



AN-7830-2K&XP

MCS7830

Directions For Use

Windows-2K & XP

Revision 1.0

03 September 2003

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1. Introduction

This device connects your system(Laptop) to Ethernet network (Eg. Local area network) through USB port. It's based on USB2.0 and offers higher bandwidth compared to existing USB1.1 to Ethernet USB adapters.

This device comes in as a great help for Mobile computing. It's a simple, flexible medium for sharing large files between laptops and the other stationary servers on LAN. This device installs itself as a network card and connects the PCs as though they are connected through a NIC based LAN, only difference is that the medium here is USB and not the Ethernet. This device is not just a file sharing device, rather it is a complete network solution where one can execute every network application.

Product Features

- * Fully IEEE 802.3 compliant 10 / 100 Mbps Ethernet MAC Layer
- * Provides full duplex operation on both 10, 100 Mbps
- * Supports remote wakeup through magic packet (wake on LAN)
- * High-speed data transfer rate.
- * Single cable solution for data communication.
- * Hot pluggable
- * No external power needed. (USB Bus powered)
- * Easy drag-n-drop file transfer.
- * Low power consumption. Supports suspend mechanism for power save when not in use.
- * Compliant with USB specification 2.0
- * Integrated USB2.0 & Ethernet PHY as single chip solution
- * Supports programming of EEPROM

System requirements

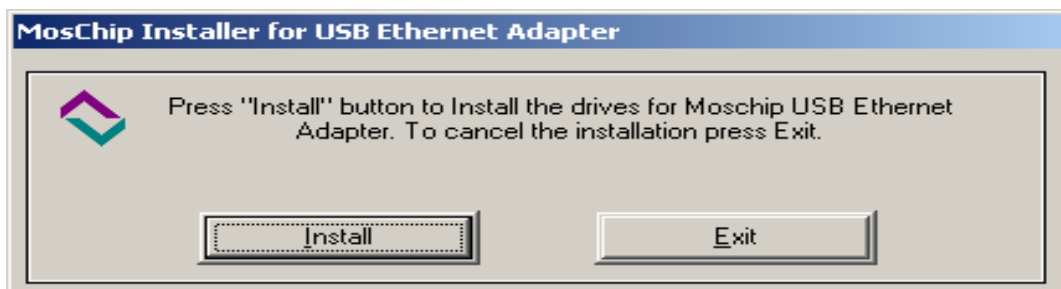
- * IBM® PC 486DX4-100 MHz or higher or compatible system
- * Available USB port (USB 1.1 or 2.0)
- * Windows® 98SE, Windows® ME, Windows 2000 & Windows XP
- * CD ROM drive / Floppy drive / Internet connection

2. Download appropriate Drivers from the Web-Site

- a. Go to <http://www.moschip.com>
 - i) Click the “Products” button.
 - ii) Click the “USB2.0” button.
 - iii) In the row of MCS7830, click **Drivers, Release Notes and installation Guides**.
- b. Allow the “.zip” file to be downloaded to your local computer.
- c. Unzip the Driver files to a new folder on your Hard Disk.
(Eg. C:/MCS7830)
- d. Check the new folder with the Driver files for a **Readme** file that may have additional or special installation instructions. Use those instructions in addition to, or instead of, these instructions if present.

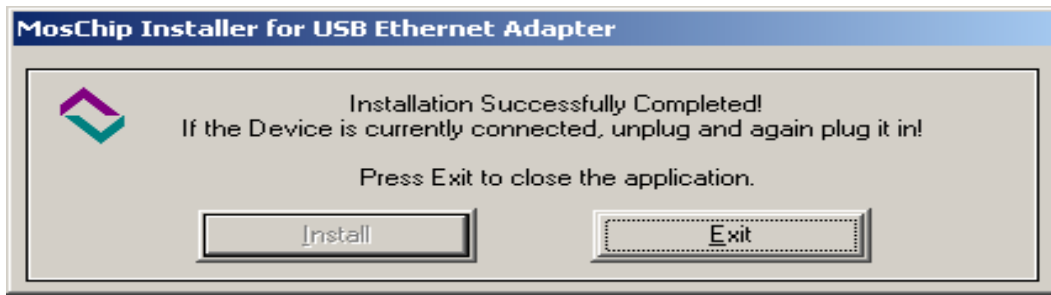
3. Installing Drivers for Windows 2000 / XP operating Systems

- a. Turn on the Computer
- b. Run **Setup.exe** from MCS7830 driver folder (Eg. C:/MCS7830)
- c. Following setup window appears click **Install** button to install the drives.
To cancel the installation press Exit.



- d. Now the installer will display a message **Installation is in Progress... Please Wait**

- e. Then the installer should display **Installation Successfully Completed! No need to restart your Computer. If the Device is currently connected, unplug and again plug it in!.**



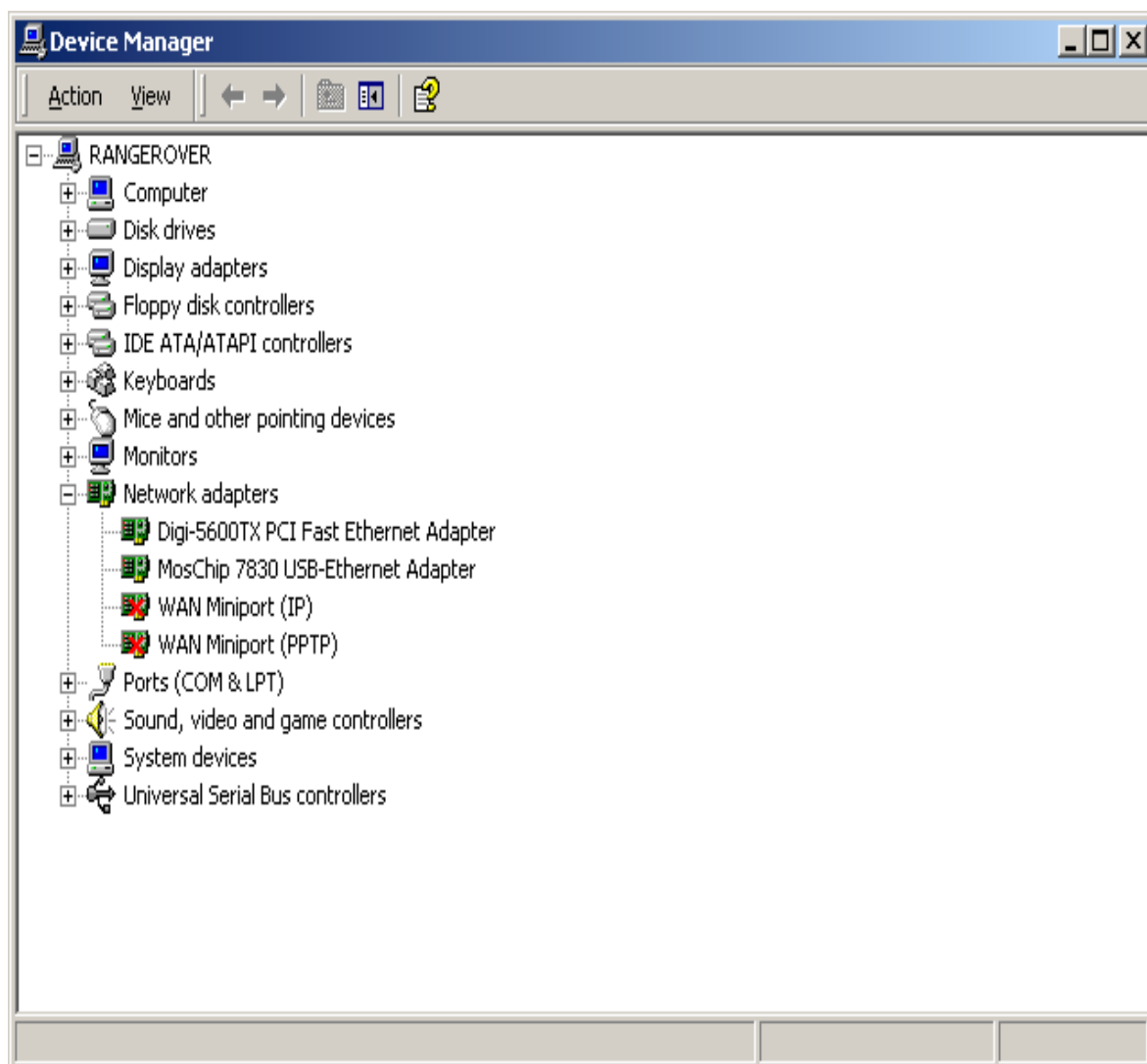
- f. Click Exit to close the installer.
- g. Plug-in the USB Cable of MCS7830 device to one of the USB port on your Computer.
- h. Windows should detect the new USB device, and automatically install the drivers for the new hardware connected.
- i. When Windows desktop is displayed, the Driver installation is complete.

Note:-

- I) If multiple user accounts are used on your system, make sure you use a user account with **administrator privileges** for running the **Setup.exe**. As per Windows OS security policy only users with administrator privileges can install drivers.
- II) In case of **Windows XP**, Add new hardware window will appear when MCS7830 device is connected to USB port after running Setup.exe, Click next and then Click continue anyway for Windows logo certification popup. Click Finish to complete installation.
- III) While running setup / updating drivers for in Windows 2000 and Windows XP, it is to be noted that user should click **Next** directly, when the system O.S. reminds user that the provided drivers doesn't have a digital signature.

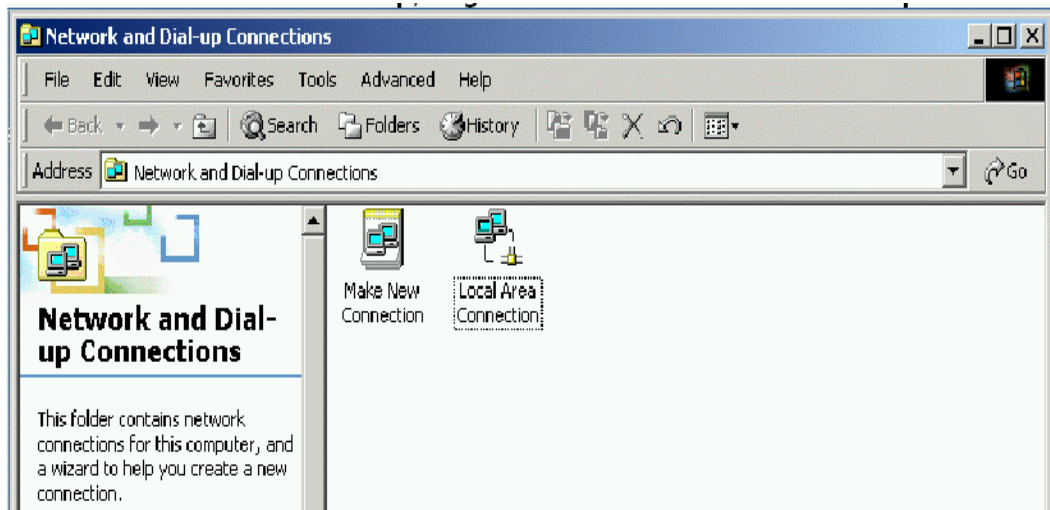
4. Device detection confirmation

Right-Click Mouse on **My Computer** icon of Desktop > Select **Properties** from the drop-down menu > Click the **Hardware tab** > Click the **Device Manager** button to show current Hardware list > Click on **Network adapters**. Moschip 7830 USB Ethernet adapter will be listed under Network adapters.

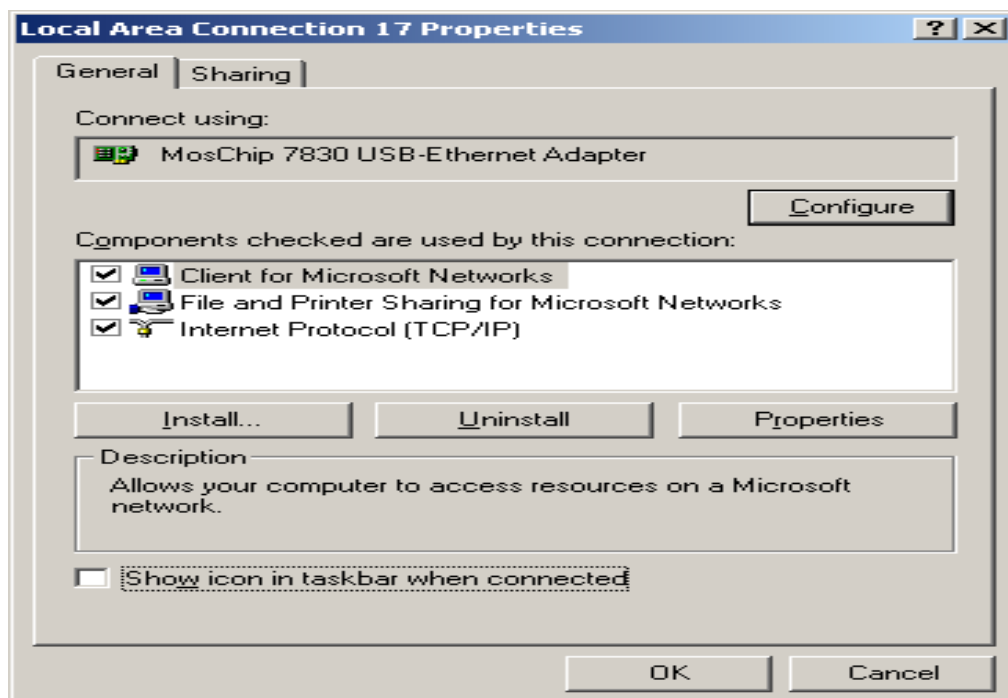


5. IP address assignment

- a. On Windows Desktop, Right-Click Mouse **Network places** icon, Select **Properties**. Network and Dial-up connections window appears with **Local Area Connection**.

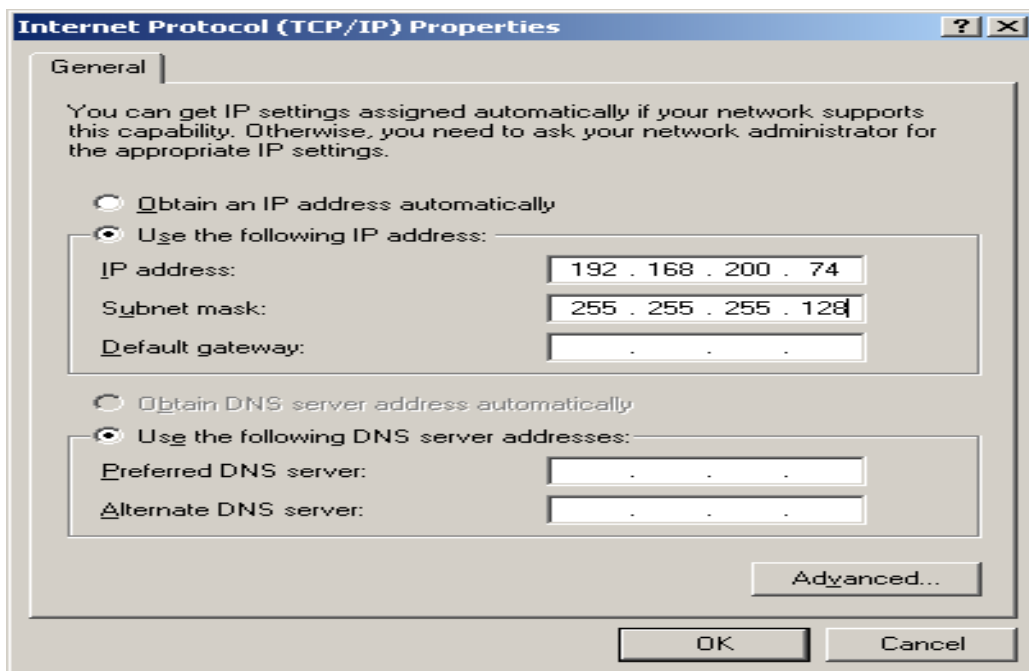


- b. Right mouse click on **Local Area Connection** > **Properties** and ensure that “Moschip 7830 USB to Ethernet adapter appearing as **Connection using**.



- c. Double click on **Internet Protocol (TCP/IP)** and assign an IP, Subnet addresses. If DHCP is supported on your network then Click OK (With default obtain IP address automatically option) , this ensures auto IP assignment.

Otherwise set the IP, Subnet addresses manually E.g 192.168.200.74 , 255.255.255.128. Click “OK” to continue



- d. Enable **Show icon in taskbar** to see the connection status icon on Desktop.
(In 5b)

6. Network connection Modes & status

Now connect the a CAT 5 straight Ethernet cable (not the cross-over cable) to the RJ45 socket of MCS7830 USB to Ethernet adapter. Other side of CAT5 Ethernet cable to be connected to the LAN network switch or the Ethernet Hub (From where you want to access the network).

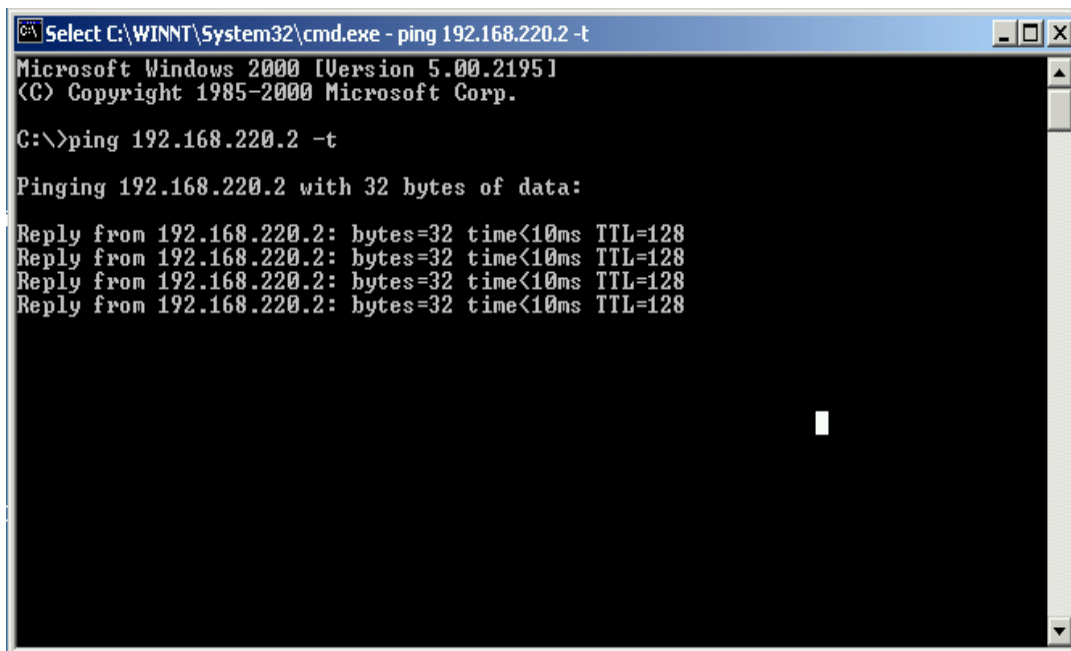
Now that network connection is established using USB to Ethernet adapter . Connection status can be seen by going to Network places (Right mouse click) > Properties > Local area connection (Right mouse click) > Status.

Following modes are supported in MCS7830, by default the mode is set to Auto negotiation. You can choose **Auto mode, 100 full duplex, 100 half duplex, 10 full duplex** or **10 half Duplex mode**.

When MCS7830 USB-Ethernet adapter (in Auto Negotiation) is connected to 100Mbps LAN switch, status will show 100Mbps. If connected to 10Mbps switch / Hub the network status would be displayed as 10Mbps.

7. Ping, Windows direct file transfer

Now you should be able to ping and browse any Computer connected to the LAN network, to which MCS7830 is connected. For pinging other machine on network, go to DOS prompt by Start > Run > CMD). Then type ping command with IP address of target computer.



```
Select C:\WINNT\System32\cmd.exe - ping 192.168.220.2 -t
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

C:\>ping 192.168.220.2 -t

Pinging 192.168.220.2 with 32 bytes of data:

Reply from 192.168.220.2: bytes=32 time<10ms TTL=128
Reply from 192.168.220.2: bytes=32 time<10ms TTL=128
Reply from 192.168.220.2: bytes=32 time<10ms TTL=128
Reply from 192.168.220.2: bytes=32 time<10ms TTL=128
```

Windows direct File Transfer

On windows Desktop, double click Network places icon > Search > then search select Computers > type the name of the Machine you want to browse & press Enter. Shared data folders of system on network appear on your desktop. Now you can do Windows direct file transfer to/fro between your PC & any system on network.

Note :-

- Windows OS prompts for User level password where ever applicable in displaying shared folders on Remote Machine.
- Network name can be set by going to “ My computer > Properties > Network identification > Properties”. Systems needs to be restarted after changing the name.
- You need to share either a drive / folder on each system on network to be able browse the same from some other machine or you may need to have user level access with password.
- To share a folder right mouse click > Sharing > Share this folder, type share name and click OK
- **For Internet Browsing** :- Proxy server setting may have to be set in Internet Explorer for browsing internet if proxy server is installed on your network. For assigning proxy settings, **open Internet Explorer**, Go to **Tools > Internet options > Connections > LAN settings** . Then either set the proxy address & port number manually or select auto detect settings option.

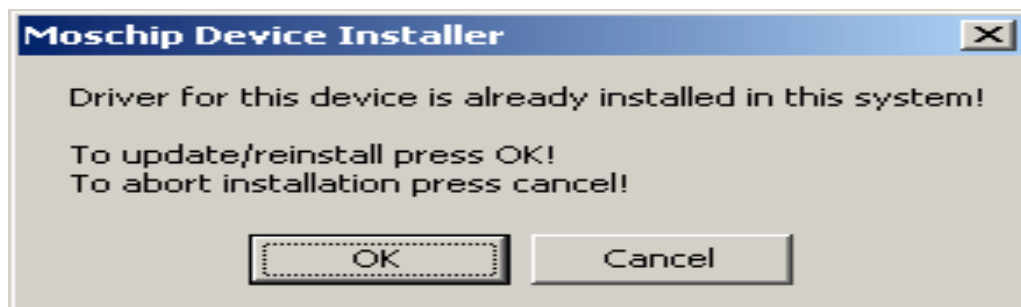
Power management and Remote Wake-up Function

MCS7830 supports power management of USB. When the System gets into suspend, the USB to Ethernet cable will draw less current from 5V (Bus powered).

MosChip USB2ETH Adapter can be used under the USB Hub.

8. Updating / Reinstalling / Check Version of Driver

- a. Turn the computer ON.
- b. Run Setup.exe from Driver folder. Press "Install" to start the installation.
- c. A message box will pop up saying "Drivers for this device is already installed in this system! To update / reinstall press OK! To abort installation press cancel!" Press OK to reinstall/update the drivers.



- d. Now the installer will display a message "Installation is in Progress... Please Wait!"
- e. Then the installer should display "Driver Files are updated(reinstalled) in this system! No need to restart your Computer! Click Exit!"
- f. Click Exit to close the installer.
- g. When Windows desktop is displayed, the Driver Update / Re-installation is complete.
- h. Go to Network Control Panel Applet and you will see a new network device MOSCHIP 7830 USB-Ethernet Adapter.
- i. Assign an IP address for the MCS7830 device. (E.g 192.168.200.74)

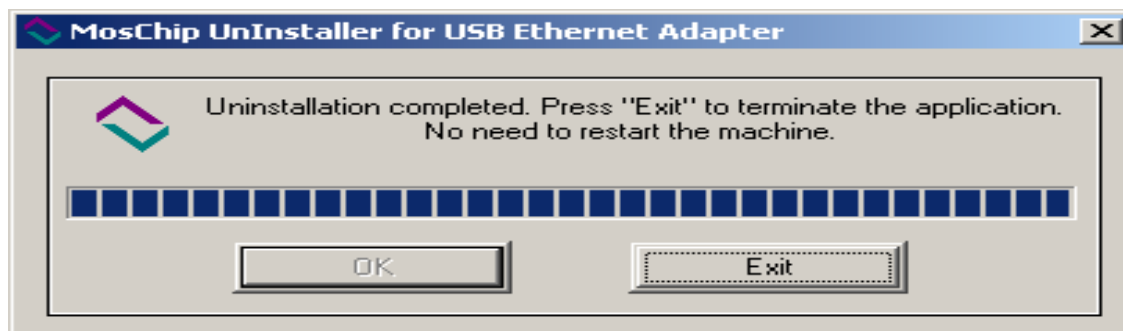
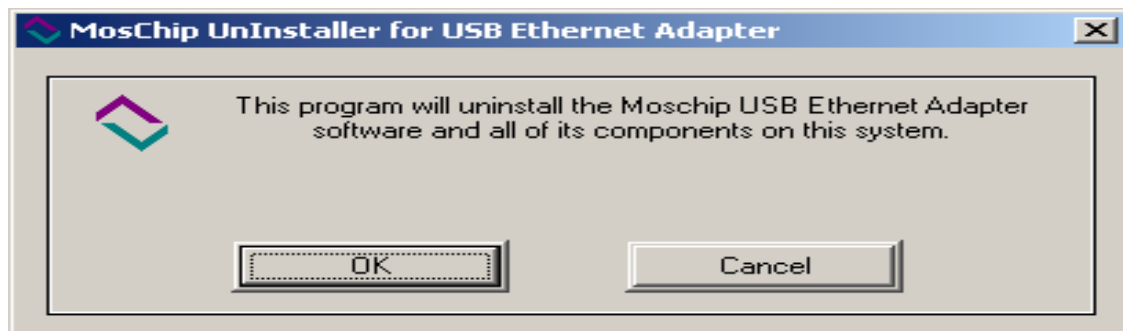
Driver Version

Right click on Moschip 7830 USB to Ethernet adapter in Device Manager / network adapters > Properties > Driver > Driver details. Version of Driver for MCS7830 can be seen here.

9. Un-Install Previously Installed Components

Sometimes it will be desirable or even necessary to remove the previously installed drivers, so that a new, clean installation can be performed. Unplug the MosChip USB Ethernet adapter.

- a. Open Start->Settings->Control Panel->Add/Remove Programs. Select "Moschip USB to Ethernet adapter" click change/remove. An Un-installation dialog will be displayed. Click "OK" button to perform the Un-Installation.



- b. Alternately you can uninstall through “Uninstall.exe ” from the MCS7830 Driver.
Go to driver folder , C:/MSC7830 and double click on un-install icon.

Technical Support

If you encounter any technical problem, please contact us through:
www.moschip.com

Change Log

1.0	AJN	3-Sep-03	Initial Release.
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