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LANTRONIX®



TN-USB3-xx-01 Series

Scorpion-USB™ 3.0 to Gigabit Ethernet Fiber Adapter

1000Base-SX

User Guide

Part Number 33644
Revision F July 2023

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Revision History

Date	Rev	Notes
9/22/16	A	Initial release for TN-USB3-SX-01(SC), TN-USB3-SX-01(LC), and TN-USB3-SFP-01.
1/11/21	B	Update DoC and troubleshooting.
2/23/21	C	Update weblinks.
8/18/21	D	Add MTBF.
3/14/22	E	Initial Lantronix rebrand.
7/24/23	F	Update contact information and graphics.

Table of Contents

Product Description 4
Ordering Information 4
Additional Features 4
Related Manuals and Information 4
Product Views 5
Application Example 6
Specifications 6
Dimensions 8
Pre-Installation 8
- Safety 8
- Unpacking 8
- Package Contents 9
- Connectors and LEDs 9

Connecting the TN-USB3-xx-01 10
- Installation Overview 11

Driver Installation 11
- Available Drivers 11

Installing the Driver 12
- Typical Plug and Play Install 12
- Uninstall the Driver Package 16
- Windows Driver Setup Program (Windows 7 Professional) 17
- Windows 7 Driver Configurable Parameters 18
- Windows 8.1 Driver Configurable Parameters 19
- Manual Windows Driver Update 20
- Messages 20

Troubleshooting 21
Recording Information for Technical Support 23
Compliance Information 24
- Declaration of Conformity 24
- FCC Regulations 24
- Canadian Regulations 25
- European Regulations 25

Electrical Safety Warnings 26

Product Description

The Lantronix TN-USB3-xx-01 Scorpion-USB™ 3.0 to Gigabit Ethernet Fiber Adapter allows a PC, laptop, tablet or other computer equipment without a fiber interface to connect to a fiber network through a USB 3.0 (or 2.0 or 1.1) interface.

The TN-USB3-xx-01 provides protocol conversion from USB to 1000Base-X (100/1000 Base-X for SFP version) for use with laptops, tablets, and convertibles with USB ports in secure networking environment or where wireless is not permitted and connectivity to a fiber network is required.

Ordering Information

Model	Description
TN-USB3-SX-01(SC)	USB 3.0 to 1000Base-SX MM SC Ethernet Adapter
TN-USB3-SX-01(LC)	USB 3.0 to 1000Base-SX MM LC Ethernet Adapter
TN-USB3-SFP-01	USB 3.0 to 100/1000Base-X Open SFP Ethernet Adapter

Additional Features

The TN-USB3-xx-01 was designed with these features:

- USB 3.0 [5Gbit/s (625MB/s)] peripheral device
- 1000Base-X (100/1000 Base-X for SFP version)
- SFP fiber interface – MSA compliant supporting up to a 1W module
- Fixed optic versions LC and SC
- Standard OS support – Windows 7, 8.1, and 10 both 32-bit and 64-bit
- Standard drivers provided by ASIX on the Lantronix webpage.
- Plastic ABS enclosure with 9” pigtail to USB 3.0 Type-A connector

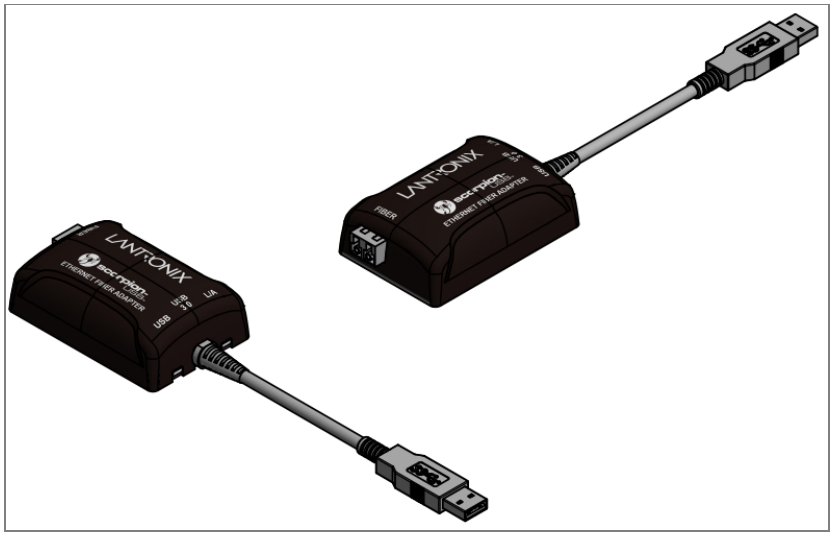
Related Manuals and Information

A printed documentation card is shipped with each Scorpion-USB adapter. The full User Guide is available online. For Lantronix Drivers, Firmware, Manuals, Product Notifications, Warranty Policy & Procedures, etc. go to the Lantronix Technical Resource Center.

1. Product Documentation Postcard, 33504
2. TN-USB3-xx-01 User Guide, 33644 (this manual)
3. SFP manual (model specific; see Lantronix SFP webpage)

Note: Information in this document is subject to change without notice. Note that this manual provides links to third party web sites for which Lantronix is not responsible. Other related manuals are listed below. Note: Some documentation may have Transition Networks named or pictured. Transition Networks was acquired by Lantronix in August 2021.

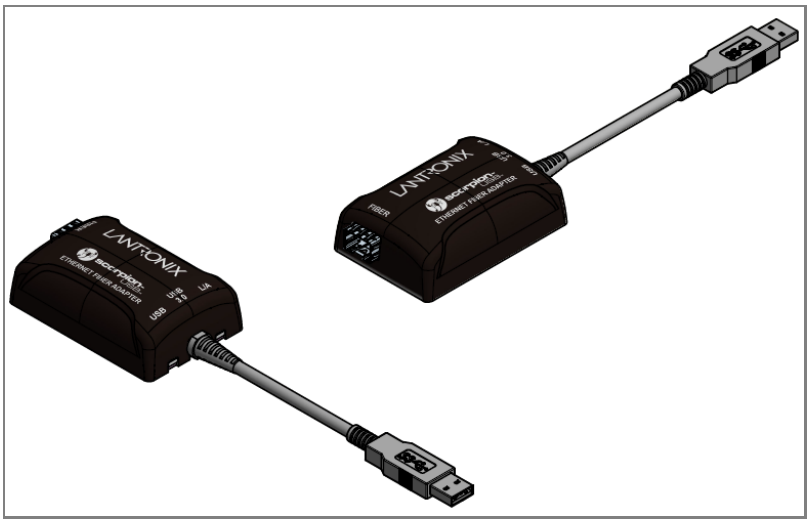
Product Views



TN-USB3-SX-01(LC)



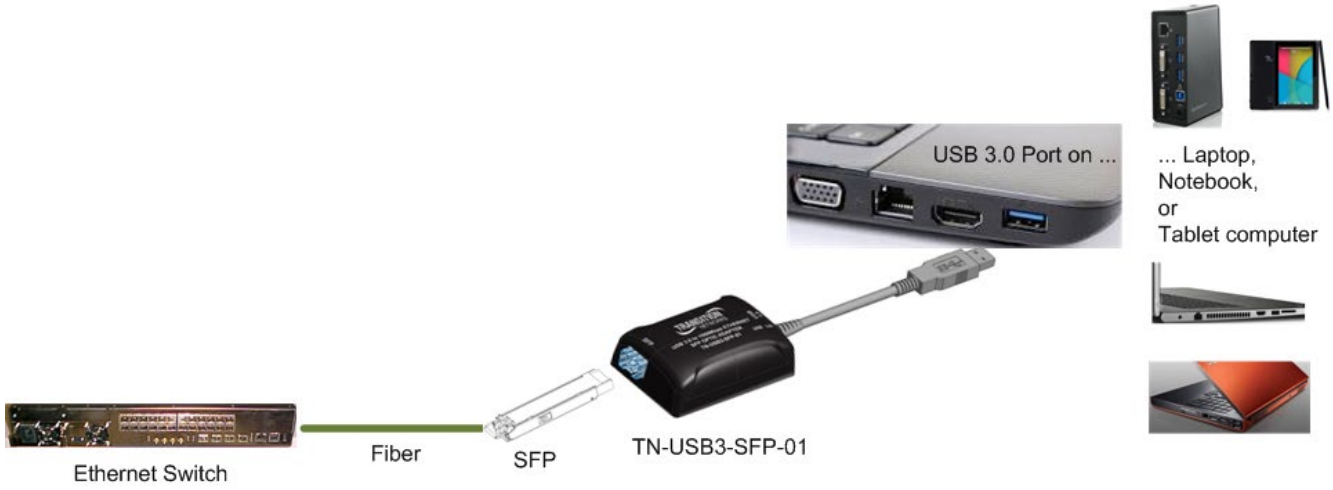
TN-USB3-SX-01(SC)



TN-USB3-SFP-01

Application Example

The TN-USB3-xx-01 can provide a Gigabit Ethernet USB-to-LAN connection as shown below. A variety of other applications exist.



Application Example

Specifications

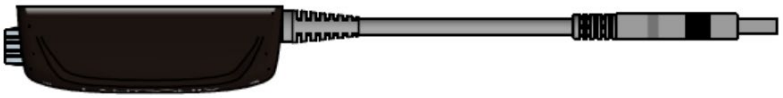
Standards	IEEE 802.3™-2008; USB 3.0
Compliance - Emission	EN55032 Class A; FCC Class A
Compliance - Immunity	EN55024
Safety Compliance	CE Mark
Power Consumption	LC: Typical 2.1 W SC: Typical 2.18W SFP: MSA compliant supporting up to a 1W module; Power estimate (worst case): 3.15 W
Power Source	USB bus
Weight	Unit: 0.20 Lb. (3.2 Oz.) (90.7 Gms.) Unit + packaging: 0.35 Lbs. (5.6 Oz.) (158.7 Gms.)
Operating Temperature	0 to +50 deg. C
Storage Temperature	-20 to +80 deg. C
Altitude	0-10,000 feet
Operating Humidity	5% to 95% (non-condensing)
Data Rate	USB 3.0: Theoretical max - 625 MBps (5000Mbps) * Fiber: Theoretical max - 125 MBps (1000Mbps) *
Max. Frame Size	1518 bytes untagged
Cable	Cable rated for 1500 insertions minimum; maximum insertion force of 35N at max rate of 12.5mm per minute
Fiber Connectors	Empty SFP cage 850nm, LC, MM, 3.3V 850nm, SC, MM, 3.3V

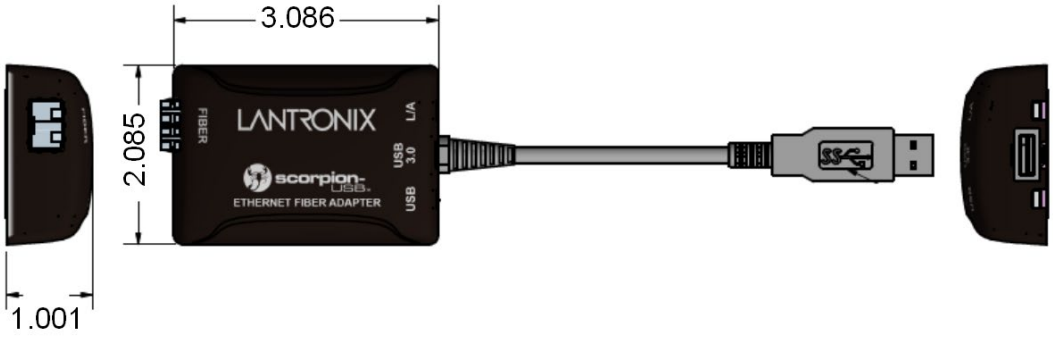
***** Data Rate - Theoretical max is the actual signaling rate not the data throughput of the device. The data throughput will be determined by the combination of all the software and hardware components involved in the system.

Fiber Specs (LC)	Min TX Pwr -10.0 dBm Max TX Pwr -4.0 dBm Rx Sensitivity -17.0 dBm Rx Max In Pwr -3.0 dBm Link Budget 7.0 dB
Fiber Specs (SC)	Min TX Pwr -9.5 dBm Max TX Pwr -4.0 dBm Rx Sensitivity -17.0 dBm Rx Max In Pwr 0.0 dBm Link Budget 7.5 dB
MTBF	Greater than 5,800,000 hours Telcordia SR-332 (Issue 4)

Dimensions

TN-USB3-SFP-01(LC):





Pre-Installation

Safety

See "Electrical Safety Warnings" on page 26 for Electrical Safety Warnings in multiple languages.

- Do not use this product near water, for example, in a wet basement or near a swimming pool.
- Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

Warning: This product contains lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.

Unpacking



1. Carefully unpack all TN-USB3-xx-01 contents.
2. Verify receipt of all TN-USB3-xx-01 components; see "Package Contents" below.
3. Place the TN-USB3-xx-01 and related materials in the desired install location.
4. Save the TN-USB3-xx-01 shipping carton and packing materials for future use.

Package Contents

Make sure you have received one TN-USB3-xx-01 device and one printed postcard.

Connectors and LEDs

Data speed: *USB 3.0*: 5Gbps (USB 3.0 type-A connector)
Fiber: 1000Mbps

Fiber Port: *Connector:* MM LC, MM SC, or empty SFP cage
Modes: 100/1000Base-X

LEDs:

USB Status: Green/Yellow: Green = USB 3.0, Yellow = USB 2.0, OFF – USB down.

SFP / LC TP Link/Activity: Green/Yellow: Green = Link @1000, Yellow= Link@100, BLINK= activity

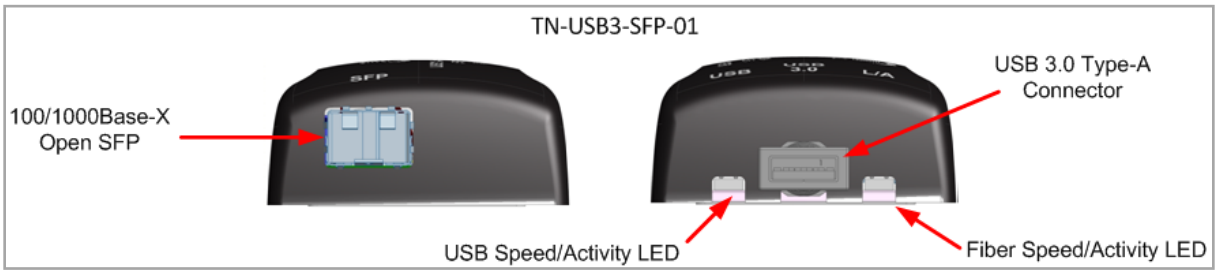
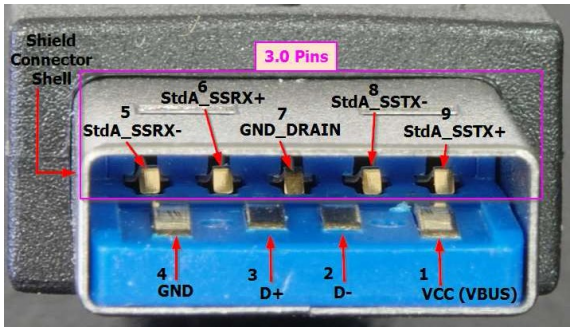


Figure 3: Connectors and LEDs (TN-USB3-SFP-01)

The SFP fiber interface is MSA compliant supporting up to a 1W module.



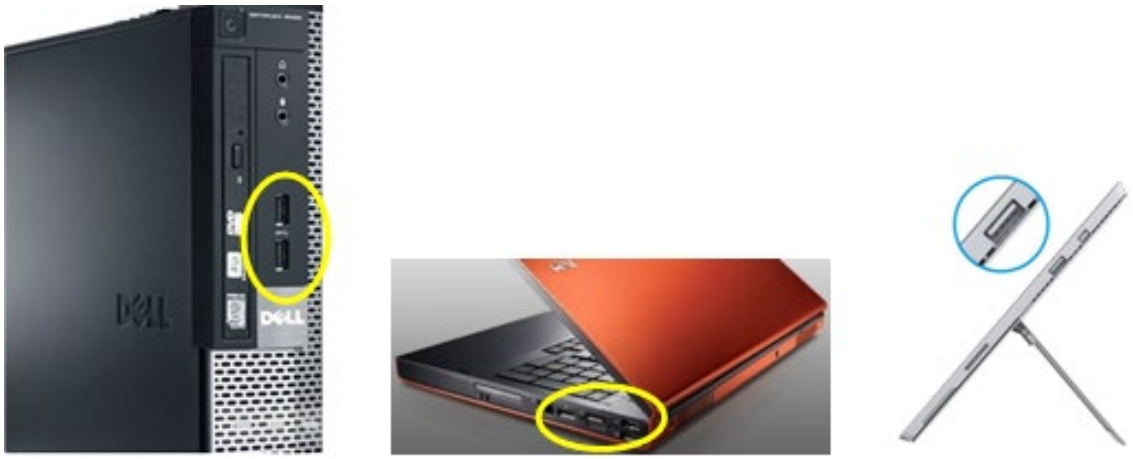
LC Connector



Pigtail USB 3.0 Type A End

Connecting the TN-USB3-xx-01

This section describes how to connect the TN-USB3-xx-01 to a PC/Notebook/Tablet. The TN-USB3-xx-01 can be used to allow a portable device, like a laptop or tablet computer, to connect to a fiber based Gigabit Ethernet network, via its USB 3.0 port, providing secure network access over a fiber infrastructure.



TN-USB3-xx-01 Connections

The figure above shows USB 3.0 connections for a TN-USB3-xx-01 to a desktop PC, a laptop PC, and a tablet. The procedure is provided below.

1. Insert the TN-USB3-xx-01 USB connector into an available USB 3.0 port on your computer or device.

   Note: For maximum performance, connect the TN-USB3-xx-01 directly to a USB 3.0 port on your computer. If you are connecting to a USB hub, make sure it operates at USB 3.0 speed and can provide the required power for this device. A USB 2.0 hub will also work, but only at USB 2.0 speeds.

2. Insert one end of a fiber Ethernet cable into the FIBER port of the TN-USB3-xx-01.

3. Insert the other end of the Ethernet network cable into an Ethernet port on the other end.

4. If the TN-USB3-xx-01 is discovered by your computer, continue operation. Note that the first time you plug in the TN-USB3-xx-01, it may take 2 full minutes for the driver to install, before it begins working.
   If the TN-USB3-xx-01 is not discovered, install the driver; see the "Driver Installation" sections below.

Note that it will not appear as TN-USB3-xx-01; it will appear as the Asix chip (i.e., the USB 3.0 to Gigabit Ethernet controller).

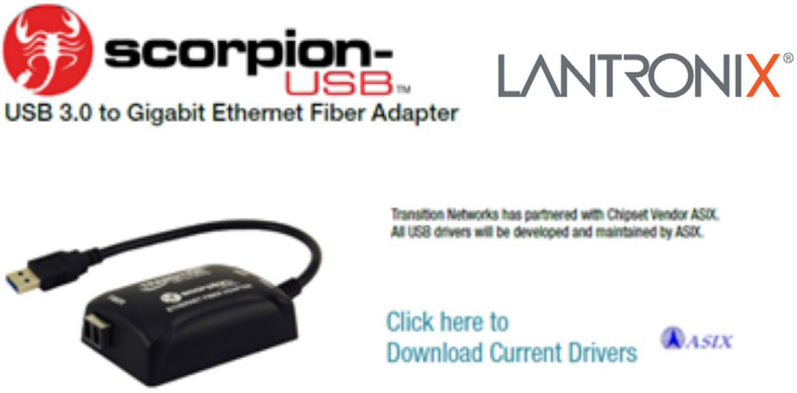
Installation Overview

1. Plug the TN-USB3-xx-01 to the PC's USB 3.0 port. If it works (LEDs lit and device detected), you do not need to perform additional steps. If there is a problem with operation, continue with the rest of the steps below.
2. Procure and load the latest AX88179 driver from ASIX. See Available Drivers below.
3. Procure and load the latest driver for the PC's USB 3 Host Controller(s), either from the OS provider or the Host Controller chipset manufacturer (e.g., Intel).
4. Reboot the PC and try again.
5. Be patient. The first time you plug in the TN-USB3-xx-01, it may take 2 full minutes for the driver to install, before it begins working.
6. Disable SelectiveSuspend and SSIdleTimeout power saving features.

Driver Installation

Available Drivers

The Lantronix Scorpion drivers page and the ASIX Drivers Download site provide the driver packages. From the ASIX webpage choose Downloads then Software & Tools to locate the driver for your OS.



Select the appropriate driver package and unzip it. Each driver package has a *Readme.txt* file that describes the driver's configurable parameters. Each driver package has a *History.txt* file that says you must first uninstall any older version driver setup program, and also provides a version history for the particular driver setup program.

The supported downloaded drivers have these filenames:

1. AX88179_178A_LINUX_DRIVER_v1.14.4_SOURCE.zip
2. AX88179_178A_Macintosh_10.6_to_10.12_Driver_Installer_v2.8.0_20160912.zip
3. AX88179_178A_Win7_32bit_Driver_v1.12.11.0_WHCK.zip
4. AX88179_178A_Win7_64bit_Driver_v1.14.11.0_WHCK.zip
5. AX88179_178A_Win7_v1.x.11.0_Drivers_Setup_v3.0.3.0.zip
6. AX88179_178A_Win10_8.x_32bit_Driver_v1.18.2.0_WHCK.zip
7. AX88179_178A_Win10_8.x_64bit_Driver_v1.18.2.0_WHCK.zip
8. AX88179_178A_Win10_8.x_v1.18.2.0_Drivers_Setup_v1.0.0.0.zip

Installing the Driver

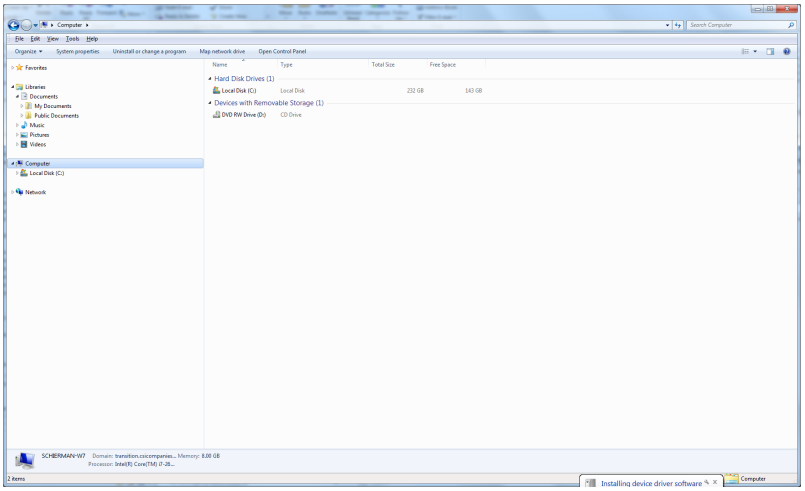
Various Management features exist, depending on the OS and driver support. The standard OS support includes Windows 7, 8 and 8.1 (32-bit and 64-bit) and 10. Other drivers are available from the Drivers Download site. If the Windows OS is up to date, the driver is automatically recognized and ready to go without additional effort. If the driver is not automatically recognized, use one of the procedures in this section:

- Typical Plug and Play Install below
- Standard Windows Driver Update on page 16.
- Windows 7 Driver Configurable Parameters on page 18 or Windows 8 Driver Configurable Parameters on page 19
- Uninstall the Driver Package on page 16

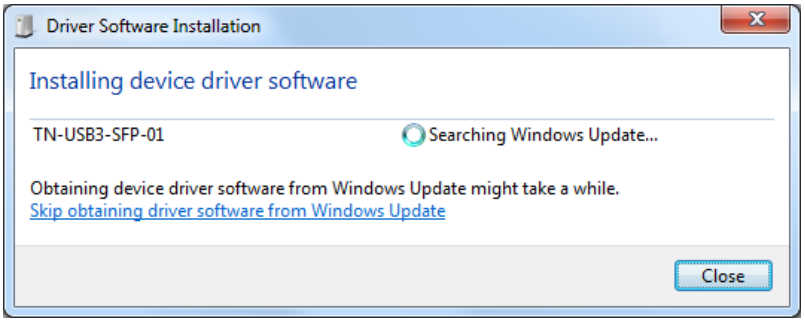
Typical Plug and Play Install

This is the recommended default install procedure for Windows 7; the screens and procedures are similar for Windows 8.1 and 10.

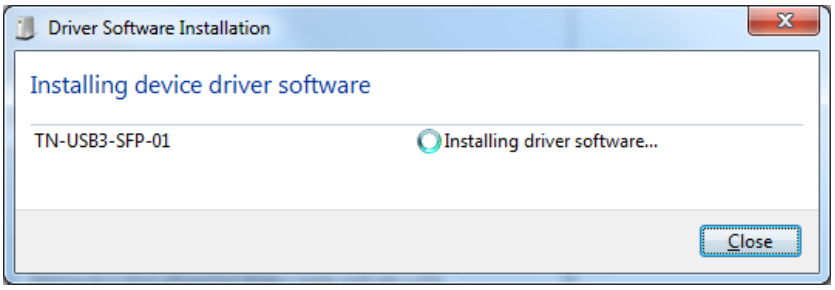
1. Plug the TN-USB3-xx-01 into the computer's USB port. The *Installing device driver software* dialog displays.



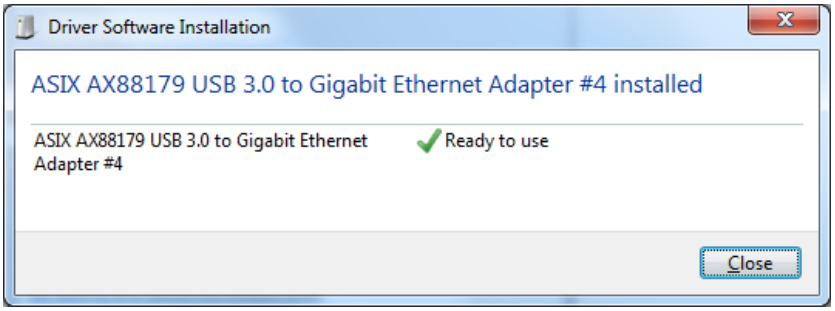
2. At the *Searching Windows Update...* dialog, click the link that indicates *Skip obtaining driver software from Windows Update...*



3. At the Installing driver software... dialog, wait for the driver install to finish.

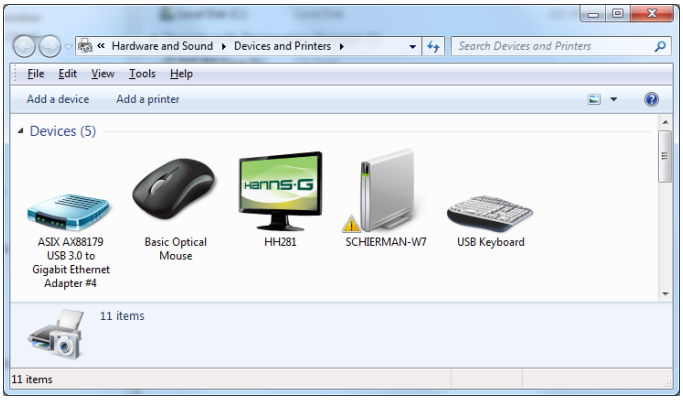


4. When the Ready to use dialog displays, click the Close button.

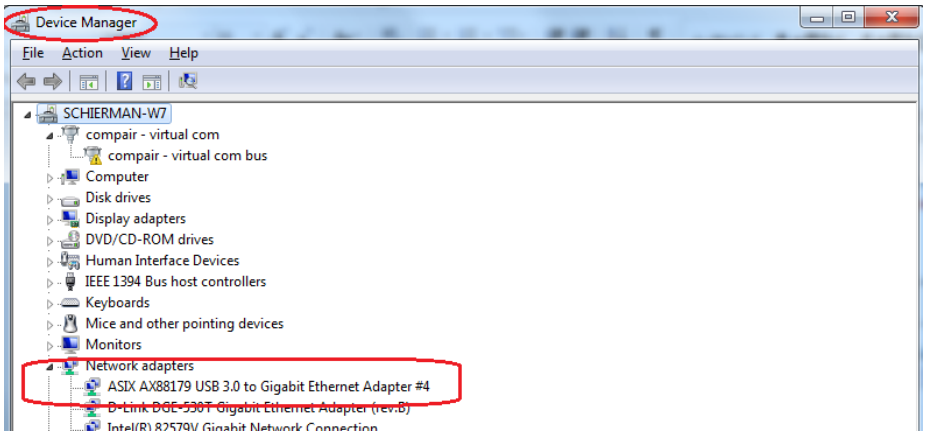


The wizard closes. If no error messages display, continue operation.

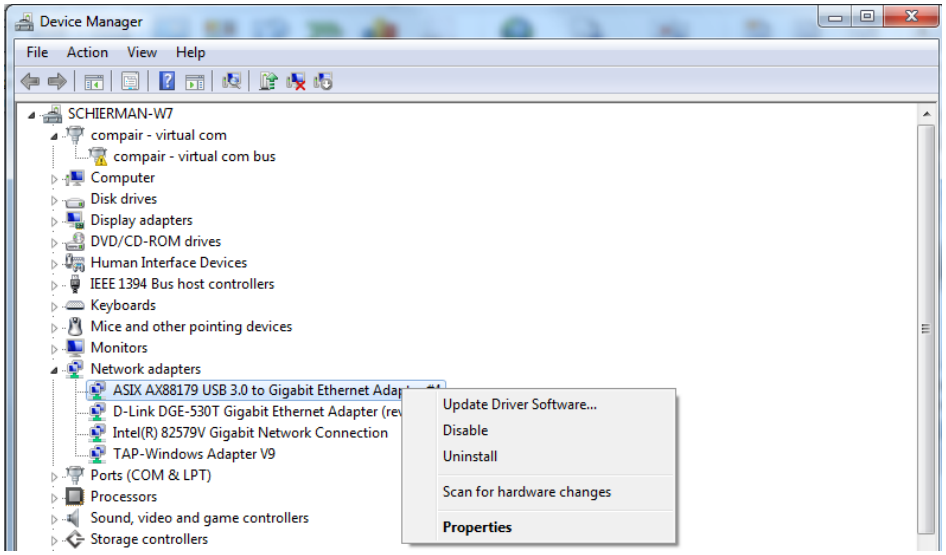
To verify the hardware is recognized by your system, navigate to Devices and Printers: displays *ASIX AX88179 USB 3.0 to Gigabit Ethernet Adapter #x* (where ***x*** is the number of adapter cards in your system).



You can also verify device detection by navigating to Windows Control Panel > Device Manager > Network adapters where the device displays as *ASIX AX88179 USB 3.0 to Gigabit Ethernet Adapter #x*



You can right mouse click the TN-USB3-xx-01 entry in Device Manager (*ASIX AX88179 USB 3.0 to Gigabit Ethernet Adapter #x*) to display additional options as shown and described below.



Update Driver Software...: lets you search automatically for updated driver software on your computer and on the Internet, or browse your computer for driver software, and locate and install driver software manually.

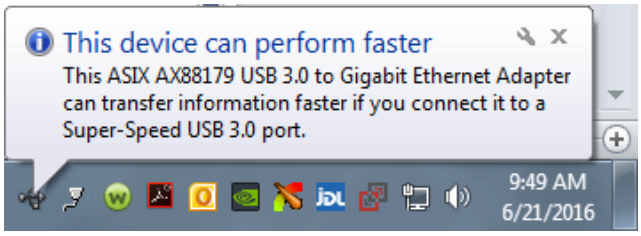
Disable: displays a confirmation dialog stating "*Disabling this device will cause it to stop functioning. Do you really want to disable it?*" Click the **Yes** or **No** button.

Uninstall: displays a confirmation dialog with the ***Warning****: You are about to uninstall this device from your system*. An option checkbox also displays to *Delete the driver software for this device* at the same time as the uninstall. See below for procedure details.

Scan for hardware changes: displays the Device Manager > Network adapters > ASIX AX88179 USB 3.0 to Gigabit Ethernet Adapter #x screen shown above.

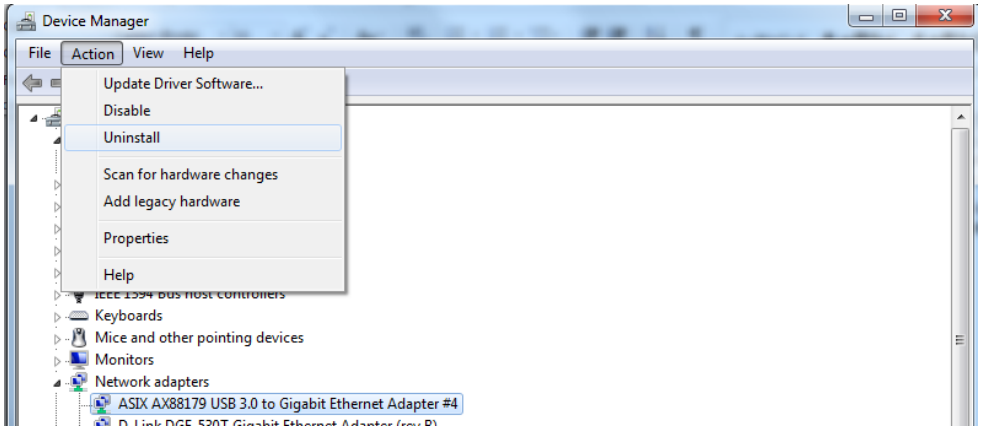
Plug and Play Messages

Message: *This device can perform faster. This ASIX AX88179 USB 3.0 to Gigabit Ethernet Adapter #x can transfer information faster if you connect it to a Super-Speed USB 3.0 port.* Displays if you plug the device into a USB 2.0 or USB 1.1 port.

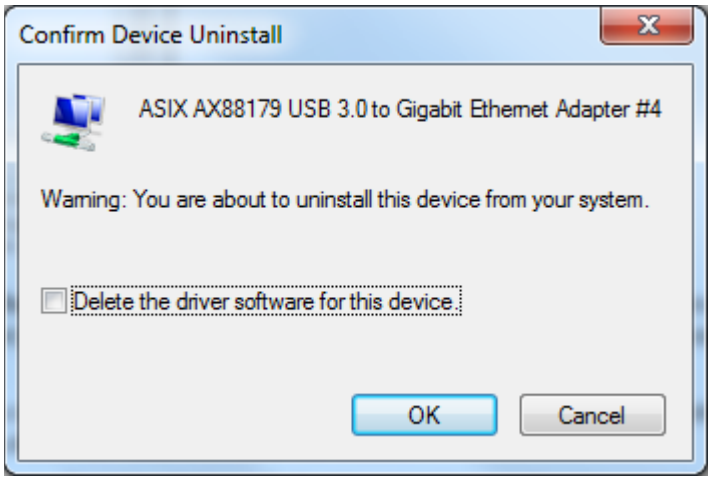


Uninstall the Driver Package

1. Navigate to the Windows Device Manager.
2. Click the ► icon left of the Network adapter entry to display the network adapters in your system.
3. Select the TN- USB3-xx-01 device (listed as *ASIX AX88179 USB 3.0 to Gigabit Ethernet Adapter #x*).
4. Select Action > Uninstall.



5. At the confirmation dialog, check or uncheck the option checkbox also displays to *Delete the driver software for this device* at the same time as the uninstall.



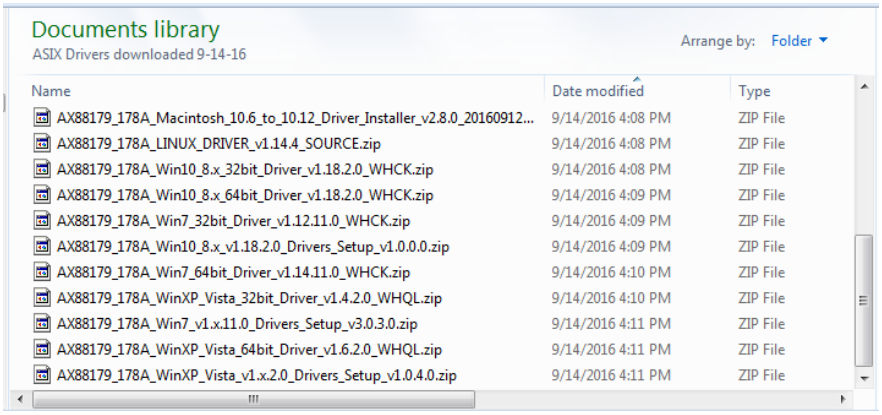
6. Click the **OK** button to uninstall the driver software (and optionally delete the driver software from your system).

Windows Driver Setup Program (Windows 7 Professional)

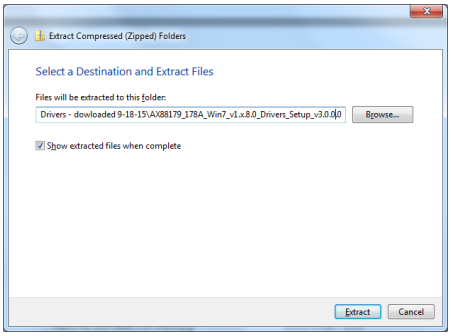
The following is an example to update AX88179 Windows driver for use if the Typical Plug and Play Install (above) does not work on your computer. These are standard Windows driver update procedures.

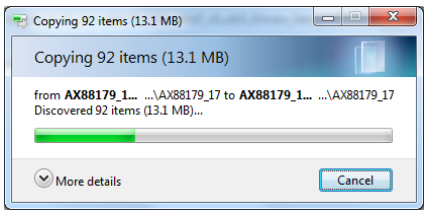
Note: Before you run the setup program to install newer driver, uninstall the older version driver setup program that user installed before. Check the list in "Control Panel" -> "Programs" -> "Programs and Features". If there is an AX88179 driver in the list, uninstall it before you run the setup program. Refer to your computer's Microsoft Windows documentation to update the driver if necessary.

1. Navigate to the driver download save location.



2. Right click the desired file (e.g., *AX88179_178A_Win7_32bit_Driver_v1.12.11.0_WHCK.zip*).
3. Select ***Extract All...*** .
4. At the Select a Destination and Extract Files dialog, click the Extract button.





5. Navigate to and double click on the *Setup.exe* file in the Unzip folder. You can also right click the file and select *Run as administrator* to launch. If a Windows UAC screen displays, select **Yes** and continue.
6. When the InstallShield Wizard Completed screen displays, exit the wizard.
7. If the driver install is successful, continue with normal operation. The USB LED lights after the driver is installed and functional. If the driver install is unsuccessful, continue with the "Troubleshooting" section on page 21.

Windows 7 Driver Configurable Parameters

Configurable parameters for idle or downed links:

1. **SpeedDuplex**: Set the Ethernet link speed.
   -Auto: Auto detect the Ethernet link speed
   -10Half: Set the Ethernet force on 10HD
   -10Full: Set the Ethernet force on 10FD
   -100Half: Set the Ethernet force on 100HD
   -100Full: Set the Ethernet force on 100FD
   -1000Full: Set the Ethernet force on 1000FD
2. **NetworkAddress** : Lets you set a MAC address of the device or use the device default MAC address.
3. **FlowControl**: Configure flow control advertised capabilities.
   -Disabled Disable flow control
   -TxEnabled Enable transmit flow control
   -RxEnabled Enable receive flow control
   -RxTxEnabled Enable transmit and receive flow control
4. **Packet Priority & VLAN**: Enable or disable the ability to insert the 802.1Q priority and VLAN tags into the transmit packets.
   -Packet Priority & VLAN Disabled Disable to insert the 802.1Q priority and VLAN tag
   -Packet Priority Enabled Only enable to insert the 802.1Q priority tag
   -VLAN Enabled Only enable to insert the 802.1Q VLAN tag
   -Packet Priority & VLAN Enabled Enable to insert the 802.1Q priority and VLAN tag
5. **VLAN ID**: If user set a valid VLAN ID, the driver inserts the VLAN tag with this VLAN ID into the transmit packets and device will filter the received packets.
6. **AutoDetach**: This feature is basically a soft-disconnect from the USB host when the Ethernet link is down/ cable unplugged. Enable or disable AutoDetach ability. If AutoDetach is enabled, three seconds later after Ethernet cable was unplugged, the device will be detached from USB.
   -Disabled Disable AutoDetach
   -Enabled Enable AutoDetach
   -Use EEPROM Setting Disable or enable AutoDetach according to the EEPROM setting
7. **SelectiveSuspend**: Allows NDIS to suspend an idle AX88179B network adapter by transitioning the adapter to a lower-power state.
   -Disabled Disable SelectiveSuspend function
   -Enabled Enable SelectiveSuspend function
8. **SSIdleTimeout**: Selective suspend idle time-out in units of seconds. If selective suspend is enabled and the unit is idle for SSIDLE Timeout seconds, then the adapter can transition to a lower-power state.

Windows 8.1 Driver Configurable Parameters

Configurable parameters for idle or downed links:

1. SpeedDuplex: Set the Ethernet link speed.
-AutoNegotiation: Auto detect the Ethernet link speed
-10 Mbps Half Duplex: Set the Ethernet Auto-Negotiation on 10HD
-10 Mbps Full Duplex: Set the Ethernet Auto-Negotiation on 10FD
-100 Mbps Half Duplex: Set the Ethernet Auto-Negotiation on 100HD
-100 Mbps Full Duplex: Set the Ethernet Auto-Negotiation on 100FD
-1.0 Gbps Full Duplex: Set the Ethernet Auto-Negotiation on 1000FD

2. NetworkAddress : Lets you set a MAC address of the device or use the device default MAC address.

3. FlowControl: Configure flow control advertised capabilities
-Disabled Disable flow control
-TxEnabled Enable transmit flow control
-RxEnabled Enable receive flow control
-RxTxEnabled Enable transmit and receive flow control

4. Packet Priority & VLAN: Enable or disable the ability to insert the 802.1Q priority and VLAN tags into the transmit packets.
-Packet Priority & VLAN Disabled Disable to insert the 802.1Q priority and VLAN tag
-Packet Priority Enabled Only enable to insert the 802.1Q priority tag
-VLAN Enabled Only enable to insert the 802.1Q VLAN tag
-Packet Priority & VLAN Enabled Enable to insert the 802.1Q priority and VLAN tag

5. VLAN ID: If user set a valid VLAN ID, the driver inserts the VLAN tag with this VLAN ID into the transmit packets and device will filter the received packets.

6. AutoDetach: This feature is a power savings mode and basically a soft-disconnect from the USB host when the Ethernet link is down/ cable unplugged. Enable or disable AutoDetach ability. If AutoDetach is enabled, 3 seconds later after Ethernet cable was unplugged, the device will be detached from USB.
-Disabled Disable AutoDetach
-Enabled Enable AutoDetach
-Use EEPROM Setting Disable or enable AutoDetach according to the EEPROM setting

7. SelectiveSuspend: Allows NDIS to suspend an idle AX88179 network adapter by transitioning the adapter to a lower-power state.
-Disabled Disable SelectiveSuspend function
-Enabled Enable SelectiveSuspend function

8. SSIdleTimeout: Selective suspend idle time-out in units of seconds. If selective suspend is enabled and the unit is idle for SSIDLE Timeout seconds, then the adapter can transition to a lower-power state.

Manual Windows Driver Update

Use the procedure below to update the revised Windows driver on your platform.

1. Remove the TN-USB3-xx-01 from the USB 3.0 port of your PC.
2. Boot your PC/Notebook/PDA to Windows system.
3. Copy the new AX88179 Windows driver (*AX88179.SYS*) to the Windows system driver default folder. (e.g., *C:\WINDOWS\system32\drivers* for WinXP platform) to overwrite the previous AX88179 driver. If you still can't find the correct folder, search for the "AX88179.SYS" file in your computer to find a correct folder.
4. Insert the TN-USB3-xx-01to the USB 3.0 port of your PC.
5. Enable the USB function from the BIOS setting of your PC. (Refer to the PC User Manual for the detailed BIOS setting.)
6. Verify that the TN-USB3-xx-01 works properly.

Messages

Message: Installing device driver software. Searching Windows Update... Obtaining device driver software from Windows Update might take a while. Skip obtaining device driver software from Windows Update.

Meaning: Windows Informational message only.

Recovery: None required. Wait for the search to finish and follow the on-screen instructions.

Message: Device driver software was not successfully installed. Please consult your device manufacturer for assistance getting this device installed. ASIX AX88179 USB 3.0 to Gigabit Ethernet Adapter x Failed.

Meaning: The device driver did not install properly in Windows.

Recovery:

1. Click the link What can I do if my device did not install properly?
2. Read the displayed MS Windows article. The content varies between operating systems, but basically says to:
   - Make sure your computer is connected to the Internet and automatic updating is turned on.
   - Manually check for drivers on Windows Update.
   - Install software for the device.

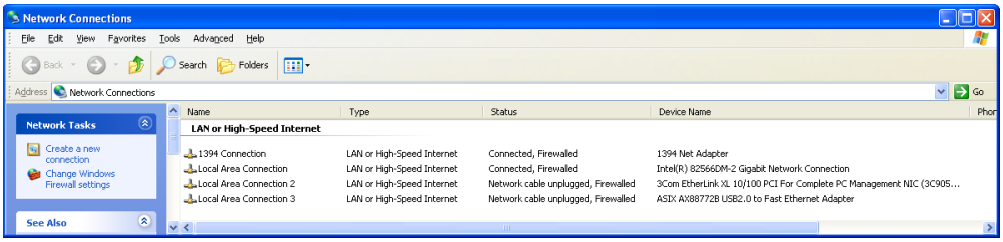
Information is also provided on how to perform these three suggestions. Follow the on-screen instructions.

3. Perform the Troubleshooting steps below if the device driver software still is not successfully installed.

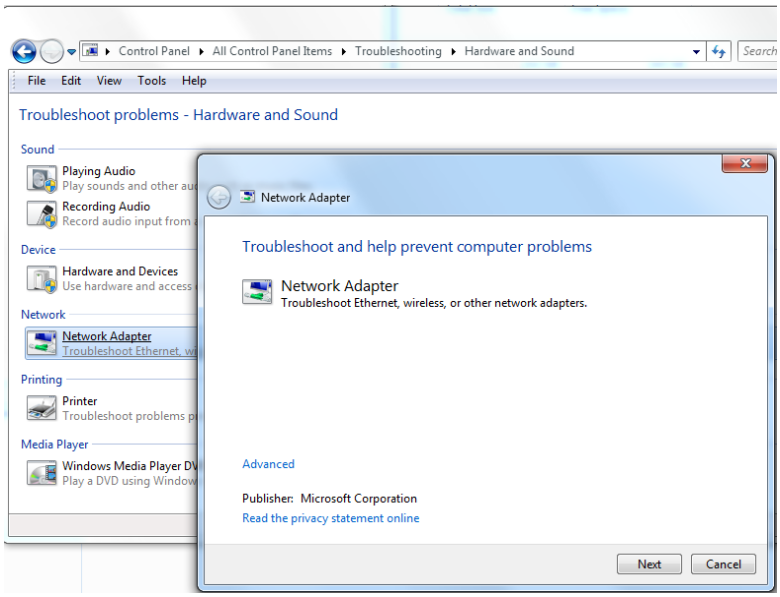
Troubleshooting

If a problem or exception occurs, perform these steps.

1. General: **a**) Do not connect too many USB devices to the computer. **b**) Wait 5 seconds after connecting the device before using it. **c**) Use powered USB hubs to connect other USB devices. **d**) Do not connect USB devices when the system is busy (i.e., running slower than normal).
2. If you are connecting to a USB hub, make sure it operates at USB 3.0 speed. Note that the TN-USB3-xx-01 is a USB 3.0 device, but it also works at USB 2.1, 2.0, and 1.1 speeds. Make sure that any other USB devices are operating properly (native PC USB port, USB hub, USB port on docking station).
3. If your computer does not recognize the TN-USB3-xx-01, make sure that the TN-USB3-xx-01 is properly inserted into the USB 3.0 slot. Try starting the PC with the TN-USB3-xx-01 plugged in to the USB port.
4. For maximum performance, connect the TN-USB3-xx-01 directly to a USB 3.0 port on your computer. If you are connecting to a USB hub, make sure it operates at USB 3.0 speed and can provide the required power for this device.
5. Remove the TN-USB3-xx-01, and then reinsert it into the computer's USB 3.0 slot with the computer running.
6. Verify the Connectors and LEDs steps on page 5.
7. Verify the Connecting the TN-USB3-xx-01 steps on page 10.
8. Verify the Installing the Driver steps on page 12.
9. Try the Windows Driver Setup Program steps (see above).
10. Try the Manual Windows Driver Update (see above).
11. In Windows Network Connections, check for the presence of the TN-USB3-xx-01 device. In the example below, the Device Name is "AX88179 USB3.0 to Gigabit Ethernet Adapter".

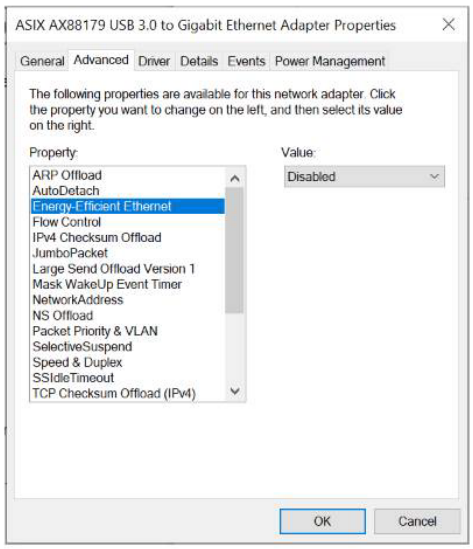


12. See the Download Driver site for driver Readme files.
13. Review the Installation Overview on page 11 and verify that the PC BIOS and USB Host Controller drivers are current and power saving features are disabled.
14. Check the documentation that came with your computer for PC troubleshooting.
15. Try to troubleshoot the problem using Windows Device Manager. The TN-USB3-xx-01 may be listed as "Unknown Device" or "Other Device" or the correct device name may be displayed.
16. At Windows Control Panel > All Control Panel Items > Troubleshooting > Hardware and Sound in the Network section select Network Adapter to display device troubleshooting. Click the **Next** button or click the linked text "Advanced".



17. Check your OS vendor documentation and website for troubleshooting steps / tools. In Windows, try "Microsoft Fix it" or "Microsoft USB Hardware Verifier" or "Microsoft System Restore". In Linux, check your distro's documentation and web page for troubleshooting steps. For computers using non-Intel USB 3 xHCI controllers, go to the manufacturer's website and download and install the newest driver.

18. At AXIS Properties > Advanced tab, select the Energy Efficient Ethernet property, then at the Value dropdown make sure 'Disabled' is selected as shown below. Having EEE enabled can cause dropped packets with some SFPs.



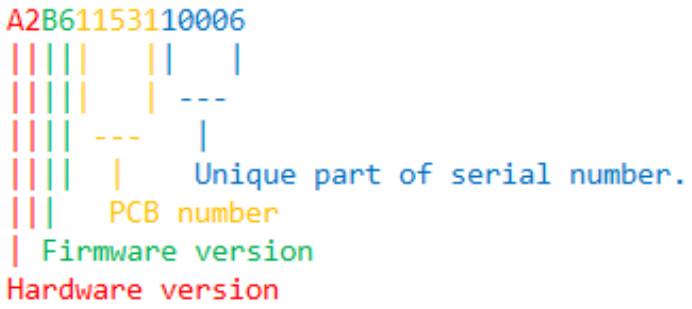
19. Contact Technical Support.

Recording Information for Technical Support

After performing the troubleshooting procedures above, and before calling or emailing Tech Support, record as much information as possible to help the Tech Support Specialist.

SKU: _____ **Serial #**: _____

FW Rev.: _____



The first two digits are the PCB Rev. (A) and the PCA Rev. (2). The next two digits are the firmware version (B6). The next five digits are the PCB number (11531). The last five digits are the specific serial number for that board (10006 - different for each device).

Computer Make / Model: _____

Operating System: _____

BIOS version: _____

Driver installed: _____

Driver install method: _____

Driver modifications: _____

LED status: _____

Error messages: _____

Other Lantronix devices in network: _____

_____

Third party devices in network: _____

_____

Troubleshooting steps taken: _____

_____

_____

Additional notes: _____ _____

_____

_____

Contact the Technical Support department; see Contact Us below.

Compliance Information

Declaration of Conformity

Manufacture's Name: Lantronics, Inc.
Manufacture's Address: 48 Discovery, Suite 250, Irvine, California 92618 USA

Declares that the product(s): TN-USB3-SX-01(SC), TN-USB3-SX-01(LC), TN-USB3-SFP-01

Conforms to the following Product Regulations:

Electromagnetic Compatibility (EMC) Directive 2014/30/EU; FCC Part 15 Class A
Directive 2014/30/EU, Directive 2015/863/EU

With the technical construction on file at the above address, this product carries the CE Mark

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Place: Irvine, California
Date: July 14, 2023
Signature: *Eric Bass*
Full Name: Eric Bass
Position: Vice President of Engineering

FCC Regulations

RADIO AND TELEVISION INTERFERENCE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or *relocate the receiving antenna.*
- Increase the separation between the equipment *and the receiver.*
- Connect the equipment into an outlet on a circuit different from that to w*hich the receiver is connected.*
- Consult the dealer or an experienced radio/TV technician for help.

Changes and Modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal C*ommunications Commission's rules.*

* In order to maintain compliance with FCC regulations shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio & television reception.

*** NOTE**: Shielded cables were used when testing this product.

Canadian Regulations

This digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out on the radio interference regulations of the Canadian Department of Communications.
Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

European Regulations

Warning

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Achtung !

Dieses ist ein Gerät der Funkstörgrenzwertklasse A. In Wohnbereichen können bei Betrieb dieses Gerätes Rundfunkstörungen auftreten. In diesem Fäll ist der Benutzer für Gegenmaßnahmen verantwortlich.

Attention !

Ceci est un produit de Classe A. Dans un environment domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l'utilsateur de prende les measures spécifiques appropriées.



In accordance with European Union Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003, Lantronix will accept post usage returns of this product for proper disposal. The contact information for this activity can be found in the 'Contact Us' portion of this document.



CAUTION: RJ connectors are NOT INTENDED FOR CONNECTION TO THE PUBLIC TELEPHONE NETWORK. Failure to observe this caution could result in damage to the public telephone network.

Der Anschluss dieses Gerätes an ein öffentlickes Telekommunikationsnetz in den EGMitgliedstaaten verstösst gegen die jeweligen einzelstaatlichen Gesetze zur Anwendung der Richtlinie 91/263/EWG zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Telekommunikationsendeinrichtungen einschliesslich der gegenseitigen Anerkennung ihrer.

Electrical Safety Warnings

Electrical Safety

IMPORTANT: This equipment must be installed in accordance with safety precautions.

Elektrische Sicherheit

WICHTIG: Für die Installation dieses Gerätes ist die Einhaltung von Sicherheitsvorkehrungen erforderlich.

Elektrisk sikkerhed

VIGTIGT: Dette udstyr skal 26nstallers I overensstemmelse med sikkerhedsadvarslerne.

Elektrische veiligheid

BELANGRIJK: Dit apparaat moet in overeenstemming met de veiligheidsvoorschriften worden geïnstalleerd.

Sécurité électrique

IMPORTANT : Cet équipement doit être utilisé conformément aux instructions de sécurité.

Sähköturvallisuus

TÄRKEÄÄ : Tämä laite on asennettava turvaohjeiden mukaisesti.

Sicurezza elettrica

IMPORTANTE: questa apparecchiatura deve essere installata rispettando le norme di sicurezza.

Elektrisk sikkerhet

VIKTIG: Dette utstyret skal 26nstallers I samsvar med sikkerhetsregler.

Segurança eléctrica

IMPORTANTE: Este equipamento tem que ser instalado segundo as medidas de precaução de segurança.

Seguridad eléctrica

IMPORTANTE: La instalación de este equipo deberá llevarse a cabo cumpliendo con las precauciones de seguridad.

Elsäkerhet

OBS! Alla nödvändiga försiktighetsåtgärder måste vidtas när denna utrustning används



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