

Normally any serial and parallel I/O ports can be supported by BIOS call services in DOS environment. However DOS supports only 4 serial ports (3F8h, 2F8h, 3E8h, 2E8h) and 3 parallel ports (3BCh/378h/278h).

I. Contents available in Moschip DOS Driver:

1. NMDOSIN.EXE --- DOS Utility to install ports.
2. NMCONFIG.CFG --- Configuration file to Remap to customize I/O Addresses.
3. DOS Driver Installation Guide.doc --- PDF Document of Installation Guide.

II. Options:

- a[dd] = Add Moschip Ports
- c[onfig]:<parameters> = Configure Moschip Ports
- d[delete] = Delete Moschip Ports
- r[emap] = Remap Moschip ports to legacy ports
- s[ilent] = Silent mode
- t[est] = Test ports (requires external Loop-Back plugs)
- u[nused] = remap to all Unused legacy port i/o base,
without consideration of COM/LPT number
- f = remapping to customize I/O addresses.

III. Installation Procedure:

The following procedure explains how to install Moschip serial and parallel port device driver on DOS.

- Step 1: Copy "NmDosIn.exe" to 'C' Drive from Floppy. The command is "**copy a:\ NmDosIn.exe c:**"
Step 2: Type "**nmdosin**" to confirm Device detection. (eg. MCS9835)

Found Moschip Technology pci device 9835 (00121000) Rev01 on Bus00 Slot 0A
Serial Port1 at A000
Serial Port2 at A400
PrinterPort1 at A800
Detected 1 pci device(s).

Step 3: Then type "**nmdosin -a**" and press **Enter**. (-a is used for adding Moschip ports)
When the ports are added, information is displayed as below:

```
=====
COM1 exists at 3F8
COM2 exists at 2F8
COM3 added at A000 (IRQ 11)
COM4 added at A400 (IRQ 11)
LPT1 exists at 378
LPT2 added at A800 (IRQ 11)
=====
```

- Moschip ports are installed successfully.

Step 4 : Just type "**nmdosin -t**" to test Moschip Serial or Parallel Ports.
Need to connect external loop back connectors to the serial and parallel ports.

```
Found Moschip Technology pci device 9835 (00121000) Rev01 on Bus00 Slot 0A
  Serial Port1 at A000 : Test passed
  Serial Port2 at A400 : Test passed
  PrinterPort1 at A800 : Test passed
Detected 1 pci device(s).
```

Step 5 : Use this command "**nmdosin -a -r**" to Remap the Moschip ports to legacy ports.

```
Found MosChip Technology pci device 9835 (00121000) Rev01 on Bus00 Slot 0A
  Serial Port1 at 3E8
  Serial Port2 at 2E8
  PrinterPort1 at 278
Detected 1 pci device(s).

=====
COM1 exists at 3F8
COM2 exists at 2F8
COM3 added at 3E8 (IRQ 11)
COM4 added at 2E8(IRQ 11)
LPT1 exists at 378
LPT2 added at 278 (IRQ 11)
=====
```

IV. Remap Moschip ports to customize I/O addresses:

Use the following steps to remap Moschip ports to customize I/O addresses.

Step 1 : Type "**edit nmconfig.cfg**" and press enter to edit the contents of config file.

Step 2 : You can view following information in the config file as shown below.

" 0xdef 0xdef 0xdef 0xdef 0xdef 0xdef "

Step 3 : Specify the required I/O address you want to change for serial / parallel ports in the config file.

Step 4 : Save it and close the config file after relevant changes.

Step 5 : Type "**nmdosin -a -f**" command to remap.

Note :

1. Use only the first line in "nmconfig.cfg" file. Do not modify anything in rest of the lines.
2. The first four I/O addresses (Blue color) are meant for com ports and next Two (Red color) for Parallel ports.

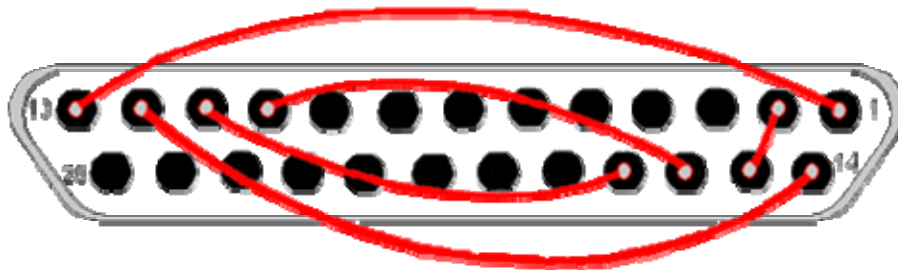
V. Loop back connections:

1. **Serial Loop back connection :**



Female DB-9 connector - Rear view

2. **Parallel Loop back connection:**



Male DB-25 connector - Rear view

VI. Revision history:

Date	Reason for change	Version
May 2007	Initial Draft	1.0
July 2008	Loop back connection changed	1.1