

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[ele]te] | = 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 3FB
COM2 exists at 2FB
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 3EB
Serial Port2 at 2EB
PrinterPort1 at 278
Detected 1 pci device(s).
```

```
=====
COM1 exists at 3FB
COM2 exists at 2FB
COM3 added at 3EB (IRQ 11)
COM4 added at 2EB(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.

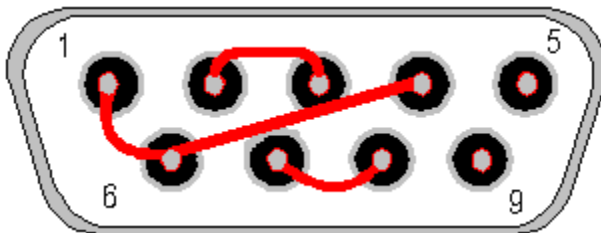
Step 5 : Type "nmconfig -a -f" command to remap.

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 colour) are meant for com ports and next Two (Red colour) for Parallel ports.

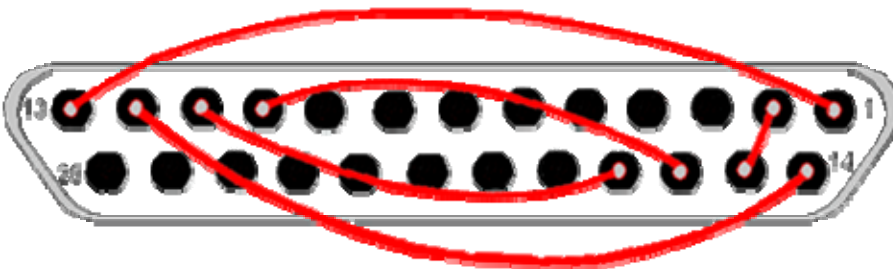
V. Loop back connections:

1. Serial Loop back connection :



Female DB-9 connector - Rear view

2. Parallel Loop back connection:



Male DB-25 connector - Rear view