



**NETWORK
TECHNOLOGIES
INCORPORATED**

1275 Danner Dr Tel:330-562-7070
Aurora, OH 44202 Fax:330-562-1999
www.networktechinc.com

USB-IP-4

Quad USB over Ethernet Extender



Operation Manual

SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE DD/MM/YY	SUMMARY OF CHANGE
VR0	25/03/11	Preliminary Release
VS1	06/07/12	Updated format/diagrams



CONTENTS

1. Introduction	1
2. Applications	1
3. Package Contents	1
4. System Requirements	1
5. Features	2
6. Operation Controls and Functions	3
6.1 Front Panel	3
6.2 Rear Panel.....	4
6.3 Driver Installation	5
6.4 Driver Uninstallation.....	7
7. Connection Diagram	8
8. Specifications	9
9. Acronyms	9



1. INTRODUCTION

The Quad USB over Ethernet Extender allows you to utilize your USB devices over an existing network installation or connect directly to your PC or laptop. For home, commercial or retail environments this device allows hands-on control of USB devices for users within the same network. Compatible with a wide range of USB devices, you can control up to four different devices up to 100 meters away.

2. APPLICATIONS

- Share USB devices over a network
- Meeting room USB control of remote PCs
- Transfer of USB data over a network
- External USB hub
- USB display control (with USB to HDMI converter)

3. PACKAGE CONTENTS

- USB over Ethernet Extender
- Software CD-ROM (includes Drivers)
- 5 V/2.6 A Power Adaptor
- Operation Manual

4. SYSTEM REQUIREMENTS

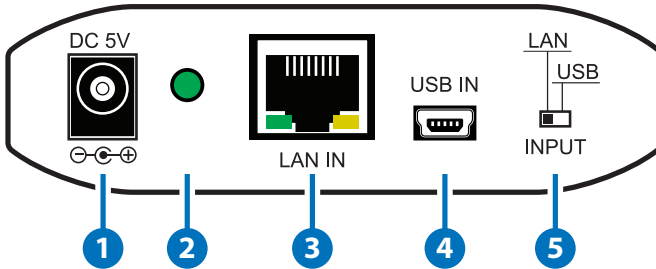
- PC/laptop with USB or RJ45 cable (direct connection or through an existing network) and USB devices such as printers, scanners, flash drives, HDD and digital cameras.
- Computer System Requirements: 2.4GHz single core CPU with at least 1GB RAM for optimal performance
- Operating Systems:
 - Windows XP Home or Professional SP2 (32-bit)
 - Windows Vista (32-bit)
 - Window 7

5. FEATURES

- USB Hub - Control up to 4 four USB devices
- Capable of high-speed (480 Mbps), full-speed (12 Mbps) and low-speed (1.5 Mbps) USB connection speeds (overall speed in LAN Mode might be limited by the bandwidth of the network)
- Works up to 100 meters away (in Extender Mode)
- Connect to existing network or directly to PC with RJ45 cable
- Compliant with USB 2.0 (Hi-speed) specification
- Supports Ethernet protocols TCP/IP
- Supports 10/100/1000Mbps Ethernet speeds

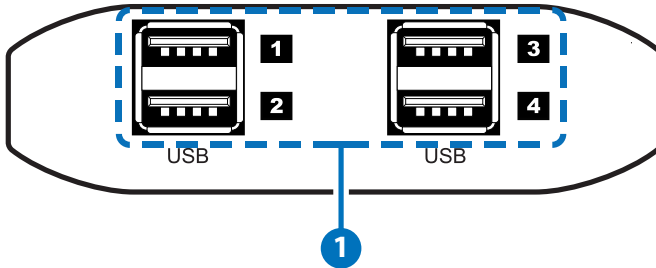
6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



- 1 DC 5V:** Plug the 5V DC power supply included in the package into the unit and connect the adaptor to AC wall outlet.
- 2 Power LED:** LED will illuminate green when the device is connected to a power supply.
- 3 LAN IN:** Connect with a RJ45 terminated CAT5e/6 cable to your existing network system or directly to a PC or laptop.
- 4 USB IN:** Connect with a mini-USB to USB cable from your PC/laptop.
- 5 INPUT switch:** Switches the input mode between LAN (network) and direct USB Connection

6.2 Rear Panel



- 1 USB 1~4:** Use to connect to USB devices such as flash drives, external HDDs, digital cameras, printers, and etc.

The USB over Ethernet Extender is a multi-function USB HUB which allows you to:

A. LAN Mode: Allows PC/Laptops to access USB devices over an existing Intranet network. The LAN Mode can be used in a home or office environment that has its own configured network infrastructure, as the device will allow users connected to the LAN (Local Area Network) to access up to four USB devices.

B. Extender Mode: Extend the USB operating distance over a single RJ45 terminated CAT5e/6 cable up to 100 meters this allows the use of USB devices in remote locations in an installation.

C. HUB Mode: Use it as a regular 4 port USB Hub. Where no signal extension is needed, the device can be used as a 4 port USB Hub and can be directly connected to a PC/Laptop.

For the LAN mode or Extender Mode to function, the software application and driver (provided on the supplied CD-ROM) are required to be installed on any connected PCs/Laptops for them to identify and hook up with the unit in the same network using TCP/IP protocol.

In all 3 modes, USB 2.0 (data rates up to 480Mbps) and USB 1.1 protocols (data rates up to 12 Mbps) are both supported.

Role of USB devices in a setup with this unit:

- Host Devices (PC / Laptop): Can Control this unit and any USB devices connected to it.

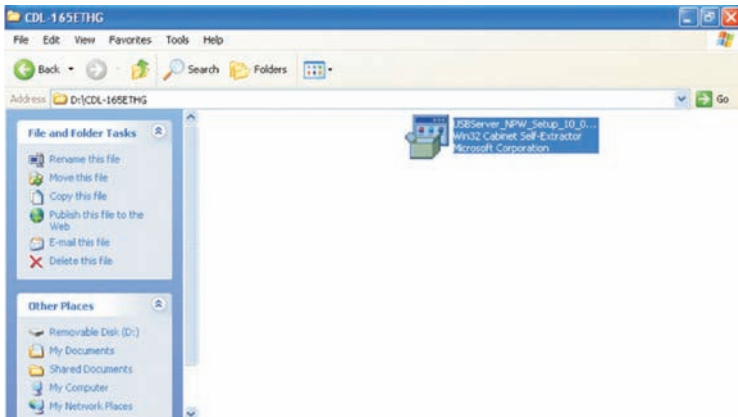
- Storage Devices (USB Flash Drive, USB Hard Drive, etc.): Provide bi-directional data transfer between the Storage Device and the Host Device.
- Peripheral Devices (USB Printer, USB Scanner, etc.): Provide bi-directional data transfer between the Peripheral Device and the Host Device.
- Input Devices (USB Keyboard, USB Mouse, etc.): Can be used to control the Host Device remotely.

6.3 Driver Installation

The following sections list the procedures to follow when installing the USB device drivers. Insert the supplied CD-ROM into your CD-ROM drive, run the USB Install Disc and follow the below steps to install the driver.

1. Installs the USB Server Software

Double click on the USB Server Setup icon to start the set up software and click finish when the setup is complete.

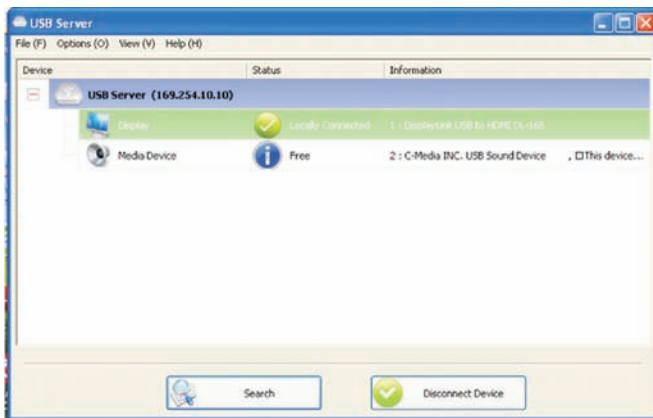


When USB Server software has been installed completely, the icon for the USB Server should appear on both the desktop and in the System Tray area on the bottom right of the desktop.



2. Uses the USB Server Software

Double click on the Launch USB Server icon from the desktop or from the System Tray, the USB Server window will appear. Connect both PC/Laptop and the device directly with a RJ-45 terminated CAT5e/6 cable or to a LAN and click on Search. Ensure the INPUT switch on the device is set to 'LAN'.



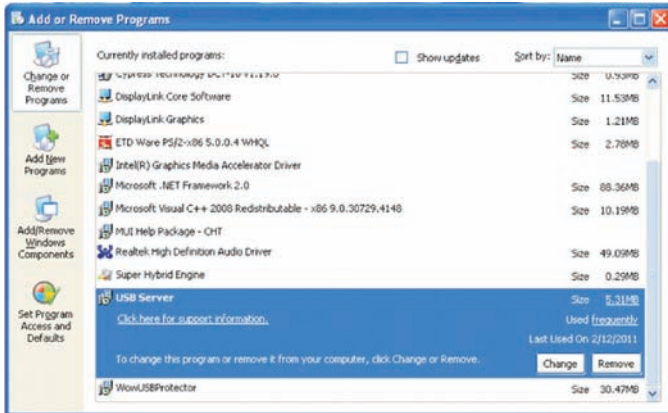
Once the connection is done click on 'Connect Device' next to the Search for both Display and Media. When the connection is done the Status will appear with "✓" mark. When disconnecting click on "Disconnect Device".

6.4 Driver Uninstallation

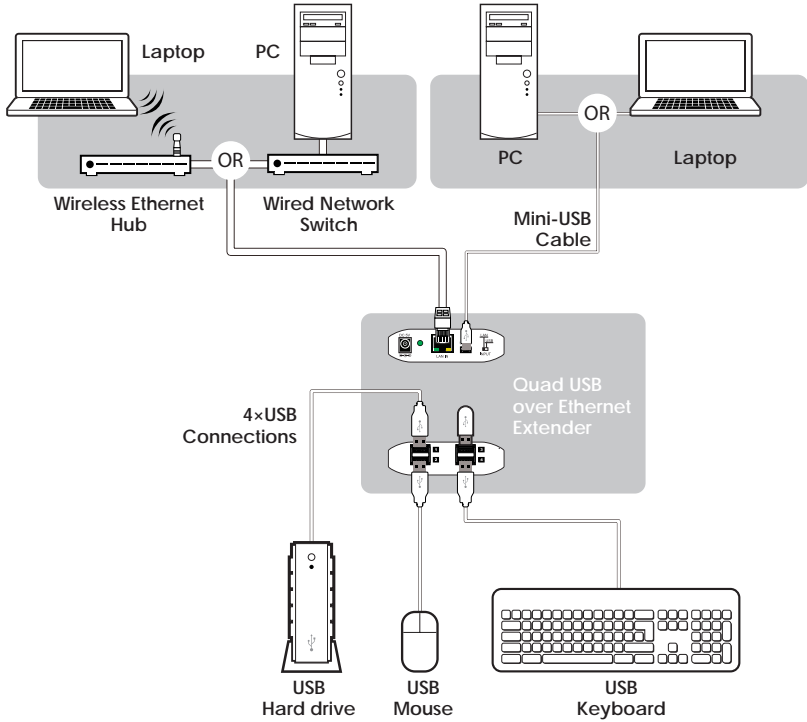
Follow the steps below to uninstall the USB server driver:

Step 1: Open the Start menu and navigate to: Start Menu→Control Panel→Add or Remove Programs.

Step 2: Select **USB Server** and click **Remove**.



7. CONNECTION DIAGRAM



8. SPECIFICATIONS

Input Ports	1×Ethernet (RJ-45), 1×Mini-USB
Network Protocol	TCP/IP
Network Interface	10/100/1000 Mbps
Output Ports	4×USB
Computer System Support	Windows, XP SP2, Vista 32bits & Window 7
ESD Protection	Human Body Model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Dimensions	119 mm (W)×88 mm (D)×25 mm(H)
Weight	120 g
Chassis Material	Plastic
Silkscreen Color	Black
Operating Temperature	0 °C~40 °C/32 °F~104 °F
Storage Temperature	-20 °C~60 °C/-4 °F~140 °F
Relative Humidity	20~90% RH (non-condensing)
Power Consumption	6.2 W

9. ACRONYMS

ACRONYM	COMPLETE TERM
CAT5e	Category 5 Cable
CAT6	Category 6 Cable
USB	Universal Serial Bus