



**MCS99xx DOS Configuration Tool  
User Guide**

Revision 2.00  
Sep. 28<sup>th</sup>, 2012

## Revision History

Revision	Date	Description
1.0	2009/12/22	Initial release
2.00	2012/09/28	<ol style="list-style-type: none"><li>1. Changed to ASIX Electronics Corp. logo, strings and contact information.</li><li>2. Changed document revision number format to "x.xx".</li><li>3. Re-arranged the whole document descriptions.</li></ol>

## Table of Contents

<b>1. Introduction .....</b>	<b>4</b>
<b>2. Files Descriptions.....</b>	<b>4</b>
<b>3. Tool Usage .....</b>	<b>4</b>
<b>4. Installation Procedures .....</b>	<b>5</b>
<b>5. Remap Serial/Parallel Ports to Customized I/O Ports .....</b>	<b>7</b>
<b>6. Serial/Parallel Ports Loopback Test.....</b>	<b>8</b>

## 1. Introduction

This document provides the information about how to install the serial and parallel ports for MCS99xx 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 (3F8h, 2F8h, 3E8h, 2E8h) and 3 parallel ports (3BCh/378h/278h).

## 2. Files Descriptions

File Name	Description
STNDOSIN.EXE	MCS99xx DOS Configuration Tool
STCONFIG.CFG	MCS99xx Serial/Parallel Ports Configuration Data File

## 3. Tool Usage

Usage : **StnDosIn** [<options>]

By default, StnDosIn displays COM/LPT ports.

### Options

- a[dd] = Add Saturn Ports
- c[onfig]:<parameters> = Configure Saturn Ports
- d[ele] = Delete Saturn Ports
- r[emap] = Remap Saturn ports to legacy ports
- f[ile] = Remap Saturn ports to legacy(Custom IO-Base) ports
- s[ilent] = Silent mode
- u[nused] = remap to all Unused legacy port i/o base, without consideration of COM/LPT number
- t[est] = Test ports

### Config Option Parameters

- c[onfig]:lpt[1|2|3]=[spp|bpp|ppf|ep|ecp]
- e.g., -config:lpt=spp would set all LPT ports to SPP
- e.g., -c:lpt1=spp would set lpt1 to SPP
- e.g., -c:lpt1=spp,lpt2=bpp would set lpt1 to SPP and lpt2=BPP

## 4. Installation Procedures

The following procedure explains how to install MCS99xx serial and parallel I/O ports on DOS.

- Step 1: Run "**stndosin**" to confirm Device detection. (Eg. MCS99xx)  
Following information is displayed For 2 Serial and 1 Parallel Port

```
Saturn DOS installer version 1.0.0.3 dated 24-Feb-2011

PCI Device Configurations...

Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot00
Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot00
Found Moschip Semiconductor pci device 9900 (2000A000) Rev00 on Bus01 Slot00

Detected 3 pci device(s).
=====
No COM/LPT port found.
=====
```

- Step 2: Run "**stndosin -a**" command to add MCS99xx ports on DOS platform. On Successful installation, information is displayed as below:

```
Saturn DOS installer version 1.0.0.3 dated 24-Feb-2011

PCI Device Configurations...

Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot00
  SerialPort1 at B480

Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot00
  SerialPort1 at B800

Found Moschip Semiconductor pci device 9900 (2000A000) Rev00 on Bus01 Slot00
  PrinterPort1 at BC00

Detected 3 pci device(s).
=====
COM1 added at B480 (IRQ 11)
COM2 added at B800 (IRQ 10)
LPT1 added at BC00 (IRQ 5)
=====
```

Step 3: Run "**stndosin -a -r**" command to remap the MCS99xx serial/parallel ports to legacy I/O ports.

```
Saturn DOS installer version 1.0.0.3 dated 24-Feb-2011
```

```
COM1 exists
```

```
COM2 exists
```

```
LPT1 exists
```

```
PCI Device Configurations...
```

```
Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot00  
SerialPort1 at 3E8
```

```
Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot00  
SerialPort1 at 2E8
```

```
Found Moschip Semiconductor pci device 9900 (2000A000) Rev00 on Bus01 Slot00  
PrinterPort1 at 278
```

```
Detected 3 pci device(s).
```

```
=====
```

```
COM1 added at 3E8 (IRQ 11)
```

```
COM2 added at 2E8 (IRQ 10)
```

```
LPT1 added at 278 (IRQ 5)
```

```
=====
```

### 5. Remap Serial/Parallel Ports to Customized I/O Ports

Use the following steps to remap MCS99xx 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.

```
0x3e8 0xdef 0xdef 0xdef 0xdef 0xdef 0xdef
0x2e8 0xdef 0xdef 0xdef 0xdef 0xdef 0xdef
0xdef 0xdef 0xdef 0xdef 0x278 0xdef 0xdef
0xdef 0xdef 0xdef 0xdef 0xdef 0xdef 0xdef
```

**Note:**

1. The first four-column fields in "blue" color are for COM ports setting and the last three-column fields in "red" are for Parallel port setting.
2. Above 2S1P mode example, first row =First serial port 0x3E8; second row = Second serial port 0x2E8; third row = Parallel port 0x278.
3. Support for 485 / 422 Feature is not available in the current version of DOS configuration tool.

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.

```
Saturn DOS installer version 1.0.0.3 dated 24-Feb-2011
```

```
COM1 exists
```

```
COM2 exists
```

```
LPT1 exists
```

```
PCI Device Configurations...
```

```
Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot00
  SerialPort1 at 3E8
```

```
Found Moschip Semiconductor pci device 9900 (1000A000) Rev00 on Bus01 Slot00
  SerialPort1 at 2E8
```

```
Found Moschip Semiconductor pci device 9900 (2000A000) Rev00 on Bus01 Slot00
  PrinterPort1 at 278
```

```
Detected 3 pci device(s).
```

```
=====
COM1 added at 3E8 (IRQ 11)
```

```
COM2 added at 2E8 (IRQ 10)
```

```
LPT1 added at 278 (IRQ 5)
=====
```

## 6. Serial/Parallel Ports Loopback Test

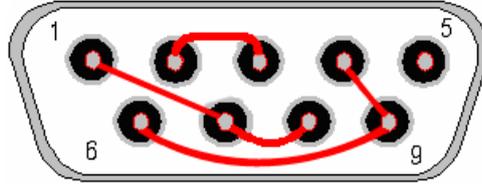
Run "**stndosin -t**" command to test MCS99xx Serial or Parallel Ports.

Note that need to connect external loop back connectors to the serial and parallel ports before running this test.

```
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).
```

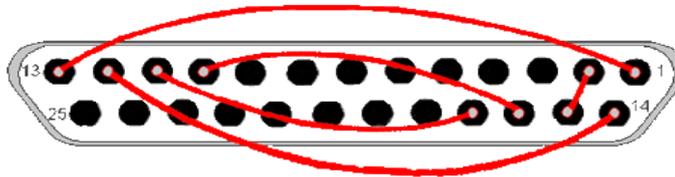
## Loopback Connectors:

1. Serial Loop back connection :



Female DB-9 connector – Rear view

2. Parallel Loop back connection::



Male DB-25 connector – Rear view



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