

MCS9865 DOS Configuration Tool User Guide

Revision 2.00
Sep. 28th, 2012

Revision History

| Revision | Date | Description |
|----------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | 2009/03/25 | Initial release |
| 2.00 | 2012/09/28 | 1. Changed to ASIX Electronics Corp. logo, strings and contact information. 2. Changed document revision number format to “x.xx”. 3. Re-arranged the whole document descriptions. |

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1. Introduction

This document provides the information about how to install the serial and parallel ports for MCS9865 PCI 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 |
|--------------|-------------------------------------------------------|
| GEMDOSIN.EXE | MCS9865 DOS Configuration Tool |
| GMCONFIG.CFG | MCS9865 Serial/Parallel Ports Configuration Data File |

3. Tool Usage

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

By default, GemDosIn displays COM/LPT ports.

Options

- a[dd] = Add Gemini Ports
- c[onfig]:<parameters> = Configure Gemini Ports
- d[elete] = Delete Gemini Ports
- r[emap] = Remap Gemini ports to legacy ports
- f[ile] = Remap Gemini 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 MCS9865 serial and parallel I/O ports on DOS.

- Step 1: Run "**gemdosin**" to confirm Device detection. (Eg. MCS9865)
Following information is displayed For 2 Serial and 1 Parallel Port

```
Gemini DOS installer version 1.0.0.4 dated 03-MAR-2009

PCI Device Configurations...

Found Moschip Semiconductor pci device 9865 (1000A000) Rev00 on Bus03 Slot00
Found Moschip Semiconductor pci device 9865 (1000A000) Rev00 on Bus03 Slot00
Found Moschip Semiconductor pci device 9865 (2000A000) Rev00 on Bus03 Slot00

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

- Step 2: Run "**gemdosin -a**" command to add MCS9865 ports on DOS platform. On Successful installation, information is displayed as below:

```
Gemini DOS installer version 1.0.0.4 dated 03-MAR-2009

PCI Device Configurations...

Found Moschip Semiconductor pci device 9865 (1000A000) Rev00 on Bus03 Slot00
  SerialPort1 at E480

Found Moschip Semiconductor pci device 9865 (1000A000) Rev00 on Bus03 Slot00
  SerialPort1 at E800

Found Moschip Semiconductor pci device 9865 (2000A000) Rev00 on Bus03 Slot00
  PrinterPort1 at EC00

Detected 3 pci device(s).
=====
COM1 added at E480 (IRQ 10)
COM2 added at E800 (IRQ 11)
LPT1 added at EC00 (IRQ 5)
=====
```

Step 3: Run "**gemdosin -a -r**" command to remap the MCS9865 serial/parallel ports to legacy I/O ports.

Gemini DOS installer version 1.0.0.4 dated 03-MAR-2009

COM1 exists

COM2 exists

LPT1 exists

PCI Device Configurations...

Found Moschip Semiconductor pci device 9865 (1000A000) Rev00 on Bus03 Slot00
SerialPort1 at 3E8

Found Moschip Semiconductor pci device 9865 (1000A000) Rev00 on Bus03 Slot00
SerialPort1 at 2E8

Found Moschip Semiconductor pci device 9865 (2000A000) Rev00 on Bus03 Slot00
PrinterPort1 at 278

Detected 3 pci device(s).

=====

COM1 added at 3E8 (IRQ 10)

COM2 added at 2E8 (IRQ 11)

LPT1 added at 278 (IRQ 5)

=====

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

Use the following steps to remap MCS9865 ports to customize I/O addresses.

Step 1: Type "**edit gmconfig.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 "**gemdosin -a -f**" command to remap.

Gemini DOS installer version 1.0.0.4 dated 03-MAR-2009

COM1 exists

COM2 exists

LPT1 exists

PCI Device Configurations...

Found Moschip Semiconductor pci device 9865 (1000A000) Rev00 on Bus03 Slot00
SerialPort1 at 3E8

Found Moschip Semiconductor pci device 9865 (1000A000) Rev00 on Bus03 Slot00
SerialPort1 at 2E8

Found Moschip Semiconductor pci device 9865 (2000A000) Rev00 on Bus03 Slot00
PrinterPort1 at 278

Detected 3 pci device(s).

=====

COM1 added at 3E8 (IRQ 10)

COM2 added at 2E8 (IRQ 11)

LPT1 added at 278 (IRQ 5)

=====

6. Serial/Parallel Ports Loopback Test

Run "**gemdosin -t**" command to test MCS9865 Serial or Parallel Ports.

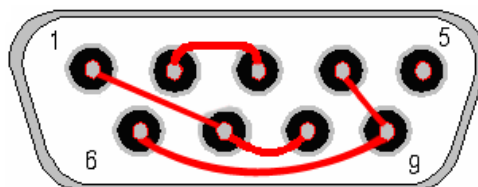
Note that need to connect external loop back connectors to the serial and parallel ports before running this test.

```
COM1 exists
COM2 exists
COM3 exists
COM4 exists
LPT1 exists
LPT2 exists
PCI device configurations....
Found Moschip Semiconductor pci devices 9865(1000A000) Rev00 on Bus01 Slot00
  SerialPort1 at B800 : TEST RESULTS PASSED.
Found Moschip Semiconductor pci devices 9865(1000A000) Rev00 on Bus01 Slot00
  SerialPort1 at B400 : TEST RESULTS PASSED.
Found Moschip Semiconductor pci devices 9865(2000A000) Rev00 on Bus01 Slot00
  PrinterPort1 at B000 : TEST RESULTS PASSED.

Detected 3 pci device(s)
```

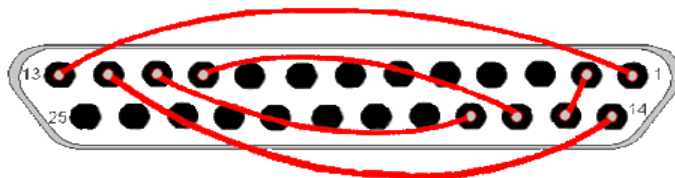
Loopback Connectors:

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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