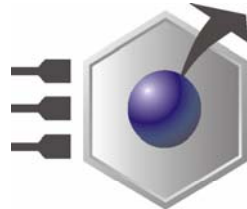


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CPU-1231: I/O Memory Map

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ABOUT THIS MANUAL

This application note contains information regarding the I/O Memory map for the CPU-1231



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Conventions

The following table lists conventions used throughout this guide.

| Icon | Notice Type | Description |
|---|-------------------------|--|
|  | Information note | Important features or instructions |
|  | Warning | Information to alert you to potential damage to a program, system or device or potential personal injury |

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CPU-1231 I/O Port Map

On CPU-1231 the I/O address space from 110h to 11Fh is used for internal glue logic, these registers can be accessed with simple I/O operations.

However only the bits 0, 1 & 2 are useful, writing or reading to bits 4 to 7 will make an undefined result.

The following tables give a brief description of each of these registers.

General Board Status, Control and Revision registers

I/O Port 110h, E2099_STATUS_Register_0

Reset value: 0XX

| Bit | Mode | Name | Description |
|-----|--------------|----------------------|---|
| 2 | Read / Write | CLEAR_WDLED | 0: Normal Behavior 1: Clear Watchdog LED |
| 1 | Read only | EXTBIOS_STATUS | 0: Jumper External BIOS inserted 1: Jumper External BIOS left open |
| 0 | Read only | INVEE_EXTBIOS_STATUS | 0: Jumper Ext BIOS or Invalid Setup inserted 1: Jumper Ext BIOS or Invalid Setup left open |

I/O Port 111h, E2099_DETECTION

Reset value: 010

| Bit | Mode | Name | Description |
|-----|-----------|----------------|-------------------------|
| 2:0 | Read only | CPU123X_DETECT | 001: Board is a CPU1231 |

I/O Port 112h, E2099_FlashCTRL

Reset value: x1x

| Bit | Mode | Name | Description |
|-----|----------------|-----------------|---|
| 2 | Not Applicable | Reserved. | |
| 1 | Read / Write | E2099_FLASHCTRL | 0: Put Flash BIOS in Power down 1: Normal behavior |
| 0 | Not Applicable | Reserved | |

I/O Port 113h, E2099_CNFG_BANK

Reset value: 000

| Bit | Mode | Name | Description |
|-----|--------------|-----------------|---|
| 2:0 | Read / Write | E2099_CNFG_BANK | <p>Choose the device present on SSD socket or the device decoded in E8000h window (32k wide)</p> <p>000: None device selected 001: Flash BIOS on E8000h 010: DOC Eurom 011: SRAM 512k 100: N/A 101: ATMEL Flash Perom 110: N/A 111: N/A</p> <p>Note: The window for the D.O.C Eurom can be moved to another address through the E2099_DOC_WIN_SEL Register</p> |

I/O Port 114h (Read), E2099_REVL

Reset Value: Not Applicable

| Bit | Mode | Name | Description |
|-----|-----------|------------------|---|
| 2:0 | Read only | E2099_REVL (0:2) | Low byte of programmable revision level |

I/O Port 114h (Write), E2099_ADDBL

Reset value: 000

| Bit | Mode | Name | Description |
|-----|------------|-------------|---|
| 2:0 | Write only | E2099_ADDBL | Page address (ADDB16:14) for SSD socket and Flash Intel |

I/O Port 115h (Read), E2099_REVH

Reset Value: Not Applicable

| Bit | Mode | Name | Description |
|-----|-----------|------------------|--|
| 2:0 | Read only | E2099_REVH (0:2) | High byte of programmable revision level |

I/O Port 115h (Write), E2099_ADDBH

Reset Value: 000

| Bit | Mode | Name | Description |
|-----|------------|-------------|---|
| 2:0 | Write only | E2099_ADDBH | Page address (ADDB19:17) for SSD socket and Flash Intel |

Serial Control Registers

I/O Port 116h, E2099_SERIAL_CONTROL0

Reset Value: 000

| Bit | Mode | Name | Description |
|-----|----------------|-----------------------|--|
| 2 | Not Applicable | Not Applicable | Reserved |
| 1:0 | Read / Write | E2099_SERIAL_CONTROL0 | Setting for first serial port (J5 connector) 00: Disabled 01: RS232 mode 10: RS422 mode 11: RS485 mode |

I/O Port 117h, E2099_SERIAL_CONTROL1

Reset Value: 000

| Bit | Mode | Name | Description |
|-----|----------------|-----------------------|--|
| 2:1 | Not Applicable | Not Applicable | Reserved |
| 0 | Read / Write | E2099_SERIAL_CONTROL1 | Setting for second serial port on J6 connector 00: Disabled 01: RS232 mode |

External devices related registers

I/O Port 118h, Reserved

Reset Value: Not Applicable

| Bit | Mode | Name | Description |
|-----|----------------|----------|-------------|
| 2:0 | Not Applicable | Reserved | Reserved |

I/O Port 119h, E2099_DEVICE_CTRL

Reset value: x10

| Bit | Mode | Name | Description |
|-----|----------------|---------------------|---|
| 2 | Not Applicable | Reserved | Reserved |
| 1 | Read / Write | E2099_CTRL_ETHERNET | 00: Ethernet controller disabled 01: Ethernet controller enabled |
| 0 | Not Applicable | Reserved | Reserved |

I/O Port 11Ah, E2099_DS2430

Reset value: x1x

| Bit | Mode | Name | Description |
|-----|----------------|-------------------|---|
| 2 | Not Applicable | Reserved | Reserved |
| 1 | Read / Write | E2099_DS2430_CNTL | Direction of data to/from DS2430 0: output 1: input |
| 0 | Read / Write | E2099_DS2430_DATA | Data bit written to or read from DS2430. Note: Direction depends on E2099_DS2430_CNTL setting |

I/O Port 11Bh, E2099_DOC_WIN_SEL

Reset value: 111

| Bit | Mode | Name | Description |
|-----|------|-------------------|---|
| 2:0 | R/W | E2099_DOC_WIN_SEL | Selection of address window for the DOC Eurom 000: CC000h 001: D0000h 010: D4000h 011: D8000h 100: DC000h 101: E0000h 110: E4000h 111: E8000h Note: All the EUROM windows are 16k wide, except the last one that is 32k wide. |

Related Documents

For further information on the CPU-1231 please refer to the following documentation:

- CPU-1231, User Manual.

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