MCS9900

DOS Driver User Manual

Table of Contents

1. Description

This document provides the information about how to install the serial and parallel drivers for MosChip MCS9900 PCIe to Serial and Parallel I/O ports on DOS 6.22 environment. 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 and 3 parallel ports.

2. Contents available with Moschip DOS Driver Disk

- STNDOSIN.EXE --- DOS Utility to install ports.
- DOS Driver Installation Guide. PDF --- PDF Document of Installation Guide.

3. Options

The following options are available with the MCS9900 DOS Utility "**STNDOSIN.EXE**".

-a[dd]	= To add Moschip Serial or Parallel I/O Ports
-c[onfig]: <parameters>	= To configure Moschip Serial or Parallel I/O Ports
-d[elete]	= To delete Moschip Serial or Parallel I/O Ports
-s[ilent]	= Silent mode
-t[est]	= To Test the Moschip Serial or Parallel ports (requires external Loop-Back plugs)
-f[ile]	= To Remap the Moschip ports from the config file.
-r[emap]	= To Remap the Moschip ports to legacy ports.

4. Installation Procedure

The following procedure explains how to install MosChip serial and parallel I/O ports on DOS.

Step 1: Copy "**STNDOSIN.exe**" to 'C:\' Drive from Floppy. The command is "**copy a:\ STNDOSIN.exe c:**"

Step 2: Type "**stndosin**" to confirm the Device detection. (Eg. MCS9900)

Following information is displayed For 4 Serial Port

```
COM1 exists.
COM2 exists
LPT1 exists.
PCI Device configurations.
Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot 00
Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot 00
Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot 00
Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot 00
Detected 4 pci device(s)
= = = = = = = = = = = = = = = =
      COM1 exist at 3F8.
      COM2 exist at 2F8.
      LPT1 exist at 378
= = = = = = = = = = = = == = = = =
```

Following information is displayed For 2 Serial and 1 Parallel Port

```
COM1 exists.
COM2 exists
LPT1 exists.
PCI Device configurations.
Found Moschip Semiconductor pci device 9990 (1000A000) Rev00 on Bus01 Slot 00
Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot 00
Found Moschip Semiconductor pci device 9900 (2000A000) Rev00 on Bus01 Slot 00
Detected 3 pci device(s)
= = = = = = = = = = = = = = = =
      COM1 exist at 3F8.
      COM2 exist at 2F8.
      LPT1 exist at 378
= = = = = = = = = = = = = == = = =
```

Step 3: Type "**stndosin -a**" and press **Enter.** (-a is used for adding Moschip ports). On Successful installation, information is displayed as below:

Following information is displayed For 4 Serial Ports

```
   PCI Device configurations….
Found Moschip Semiconductor pci devices 9900(1000A000) Rev00 on Bus01 Slot00
   Serial port at 9000
Found Moschip Semiconductor pci devices 9900(1000A000) Rev00 on Bus01 Slot00
  Serial port at 9400
Found Moschip Semiconductor pci devices 9900(1000A000) Rev00 on Bus01 Slot00
  Serial port at 9800
Found Moschip Semiconductor pci devices 9900(1000A000) Rev00 on Bus01 Slot00
  Serial port at 9C00
      Detected 4 pci device(s)
      ==========================
       COM1 exists at 3F8
       COM2 exists at 2F8
       COM3 added at 9000 (IRQ 5)
       COM4 added at 9400 (IRQ 6)
       COM5 added at 9800 (IRQ 9)
       COM6 added at 9C00 (IRQ 11)
       LPT1 exists at 378
      ==========================
```

Following information is displayed For 2 Serial and 1 Parallel Port

```
COM1 exists
COM2 exists
LPT1 exists
PCI Device configurations…
Found Moschip Semiconductor pci devices 9900(1000A000) Rev00 on Bus01 Slot00
  Serial port at 9000
Found Moschip Semiconductor pci devices 9900(1000A000) Rev00 on Bus01 Slot00
  Serial port at 9400
Found Moschip Semiconductor pci devices 9900(2000A000) Rev00 on Bus01 Slot00
  Printer port at 9800
       Detected 3 pci device(s)
      ==========================
       COM1 exists at 3F8
       COM2 exists at 2F8
       COM3 added at 9000 (IRQ 5)
       COM4 added at 9400 (IRQ 9)
       LPT1 exists at 378
       LPT2  added at 9800 (IRQ 6)
    ==========================
```

- Moschip ports are installed successfully.

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

Following information is displayed for 4 Serial ports

```
        COM1 exists
        COM2 exists
        COM3 exists
        COM4 exists
        LPT1 exists
        PCI device configurations….
        Found Moschip Semiconductor pci devices 9901(1000A000) Rev00 on Bus01 Slot00
          Serial port at 9000 : Test pass.
        Found Moschip Semiconductor pci devices 9901(1000A000) Rev00 on Bus01 Slot00
          Serial port at 9400 : Test pass.
        Found Moschip Semiconductor pci devices 9901(1000A000) Rev00 on Bus01 Slot00
          Serial port at 9800 : Test pass.
        Found Moschip Semiconductor pci devices 9901(1000A000) Rev00 on Bus01 Slot00
          Serial port at 9C00 : Test pass.
Detected 4 pci device(s).
```

Following information is displayed For 2 Serial and 1 Parallel Port

```
        COM1 exists
        COM2 exists
        COM3 exists
        COM4 exists
        LPT1 exists
        LPT2 exists
        PCI device configurations….
Found Moschip Semiconductor pci devices 9901(1000A000) Rev00 on Bus01 Slot00
  Serial port at 9000 : Test pass.
Found Moschip Semiconductor pci devices 9901(1000A000) Rev00 on Bus01 Slot00
  Serial port at 9400 : Test pass
Found Moschip Semiconductor pci devices 9901(2000A000) Rev00 on Bus01 Slot00
  Printer port at 9800 : Test pass.
Detected 3 pci device(s)
```

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

Setting Com Port Parameters
Com port parameters can be set in DOS as shown below.

Serial Port Mode: COMa[:] [BAUD=b] [PARITY=p] [DATA=d] [STOP=s]
Example
COM1:9600, N, 8, 1, P

5. Remap to customize I/O addresses

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

Step 1: Type "**edit stconfig.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.

"0xc100 0xc200 0xc300 0xd400 0xe800 0xdef 0xdef"
"0xdef 0xdef 0xdef 0xdef 0xdef 0xdef 0xdef"
"0xdef 0xdef 0xdef 0xdef 0xdef 0xdef 0xdef"
"0xdef 0xdef 0xdef 0xdef 0xdef 0xdef 0xdef"

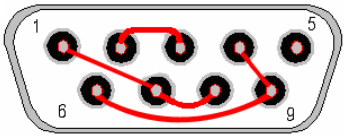
Step 3: Specify the required I/O address you want to change for serial / parallel ports in the config file.
Step 4: Save it and close the config file after relevant changes.
Step 5: Type "**stndosin -a -f**" command to remap.

Note:

1. **RS422 / 485 Features are not supported in the current version of DOS Drivers.**

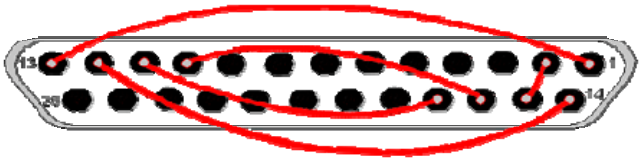
6. Loop back connections

1. **Serial Loop back connection** :



Female DB-9 connector - Rear view

2. **Parallel Loop back connection**:



Male DB-25 connector - Rear view

7. Technical Support

For queries and support contact techsupport@moschip.com.

8. Revision History

Date	Release History	Version
22 Dec 2009	Initial Release	1.0

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