IMBM-700

VIA C7/ Eden Processor

2 DDRII 400/533

2 10/100/1000Base-TX Ethernet

PCI/ ISA Expansion Slots

8 USB 2.0 / 4 COM

IMBM-700 Manual Rev.A 1st Ed.
November 2008

Copyright Notice

Acknowledgments

Packing List

Before you begin installing your card, please make sure that the following materials have been shipped:

- 1 Floppy Cable
- 1 ATA-100 Cable
- 3 Serial Port Cable w/ One DB-9 Connector
- 2 USB Cable w/ Bracket
- 2 SATA Cables
- 1 IMBM-700 Industrial Motherboard
- 1 Quick Installation Guide
- 1 CD-ROM for manual (in PDF format) and drivers

If any of these items should be missing or damaged, please contact your distributor or sales representative immediately.

Contents

Chapter

1

General Information

1.1 Introduction

The IMBM-700 is AAEON's Industrial Motherboard which adopts VIA C7™/ Eden Processor up to 2.0GHz, and supports Front Side Bus 400/800MHz. The chipset of IMBM-700 is VIA CN700+VT8237R+. The IMBM-700 is designed for Industrial Motherboard with μATX form factor.

IMBM-700 supports CRT simultaneous display and adopts an Enhanced Integrated Graphics that makes the IMBM-700 with a great performance on VGA display. Moreover, the resolutions is up to 1920x 1440 x 24bpp at 60MHz for CRT.

IMBM-700 promises you off-the-shelf expansion possibilities with versatile expansion interfaces- PCI and ISA expansion slots to expand your onboard features. IMBM-700 is focus on the Industrial Motherboard market with long-term support services and no doubt is your best choice.

1.2 Features

- VIA C7™/ Eden CPU, up to 2.0GHz
- VIA CN700 Chipset
- 240-pin DDRII 400/533MHz Memory x 2, up to 2GB
- 10/100Base-TX x 1 & Gigabit Ethernet x 1
- Enhanced Integrated Graphics, VGA Support
- AC97 Audio, Mic-in, Line-in, Speaker Out
- Ultra ATA 100 x 1, SATA I x 2, CompactFlash™ x 1
- USB2.0 x 8, COM x 4, Parallel x 1, IrDA x 1
- ISA x 3, PCI x 2, Mini-PCI x 1
- Watchdog Function 1~255 Sec.

1.3 Specifications

System

CPU	VIA C7 TM / Eden CPU up to 2.0GHz, FSB400/800MHz; Onboard C7 1.0GHz (FSB 400MHz)
System Memory	2 x 240-pin DDR II DIMM Socket, up to 2GB (DDRII 400/533)
Chipset	VIA CN700+ VT8237R+
Ethernet	PCI x 2, 10/100 & 10/100/1000Base-TX Ethernet optional, RJ-45 x 2; LAN1: Realtek 8100C LAN2: Realtek 8110SC/8100C Co-lay
BIOS	Award Plug & Play Flash BIOS – 512Kb ROM
PCI Interface	32-bit/33MHz PCI x 3
Watchdog Timer	1~255 steps, can be set with software on super I/O
Expansion Interface	PCI, ISA
RTC	Internal RTC
Battery	Lithium battery

- Power Requirement ATX 2.1
- Operating Temperature 32°F~140°F (0°C~60°C)
- Board Size 9.6”(L) x9.6” (W) (244mm x 244mm)
- Gross Weight 0.66lb (0.3kg)

Display: Supports CRT simultaneous display

- VGA Controller Enhanced Integrated Graphics
- Memory Shared memory up to 64M
- Resolutions 1920 x 1440 x 24bpp @60MHz for CRT

I/O: Winbond 83627

- Storage SATA-I (RAID optional) x 2, IDE x 1, Type II CompactFlash™ x 1, Standard FDD x 1 (supports one floppy device)

  Note: Supports one IDE device only (Master)
- Serial Port COM x 4 (Internal pin header x 3, external D-sub x 1)
  COM1, 3, 4: RS-232
  COM2: RS-232/422/485
- Parallel Port Supports SPP/EPP/ECP mode
- Universal Serial Bus USB 2.0 onboard x 8
  5x2 pin header for internal x 2,

	Type-A connector onboard x 4
● IrDA	Supports one IrDA header
● PS/2 Port	Keyboard x 1, Mouse x 1
● Audio	Realtek AC97 Codec, MIC-in/Line-in/ Speaker-out
● Digital I/O	4 in and 4 out

Chapter 2

Quick Installation Guide

Notice:

The Quick Installation Guide is derived from Chapter 2 of the user manual. For other chapters and further installation instructions, please refer to the user manual CD-ROM that came with the product.

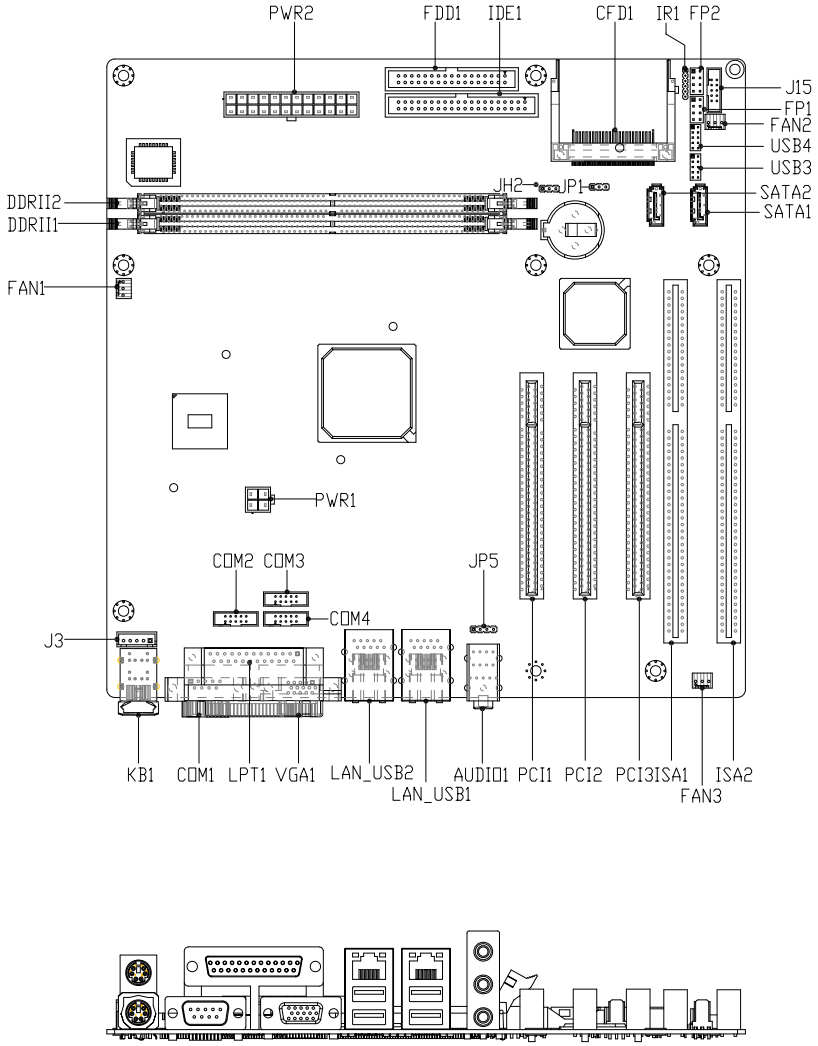
Part No. 2007700030 Printed in Taiwan Nov. 2008

2.1 Safety Precautions

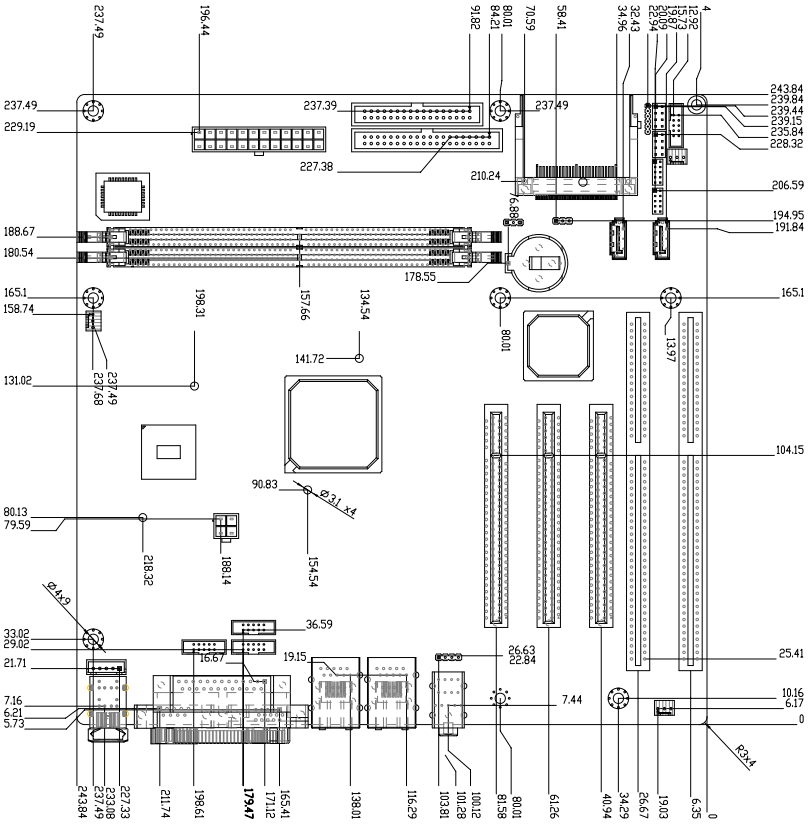
Always completely disconnect the power cord from your board whenever you are working on it. Do not make connections while the power is on, because a sudden rush of power can damage sensitive electronic components.

Always ground yourself to remove any static charge before touching the board. Modern electronic devices are very sensitive to static electric charges. Use a grounding wrist strap at all times. Place all electronic components on a static-dissipative surface or in a static-shielded bag when they are not in the chassis

2.2 Location of Connectors and Jumpers



2.3 Mechanical Drawing



2.4 List of Jumpers

The board has a number of jumpers that allow you to configure your system to suit your application.

The table below shows the function of each of the board's jumpers:

Label	Function
JP1	CF Power selection
JH2	Clear CMOS

2.5 List of Connectors

The board has a number of connectors that allow you to configure your system to suit your application. The table below shows the function of each board's connectors:

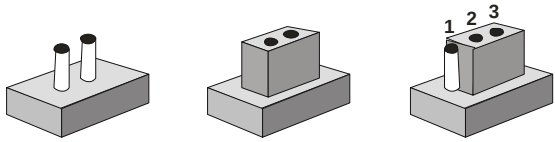
Label	Function
FP1	Front Panel Connector 1
FP2	Front Panel Connector 2
PWR1	ATX Power_12V 4-Pin Connector
PWR2	ATX Power_12V 24-Pin Connector
KB1	PS/2 Keyboard/Mouse Connector
VGA1	VGA Display Connector
FDD1	Floppy Connector
IDE1	EIDE Connector
SATA1; SATA2	Serial ATA Connector
CFD1	Compact Flash Slot
COM1	RS-232 Serial Port Connector

COM2	RS-232/422/485 Serial Port Connector
COM3; COM4	RS-232 Serial Port Connector
IR1	IrDA Connector
LPT1	LPT Port Connector
USB1; USB2	USB Connector
USB3~4	USB Connector
LAN1	10/100 or 100/1000 Base-TX Ethernet Connector
LAN2	10/100/1000 Base-TX Ethernet Connector
DDRII1; DDRII2	DDRII DIMM Slot
FAN1~3	Fan Connector
PCI1~3	PCI Slots
ISA1;ISA2	ISA Slots
J3	Internal Keyboard Connector
J15	Digital I/O
JP5	CD-IN

2.6 Setting Jumpers

You configure your card to match the needs of your application by setting jumpers. A jumper is the simplest kind of electric switch. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To “close” a jumper you connect the pins with the clip.

To “open” a jumper you remove the clip. Sometimes a jumper will have three pins, labeled 1, 2 and 3. In this case you would connect either pins 1 and 2 or 2 and 3.



Open **Closed** **Closed 2-3**

A pair of needle-nose pliers may be helpful when working with jumpers.

If you have any doubts about the best hardware configuration for your application, contact your local distributor or sales representative before you make any change.

Generally, you simply need a standard cable to make most connections.

2.7 CF Power Selection (JP1)

JP1	Function
1-2	5V (Default)
2-3	3.3V

2.8 Clear CMOS (JH2)

JH2	Function
1-2	Normal (Default)
2-3	Clear CMOS

2.9 Front Panel Connector (FP1)

Pin	Signal	Pin	Signal
1	Power On Button (+)	2	Reset Switch (+)
3	Power On Button (-)	4	Reset Switch (-)
5	IDE LED (+)	6	Power LED (+)
7	IDE LED (-)	8	Power LED (-)

2.10 Front Panel Connector (FP2)

Pin	Signal	Pin	Signal
1	External Speaker (+)	2	Keyboard Lock (+)
3	N.C.	4	GND
5	Internal Buzzer (-)	6	I2C Bus SMB Clock
7	External Speaker (-)	8	I2C Bus SMB Data

Note: Internal Buzzer enable: Close Pin 5,7

2.11 RS-232/422/485 Serial Port Connector (COM2)

Pin	Signal	Pin	Signal
1	DCD (422TXD-/485DATA-)	2	RXD (422RXD+)
3	TXD(422TXD+/485DATA+)	4	DTR (422RXD-)
5	GND	6	DSR
7	RTS	8	CTS
9	RI	10	N.C.

2.12 RS-232 Serial Port Connector (COM3~4)

Pin	Signal	Pin	Signal
1	DCD	2	RXD
3	TXD	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI	10	N.C.

2.13 IrDA Connector (IR1)

Pin	Signal
1	+5V
2	N.C.
3	IRRX
4	GND
5	IRTX
6	N.C.

2.14 LPT Port Connector (LPT1)

Pin	Signal	Pin	Signal
1	#STROBE	2	#STROBE

3	DATA0	4	DATA0
5	DATA1	6	DATA1
7	DATA2	8	DATA2
9	DATA3	10	DATA3
11	DATA4	12	DATA4
13	DATA5	14	DATA5
15	DATA6	16	DATA6
17	DATA7	18	DATA7
19	#ACK	20	#ACK
21	BUSY	22	BUSY
23	PE	24	PE
25	SELECT	26	SELECT

2.15 USB Connector (USB3~4)

Pin	Signal	Pin	Signal
1	+5V	2	GND
3	USBD1-	4	GND
5	USBD1+	6	USBD2+
7	GND	8	USBD2-
9	GND	10	+5V

2.16 Internal Keyboard Connector (J3)

Pin	Signal
1	KB_CLK
2	KB_DATA
3	N.C.
4	GND
5	+5V

2.17 Digital Input Output (J15) (Address: 801h)

Pin	Signal	Pin	Signal
1	GPIO 0	2	GPIO 1
3	GPIO 2	4	GPIO 3
5	GPIO 4	6	GPIO 5
7	GPIO 6	8	GPIO 7
9	+5V	10	GND

2.18 CD-in (JP5)

Pin	Signal
1	CD-R
2	CD-GND
3	CD-GND
4	CD-L

Below Table for China RoHS Requirements
产品中有毒有害物质或元素名称及含量

AAEON Main Board/ Daughter Board/ Backplane

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板及其电子组件	×	○	○	○	○	○
外部信号连接器及线材	×	○	○	○	○	○

O：表示该有毒有害物质在该部件所有均质材料中的含量均在 **SJ/T 11363-2006** 标准规定的限量要求以下。

X：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 **SJ/T 11363-2006** 标准规定的限量要求。

备注：此产品所标示之环保使用期限，系指在一般正常使用状况下。

Chapter

3

Award BIOS Setup

3.1 System Test and Initialization

These routines test and initialize board hardware. If the routines encounter an error during the tests, you will either hear a few short beeps or see an error message on the screen. There are two kinds of errors: fatal and non-fatal. The system can usually continue the boot up sequence with non-fatal errors. Non-fatal error messages usually appear on the screen along with the following instructions:

Press <F1> to RESUME

Write down the message and press the F1 key to continue the boot up sequence.

System configuration verification

These routines check the current system configuration against the values stored in the CMOS memory. If they do not match, the program outputs an error message. You will then need to run the BIOS setup program to set the configuration information in memory.

There are three situations in which you will need to change the CMOS settings:

1. You are starting your system for the first time
2. You have changed the hardware attached to your system
3. The CMOS memory has lost power and the configuration information has been erased.

The IMBM-700 CMOS memory has an integral lithium battery backup for data retention. However, you will need to replace the complete unit when it finally runs down.

3.2 Award BIOS Setup

Awards BIOS ROM has a built-in Setup program that allows users to modify the basic system configuration. This type of information is stored in battery-backed CMOS RAM so that it retains the Setup information when the power is turned off.

Entering Setup

Power on the computer and press <Del> immediately. This will allow you to enter Setup.

Standard CMOS Features

Use this menu for basic system configuration. (Date, time, IDE, etc.)

Advanced BIOS Features

Use this menu to set the advanced features available on your system.

Advanced Chipset Features

Use this menu to change the values in the chipset registers and optimize your system performance.

Integrated Peripherals

Use this menu to specify your settings for integrated peripherals. (Primary slave, secondary slave, keyboard, mouse etc.)

Power Management Setup

Use this menu to specify your settings for power management. (HDD power down, power on by ring, KB wake up, etc.)

PnP/PCI Configurations

This entry appears if your system supports PnP/PCI.

PC Health Status

This menu allows you to set the shutdown temperature for your system.

Load Fail-Safe Defaults

Use this menu to load the BIOS default values for the minimal/stable performance for your system to operate.

Load Optimized Defaults

Use this menu to load the BIOS default values that are factory settings for optimal performance system operations. While AWARD has designated the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs.

Set Supervisor/User Password

Use this menu to set Supervisor/User Passwords.

Save and Exit Setup

Save CMOS value changes to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

You can refer to the "AAEON BIOS Item Description.pdf" file in the CD for the meaning of each setting in this chapter.

Chapter

4

Driver Installation

The IMBM-700 comes with an AutoRun CD-ROM that contains all drivers and utilities that can help you to install the driver automatically.

Insert the driver CD, the driver CD-title will auto start and show the installation guide. If not, please follow the sequence below to install the drivers.

Follow the sequence below to install the drivers:

Step 1 – Install 4 in 1 Driver
Step 2 – Install VGA Driver
Step 3 – Install Audio Driver
Step 4 – Install LAN Driver
Step 5 – Install ITE8888 Driver
Step 6 – Install RAID Driver

USB 2.0 Drivers are available for download using Windows® Update for both Windows® XP and Windows® 2000. For additional information regarding USB 2.0 support in Windows® XP and Windows® 2000, please visit www.microsoft.com/hwdev/usb/

Please read instructions below for further detailed installations.

4.1 Installation

Insert the IMBM-700 CD-ROM into the CD-ROM drive. And install the drivers from Step 1 to Step 6 in order.

Step 1 – Install 4 in 1 Driver

1. Click on the ***Step1-4IN1*** folder and double click on the ***SETUP.exe***
2. Follow the instructions that the window shows
3. The system will help you install the driver automatically

Step 2 – Install VGA Driver

1. Click on the ***Step2-VGA*** folder and double click on the s***etup.exe***
2. Follow the instructions that the window shows
3. The system will help you install the driver automatically

Step 3 – Install Audio Driver

1. Click on the ***Step3-Audio*** folder and double click on the ***wdm_a371.exe***
2. Follow the instructions that the window shows
3. The system will help you install the driver automatically

Step 4 – Install LAN Driver

1. Click on the ***Step4-LAN*** folder and double click on the ***setup.exe***
2. Follow the instructions that the window shows
3. The system will help you install the driver automatically

Step 5 – Install ITE8888 Driver

Place the Driver CD-ROM into your CD-ROM drive and pull up the CD-ROM file on your screen.

1. Click on **Start** button
2. Click on **Settings** button
3. Click on **Control Panel** button
4. Click on **System** button
5. Select **Hardware** and click on **Device Manager…**
6. Double click on **Other PCI Bridge Device**
7. Click on **Update Driver…**
8. Click on **Next**
9. Select **Search for a suitable driver…**, then click on **Next**
10. Select **Specify a location**, then click on **Next**
11. Click on **Browse**
12. Select "**Ite"** file from CD-ROM **(Driver/Step5-ITE8888 Driver)** then click on **Open**
13. Click on **OK**
14. Click on **Next**
15. Click on **Yes**
16. Click on **Finish**

Step 6 – Install RAID Driver

1. Click on the ***Step6-raid*** folder and double click on the ***SETUP.exe***
2. Follow the instructions that the windows shows
3. The system will help you install the driver automatically

Appendix

A

Programming the Watchdog Timer

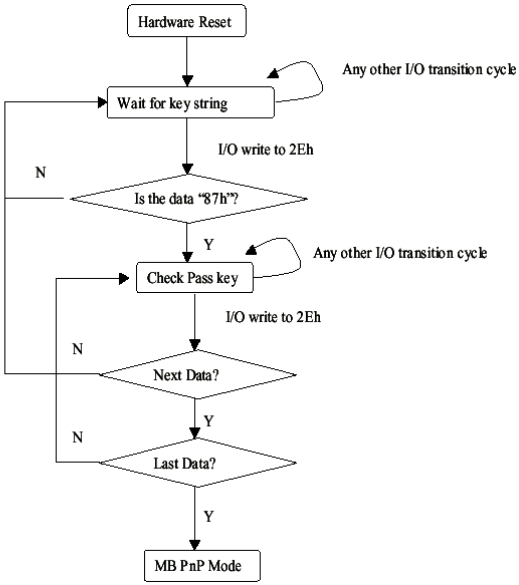
A.1 Programming

IMBM-700 utilizes ITE 8712 chipset as its watchdog timer controller. (K version)

Below are the procedures to complete its configuration and the AAEON intial watchdog timer program is also attached based on which you can develop customized program to fit your application.

Configuring Sequence Description

After the hardware reset or power-on reset, the ITE 8712 enters the normal mode with all logical devices disabled except KBC.



There are three steps to complete the configuration setup: (1) Enter the MB PnP Mode; (2) Modify the data of configuration registers; (3) Exit the MB PnP Mode. Undesired result may occur if the MB PnP Mode is not exited normally.

(1) Enter the MB PnP Mode

To enter the MB PnP Mode, four special I/O write operations are to be performed during Wait for Key state. To ensure the initial state of the key-check logic, it is necessary to perform four write opera-tions to the Special Address port (2EH). Two different enter keys are provided to select configuration ports (2Eh/2Fh) of the next step.

	Address Port	Data Port
87h, 01h, 55h, 55h:	2Eh	2Fh

(2) Modify the Data of the Registers

All configuration registers can be accessed after entering the MB PnP Mode. Before accessing a selected register, the content of Index 07h must be changed to the LDN to which the register belongs, except some Global registers.

(3) Exit the MB PnP Mode

Set bit 1 of the configure control register (Index=02h) to 1 to exit the MB PnP Mode.

WatchDog Timer Configuration Registers

LDN	Index	R/W	Reset	Configuration Register or Action
All	02H	W	N/A	Configuration Control
07H	71H	R/W	00H	WatchDog Timer Control Register
07H	72H	R/W	00H	WatchDog Timer Configuration Register
07H	73H	R/W	00H	WatchDog Timer Time-out Value (LSB) Register
07H	74H	R/W	00H	WatchDog Timer Time-out Value (MSB) Register

Configure Control (Index=02h)

This register is write only. Its values are not sticky; that is to say, a hardware reset will automatically clear the bits, and does not require the software to clear them.

Bit	Description
7-2	Reserved
1	Returns to the Wait for Key state. This bit is used when the configuration sequence is completed.
0	Resets all logical devices and restores configuration registers to their power-on states.

WatchDog Timer Control Register (Index=71h, Default=00h)

Bit	Description
7	WDT is reset upon a CIR interrupt
6	WDT is reset upon a KBC (Mouse) interrupt
5	WDT is reset upon a KBC (Keyboard) interrupt
4	WDT is reset upon a read or a write to the Game port base address
3-2	Reserved
1	Force Time-out. This bit is self-clearing
0	WDT status
	1: WDT value reaches 0
	0: WDT value is not 0

WatchDog Timer Configuration Register (Index=72h, Default=00h)

Bit	Description
7	WDT Time-out value select
	1: Second
	0: Minute
6	WDT output through KRST (pulse) enable
5	WDT Time-out value Extra select 1: 4s. 0: Determine by WDT Time-out value select (bit7 of this register)
4	WDT output through PWROK1/PWROK2 (pulse) enable
3	Select the interrupt level[note] for WDT

WatchDog Timer Time-out Value (LSB) Register (Index=73h, Default=00h)

Bit	Description
7-0	WDT Time-out value 7-0

WatchDog Timer Time-out Value (MSB) Register (Index=74h, Default=00h)

Bit	Description
7-0	WDT Time-out value 15-8

A.2 ITE8712 Watchdog Timer Initial Program

```
        .MODEL SMALL
        .CODE
Main:
        CALL Enter_Configuration_mode
        CALL Check_Chip
        mov cl, 7
        call Set_Logic_Device
        ;time setting
        mov cl, 10 ; 10 Sec
        dec al
Watch_Dog_Setting:
        ;Timer setting
        mov al, cl
```

```
mov cl, 73h
call Superio_Set_Reg
;Clear by keyboard or mouse interrupt
mov al, 0f0h
mov cl, 71h
call Superio_Set_Reg
;unit is second.
mov al, 0C0H
mov cl, 72h
call Superio_Set_Reg
; game port enable
mov cl, 9
call Set_Logic_Device

Initial_OK:
CALL Exit_Configuration_mode
MOV AH,4Ch
INT 21h

Enter_Configuration_Mode PROC NEAR
MOV SI,WORD PTR CS:[Offset Cfg_Port]

MOV DX,02Eh
MOV CX,04h
Init_1:
```

```
MOV AL,BYTE PTR CS:[SI]
OUT DX,AL
INC SI
LOOP Init_1
RET
Enter_Configuration_Mode ENDP

Exit_Configuration_Mode PROC NEAR
MOV AX,0202h
CALL Write_Configuration_Data
RET
Exit_Configuration_Mode ENDP

Check_Chip PROC NEAR

MOV AL,20h
CALL Read_Configuration_Data
CMP AL,87h
JNE Not_Initial

MOV AL,21h
CALL Read_Configuration_Data
CMP AL,12h
JNE Not_Initial
```

```
Need_Initial:
        STC
        RET
Not_Initial:
        CLC
        RET
        Check_Chip ENDP
        Read_Configuration_Data PROC NEAR
        MOV DX,WORD PTR CS:[Cfg_Port+04h]
        OUT DX,AL
        MOV DX,WORD PTR CS:[Cfg_Port+06h]
        IN AL,DX
        RET
        Read_Configuration_Data ENDP

        Write_Configuration_Data PROC NEAR
        MOV DX,WORD PTR CS:[Cfg_Port+04h]
        OUT DX,AL
        XCHG AL,AH
        MOV DX,WORD PTR CS:[Cfg_Port+06h]
        OUT DX,AL
        RET
        Write_Configuration_Data ENDP

        Superio_Set_Reg proc near
```

```
push ax
MOV DX,WORD PTR CS:[Cfg_Port+04h]
mov al,cl
out dx,al
pop ax
inc dx
out dx,al
ret
Superio_Set_Reg endp.Set_Logic_Device proc near

Set_Logic_Device    proc    near
push ax
push cx
xchg al,cl
mov cl,07h
call Superio_Set_Reg
pop cx
pop ax
ret
Set_Logic_Device endp

;Select 02Eh->Index Port, 02Fh->Data Port
Cfg_Port DB 087h,001h,055h,055h

DW 02Eh,02Fh
```

END Main

Note: Interrupt level mapping

0Fh-Dh: not valid

0Ch: IRQ12

.

.

03h: IRQ3

02h: not valid

01h: IRQ1

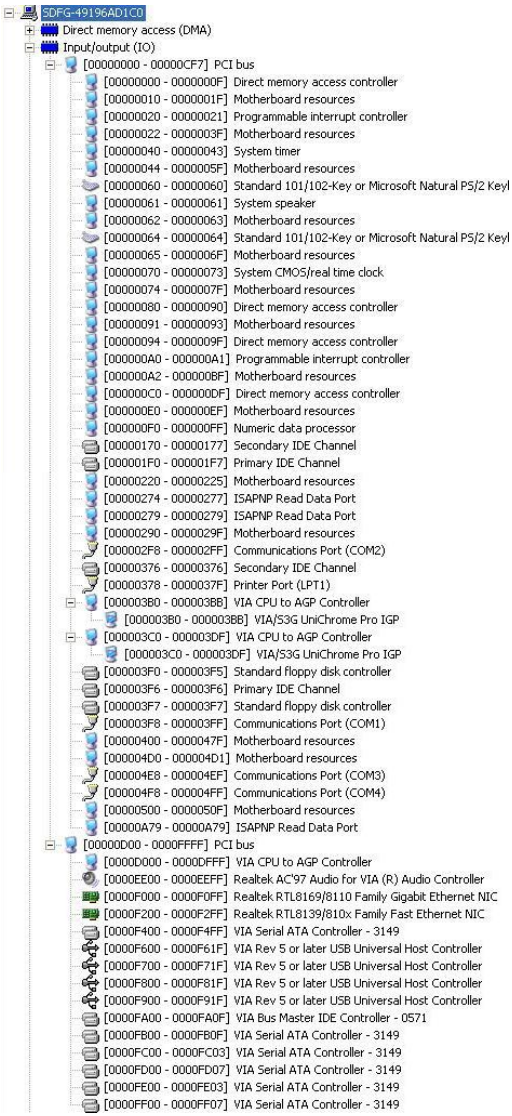
00h: no interrupt selected

Appendix

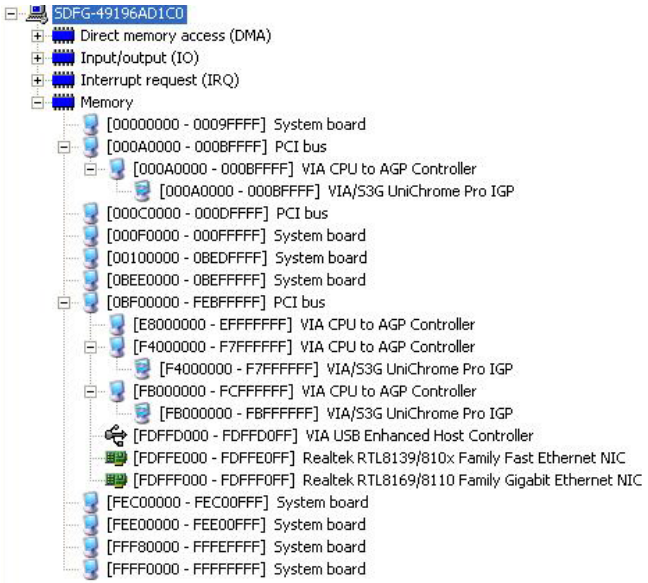
B

I/O Information

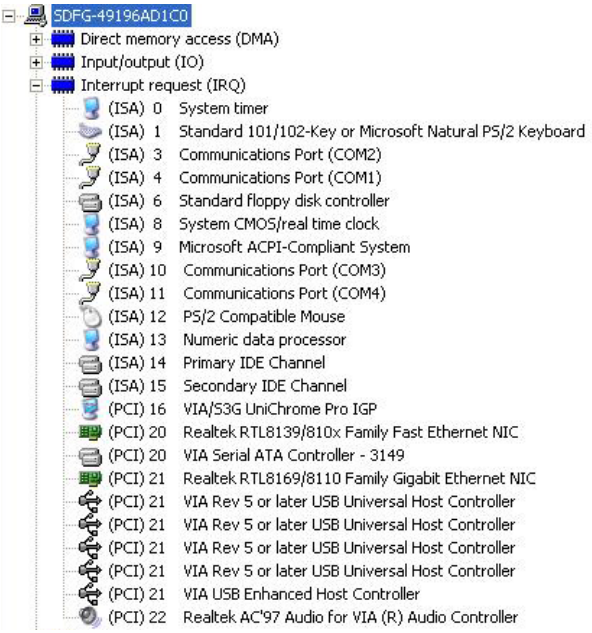
B.1 I/O Address Map



B.2 1st MB Memory Address Map



B.3 IRQ Mapping Chart



B.4 DMA Channel Assignments

Appendix C

Mating Connector

C.1 List of Mating Connectors and Cables

The table notes mating connectors and available cables.

Connector Label	Function	Mating Connector		Available Cable	Cable P/N
		Vendor	Model no		
IDE1	IDE Connector	Catch Electronics	1137-020-40 SA	IDE Cable	1701400453
SATA1	SATA Connector	TECHBEST	161S01-025 A	SATA Cable	1709070800
SATA2	SATA Connector	TECHBEST	161S01-025 A	SATA Cable	1709070800
FDD1	Floppy Connector	Catch Electronics	1137-000-34 SA	Floppy Disk Drive Cable	1701340704
FP1	Front Panel Connector	JIH VEI Electronics	21B22564-X XS10B-01G -6/3-VXX		N/A
FP2	Front Panel Connector	JIH VEI Electronics	21B22564-X XS10B-01G -6/3-VXX		N/A
USB3	USB Connector	Catch Electronics	21B22050-X XS10B-01G -4/2.8	USB Cable	1709100201
USB4	USB Connector	Catch Electronics	21B22050-X XS10B-01G -4/2.8	USB Cable	1709100201
DIO1	Digital I/O Connector	JIH VEI Electronics	21B22050-X XS10B-01G -4/2.8		N/A
AUDIO1	Audio Connector	Catch Electronics	052-D200-14P		N/A
USB_LAN 1	Ethernet & USB Connector	FOXCONN	JFM24U1B-21U6-4F		N/A
USB_LAN 2 (-G2)	Ethernet & USB Connector	FOXCONN	JFM24U1B-21U6-4F		N/A

USB_LAN 2 (-VE)	USB Connector	FOXCONN	UFL2443-F1 -01		N/A
IR1	IrDA Connector	JIH VEI Electronics			N/A
KB1	Mini-Din PS/2 Connector	FOXCONN	MH11061-P 36-4F		N/A
J3	Keyboard Connector	HO-BASE	2503-WS-5		N/A
COM1	Serial Port 1 Connector	Astron	DB6A-09-A MGN1-R		N/A
COM2	Serial Port 2 Connector	Catch Electronics	1147-000-10 S	Serial Port Cable	1701100340
COM3	Serial Port 3 Connector	Catch Electronics	1147-000-10 S	Serial Port Cable	1701100340
COM4	Serial Port 4 Connector	Catch Electronics	1147-000-10 S	Serial Port Cable	1701100340