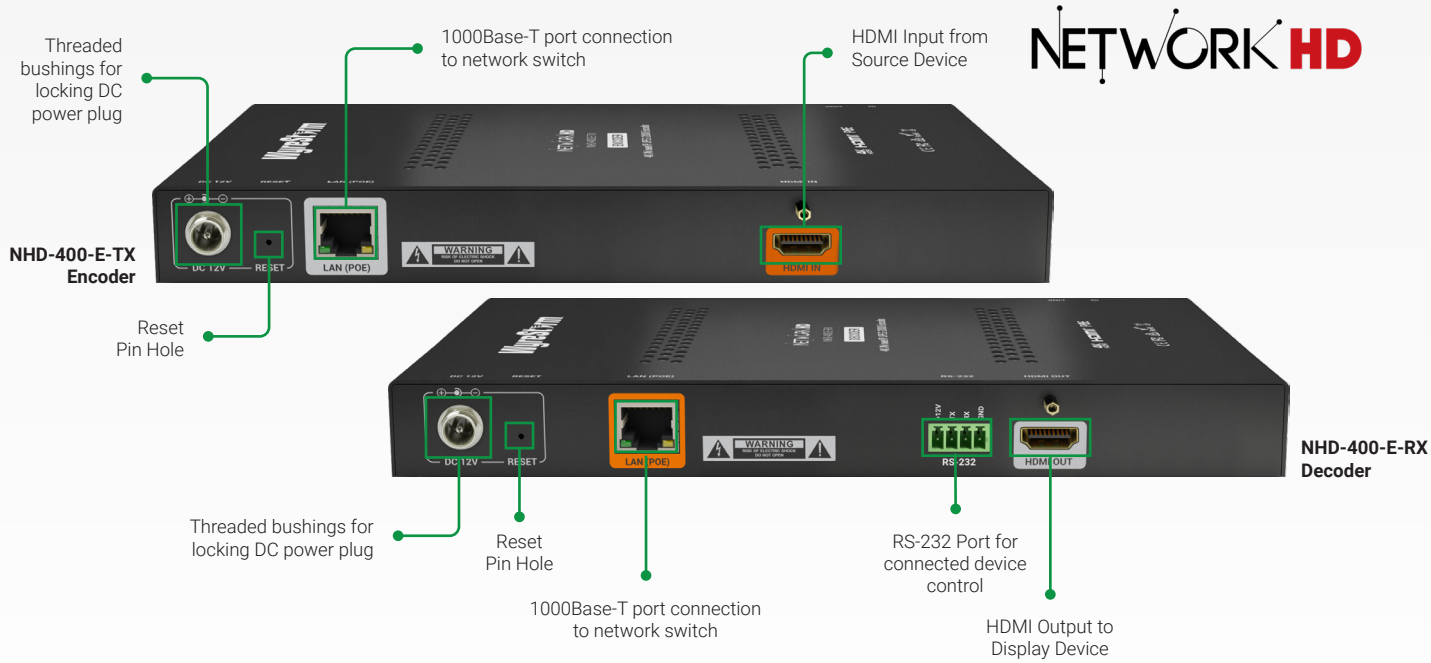
WyreStorm NetworkHD 400 Series 4K AV over IP JPEG 2000 Encoder and Decoder

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

Specification Sheet



WyreStorm - Powerful. Reliable. Simple.

Introduction

The NetworkHD 400 E Series offers stunning 4K HDR video, multichannel audio support and 4K/2K scaling to seamlessly handle mixed resolution HDMI sources for matrix and video wall functionality. The reduced cost Type E version removes some control ports but retains the 400 Series core features. Featuring incredible low latency the 400 Series is the ideal AV over IP solution for systems where high quality and low delay are key requirements, making it perfect for demanding commercial applications.

The NetworkHD 400 E Series is intended for use with any 400 Series JPEG 2000 encoder or decoder (sold seperately) to provide a complete end-to-end video distribution system. When used in conjunction with the NHD-000-CTL system controller complete control integration is quick and simple.

Key Features

- Stunning visually lossless 4K UHD video with HDR over 1GbE / IP networks
- Ultra-low end-to-end latency – only a single video frame (16ms at 60fps)
- Multi-channel audio including DTS:X & Dolby ATMOS supported over HDMI
- Image scaling with 400 Series decoders - use a mix of 4K & 1080p displays throughout an installation
- Easy network set-up using standard Layer 2 or Layer 3 managed switches
- Hugely scalable I/O, utilizing multicast technology
- Live video unicast preview streams for use with NetworkHD Touch or a custom control UI
- Powerful audio matrix functionality - route audio separately from video to any decoder
- CEC One-Touch Play & Standby, IR or RS-232 control of connected devices using 400 Series decoder
- 400 Series supports up to 16x16 video walls with image scaling, bezel compensation and rotation
- 400 Series supports custom “No Source” idle image upload for branded down time
- Support all SD, HD and UHD video formats - including interlaced content
- Batch firmware update and batch settings functions offers a massive reduction on installation times
- Custom EDID management with import/export
- HDCP 2.2 Compliant
- IEEE 802.3af PoE compliant PD
- Compatible with NHD-000-RACK4 rack mounting kit (brackets included with encoder)

In the Box

1x NHD-400-E-TX or NHD-400-E-RX
1x Wall Mounting Brackets
1x Rack Mounting Brackets
1x Quickstart Guide

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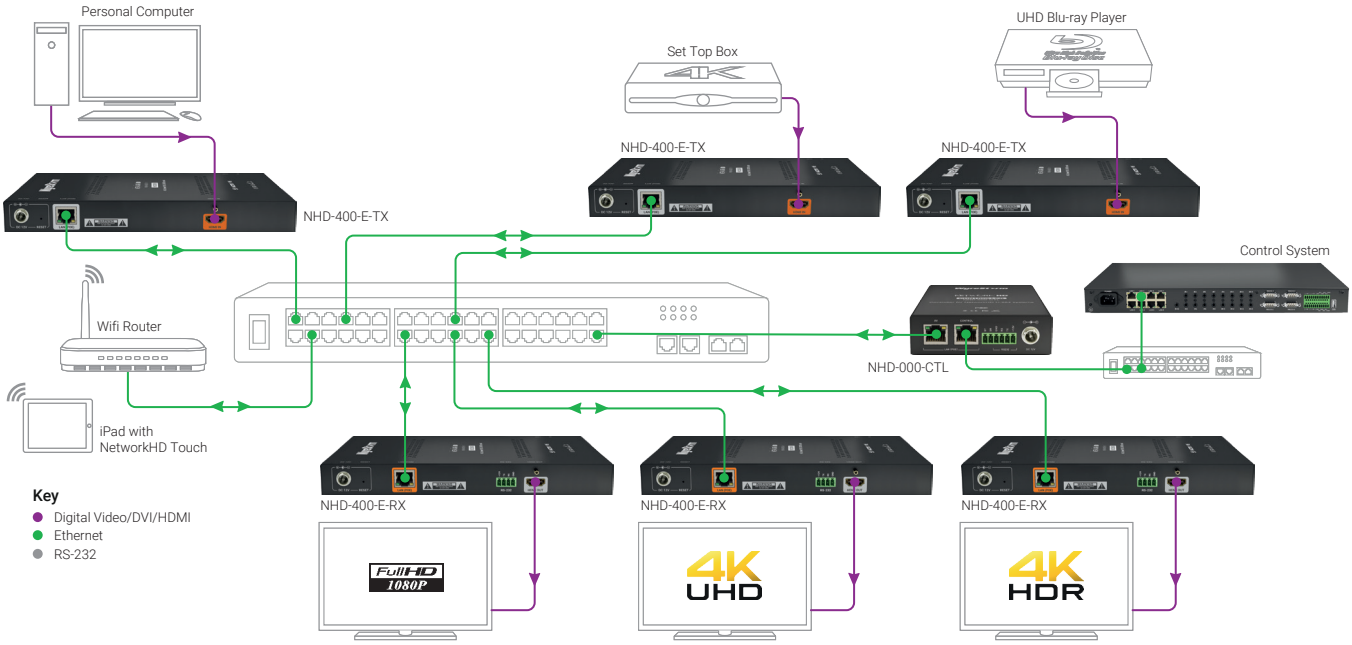
Specifications

Connectivity		
	Encoder (TX)	**Decoder (RX)**
Inputs	1x HDMI IN: 19-pin HDMI Type A	1x LAN (PoE): 8P8C "RJ45" Socket ANSI/TIA-568
Outputs	1x LAN(PoE): 8P8C "RJ45" Socket ANSI/TIA-568	1x HDMI OUT: 19-pin HDMI Type A 1x RS-232: 4-Pin Phoenix
Transmission		
Transmssion Encoding	Proprietary stream encoding. Video compression based on JPEG 2000	
End to End Latency	With RX, 1 video frame (Passthrough mode) 2 video frames (scaling/video wall) e.g. 16ms @ 60Hz	
Max Transmission Bit Rate	850Mb/s	
Video		
HDMI	300MHz Max.TMDS Clock	
Maximum Data Rate	8.91Gb/s HDMI	
Video Resolutions (Max)	1280x720p @50/59.94/60Hz 12bit 4:4:4/RGB 1920x1080i @29.97/30Hz 12bit 4:4:4/RGB 1920x1080p @23.98/24/25/29.97/30/50/59.94/60Hz 12bit 4:4:4/RGB 3840x2160p @23.98/24/25/29.97/30Hz 10/12bit 4:2:2/4:2:0 HDR10 HLG 3840x2160p @23.98/24/25/29.97/30Hz 8bit 4:4:4/RGB 3840x2160p @50/59.94/60Hz 8bit 4:2:0 720x480p @59.94/60Hz 12bit 4:4:4/RGB 720x576p @50Hz 12bit 4:4:4/RGB 60fps Progressive 4:4:4/RGB: 640x480 | 800x600 | 1024x768 | 1280x800 | 1280x960 | 1280x1024 | 1360x768 | 1366x768 | 1400x1050 | 1440x900 | 1600x1200 | 1680x1050 | 1920x1200	**Passthrough mode:** Output at RX matches input at TX except for: 1) YUV 4:2:0 converted to 8bit RGB 2) For resolutions above 1920x1200 at 50/60Hz framerate is halved **Scaler mode:** User-selectable scaled output 1) All formats converted to 8bit RGB 2) Up to 3840x2160p @30Hz
Supported Standards	HDR10 | HLG | BT.2020 | BT.709 | 3D Video	
Audio		
Audio Formats	PCM up to 8ch | Bitstream audio formats including Dolby Atmos & DTS:X	
Communication and Control		
Ethernet	IEEE 802.1ab 1000BASE-T	
HDCP	HDCP 2.2 | 1.x	
EDID	Programmable EDID | EDID Copy/Import | Custom EDID	
CEC	Programmable CEC Commands | Custom Command Generation (RX Only)	
RS-232	Programmable RS-232 Commands | Custom Command Generation (RX Only)	
Installation & Mounting		
Compatible Rack Mount Kit	NHD-000-RACK4	
Included Accessories	Wall Mount Brackets | Brackets for NHD-000-RACK4	
Orientation	Observe product chassis text	
Power		
Power Over Ethernet	IEEE 802.3af (15.4W at PSE)	
External Power Supply	Optional part: PSU-12V-1A	
Nominal 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	
Dimensions and Weight		
Rack Units/Wall Box	<1U flat on shelf | 6U in NHD-000-RACK4	
Height	25mm/1in	
Width	220mm/8.67in	
Depth	130mm/5.12in	
Weight	0.75kg/1.65lbs	
Regulatory		
Safety and Emission	CE | FCC | RCM | CE LVD | RoHS	

Right Product for the Right Application.



Note: WyreStorm reserves the right to change product specification, appearance or dimensions of this product at any time without prior notice.