



AN-77XX-XP 2K

MCS77XX

Windows-2k & Windows-xp

Revision 1.2
18th Feb 2004

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1. Download Appropriate Drivers

- a. <http://www.moschip.com>

Click the "Products" > "USB1.1" > MCS77XX > "Drivers, Release Notes and Installation Guides".

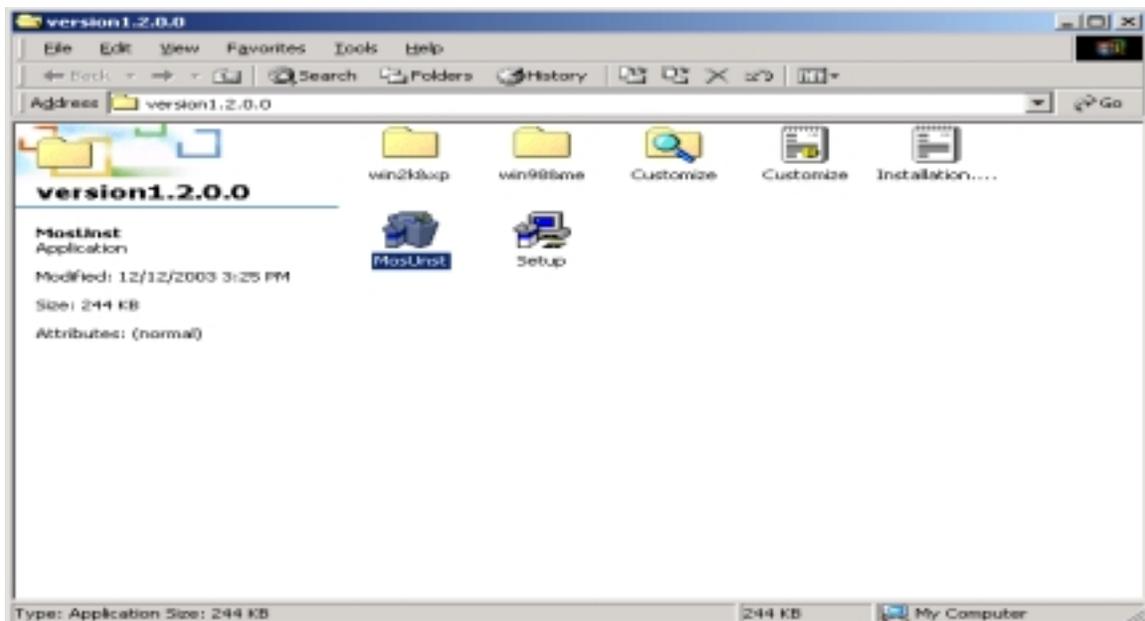
- b. Allow the ".zip" file to be downloaded to your local computer.
- c. Unzip the Driver files to a directory on your Hard Disk.
(Eg. C:\Moschip\MCS77XX)

Note :- If Installation CD is supplied with Product, copy required files onto Local Computer Hard disk (Eg. C:\Moschip\MCS77XX)

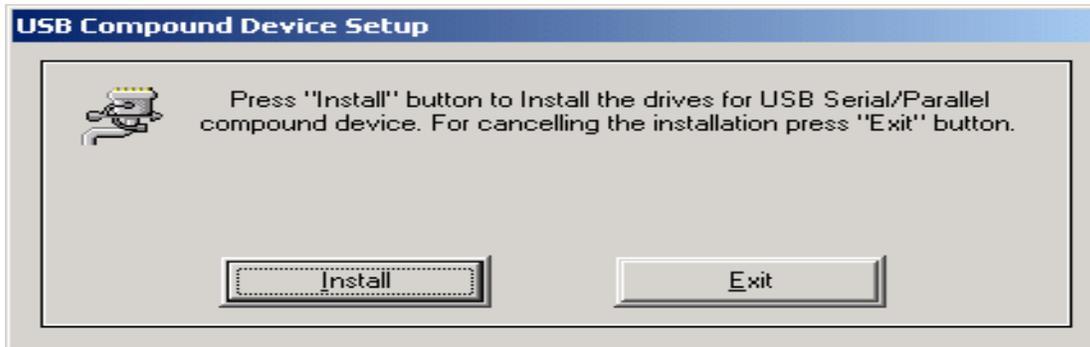
- d. Check the new folder with the Driver files for a "Readme" file that may have additional or special installation instructions. Use those instructions in addition to, or instead of, these instructions if present.

2. Installing Drivers for Windows 2000 / XP operating Systems

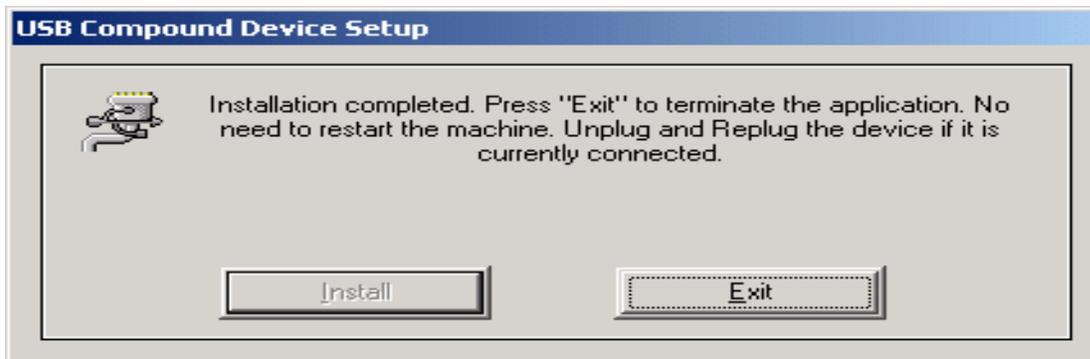
- a. Turn on the Computer , run **Mosunst.exe** application provided with MCS77XX driver folder to remove all previously installed driver versions of MCS77XX. Refer to section 4 for more details. Screen shot MCS77XX driver folder given below:



- b. Run **Setup.exe** from MCS77XX driver folder (Eg. **C:/Moschip/MCS77XX**)
- 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!.**



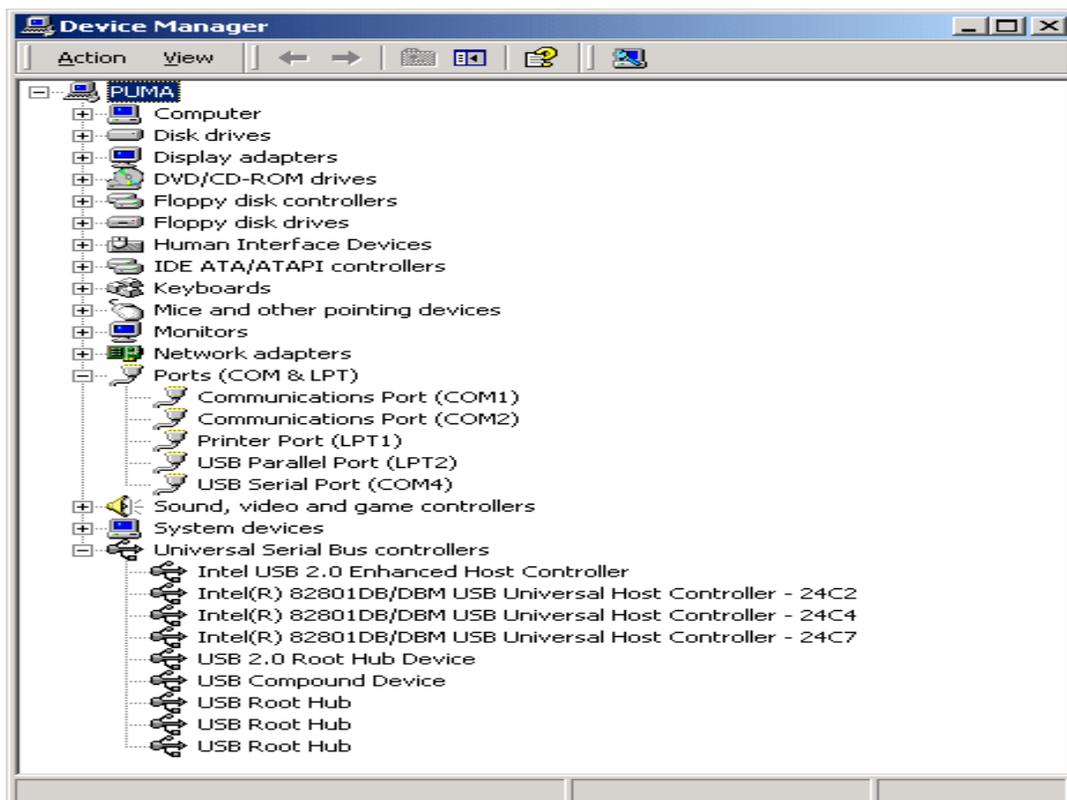
- f. Click Exit to close the installer.
- g. Plug-in the USB Cable of MCS77XX device to one of the USB port on your Computer
- h. Windows should detect the new USB device, and automatically install the drivers for the new hardware connected.
- i. When Windows desktop is displayed, the Driver installation 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 MCS77XX 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.
- IV) Please follow the instructions of operating system in rebooting when ever prompted.

3. Device detection confirmation

Right-Click on **My Computer** icon of Desktop > **Properties** > **Hardware tab** > **Device Manager** > **Ports / USB controllers**. MCS77XX USB to Serial / Parallel adapter will listed here.



Correct detection is confirmed by presence of :

USB Compound Device Universal Serial Bus Controllers.

USB Serial Port (COMn) in Ports (LPT & COM) category

USB Parallel Port (LPTn) in Ports (LPT & COM) category

4. Removing Previously Installed Drivers

Sometimes it will be desirable or even necessary to remove the previously installed drivers, so that a new, clean installation can be performed. Drivers can get corrupted when being written to their installation medium (CD-ROM etc.). If this happens, the drivers may not install properly. Even if the installation proceeds without errors, the drivers may not work. Sometimes older outdated drivers are shipped with a product. Newer machines may require newer updated drivers, but the older drivers prevent them from being installed.

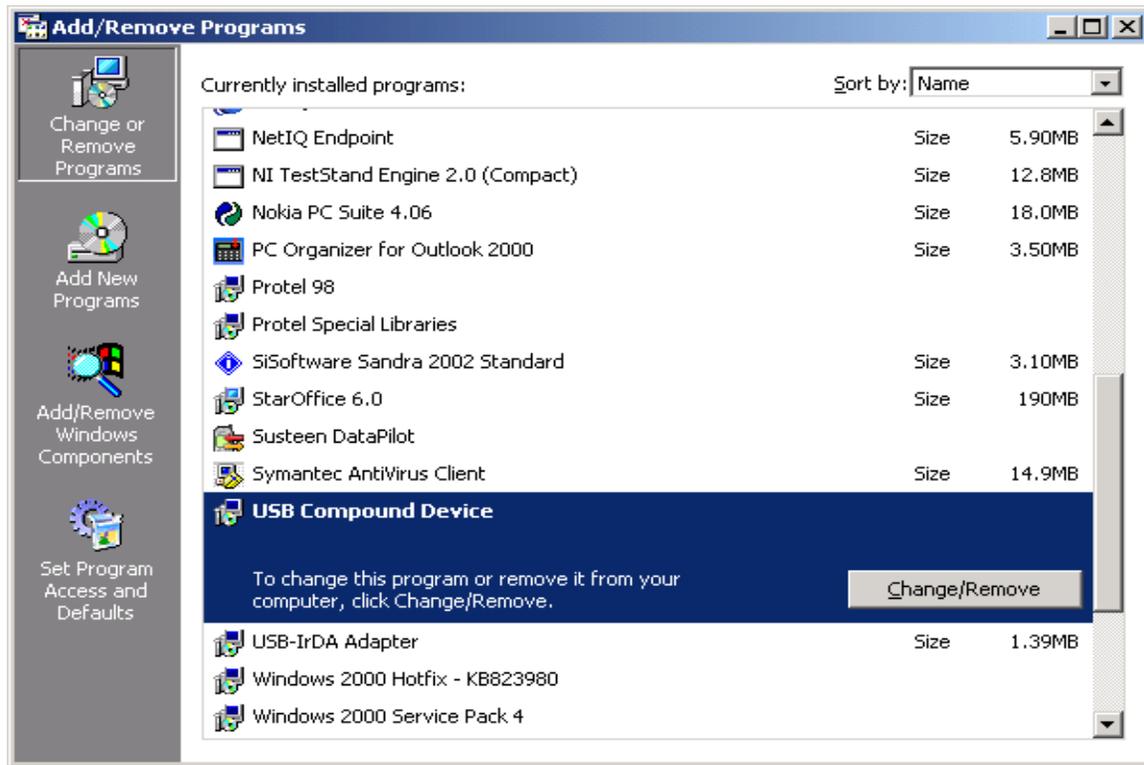
The easiest way to remove old drivers is to use **MosUnst.Exe** Program (located in WINNT\System32 directory **or** in the Driver folder of MCS77XX)



MosUnst

Alternately you can uninstall with following procedure :

- a) Unplug the USB Compound device.
- b) Start > Settings > Control Panel > Add/Remove Programs.
- c) Select **USB Compound Device** click change/remove.



d) At the next dialog, Click "OK" button.

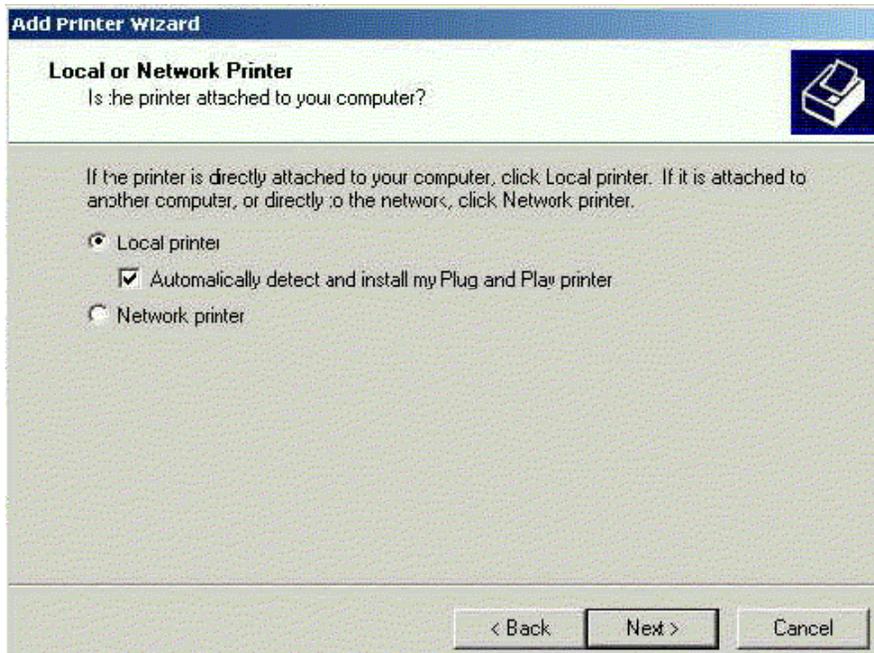


- e) Then click "RebootNow" button to reboot the system.

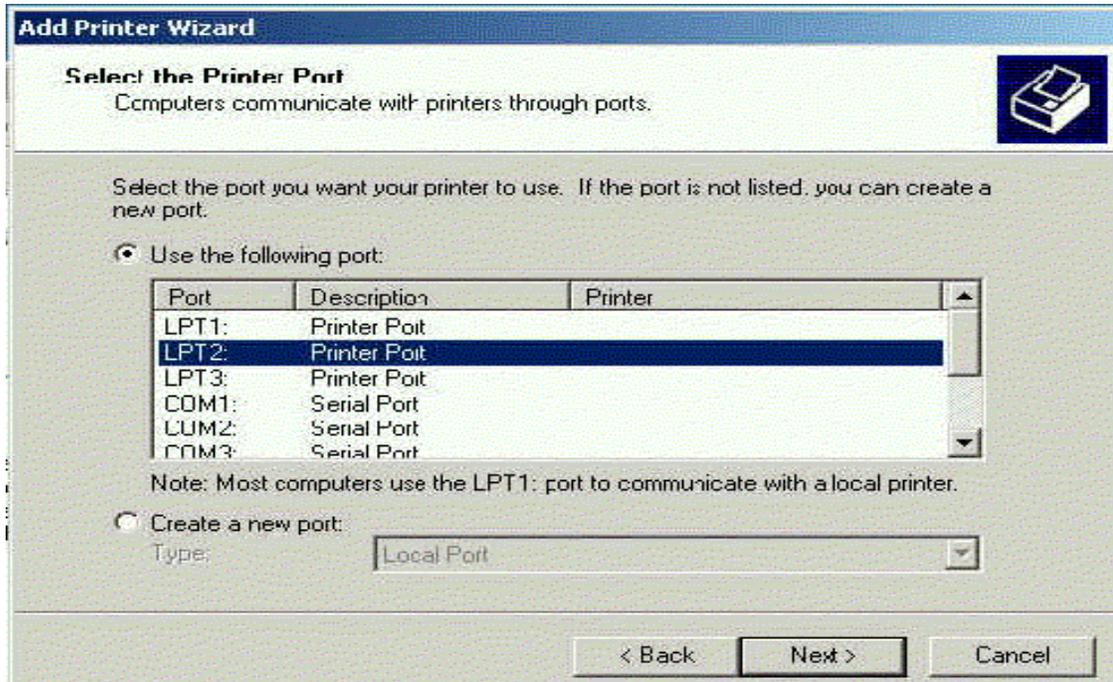


5. INSTALLATION OF PRINTER CONNECTED MCS77XX

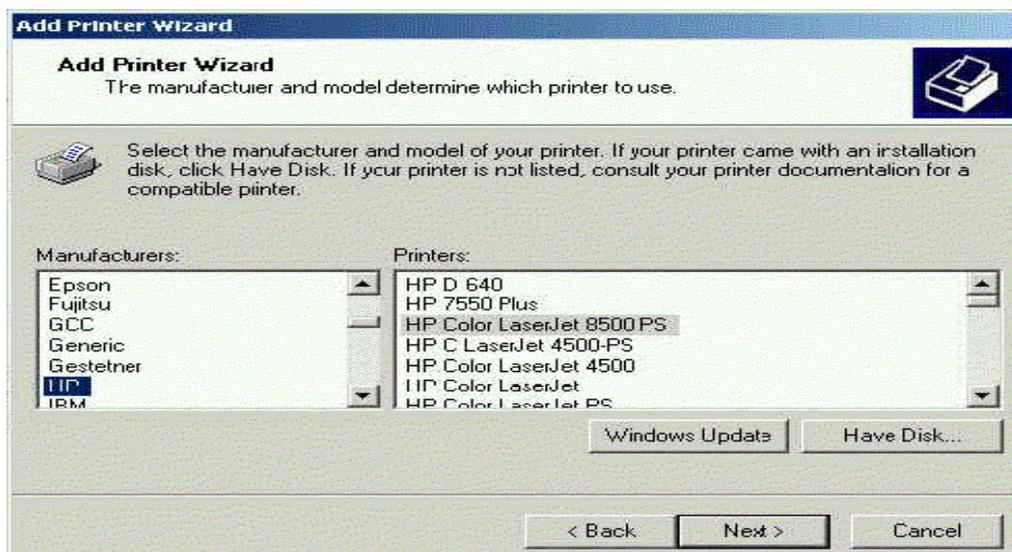
- a) Plug the MCS77XX in the Host Computer, a new parallel port will be installed in your system. You can see that under Device Manager, Ports.
- b) Connect the Printer to MCS77XX Parallel Port. Printer is not a Plug and Play device, hence you will have to manually install the printer. Click Start >Settings>Printers . Double Click on Add printer & Click **Next** in the add printer wizard.
- c) Select Local Printer, Click Next



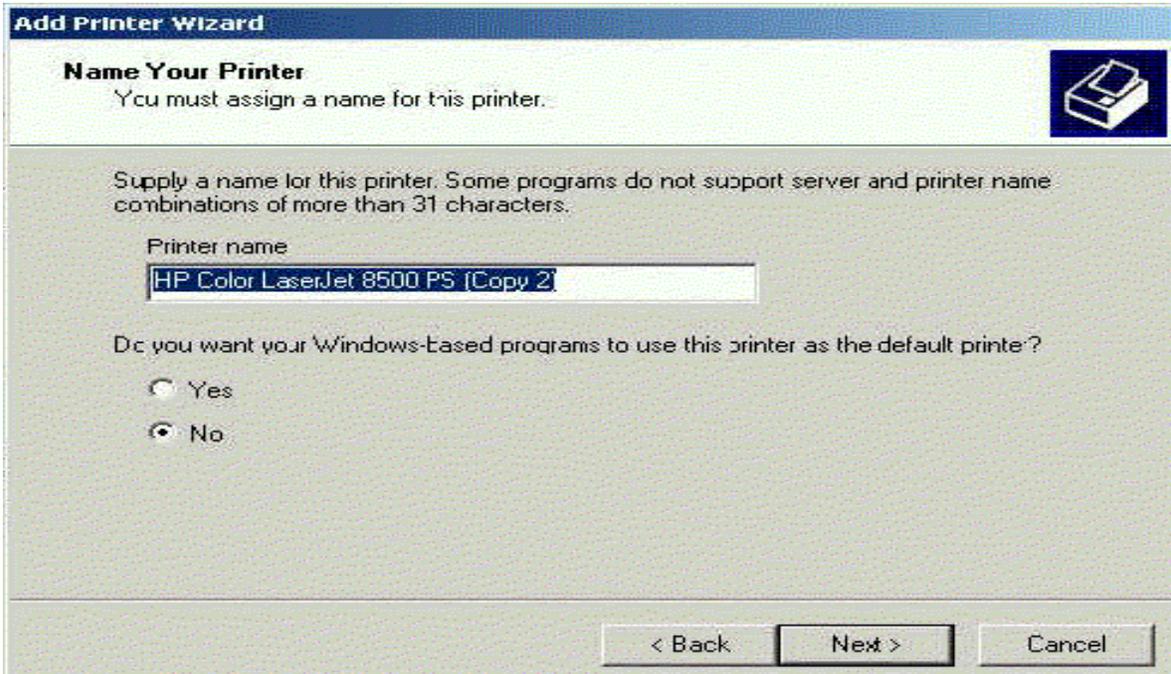
- d) Click **Next** in a Windows which says “unable to detect a Plug and Play Printer
- e) Select the Printer Port, e.g. if LPT2 is assigned to MosChip USB Parallel Port, then select LPT2. Assigned LPTx Number to Moschip device can be seen in Device manager properties , under ports:



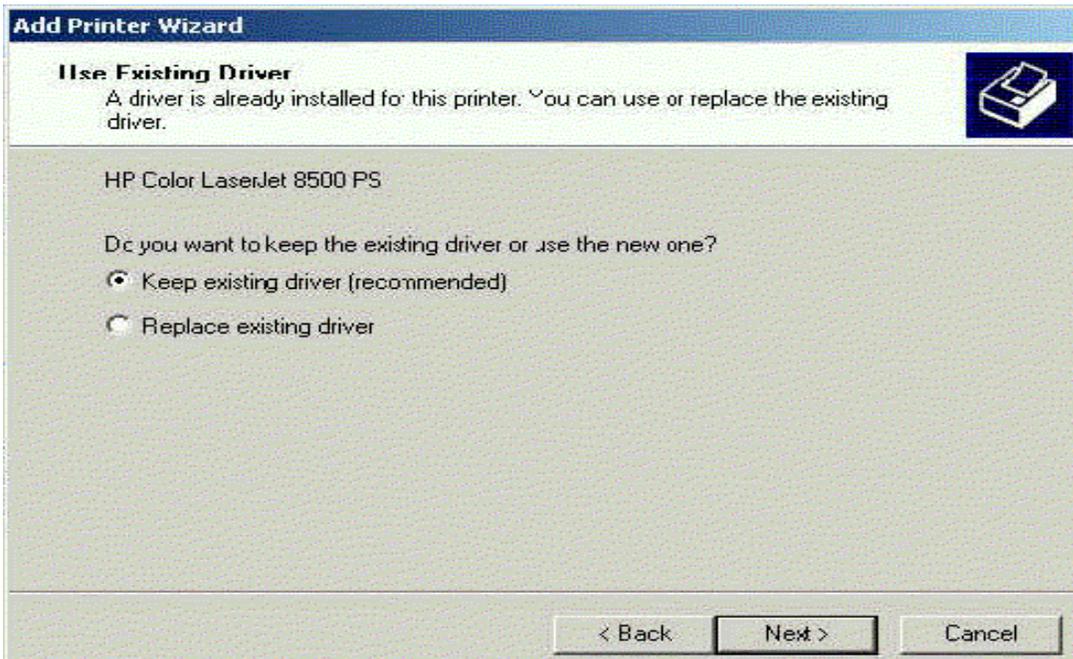
- f) Then select the Printer Type & Model number as that of your printer. Use Printer CD Rom which contains your printer drivers, if required.



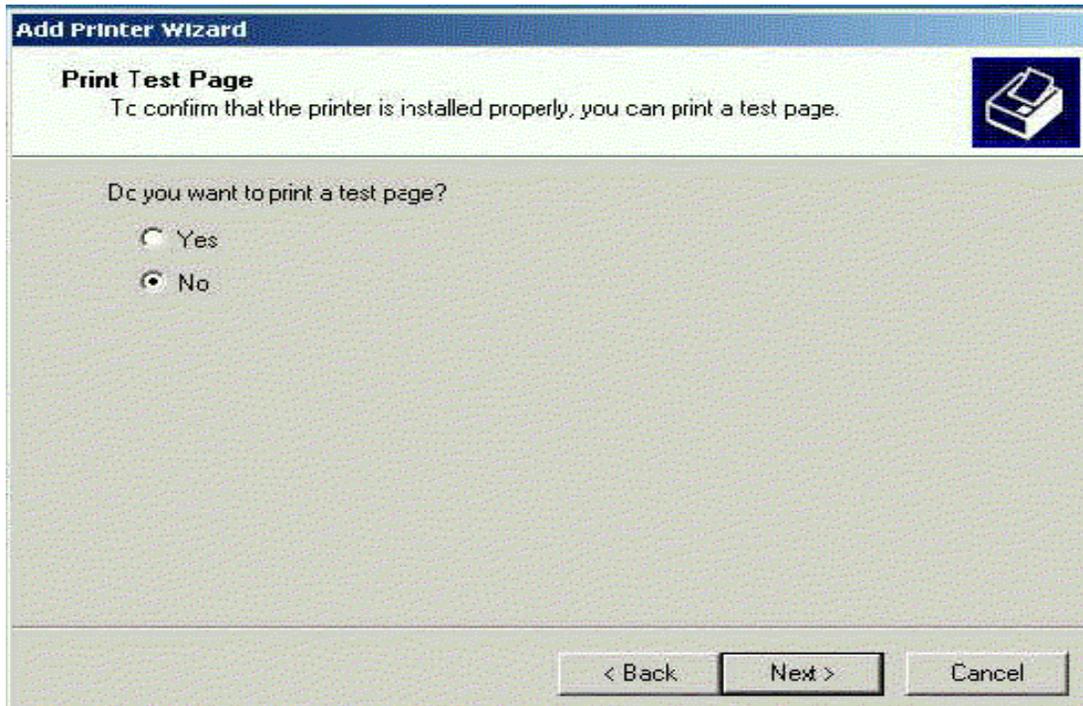
g) Select the printer to be your default one:



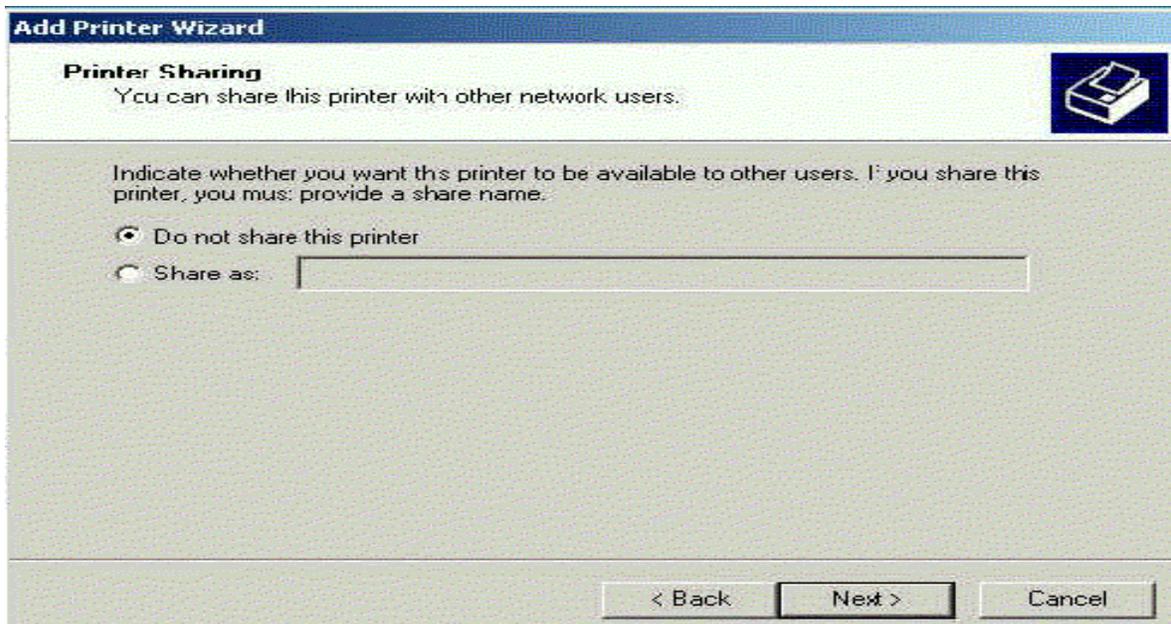
h) Select replace existing driver option & Click Next



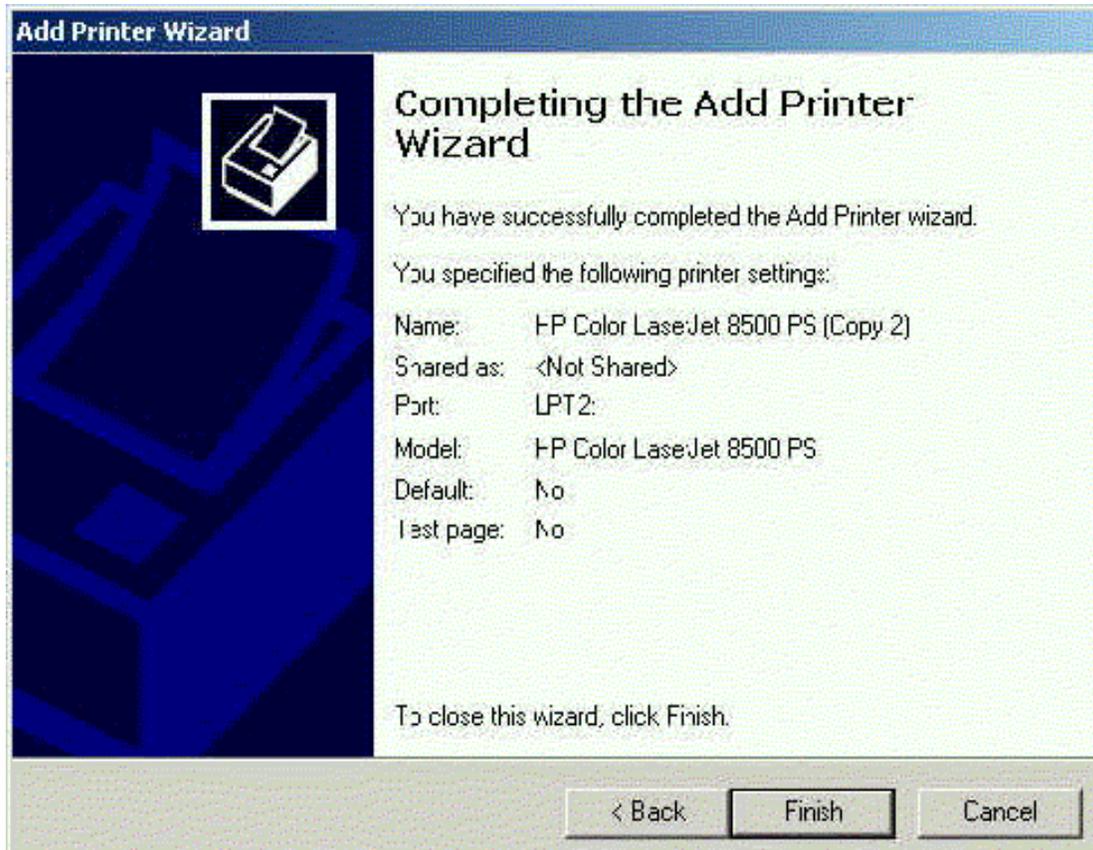
- i) Test page printing option can be selected.



- j) Select printer sharing option as required.



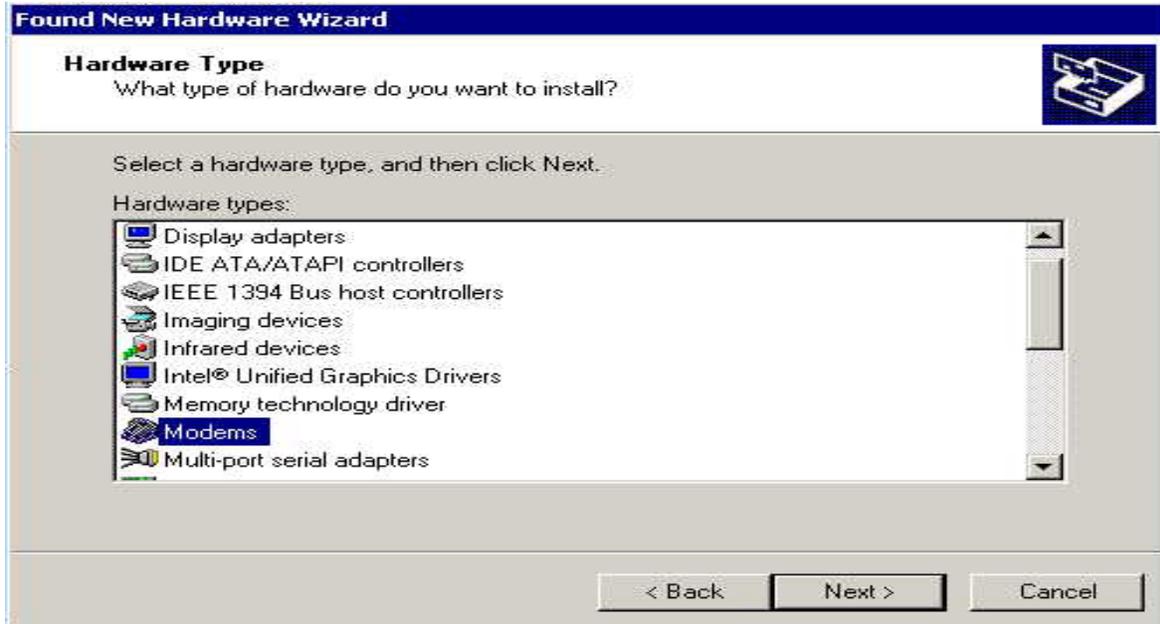
h) Click Finish to complete printer Installation.



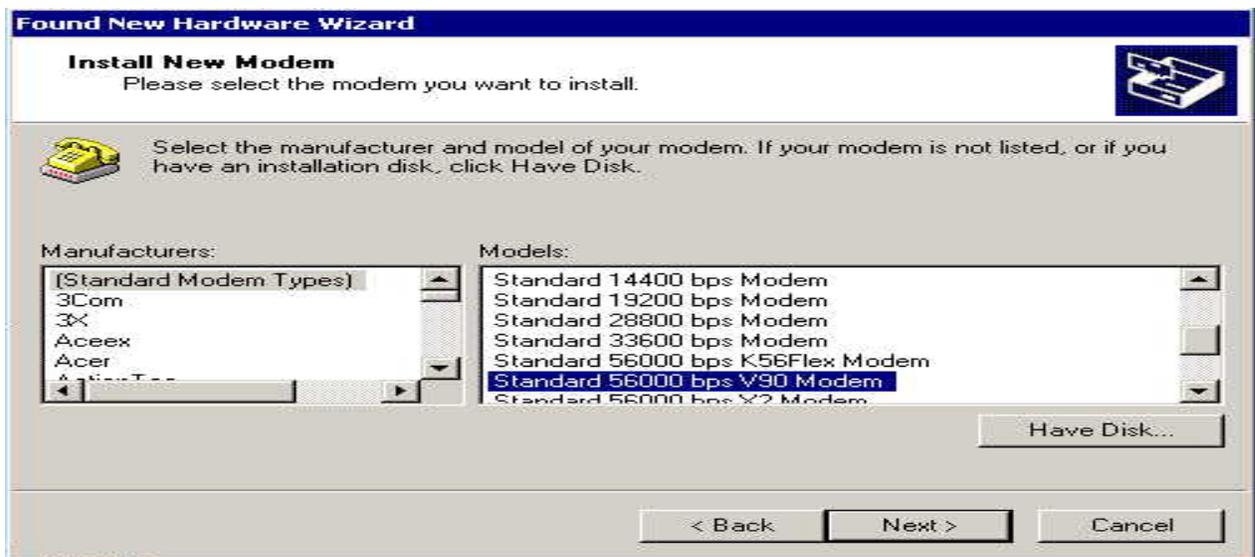
6. Installing Modem

- a) Connect the Modem to Moschip USB Serial Port and Turn On the Power Supply To The Modem
- b) Plug in the MOSCHIP USB Serial hardware in the Host Computer.
- c) Follow the setup instructions mentioned under Section 2 to install the drivers required for the Moschip USB Serial Hardware.
- d) After installing the drivers for MOSCHIP compound device and relevant ports, windows should detect the Modem connected and automatically display "Found New Hardware Wizard" Displays momentarily.
- e) Click "Next" in **Found New Hardware** window to continue.
- f) In **Install Hardware device drivers** window, select "Display a list of all the drivers in a specific location ..." option and click "Next" to continue.

- g) In **Locate drivers** window select **Specify drivers** option & Click next.
- h) Select Modems in following window & Click Next .



- i) Wizard displays a list of appropriate Manufacturer and Models of different modems. Select an appropriate option if it is present in the list. If it is not in the list, click "Have Disk" button on the Wizard and select the location where appropriate drivers for Modem are located. Click "Next" to continue.



- j) At the next dialog, Windows should display an additional dialog box, saying "Windows is now ready to install the selected driver for this device. Click Next to continue or Back to search drivers at different path (Have disk)."
- k) Windows searches and installs the selected drivers and displays a dialog saying it has finished installing the Drivers.
- l) Click "Finish" to complete the installation.

7. Check Modem Installation

- a) Open the Windows Device Manager by Right Clicking "My Computer" icon on the Desktop > "Properties" > "Hardware" > "Device Manager" > Modems
- b) Confirm that the newly connected Modem is displayed.

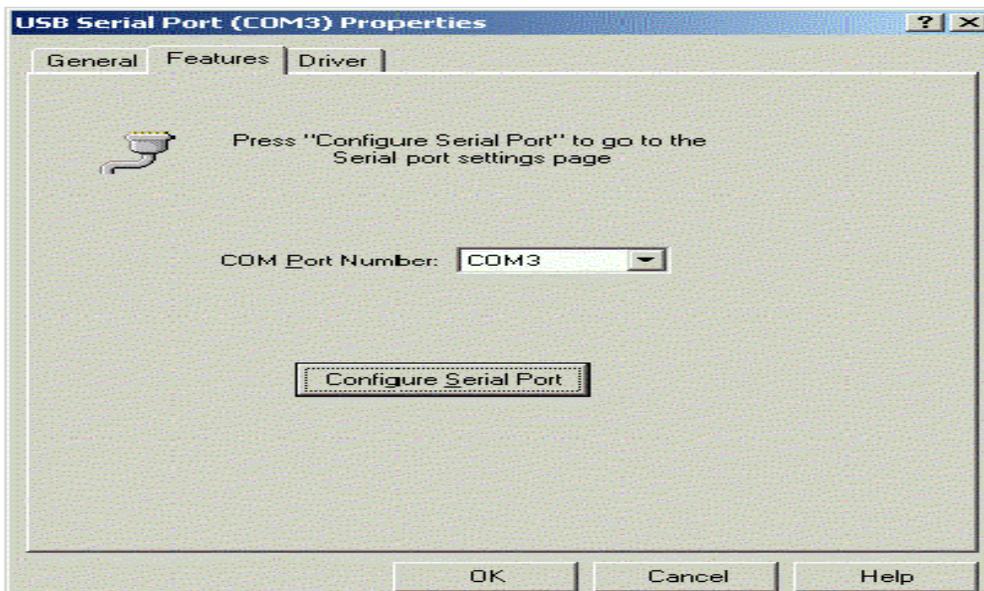
8. When Modem is connected to the Moschip USB serial Port which is already installed:

- a) Open the Windows Device Manager by Right Clicking "My Computer" icon on the Desktop > "Properties" > "Hardware" > "Device Manager" > Modems
- b) Right click & click "Scan for Hardware changes" for the newly connected Modem to be listed.
- c) Windows should detect the new Modem and automatically display a "Add New Hardware Wizard".
- d) Repeat the Installations steps as covered under Section 6 to Install Modem.

Note:- When Modem is connected and "Scan Hardware changes" is clicked , If windows does not display New Modem Click "Scan Hardware changes" once again.

9. Additional options / debug support:

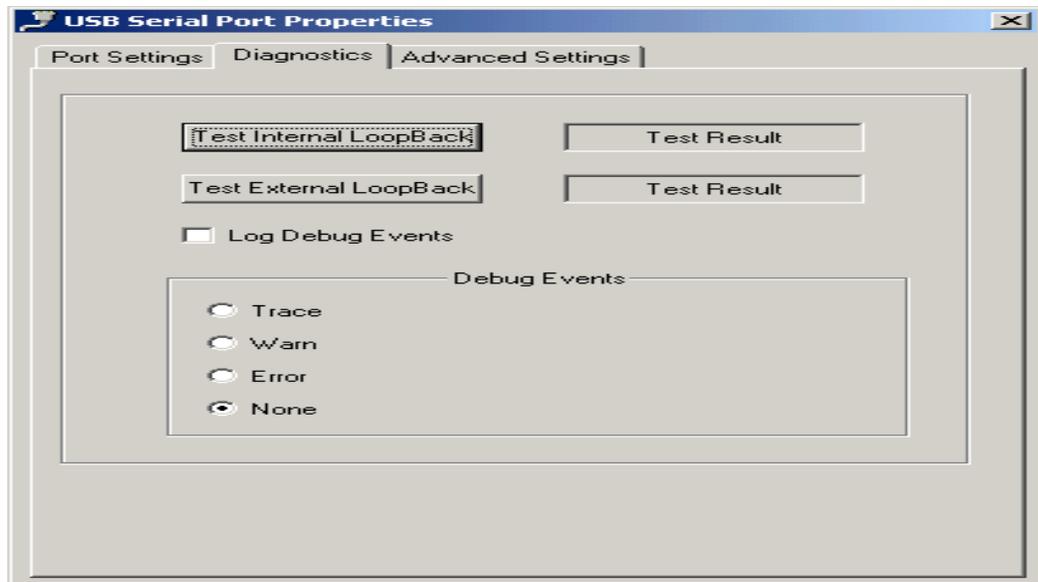
- a) Port number change through driver: Any free com port number of choice can be assigned to the Moschip USB serial port. Right click on the USB Serial port in Ports (under Device Manager) > Properties > Features.



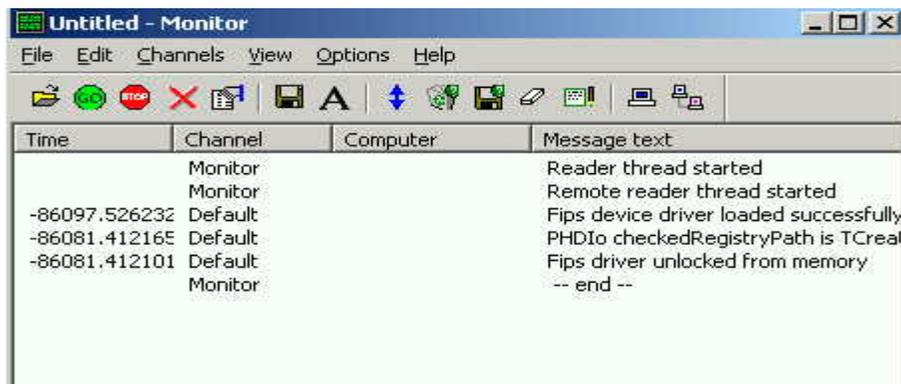
- b) Configure Serial port : Click on **Configure Serial port** button in 9 (a), to see Serial port properties as below. Default button can be clicked for default settings. In the List Box of the Serial Port you see different Com ports assigned for the moschip device.



- c) **Internal Loop back test:** Click Diagnostics tab in 9 (b) for Internal loopback test. Click on Test Internal Loopback button to execute serial port test of specific port for default settings. It's a Go / Nogo test.
 External Loopback test: Connect a Loop back Serial Cable for the required Com-Port. Click on Test External Loopback button to execute the Test Case.



- d) Select Trace & check Log Debug Events in 9 (c) to capture the debug messages of MCS77XX driver. Following Debug utility opens as you select above options, capture of a specific activity like detection while MCS77XX plugged into usb port or when unplugged etc can be captured through this utility. The captured messages can be saved as text files & sent across for debugging.

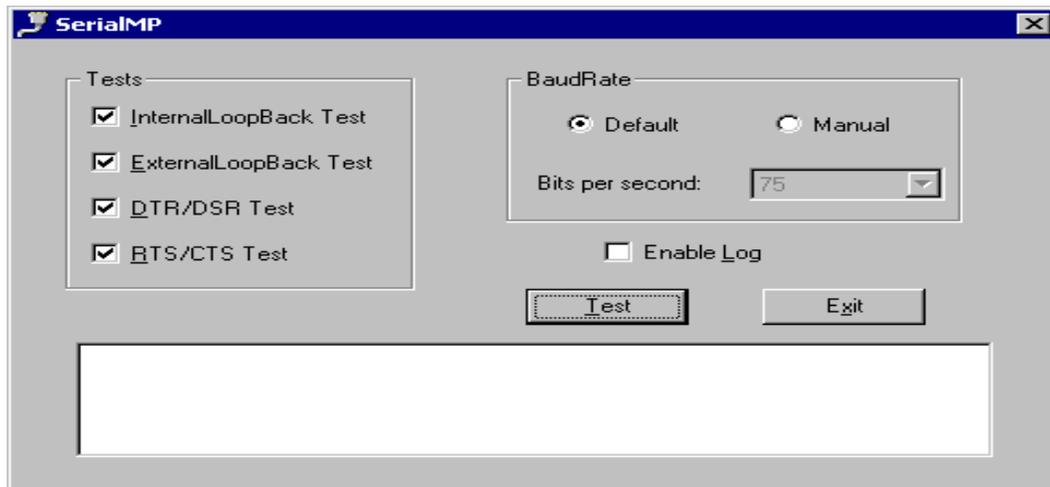


Debug
Utility

Similarly options i.e 9(a) to (d) are supported through USB parallel port also.

10. SERIALMP Application for Testing Internal and External Loopback:

A Shortcut of SERIALMP Icon and Config file is present on the Desktop as the device gets Installed after installation procedures performed earlier (This is another utility provided--instead of going to Device Manager>USBserial Port > Properties>Configure Serial Port>Diagnostics to perform Internal and External Loop back Testing). Double click the Icon to get the following Window.



a) Window Displays Four Test Cases:

1. Internal Loop Back Test
2. External LoopBack Test
3. DTR /DSR Test
4. RTS / CTS Test

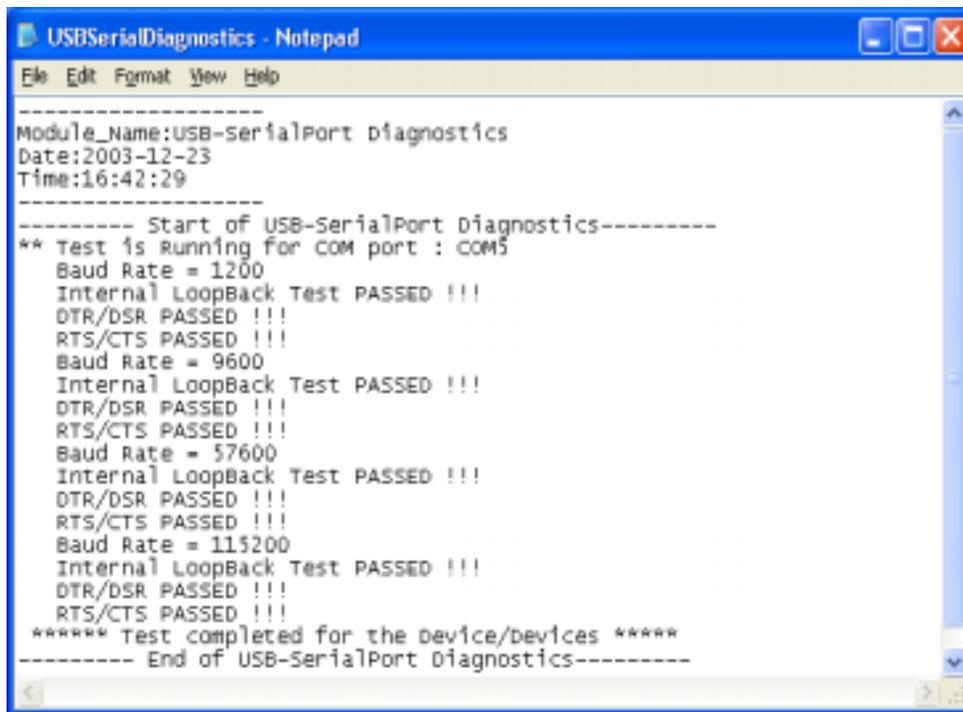
b) The required Test Cases can be checked in the 'check box ' to be performed.

c) There are Two Radio buttons Default and Manual which specify the baud rates selectivity. When Default option is selected Four baud rates are chosen 1200, 9600, 57600 & 115200. These BaudRate Options can be edited in the Config file found on Desk Top.

Note: User should Close the SERIALMP application and re-open it if any changes are made to the config file.

d) When Manual option is selected, Bits per Second List Box is highlighted for the selection of required baud rate. Here the Test cases are performed only for one single baud rate.

- e) Allowed baud rates are : (75, 110, 134, 150, 300, 600, 1200, 1800, 2400, 4800, 7200, 9600, 14400, 19200, 38400, 57600, 115200, 230400, 403200, 460800, 806400 & 921600).
- f) Selection of Enable Log Check box Option traces the Test results in a Log file and is placed on the desktop as the required Test completes . The file USBSerialDiagnostics can be seen on the desktop , this file will be modified for every new Run of the Test (i.e Result of the New test might differ from the previous test depending upon the test cases choosen). The file will be over written. Open the file using Notepad application.



```
-----  
Module_Name:USB-SerialPort Diagnostics  
Date:2003-12-23  
Time:16:42:29  
-----  
----- Start of USB-SerialPort Diagnostics-----  
** Test is Running for COM port : COM5  
  Baud Rate = 1200  
  Internal LoopBack Test PASSED !!!  
  DTR/DSR PASSED !!!  
  RTS/CTS PASSED !!!  
  Baud Rate = 9600  
  Internal LoopBack Test PASSED !!!  
  DTR/DSR PASSED !!!  
  RTS/CTS PASSED !!!  
  Baud Rate = 57600  
  Internal LoopBack Test PASSED !!!  
  DTR/DSR PASSED !!!  
  RTS/CTS PASSED !!!  
  Baud Rate = 115200  
  Internal LoopBack Test PASSED !!!  
  DTR/DSR PASSED !!!  
  RTS/CTS PASSED !!!  
***** Test completed for the device/devices *****  
----- End of USB-SerialPort Diagnostics-----
```

11. Configuring Printer Automatically

Printer configuration:- If the 77xx Device has Printer Port adapter terminal then the necessary driver will be automatically installed during installation setup. Check for the installed Port (i.e Lpt Port) in the device manager. Connect the printer cable to Moschip Parallel printer port, power the printer.

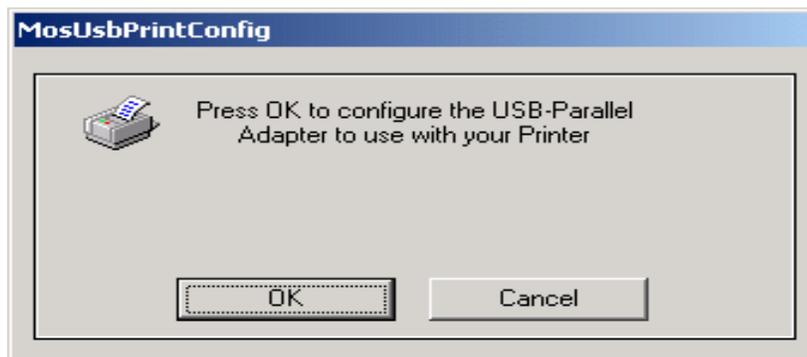
Go to printer properties (Start > Settings > Printers > right click on required printer Icon > Properties > Details) and set the correct port number. Port numbers assigned to Moschip USB to Serial Parallel adapter can be seen under Sec. 3

Now give a test page print from Printer properties to confirm correct printing.

Incase of any printing related issue from any printer through Moschip USB to Parallel port adapter, run **MOSUSBPRINTCONFIG** application (Double click the icon on your desktop) to configure Moschip USB to Parallel adapter to work with your Printer.



Click OK to Configure the printer to Moschip USB Printer adapter



Make sure Moschip USB to Parallel adapters USB cable is connected to USB port of your system & Click **Reboot now button**.



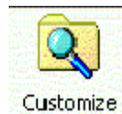
After restart try the test page printing from the printer properties. This ensures smooth printing through Moschip USB adapter every time / any time you print through this printer.

In case of printing issues with any other printer (as and when added to your Computer) run the **MOSUSBPRINTCONFIG** application again to configure the Moschip USB to Parallel adapter with that specific printer.

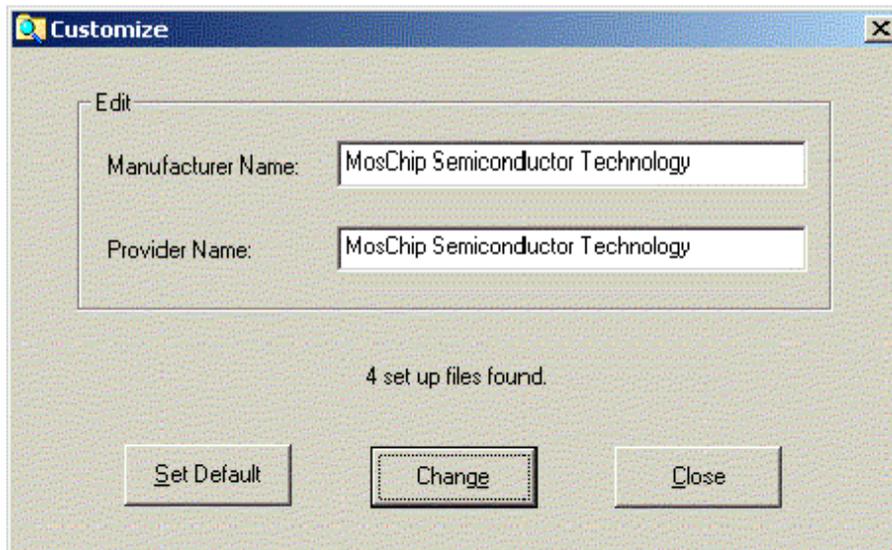
12. Editing Manufacture and Provider Name with Customize Option:

Customize Program Folder is provided with Driver CD. This Option helps in Modifying the Manufacturer and Provider Name.

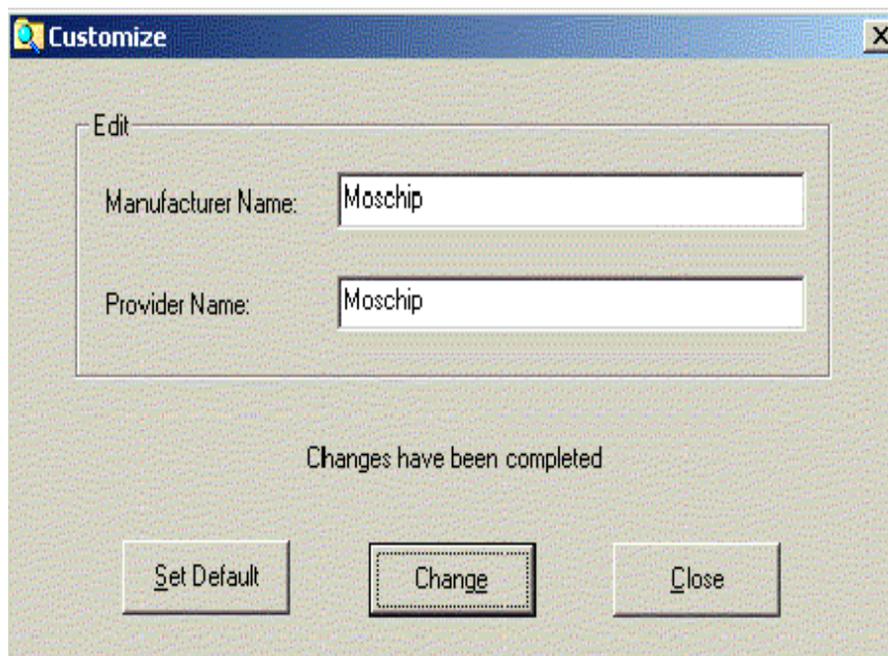
- a) Open the Driver CD the following Folder is found in the Driver path.



- b) Double Click the Folder Option , following window will appear.

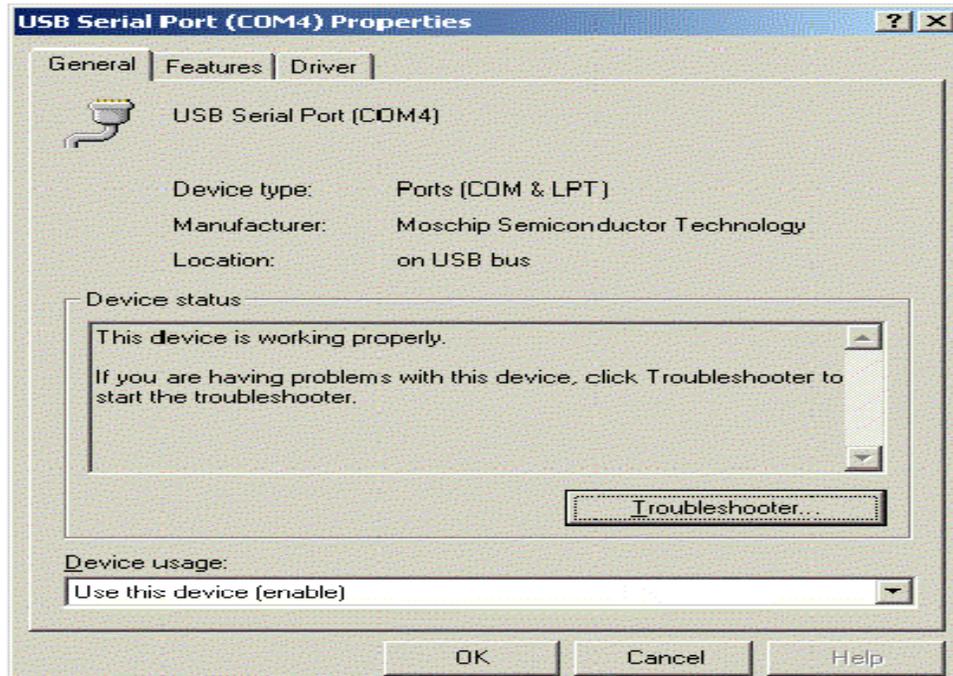


- c) Modify the Contents in the Text Box to the Required Manufacturer and Provider Choice. Then click Change Button for the Modified contents to be applied.
(Set Default will bring back the very first Manufacturer and Provider Name)
- d) Uninstall and Reinstall the Drivers for the changes to be made effective.
- e) The following Window shows the Modified contents of Manufacture and Provider Name. (You can Choose any name in place of Moschip)

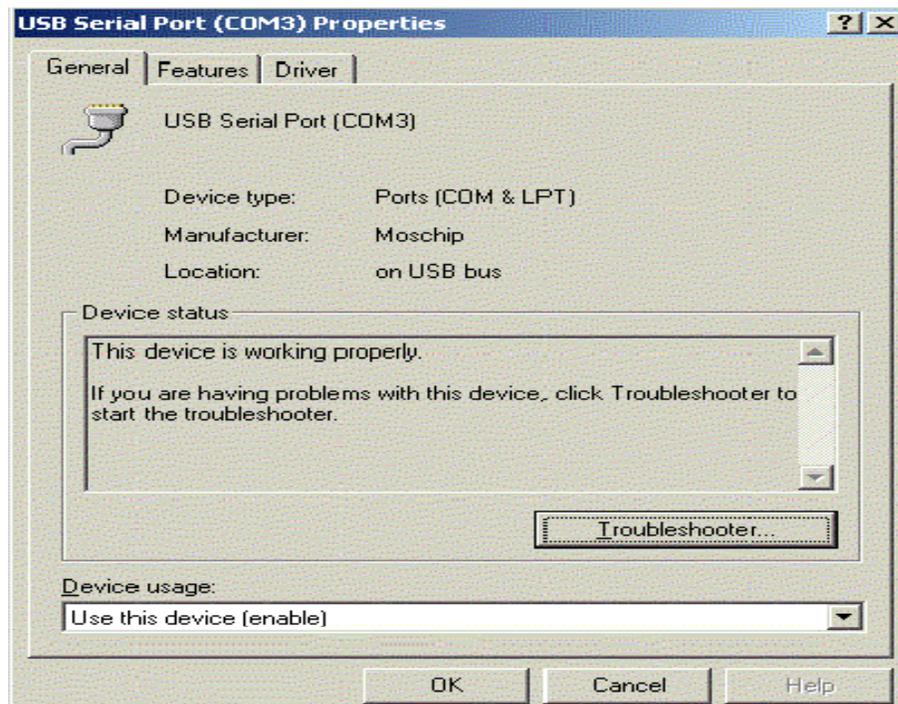


- f) Similarly the Check the Properties of Serial Port>General from Device Manager .
The Modified contents for Manufacture and Provider will be seen.

1.1 Before Modification of Manufacture Name. (Default driver as given)



2.1 After Modification of Manufacturer Name.



Technical support:

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

Change Log

- 1.0 AJN Initial Release 19th July 2003
- 1.1 AJN Updated with Ver 1.0.0.17 driver features 3rd Nov 2003
- 1.2 AJN Updated with Ver 1.2.0.0 driver release on 19th Feb 2004