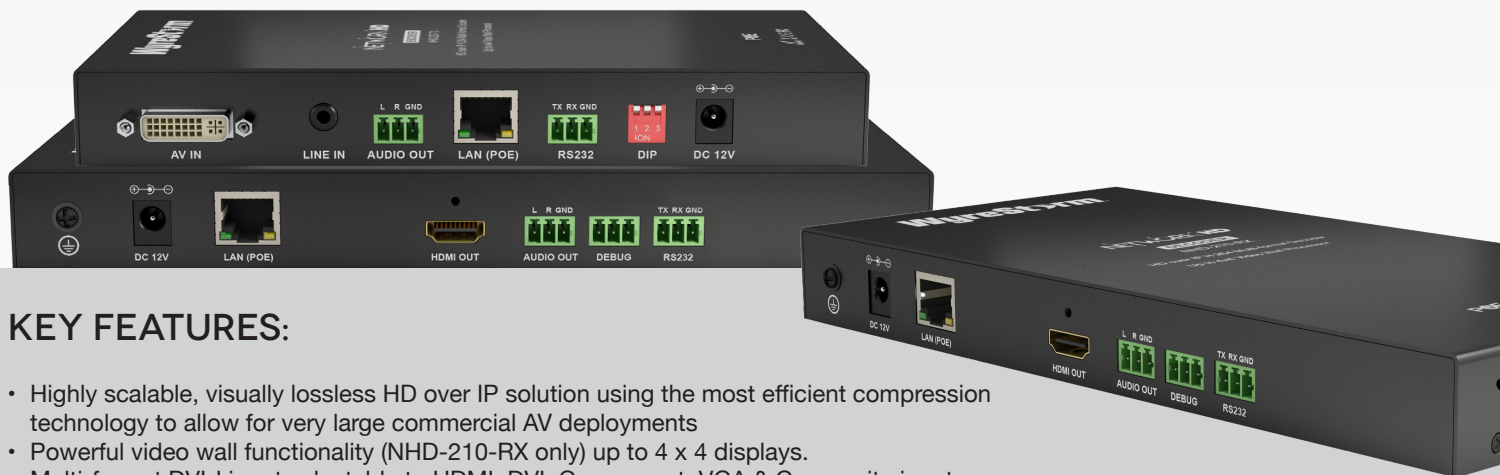# WYRESTORM NETWORKHD™ 200-SERIES HD OVER IP ENCODER AND DECODERS FOR VIDEO WALL

NHD-200 Series

KEY FEATURES:

- Highly scalable, visually lossless HD over IP solution using the most efficient compression technology to allow for very large commercial AV deployments
- Powerful video wall functionality (NHD-210-RX only) up to 4 x 4 displays.
- Multi-format DVI-I input selectable to HDMI, DVI, Component, VGA & Composite input
- Plug and Play setup with automatic networking configuration and auto discovery of components
- Quick SyncTM technology for virtually instantaneous, seamless switching
- CEC One-Touch Play & Standby or RS232 control of connected displays

WyreStorm® NetworkHD 200 is our flagship H.264 HD over IP distribution platform. With its simple system configuration and powerful video wall functionality it is the best all round solution for commercial AV installs. Enabling the distribution of multiple video formats over a dedicated IP network switch for commercial AV applications.

NetworkHD 200 series facilitates the transmission of an HDMI, DVI, Component & VGA signals (including Full HD 1080p video with 2.1 audio) to any number of HDMI displays over standard Ethernet (Cat5e/6) infrastructure. The NHD-200-RX enables the display of a single image on a display whilst the NHD-210-RX decoder adds video wall playback to the system.

ADDITIONAL FEATURES & BENEFITS:

- Supports video previewing on a PC or third party device. NetworkHD 100 outputs simultaneous IP streams. One full resolution for the NHD-100-RX. The other small one supports resolutions of 352 x 288 @ 5Hz to easily preview a video from the encoder on a PC or Mac
- Use with the new NHD-000-CTL controller for simple configuration and control via the LAN, as well as for allowing control from third party control system such as AMX, Crestron, Control4, RTI & WyreStorm™ Enado.

- Supports PoE to enable remote powering from POE network switches, eliminating the need for a nearby power outlet
- Full PC control suite available free of charge at wyrestorm.com
- Supports HDCP
- Audio Breakout on both Encoder & Decoder
- Configurable encoding bit rate up to 40 Mbps

IN THE BOX

NHD-000-CTL
1 x NHD-000-CTL Main Unit
1 x Power Adapter (12V 1A DC)
1 x Phoenix Conn.
    (Male, 3.5 mm, 3 pins)
2 x Mounting Brackets
5 x IP labels

NHD-200-TX
1 x NHD-200-TX Main Unit
1 x Power Adapter (12V 1A DC)
1 x Detachable Plug
1 x HDMI to DVI Converter
2 x Phoenix Conn.
    (Male, 3.5 mm, 3 pins)
2 x Mounting Brackets

NHD-200-RX
1 x NHD-200-RX Main Unit
1 x Power Adapter (12V 1A DC)
1 x Detachable Plug
3 x Phoenix Conn.
    (Male, 3.5 mm, 3 pins)
2 x Mounting Brackets

NHD-210-RX
1 x NHD-210-RX Main Unit
1 x Power Adapter (12V 1A DC)
1 x Detachable Plug
3 x Phoenix Conn.
    (Male, 3.5 mm, 3 pins)
2 x Mounting Brackets

SPECIFICATIONS   NHD-200-TX

Input Video Ports	1 × DVI IN	
Input Video Type	HDMI 1.3, DVI 1.0, VGA, YPbPr	
Input Video Resolutions	**HDMI:**	640 x 480 @ 60Hz, 480p @ 60Hz, 576p @ 50Hz, 800 x 600 @ 60Hz, 1024 x 768 @ 60Hz, 720p @ 50Hz, 720p @ 60Hz, 1280 x 800 @ 60Hz, 1280 x 1024 @ 60Hz, 1360 x 768 @ 60Hz, 1366 x 768 @ 60Hz, 1400 x 1050 @ 60Hz, 1440 x 900 @60Hz, 1680 x 1050 @ 60Hz, 1080p @ 24Hz, 1080p @ 25Hz, 1080p @ 30Hz, 1080p @ 50Hz, 1080p @ 60Hz, 1920 x 1200 @ 60Hz
	DVI:	640 x 480 @ 60Hz, 480p @ 60Hz, 576P @ 50Hz, 800 x 600 @ 60Hz, 1024 x 768 @ 60Hz, 720p @ 50Hz, 720p @ 60Hz, 1280 x 800 @ 60Hz, 1280 x 1024 @ 60Hz, 1360 x 768 @ 60Hz, 1366 x 768 @ 60Hz, 1400 x 1050 @ 60Hz, 1440 x 900 @ 60Hz, 1680 x 1050 @ 60Hz, 1080p @ 24Hz, 1080p @ 25Hz, 1080p @ 30Hz, 1080p @ 50Hz, 1080p @ 60Hz, 1920 x 1200 @ 60Hz
	VGA:	640 x 480 @ 60Hz, 800 x 600 @ 60Hz, 1024 x 768 @ 60Hz, 1280 x 1024 @ 60Hz, 1280 x 720 @ 60Hz, 1280 x 768 @ 60Hz, 1280 x 800 @ 60Hz, 1360 x 768 @ 60Hz, 1366 x 768 @ 60Hz, 1440 x 900 @ 60Hz, 1400 x 1050 @ 60Hz, 1680 x 1050 @ 60Hz, 1920 x 1080 @ 60Hz, 1920 x 1200 @ 60Hz
	Component:	720 x 480p @ 60Hz, 720 x 576p @ 50Hz, 1280 x 720p @ 50Hz, 1280 x 720p @ 60Hz
Input Video Signal	0.5 ~ 1.2 V p-p	
Encoding Data Rate	Up to 40 Mbps, configurable	
Output Video Ports	1 x LAN	
Output Video Type	H.264/MPEG-4 AVC	
Output Video Resolutions	Large IP stream: 480p @ 60Hz ~ 1920 x 1200 @ 60Hz, Small IP stream: 352 x 288 @ 5Hz	
Video Impedance	100 Ω	
Input DDC Signal	5 V p-p (TTL)	
End-to-End Time Latency	About 60 ms-90 ms (Low latency mode), About 250 ms-300 ms (High quality mode)	
Input Audio Ports	1 x Audio Jack	
Input Audio Format	Stereo	
Output Audio Ports	1 x Phoenix Connector	
Output Audio Format	Stereo	
Control Method	Rear panel source switch, PC configurator and RS232	
Operating Temperature	+32°F ~ +113°F (0°C ~ +45°C) 10% ~ 90%, non-condensing	
Storage Temperature	-4°F ~ 140°F (-20°C ~ +70°C) 10% ~ 90%, non-condensing	
Power	12V 1A DC	
Power Consumption	6W (Max.)	
ESD Protection	**Human body model:** ±8kV (air-gap discharge) ±4kV (contact discharge)	
Surge Protection	Voltage ±1 kV	
Product Dimensions (WxHxD)	200mm x 25 mm x 94mm / 7.9" x 1.0" x 3.7"	
Weight	0.48 Kg	
Certification	CE, FCC, RoHS compliant	

SPECIFICATIONS   NHD-200-RX & NHD-210-RX

Input Video Ports	1 × LAN
Input Video Type	H.264/MPEG-4 AVC
Input Video Resolutions	480p @ 60Hz ~ 1920 x 1200 @ 60Hz
Output Video Ports	1 x HDMI
Output Video Type	HDMI 1.3
Output Video Resolutions	**HDMI:** 480p @ 60Hz, 576p @ 50Hz, 800 x 600 @ 60Hz, 1024 x 768 @ 60Hz, 720p @ 50Hz, 720p @ 60Hz, 1280 x 800 @ 60Hz, 1280 x 1024 @ 60Hz, 1366 x 768 @ 60Hz, 1440 x 900 @ 60Hz, 1600 x 1200 @ 60Hz, 1680 x 1050 @ 60Hz, 1080p @ 24Hz, 1080p @ 25Hz, 1080p @ 30Hz, 1080p @ 50Hz, 1080p @ 60Hz, 1920 x 1200 @ 60Hz
Video Impedance	100 Ω
End-to-End Time Latency	About 60 ms-90 ms (Low latency mode), About 250 ms-300 ms (High quality mode)
Input Audio Ports	1 x LAN
Input Audio Format	Audio embedded in streaming media input
Output Audio Ports	1 x Phoenix Connector
Output Audio Format	Stereo
Control Method	PC configurator and RS232
Operating Temperature	+32°F ~ +113°F (0°C ~ +45°C) 10% ~ 90%, non-condensing
Storage Temperature	-4°F ~ 140°F (-20°C ~ +70°C) 10% ~ 90%, non-condensing
Power	12V 1A DC
Power Consumption	6W (Max.)
ESD Protection	**Human body model:** ±8kV (air-gap discharge ±4kV (contact discharge)
Surge Protection	Voltage ±1 kV
Product Dimensions (WxHxD)	228mm x 25 mm x 111mm / 9'.0' x 1.0" x 4.4"
Weight	0.6 Kg
Certification	CE, FCC, RoHS compliant

The modular system architecture of NetworkHD 200 removes the limitations of a traditional fixed platform I/O matrix system without compromising quality or reliability, whilst offering significant cost savings when designing large scale installations. Adding transmitters and receivers as required enables the system to grow with the needs of the application.

NetworkHD 200 uses multiple technologies to automatically configure and discover system components, making setup a breeze. Functioning on 10/100 or Gigabit Layer2 SMART switches, NetworkHD 200 does not require advanced integrator network experience to install, nor does it require complicated VLAN configurations or PC software, making it one of the simplest HD over IP systems available. Configuring network switches takes minutes through your browser and even the largest distributions can be quickly and easily configured and expanded.

The NHD-000-CTL controller creates a simple, single interface to configure, manage and control the entire NetworkHD 200 system, whilst also capable of fully integrating with leading control brands including WyreStorm EnadoTM for the highest quality total HD distribution and control solution over a network.

For further information on this product and other WyreStorm ranges, visit our website or download our latest product guide at **wyrestorm.com**

HDMI POE HDCP

KEY
- ● CAT 5e/6
- ● HDMI
- ● LINE LEVEL AUDIO

BLU-RAY

MEDIA PLAYER

MULTI-ZONE AMPLIFIER

NHD-200-TX ENCODER

NHD-200-TX ENCODER

NHD-000-CTL

NHD-200-RX DECODER

CONTROL SYSTEM

POE
Power over Ethernet

NHD-210-RX DECODER

NHD-210-RX DECODER

NHD-210-RX DECODER

NHD-210-RX DECODER