USB over IP Transceiver

NHD-USB-TRX

WyreStorm

Quickstart Guide

ⓘ WyreStorm recommends reading through this document in its entirety to become familiar with the product's features prior to starting the installation process.

NETWORKHD

The NHD-USB-TRX is a versatile USB 2.0 transceiver designed to function as either a transmitter or receiver, configurable to extend USB signals seamlessly over a Gigabit Ethernet network. Fully interoperable with the NHD-500 series, it offers a cost-effective solution for applications requiring reliable USB 2.0 signal extension without additional AV routing features.

⚠ **IMPORTANT! Installation Requirements**

- Read through the Wiring and Connections section for important wiring guidelines before creating or choosing premade cables.
- Visit the product pages to download the latest firmware, document version, additional documentation, and configuration tools.

In the Box
1x NHD-USB-TRX
2x Mounting Brackets
2x Screws (M2.5*L5)
1x Quickstart Guide (This Document)

Front Panel

1 2   3

Rear Panel

4 5 6 7   8 9

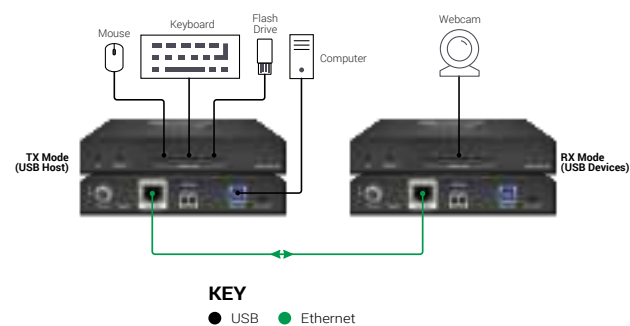| No.	Name	Description
1	POWER LED	• On: Device is powered on • Blinking: Device is booting • Off: Device is powered off
2	STATUS LED	**In TX mode (USB Host):** • **On:** Device is powered on • **Blinking slowly:** Device is being upgraded • **Blinking quickly:** 'Find me' function is activated **In RX mode (USB Devices):** • **On:** Connected to a network and associated with a valid USB transmitter • **Blinking:** Connected to a network but associated with an invalid USB transmitter • **Blinking slowly:** Device is being upgraded • **Blinking quickly:** 'Find me' function is activated through Telnet API. Refer to API documentation • **Off:** Not connected to a network or associated with a USB transmitter
3	USB DEVICES	**In TX mode (USB Host):** USB 3.2 Gen 2 Type-A ports **In RX mode (USB Devices):** USB 2.0 Type-A ports • Connect USB peripherals for USB expansion **Note:** • In TX mode (USB Host), acts as a local USB hub • Powered by a power adapter: Ports share 3A total current • Powered by PoE: Ports share 2.5A total current
4	12V	Connect to a DC 12V power adapter. Recommended adapter: DC 12V 2A or higher. Insufficient power may occur with lower specifications under maximum load.
5	RESET	Press and hold for 5+ seconds to reboot and restore factory settings. **Note:** Restoring factory settings will erase custom data. Use with caution.
6	LAN (POE)	Connect to a Gigabit Ethernet switch for IP stream transmission and control. Default IP mode is DHCP. **Note:** 1. If both Ethernet ports are connected, the first port to connect is used. 2. Supports PoE+ to eliminate the need for a power outlet.
7	OPTICAL	Connect to a network switch using a single-mode or multimode SFP module (not included). Transmission distance depends on the SFP module used.
8	USB HOST	USB 3.2 Gen 2 Type-B port. Connect to a USB host device.
9	HOST/DEVICES	DIP switch to toggle between TX and RX modes. Default setting: TX.

Wiring and Connections

WyreStorm recommends that all wiring for the installation is run and terminated prior to making connections to the switcher. Read through this section in its entirety before running or terminating any wires to ensure proper operation and to avoid damaging the equipment.
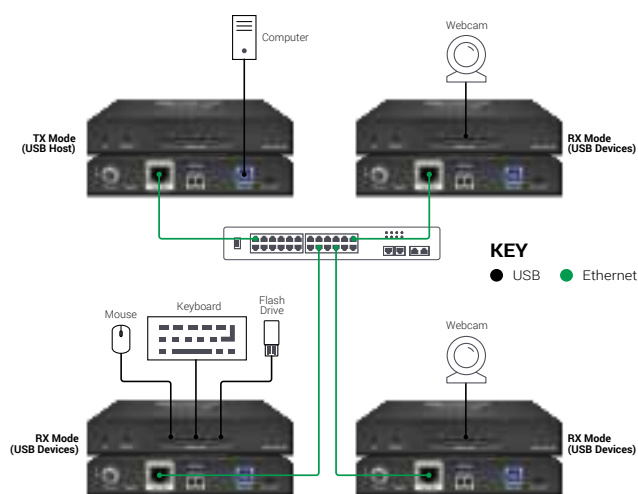
⚠ **IMPORTANT! Wiring Guidelines**

- The use of patch panels, wall plates, cable transmitters, kinks in cables, and electrical or environmental interference will have an adverse effect on signal transmission which may limit performance. Steps should be taken to minimize or remove these factors completely during installation for best results.
- WyreStorm recommends using pre-terminated USB and Ethernet cables due to the complexity of these connector types. Using pre-terminated cables will ensure that these connections are accurate and will not interfere with the performance of the product.
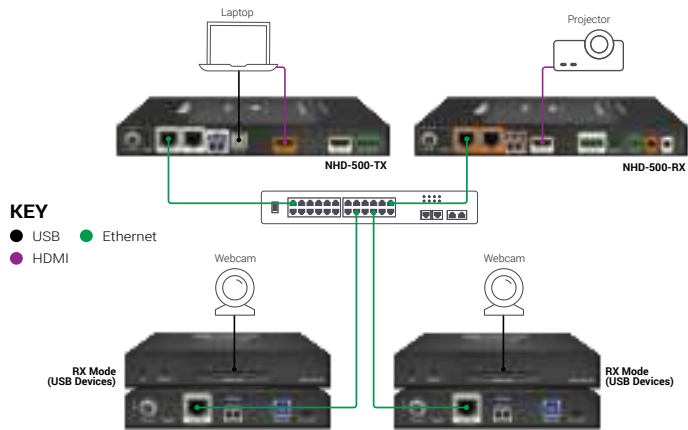
Wiring Diagram - Point to Point

Wiring Diagram - Point to Multi-Point

Wiring Diagram - Interoperable with NetworkHD 500 Series

Specifications

Technical	
USB Host	1x USB 3.2 Gen Type-B, 10Gbps
USB Device	Local end: 3x USB 3.2 Gen 2 Type-A, 10Gbps (Applies to TX Mode) Remote end: 3x USB 2.0 Type-A, 480Mbps (Applies to RX Mode)
LAN	1x RJ45 (PoE+)
Control Method	DIP Swith (for TX/RX configuration); NHD-CTL-PRO v2; Telnet API
Power	
Power Supply	12V DC / PoE+
Max Power Consumption	No Load: 2.2W Full Load with 3A current: 18.5W
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
ESD Protection	Human Body Model: ±8kV (air-gap discharge) / ±4kV (contact discharge)
Dimensions and Weight	
Dimensions (WxHxD)	5.51" x 0.93" x 3.54" (140mm x 23.5mm 90mm)
Regulatory	
Safety and Emission	CE | FCC | RoHS | RCM | EAC | UKCA

Warranty Information

WyreStorm Technologies ProAV Corporation warrants that its products to be free from defects in material and workmanship under normal use for a period of five (5) years from the date of purchase. Refer to the Product Warranty page on wyrestorm.com for more details on our limited product warranty.