

DSS-TN40

Digital Signage System

2.5" HDD/ Optional mSATA x 1

Gigabit Ethernet Port x 2

USB3.0 x 2, USB2.0 x 2

COM x 1, Mini PCIe x 1

HDMI x 4

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Packing List

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

- 1 Gift Box (Including Power Adapter)
- 1 DVD-ROM for Manual (in PDF Format) and Drivers
- 1 DSS-TN40

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

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Chapter

1

General Information

1.1 Introduction

DSS-TN40 adopts the AMD Embedded R-series APU. The chipset is equipped with AMD A70M. Moreover, the system memory features two 204-pin DDR3 1333MHz SODIMM up to 4GB. It deploys two LAN ports that consist of Gigabit Ethernet LAN RJ-45 ports. DSS-TN40 condensed appearance features desktop and VESA mount form factor that fits nicely into a space-limited environment.

This compact DSS-TN40 equipped with one 2.5" Hard Disk Drive and one optional mSATA for expansion. In addition, it features one RS-232/422/485 COM port, two USB2.0, and two USB3.0 ports. Furthermore, it supports Full displays by four HDMI.

With the increasing demands of high performance in audio and video, AAEON released the specific Digital Signage system to fulfill the needs of multimedia and digital signage applications.

1.2 Features

- AMD R-260H APU (Dual-core)
- AMD A70M
- 2 x 204-pin Dual Channel DDR3 1333MHz up to 4GB
- Four HDMI Support Four Full HD Displays
- Audio Line-out x 1, Mic-in x 1
- USB3.0 x 2, USB2.0 x 2 (Front Panel)
- Two RJ-45 Ports with LED for Gigabit Ethernet
- COM x 1 (RS-232/422/485)
- Mini-PCle x 1 (Full size) for Expansion

1.3 Specifications

● CPU		Onboard AMD Embedded R-260H
● Chipset		AMD A70M
● System Memory		204-pin DDR3 1333MHz SODIMM x 2, Max. 4 GB
● Display Interface	VGA	—
	DVI	—
	HDMI	4
● Storage Device	SSD	Optional mSATA x 1
	HDD	2.5" SATA HDD bay x 1
● Network	LAN	Gigabit Ethernet
	Wireless	Optional by Mini Card
● Front I/O	USB Host	USB3.0 x 2, USB2.0 x 2
	Serial Port	RS-232/422/485 x 1
	KB/MS	KB/MS x 1
	Others	Power switch x 1
● Rear I/O	Audio	Mic-in x 1, Line-out x 1
	Others	Power input x 1
● Expansion	Mini Card	1
● Indicator	Front	Power LED x 1
● Power Requirement		DC-in 12V, with DC jack lockable
● Power Consumption		Max. 30W
● System Cooling		Thermal Module
● Mounting		VESA mount

● Operating Temperature		32 °F ~ 113°F (0°C ~ 45°C)
● Storage Temperature		-40°F ~ 176°F (-40°C ~ 80°C)
● Anti-Vibration		0.5 g rms/ 5~500 Hz/ operation-HDD; 0.3 g rms/ 5~500 Hz/ operation-SSD or mSATA
● Anti-Shock		10 G peak acceleration (11 msec. duration) –HDD 20 G peak acceleration (11 msec. duration) –SSD
● Certification	EMC	CE/FCC Class A
● Dimension (W x H x D)		9.84" x 1.3" x 6.89" (250mm x 33mm x 175mm)
● OS Support		Windows® XP Pro, Windows® 7, Linux Kernel 2.6.x and higher

1.4 General System Information

Front Panel



Rear Panel

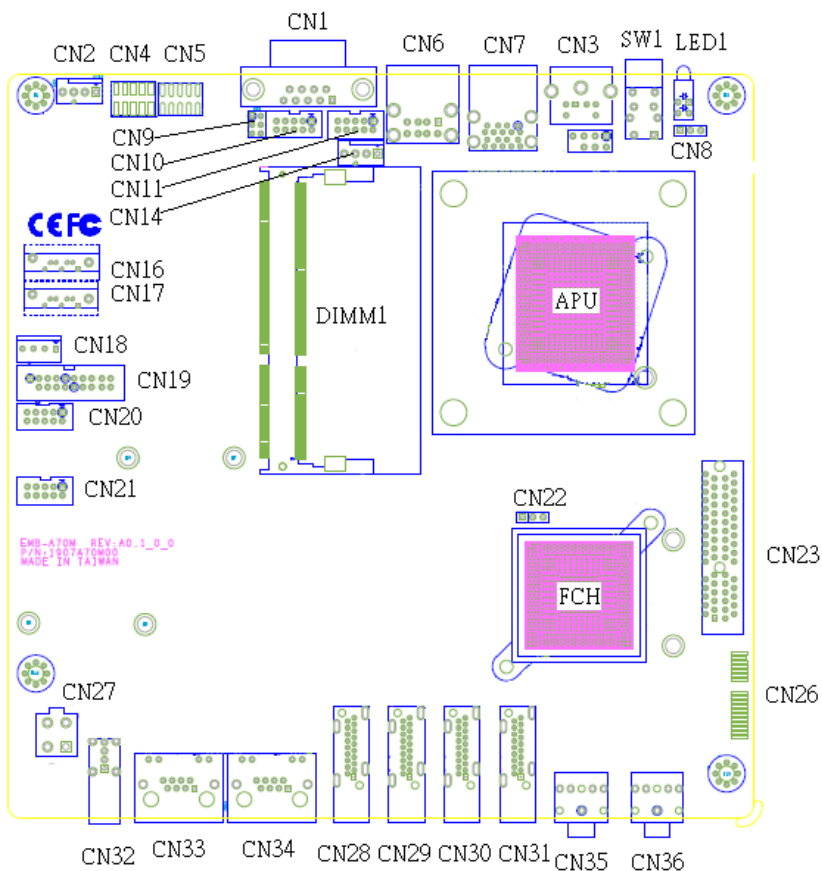


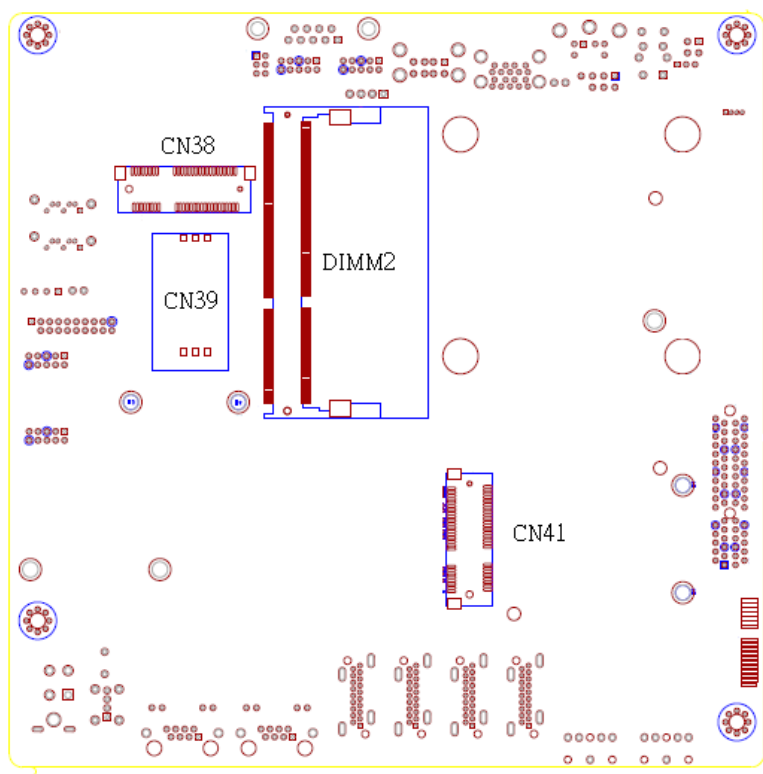
Chapter

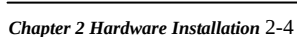
2

Hardware Installation

2.1 Connectors of the Main Board







2.3 List of Jumpers and Connectors

Label	Function
DIMM1	DDR3 SOCKET
DIMM2	DDR3 SOCKET
CN1	COM1 Connector RS232/422/485
CN2	SYSTEM FAN Connector
CN3	KB/MS Connector
CN4	Front Panel
CN5	Digital IO
CN6	Dual USB2.0 Connector
CN7	Dual USB3.0 Connector
CN8	Auto Power Button Selection
CN9	COM1 RI Power Selection
CN12	KB/MS Pin Header
CN14	CPU FAN Connector
CN15	CPU FAN Connector
CN22	CMOS Setting Selection
CN25	SPI Programming Pin Header
CN27	DC12V Power Connector
CN28	HDMI1 Connector
CN29	HDMI2 Connector
CN30	HDMI3 Connector
CN31	HDMI4 Connector
CN33	Giga LAN1 Connector
CN34	Giga LAN 2 Connector
CN35	Mic in Connector
CN36	Line out Connector
CN38	Mini PciE Socket

CN39	SIM Card Socket
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CN41	mSATA Socket
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2.4 Auto Power Button Setting (CN8)

CN8	Function
1-2	Normal (Default)
2-3	Auto Button

2.5 COM1 RI Power Selection (CN9)

CN9	Function
1-2	12V
3-4	Normal (Default)
5-6	5V

2.6 CMOS Setting (CN22)

CN22	Function
1-2	Normal (Default)
2-3	Clear CMOS

2.7 Front Panel Connector (F_Panel)

Pin	Signal	Pin	Signal
1	Power On Button (-)	2	Power On Button (+)
3	HDD LED(-)	4	HDD LED(+)
5	Speaker(-)	6	Speaker(+)
7	Power LED (-)	8	Power LED (+)
9	Reset Switch (-)	10	Reset Switch (+)

2.8 USB Pin Header

Pin	Signal	Pin	Signal
1	+5V	2	GND

3	USBD1-	4	GND
5	USBD1+	6	USBD2+
7	GND	8	USBD2-
9	GND	10	+5V
4	A_JD_FRONT	8	NA
5	LINE2_L	10	LINE IN SENSOR resister

2.9 RS-232 /422/485 Pin Header (COM1)

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

2.10 Digital I/O Pin Header (DIO1)

Pin	Signal	Pin	Signal
1	DIO1	2	DIO2
3	DIO3	4	DIO4
5	DIO5	6	DIO6
7	DIO7	8	DIO8
9	+3.3V	10	GND

2.11 FAN Connector

Pin	Signal	Pin	Signal
1	GND	2	+12V
3	FAN_TAC		FAN_CTL

2.12 4-pin ATX Power Connector (ATX1)

Pin	Signal	Pin	Signal
1	GND	2	GND
3	+12V	4	+12V

2.13 SATA Connector (SATA 1~5)

Pin	Signal	Pin	Signal
1	GND	2	TXP
3	TXN	4	GND
5	RXN	6	RXP
7	GND		

2.14 USB3.0 Connector (USB3_34)

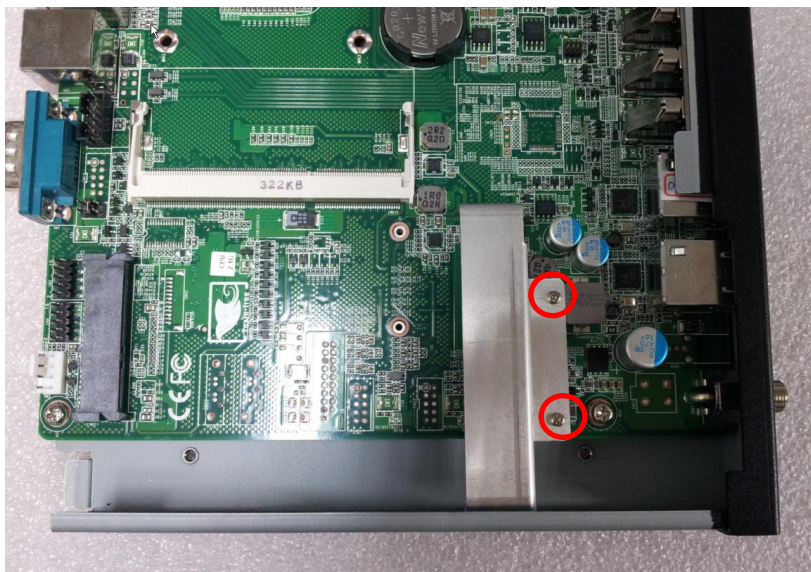
Pin	Signal	Pin	Signal
1	+5V_USB3_2_P1	11	+5V_USB3_2_P2
2	U3_2_U3RXDN1	12	U3_2_U3RXDN2
3	U3_2_U3RXDP1	13	U3_2_U3RXDP2
4	GND	14	GND
5	U3_2_U3TXDN1	15	U3_2_U3TXDN2
6	U3_2_U3TXDP1	16	U3_2_U3TXDP2
7	GND	17	GND
8	U3_2_U2DN1	18	U3_2_U2DN2
9	U3_2_U2DP1	19	U3_2_U2DP2
10	NA	20	NA

2.15 Installing the 2.5" Hard Disk Drive

Step 1: Unfasten the two screws on the side panels of the DSS-TN40 and remove the upper lid



Step 2: Loosen HDD bracket on the standoff with two screws



Step 3: Lock HDD on the HDD bracket with two screws



Step 4: Turn the HDD to another side and push it into the slot until connecting firmly



Step 5: Lock the bracket of HDD on the standoff with two screws



Chapter

3

**AMI
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.

System configuration verification

These routines check the current system configuration stored in the CMOS memory and BIOS NVRAM. If system configuration is not found or system configuration data error is detected, system will load optimized default and re-boot with this default system configuration automatically.

There are four situations in which you will need to setup system configuration:

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

The DSS-TN40 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 AMI BIOS Setup

AMI 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 and BIOS NVRAM so that it retains the Setup information when the power is turned off.

Entering Setup

Power on the computer and press or <F2> immediately. This will allow you to enter Setup.

Main

Set the date, use tab to switch between date elements.

Advanced

Enable/disable boot option for legacy network devices.

Chipset

Host bridge parameters.

Boot

Enables/disables quiet boot option.

Security

Set setup administrator password.

Save & Exit

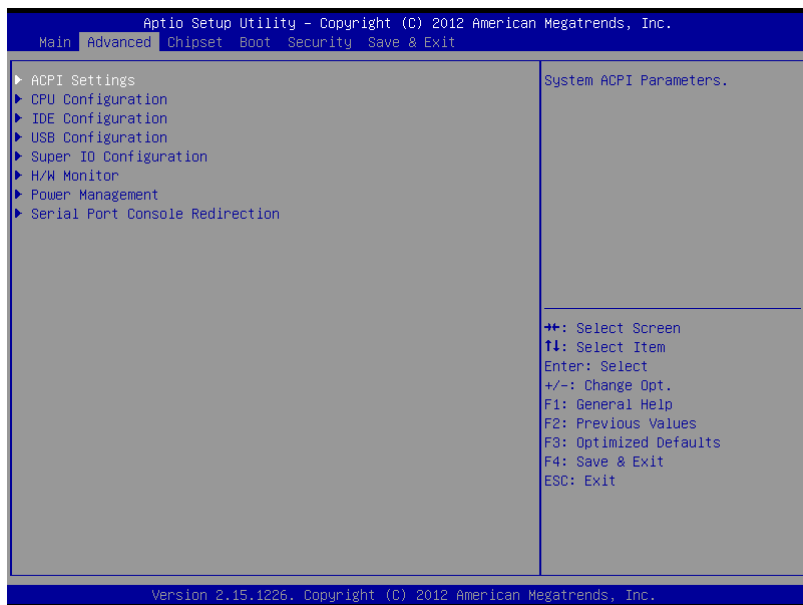
Exit system setup after saving the changes.

Setup Menu

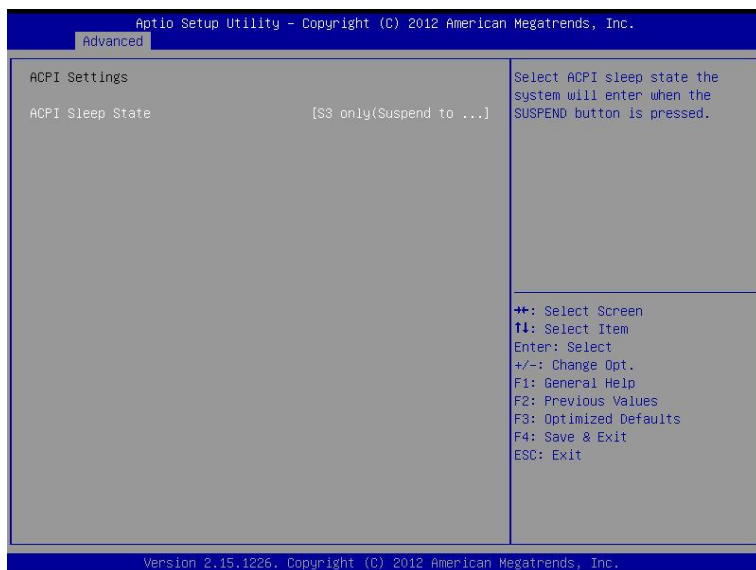
Setup submenu: Main

Aptio Setup Utility - Copyright (C) 2012 American Megatrends, Inc.		
Main Advanced Chipset Boot Security Save & Exit		
BIOS Information DSS-TN40 R1.1 (DS40AM11) (07/23/2013)		Set the Date. Use Tab to switch between Date elements.
BIOS Vendor American Megatrends Core Version 4.6.5.3 Compliance UEFI 2.3; PI 1.2		
Memory Information Total Memory 1008 MB (DDR3)		++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
System Date [Mon 09/30/2013] System Time [16:35:02]		
Access Level Administrator		
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Setup submenu: Advanced



ACPI Settings



Options summary:

ACPI Sleep State	S3 only (Suspend to RAM)	Optimal Default, Failsafe Default
Select the ACPI state used for System Suspend		

CPU Configuration

Aptio Setup Utility - Copyright (C) 2012 American Megatrends, Inc.	
Advanced	
CPU Configuration Module Version: 4.6.5.1 TrinityPI 021 AGESA Version : 1.0.0.9 Socket0: AMD R-252F APU with Radeon(tm) HD Graphics Dual Core Running @ 1933 MHz 1050 mV Max Speed:1900 MHz Intended Speed:1900 MHz Min Speed:900 MHz Microcode Patch Level: 6001119 ----- Cache per Core ----- L1 Instruction Cache: 32 KB/2-way L1 Data Cache: 16 KB/4-way L2 Cache: 512 KB/16-way No L3 Cache Present	++: Select Screen F1: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.15.1226. Copyright (C) 2012 American Megatrends, Inc.	

IDE Configuration (IDE)

Aptio Setup Utility - Copyright (C) 2012 American Megatrends, Inc.

Advanced

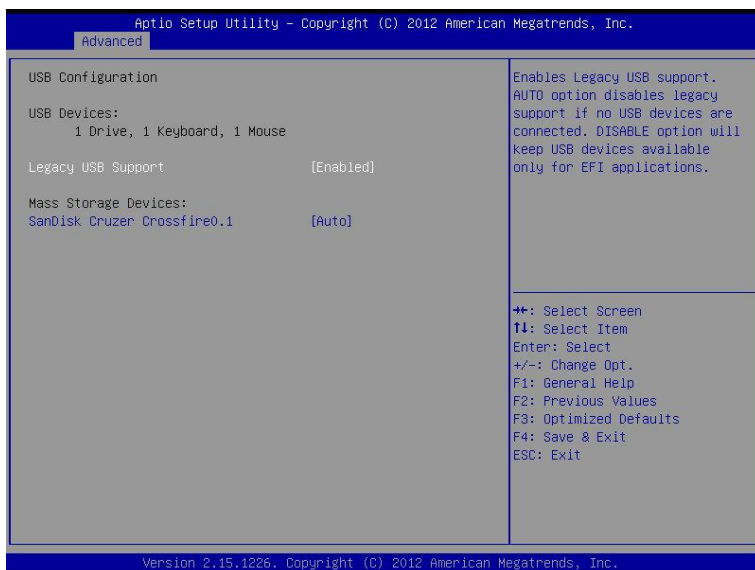
IDE Configuration		RAID
SATA Port0	Not Present	AHCI
SATA Port1	Not Present	Legacy IDE
OnChip SATA Type	[Legacy IDE]	
		++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

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Options summary:

OnChip SATA Type	AHCI	Optimal Default, Failsafe Default
	Legacy IDE	

USB Configuration



Options summary:

Legacy USB Support	Enabled	Optimal Default, Failsafe Default
	Disabled	
	Auto	
Enables BIOS Support for Legacy USB Support. When enabled, USB can be functional in legacy environment like DOS. AUTO option disables legacy support if no USB devices are connected		
Device Name (Emulation Type)	Auto	Optimal Default, Failsafe Default
	Floppy	
	Forced FDD	
	Hard Disk	
	CDROM	
If Auto. USB devices less than 530MB will be emulated as Floppy and remaining as Floppy and remaining as hard drive. Forced FDD option can be used to force a HDD formatted drive to boot as FDD(Ex. ZIP drive)		

Super IO Configuration



Serial Port 1 Configuration

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Advanced

Serial Port 1 Configuration		Enable or Disable Serial Port (COM)
Serial Port	[Enabled]	
Device Settings	IO=3F8h; IRQ=4;	
Change Settings	[Auto]	
RS232/422,485	[RS232]	

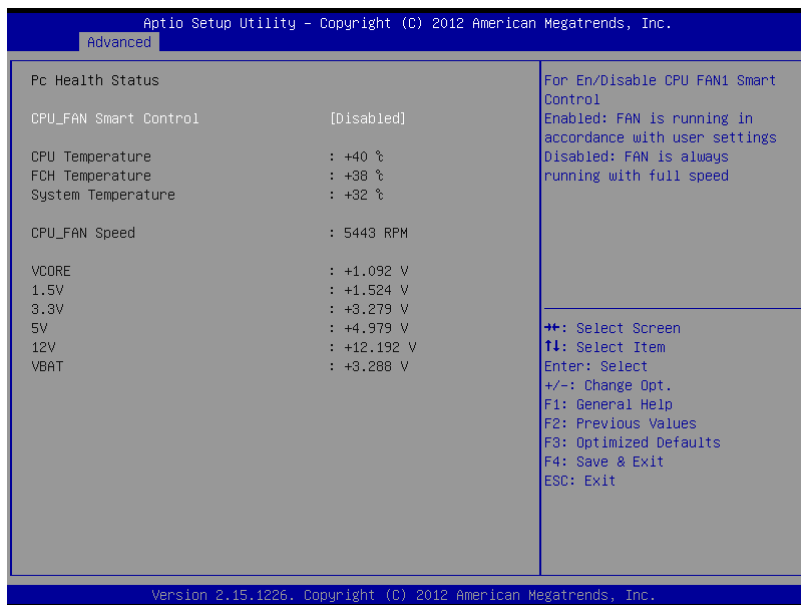
++: Select Screen
 F1: Select Item
 Enter: Select
 +/-: Change Opt.
 F1: General Help
 F2: Previous Values
 F3: Optimized Defaults
 F4: Save & Exit
 ESC: Exit

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Options summary:

Serial Port	Disabled	Optimal Default, Failsafe Default
	Enabled	
Allows BIOS to En/Disable correspond serial port.		
Change Settings	Auto	Optimal Default, Failsafe Default
	IO=3F8h;IRQ=4;	
	IO=2F8h;IRQ=3;	
Allows BIOS to Select Serial Port resource.		
RS232/422,485	RS232	Optimal Default, Failsafe Default
	RS422	
	RS485	
RS232/422,485 switch		

H/W Monitor



Smart Fan Mode Configuration (Manual Mode)

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Advanced

Pc Health Status		For En/Disable CPU FAN1 Smart Control
CPU_FAN Smart Control	[Enabled]	Enabled: FAN is running in accordance with user settings
FAN Control Mode	[Manual Mode]	Disabled: FAN is always running with full speed
PWM Duty	200	
CPU Temperature	: +39 °C	
FCH Temperature	: +36 °C	
System Temperature	: +31 °C	
CPU_FAN Speed	: 5487 RPM	
VCORE	: +1.092 V	
1.5V	: +1.524 V	
3.3V	: +3.279 V	
5V	: +4.979 V	
12V	: +12.192 V	
VBAT	: +3.288 V	
		++: Select Screen F1: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

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Options Summary :

CPU Fan Control	Disabled	Default
	Enabled	
For En/Disable CPU Fan1 Control Enabled: Fan is running in accordance with user settings Disabled: Fan is always running with full speed		
Fan Control Mode	Manual Mode	Default
	Automatic Mode	
Manual Mode: Depends on PWM Duty Automatic Mode: Fan Speed is depends on CPU Temperature		
PWM Duty	200	Default
	0~255	
Manual Mode PWM Duty value		

Smart Fan Mode Configuration (Thermal Cruise Mode)

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Advanced

Pc Health Status CPU_FAN Smart Control [Enabled] FAN Control Mode [Automatic Mode] Spin PWM 100 Off Control Temperature 30 Start Control Temperature 50 Full Speed Temperature 80 PWM Slope 5 CPU Temperature : +39 ℃ FCH Temperature : +36 ℃ System Temperature : +31 ℃ CPU_FAN Speed : 5443 RPM VCORE : +1.092 V 1.5V : +1.524 V 3.3V : +3.279 V 5V : +4.979 V 12V : +12.144 V VBAT : +3.288 V		Manual Mode: Depends on PWM Duty Automatic Mode: FAN Speed is depends on CPU Temperature ++: Select Screen F1: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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Options Summary :

Spin PWM	100	Default
	255	
The PWM Duty of Fan Spin		
Off Control Temperature	30	Default
Temperature Limit Value of Fan Off. Note: Some fans have the minimum speed even if the PWM value is 0		
Start Control Temperature	50	Default
Temperature Limit Value of Fan Start Control		
Full Speed Temperature	80	Default
Temperature Limit Value of Fan Full Speed		
PWM Slope	5	Default
Slope PWM value/degree C for FAN speed control		

Power Management

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Advanced

Power Management		Select power supply mode.
Power Mode	[ATX Type]	
Power Failure	[Last State]	
Wake Configuration		
Resume from RI	[Enabled]	
▶ S5 RTC Wake Settings		
		++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

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Options summary:

Power Mode	ATX Type	Optimal Default, Failsafe Default
	AT Type	
Select power supply mode.		
Resume from RI	Disabled	Optimal Default, Failsafe Default
	Enabled	
Enable/Disable Resume from RI		

S5 RTC Wake Settings (Fixed Time)

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Advanced

Wake system with Fixed Time	[Enabled]	Enable or disable System wake on alarm event. When enabled, System will wake on the hr:min:sec specified
Wake up day	0	
Wake up hour	0	
Wake up minute	0	
Wake up second	0	
Wake system with Dynamic Time	[Disabled]	

++: Select Screen
 ↑↓: Select Item
 Enter: Select
 +/-: Change Opt.
 F1: General Help
 F2: Previous Values
 F3: Optimized Defaults
 F4: Save & Exit
 ESC: Exit

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Options summary:

Wake system with	Disabled	Optimal Default, Failsafe Default
Fixed Time	Enabled	
En/Disable System wake on alarm event. When enabled, System will wake on the hr:min:sec specified		
Wake up day	0-31	Default 0
Select 0 for daily system wake up, 1-31 for witch day of the moth that you would like the system to wake up.		
Wake up day	0-23	Default 0
Select 0-23 For example enter 3 for 3am and 15 for 3pm		
Wake up day	0-59	Default 0
Select 0-59		
Wake up day	0-59	Default 0
Select 0-59		

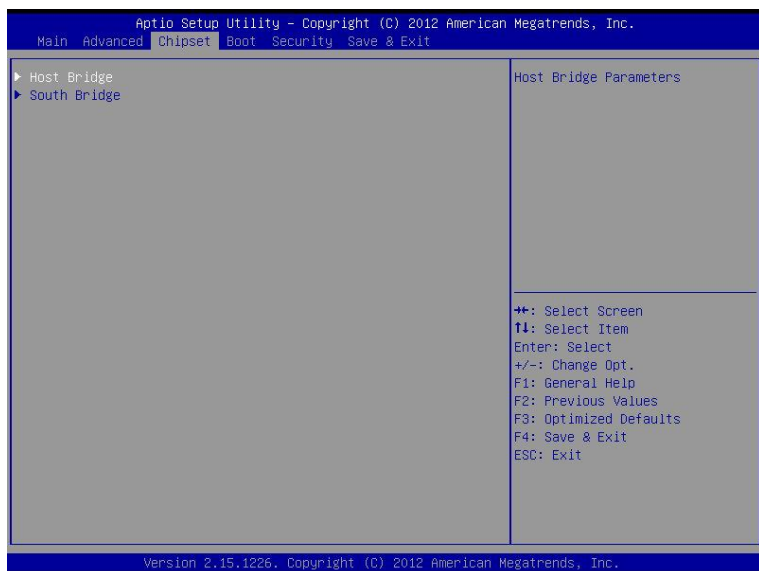
S5 RTC Wake Settings (Dynamic Time)

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Advanced		
Wake system with Fixed Time	[Disabled]	Enable or disable System wake on alarm event. When enabled, System will wake on the current time + Increase minute(s)
Wake system with Dynamic Time	[Enabled]	
Wake up minute increase	1	
		++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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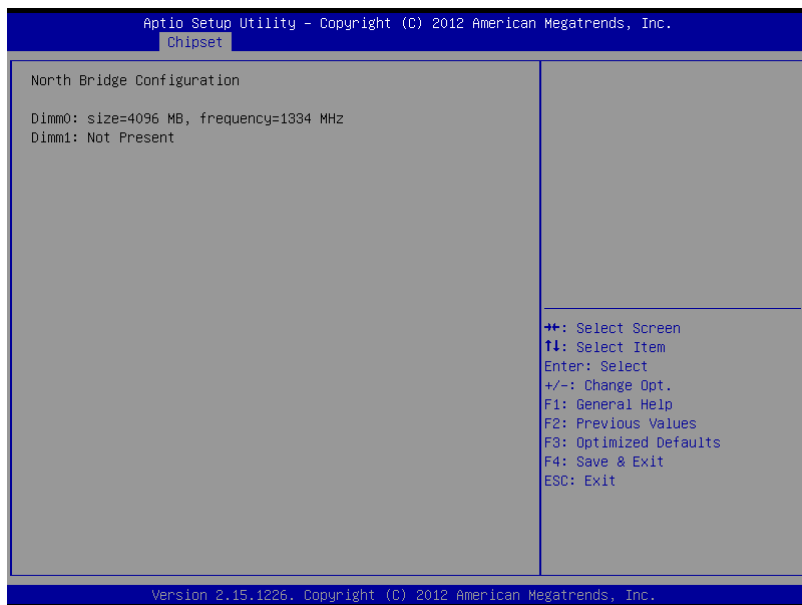
Options summary:

Wake system with	Disabled	Optimal Default, Failsafe Default
Dynamic Time	Enabled	
En/Disable System wake on alarm event. When enabled, System will wake on current time + Increases minutese(s)		
Wake up day	1-5	Default 1
Select 1-5		

Setup submenu: Chipset



HOST Bridge



South Bridge

Aptio Setup Utility - Copyright (C) 2012 American Megatrends, Inc.		
Chipset		
AMD Reference code Version :	Trinity PI 1.0.0.9	Control Detection of the Azalia device. Disabled = Azalia will be unconditionally disabled Enabled = Azalia will be unconditionally Enabled
HD Audio Azalia Device	[Enabled]	
		++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.15.1226. Copyright (C) 2012 American Megatrends, Inc.		

Options summary:

HD Audio Azalia Device	Auto	Optimal Default, Failsafe Default
	Disabled	
	Enabled	
Control Detection of the Azalia device.\n\nDisabled = Azalia will be unconditionally disabled\n\nEnabled = Azalia will be unconditionally Enabled		

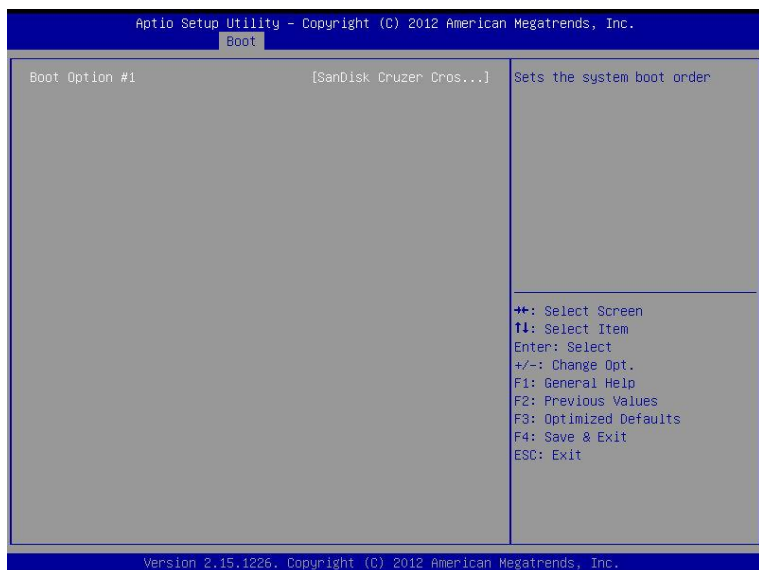
Setup submenu: Boot

Aptio Setup Utility - Copyright (C) 2012 American Megatrends, Inc.		
Main Advanced Chipset Boot Security Save & Exit		
Boot Configuration		Enables or disables Quiet Boot option
Quiet Boot	[Enabled]	
Launch PXE OpROM	[Disabled]	
Boot Option Priorities		
Boot Option #1	[UEFI: SanDisk Cruze...]	
Boot Option #2	[SanDisk Cruzer Cros...]	
Hard Drive BBS Priorities		
		++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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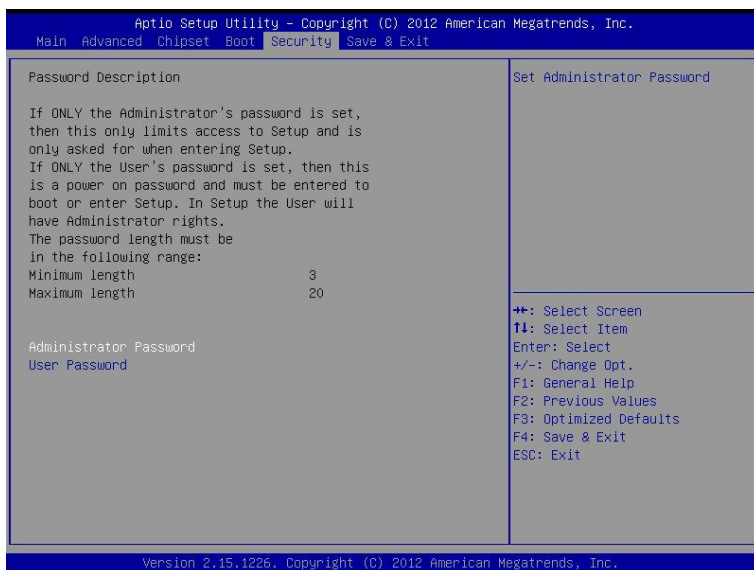
Options summary:

Quiet Boot	Disabled	Default
	Enabled	
En/Disable showing boot logo.		
Launch PXE OpROM	Disabled	Default
	Enabled	
En/Disable Legacy Boot Option for Ethernet..		

BBS Priorities



Security



Change User/Supervisor Password

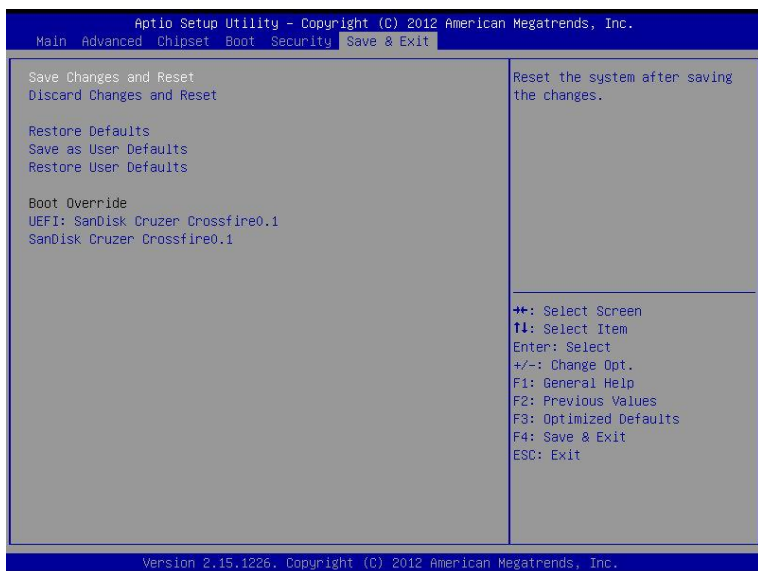
You can install a Supervisor password, and if you install a supervisor password, you can then install a user password. A user password does not provide access to many of the features in the Setup utility.

If you highlight these items and press Enter, a dialog box appears which lets you enter a password. You can enter no more than six letters or numbers. Press Enter after you have typed in the password. A second dialog box asks you to retype the password for confirmation. Press Enter after you have retyped it correctly. The password is required at boot time, or when the user enters the Setup utility.

Removing the Password

Highlight this item and type in the current password. At the next dialog box press Enter to disable password protection.

Setup submenu: Exit



Chapter

4

Driver Installation

The DSS-TN40 comes with an Autorun DVD-ROM that contains all drivers and utilities that can help you to install the driver automatically.

Insert the driver DVD, the driver DVD-title will automatically 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 Chipset & VGA Driver

Step 2 – Install AHCI_RAID Driver

Step 3 – Install LAN Device

Step 4 – Install AUDIO Driver

Please read instructions below for further detailed installations.

4.1 Installation:

Insert the DSS-TN40 DVD-ROM into the DVD-ROM drive. And install the drivers from Step 1 to Step 4 in order.

Step 1 – Install Chipset & VGA Driver

1. Click on the **Step1 - Chipset & VGA** folder and select the OS folder your system is
2. Double click on the **Setup.exe** file located in each OS folder
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically

Step 2 – Install AHCI_RAID Driver

Please refer to the Appendix D AHCI Setting

Step 3 – Install LAN Device

1. Click on the **Step3 - LAN** folder and select the OS folder your system is
2. Double click on the **setup.exe** file located in each OS folder
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically

Step 4 – Install AUDIO Driver

1. Click on the **Step4 - AUDIO** folder and select the OS folder for your system

2. Double click on the **.exe** file located in each OS folder
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically

Appendix

A

Programming the Watchdog Timer

A.1 Watchdog Timer Initial Program

Table 1 : SuperIO relative register table		
	Default Value	Note
Index	0x2E (Note1)	SIO MB PnP Mode Index Register 0x2E or 0x4E
Data	0x2F (Note2)	SIO MB PnP Mode Data Register 0x2F or 0x4F

Table 2 : Watchdog relative register table					
	LDN	Register	BitNum	Value	Note
Timer Counter	0x07 (Note3)	0x73 (Note4)		(Note24)	Time of watchdog timer (0~255) This register is byte access
Counting Unit	0x07 (Note5)	0x72 (Note6)	7 (Note7)	1 (Note8)	Select time unit. 1: second 0: minute
Watchdog Enable (KRST)	0x07 (Note9)	0x72 (Note10)	6 (Note11)	1 (Note12)	0: Disable 1: Enable
Timeout Status	0x07 (Note13)	0x71 (Note14)	0 (Note15)	1	1: Clear timeout status

// SuperIO relative definition (Please reference to Table 1)

#define byte SIOIndex //This parameter is represented from **Note1**

#define byte SIOData //This parameter is represented from **Note2**

#define void IOWriteByte(**byte** IOPort, **byte** Value);

#define byte IOReadByte(**byte** IOPort);

// Watch Dog relative definition (Please reference to Table 2)

#define byte TimerLDN //This parameter is represented from **Note3**

#define byte TimerReg //This parameter is represented from **Note4**

#define byte TimerVal // This parameter is represented from **Note24**

#define byte UnitLDN //This parameter is represented from **Note5**

#define byte UnitReg //This parameter is represented from **Note6**

#define byte UnitBit //This parameter is represented from **Note7**

#define byte UnitVal //This parameter is represented from **Note8**

#define byte EnableLDN //This parameter is represented from **Note9**

#define byte EnableReg //This parameter is represented from **Note10**

#define byte EnableBit //This parameter is represented from **Note11**

#define byte EnableVal //This parameter is represented from **Note12**

#define byte StatusLDN // This parameter is represented from **Note13**

#define byte StatusReg // This parameter is represented from **Note14**

#define byte StatusBit // This parameter is represented from **Note15**

VOID **Main()**{

 // Procedure : AaeonWDTConfig

 // (byte)Timer : Time of WDT timer.(0x00~0xFF)

 // (boolean)Unit : Select time unit(0: second, 1: minute).

 AaeonWDTConfig();

 // Procedure : AaeonWDTEnable

 // This procedure will enable the WDT counting.

 AaeonWDTEnable();

}

// Procedure : AaeonWDTEnable

```
VOID AaeonWDTEnable (){
    WDTEnableDisable(EnableLDN, EnableReg, EnableBit, 1);
}
```

// Procedure : AaeonWDTConfig

```
VOID AaeonWDTConfig (){
    // Disable WDT counting
    WDTEnableDisable(EnableLDN, EnableReg, EnableBit, 0);
    // Clear Watchdog Timeout Status
    WDTClearTimeoutStatus();
    // WDT relative parameter setting
    WDTParameterSetting();
}
```

```
VOID WDTEnableDisable(byte LDN, byte Register, byte BitNum, byte Value){
    SIOBitSet(LDN, Register, BitNum, Value);
}
```

```
VOID WDTParameterSetting() {
    // Watchdog Timer counter setting
    SIOByteSet(TimerLDN, TimerReg, TimerVal);
    // WDT counting unit setting
    SIOBitSet(UnitLDN, UnitReg, UnitBit, UnitVal);
}
```

```
VOID WDTClearTimeoutStatus() {
    SIOBitSet(StatusLDN, StatusReg, StatusBit, 1);
}
```

```

VOID SIOEnterMBPnPMode(){
    Switch(SIOIndex){
        Case 0x2E:
            IOWriteByte(SIOIndex, 0x87);
            IOWriteByte(SIOIndex, 0x01);
            IOWriteByte(SIOIndex, 0x55);
            IOWriteByte(SIOIndex, 0x55);
            Break;
        Case 0x4E:
            IOWriteByte(SIOIndex, 0x87);
            IOWriteByte(SIOIndex, 0x01);
            IOWriteByte(SIOIndex, 0x55);
            IOWriteByte(SIOIndex, 0xAA);
            Break;
    }
}

VOID SIOExitMBPnPMode(){
    IOWriteByte(SIOIndex, 0x02);
    IOWriteByte(SIOData, 0x02);
}

VOID SIOSelectLDN(byte LDN){
    IOWriteByte(SIOIndex, 0x07); // SIO LDN Register Offset = 0x07
    IOWriteByte(SIOData, LDN);
}

```

VOID **SIOBitSet(byte LDN, byte Register, byte BitNum, byte Value){**

Byte TmpValue;

SIOEnterMBPnPMode();

SIOSelectLDN(byte LDN);

IOWriteByte(SIOIndex, Register);

TmpValue = IOReadByte(SIOData);

TmpValue &= ~(1 << BitNum);

TmpValue |= (Value << BitNum);

IOWriteByte(SIOData, TmpValue);

SIOExitMBPnPMode();

}

VOID **SIOByteSet(byte LDN, byte Register, byte Value){**

SIOEnterMBPnPMode();

SIOSelectLDN(LDN);

IOWriteByte(SIOIndex, Register);

IOWriteByte(SIOData, Value);

SIOExitMBPnPMode();

}

Appendix

B

I/O Information

B.1 I/O Address Map

	Input/output (IO)
	[00000000 - 0000000F] Direct memory access controller
	[00000000 - 0000000F] Motherboard resources
	[00000000 - 000003AF] PCI bus
	[00000010 - 0000001F] Motherboard resources
	[00000010 - 0000001F] Motherboard resources
	[00000020 - 00000021] Programmable interrupt controller
	[00000022 - 0000003F] Motherboard resources
	[00000022 - 0000003F] Motherboard resources
	[00000040 - 00000043] System timer
	[00000044 - 0000005F] Motherboard resources
	[00000060 - 00000060] Standard PS/2 Keyboard
	[00000061 - 00000061] System speaker
	[00000062 - 00000063] Motherboard resources
	[00000063 - 00000063] Motherboard resources
	[00000064 - 00000064] Standard PS/2 Keyboard
	[00000065 - 00000065] Motherboard resources
	[00000065 - 0000006F] Motherboard resources
	[00000067 - 0000006F] Motherboard resources
	[00000070 - 00000071] System CMOS/real time clock
	[00000072 - 0000007F] Motherboard resources
	[00000072 - 0000007F] Motherboard resources
	[00000080 - 00000080] Motherboard resources
	[00000080 - 00000080] Motherboard resources
	[00000081 - 00000083] Direct memory access controller
	[00000084 - 00000086] Motherboard resources
	[00000084 - 00000086] Motherboard resources
	[00000087 - 00000087] Direct memory access controller
	[00000088 - 00000088] Motherboard resources
	[00000088 - 00000088] Motherboard resources
	[00000089 - 0000008B] Direct memory access controller
	[0000008C - 0000008E] Motherboard resources
	[0000008C - 0000008E] Motherboard resources
	[0000008F - 0000008F] Direct memory access controller
	[00000090 - 0000009F] Motherboard resources
	[00000090 - 0000009F] Motherboard resources
	[000000A0 - 000000A1] Programmable interrupt controller
	[000000A2 - 000000BF] Motherboard resources
	[000000A2 - 000000BF] Motherboard resources
	[000000B1 - 000000B1] Motherboard resources
	[000000C0 - 000000DF] Direct memory access controller
	[000000E0 - 000000EF] Motherboard resources

	[000000C0 - 000000DF] Direct memory access controller
	[000000E0 - 000000EF] Motherboard resources
	[000000E0 - 000000EF] Motherboard resources
	[000000F0 - 000000FF] Numeric data processor
	[00000170 - 00000177] ATA Channel 1
	[000001F0 - 000001F7] ATA Channel 0
	[000002F8 - 000002FF] Communications Port (COM2)
	[00000376 - 00000376] ATA Channel 1
	[000003B0 - 000003BB] AMD Radeon HD 7400G
	[000003B0 - 000003DF] PCI bus
	[000003C0 - 000003DF] AMD Radeon HD 7400G
	[000003E0 - 000003F7] PCI bus
	[000003F6 - 000003F6] ATA Channel 0
	[000003F8 - 000003FF] Communications Port (COM1)
	[0000040B - 0000040B] Motherboard resources
	[000004D0 - 000004D1] Motherboard resources
	[000004D0 - 000004D1] Motherboard resources
	[000004D6 - 000004D6] Motherboard resources
	[00000500 - 0000051F] Motherboard resources
	[00000520 - 0000052F] Motherboard resources
	[00000530 - 0000053F] Motherboard resources
	[00000800 - 0000089F] Motherboard resources
	[00000900 - 0000090F] Motherboard resources
	[00000910 - 0000091F] Motherboard resources
	[00000B20 - 00000B3F] Motherboard resources
	[00000C00 - 00000C01] Motherboard resources
	[00000C14 - 00000C14] Motherboard resources
	[00000C50 - 00000C51] Motherboard resources
	[00000C52 - 00000C52] Motherboard resources
	[00000C6C - 00000C6C] Motherboard resources
	[00000C6F - 00000C6F] Motherboard resources
	[00000CD0 - 00000CD1] Motherboard resources
	[00000CD2 - 00000CD3] Motherboard resources
	[00000CD4 - 00000CD5] Motherboard resources
	[00000CD6 - 00000CD7] Motherboard resources
	[00000CD8 - 00000CDF] Motherboard resources
	[00000D00 - 0000FFFF] PCI bus
	[0000D000 - 0000D0FF] Realtek PCIe GBE Family Controller
	[0000D000 - 0000DFFF] PCI standard PCI-to-PCI bridge
	[0000E000 - 0000E0FF] Realtek PCIe GBE Family Controller #2
	[0000E000 - 0000EFFF] PCI standard PCI-to-PCI bridge
	[0000F000 - 0000F0FF] AMD Radeon HD 7400G

	[000003B0 - 000003DF] PCI bus
	[000003C0 - 000003DF] AMD Radeon HD 7400G
	[000003E0 - 00000CF7] PCI bus
	[000003F6 - 000003F6] ATA Channel 0
	[000003F8 - 000003FF] Communications Port (COM1)
	[0000040B - 0000040B] Motherboard resources
	[000004D0 - 000004D1] Motherboard resources
	[000004D0 - 000004D1] Motherboard resources
	[000004D6 - 000004D6] Motherboard resources
	[00000500 - 0000051F] Motherboard resources
	[00000520 - 0000052F] Motherboard resources
	[00000530 - 0000053F] Motherboard resources
	[00000800 - 0000089F] Motherboard resources
	[00000900 - 0000090F] Motherboard resources
	[00000910 - 0000091F] Motherboard resources
	[00000B20 - 00000B3F] Motherboard resources
	[00000C00 - 00000C01] Motherboard resources
	[00000C14 - 00000C14] Motherboard resources
	[00000C50 - 00000C51] Motherboard resources
	[00000C52 - 00000C52] Motherboard resources
	[00000C6C - 00000C6C] Motherboard resources
	[00000C6F - 00000C6F] Motherboard resources
	[00000CD0 - 00000CD1] Motherboard resources
	[00000CD2 - 00000CD3] Motherboard resources
	[00000CD4 - 00000CD5] Motherboard resources
	[00000CD6 - 00000CD7] Motherboard resources
	[00000CD8 - 00000CDF] Motherboard resources
	[00000D00 - 0000FFFF] PCI bus
	[0000D000 - 0000D0FF] Realtek PCIe GBE Family Controller
	[0000D000 - 0000DFFF] PCI standard PCI-to-PCI bridge
	[0000E000 - 0000E0FF] Realtek PCIe GBE Family Controller #2
	[0000E000 - 0000EFFF] PCI standard PCI-to-PCI bridge
	[0000F000 - 0000F0FF] AMD Radeon HD 7400G
	[0000F100 - 0000F10F] AMD PCI IDE Controller
	[0000F110 - 0000F113] AMD PCI IDE Controller
	[0000F120 - 0000F127] AMD PCI IDE Controller
	[0000F130 - 0000F133] AMD PCI IDE Controller
	[0000F140 - 0000F147] AMD PCI IDE Controller
	[0000F150 - 0000F15F] AMD SATA Controller (IDE Mode)
	[0000FE00 - 0000FEFE] Motherboard resources

B.2 Memory Address Map

Memory	
[000A0000 - 000BFFFF]	AMD Radeon HD 7400G
[000A0000 - 000BFFFF]	PCI bus
[000C0000 - 000DFFFF]	PCI bus
[A0000000 - BFFFFFFF]	Motherboard resources
[C0000000 - CFFFFFFF]	AMD Radeon HD 7400G
[C0000000 - FFFFFFFF]	PCI bus
[D0000000 - D0003FFF]	Realtek PCIe GBE Family Controller
[D0000000 - D00FFFFF]	PCI standard PCI-to-PCI bridge
[D0004000 - D0004FFF]	Realtek PCIe GBE Family Controller
[D0100000 - D0103FFF]	Realtek PCIe GBE Family Controller #2
[D0100000 - D01FFFFF]	PCI standard PCI-to-PCI bridge
[D0104000 - D0104FFF]	Realtek PCIe GBE Family Controller #2
[E0000000 - EFFFFFFF]	System board
[FEC00000 - FEC00FFF]	Motherboard resources
[FEC10000 - FEC10FFF]	Motherboard resources
[FED00000 - FED003FF]	High precision event timer
[FED00000 - FED00FFF]	Motherboard resources
[FED61000 - FED70FFF]	Motherboard resources
[FED80000 - FED8FFFF]	Motherboard resources
[FEE00000 - FEE00FFF]	Motherboard resources
[FEF00000 - FEF3FFFF]	AMD Radeon HD 7400G
[FEF40000 - FEF43FFF]	High Definition Audio Controller
[FEF44000 - FEF47FFF]	High Definition Audio Controller
[FEF48000 - FEF49FFF]	AMD USB 3.0 Host Controller
[FEF4A000 - FEF4BFFF]	AMD USB 3.0 Host Controller
[FEF4C000 - FEF4CFFF]	Standard OpenHCD USB Host Controller
[FEF4D000 - FEF4D0FF]	Standard Enhanced PCI to USB Host Controller
[FEF4E000 - FEF4EFFF]	Standard OpenHCD USB Host Controller
[FEF4F000 - FEF4F0FF]	Standard Enhanced PCI to USB Host Controller
[FEF50000 - FEF50FFF]	Standard OpenHCD USB Host Controller
[FEF51000 - FEF517FF]	AMD SATA Controller (IDE Mode)
[FF000000 - FFFFFFFF]	Motherboard resources

B.3 IRQ Mapping Chart

	Interrupt request (IRQ)
	(ISA) 0x00000000 (00) System timer
	(ISA) 0x00000001 (01) Standard PS/2 Keyboard
	(ISA) 0x00000003 (03) Communications Port (COM2)
	(ISA) 0x00000004 (04) Communications Port (COM1)
	(ISA) 0x00000008 (08) System CMOS/real time clock
	(ISA) 0x0000000C (12) Microsoft PS/2 Mouse
	(ISA) 0x0000000D (13) Numeric data processor
	(ISA) 0x0000000E (14) ATA Channel 0
	(ISA) 0x0000000F (15) ATA Channel 1
	(ISA) 0x00000051 (81) Microsoft ACPI-Compliant System
	(ISA) 0x00000052 (82) Microsoft ACPI-Compliant System
	(ISA) 0x00000053 (83) Microsoft ACPI-Compliant System
	(ISA) 0x00000054 (84) Microsoft ACPI-Compliant System
	(ISA) 0x00000055 (85) Microsoft ACPI-Compliant System
	(ISA) 0x00000056 (86) Microsoft ACPI-Compliant System
	(ISA) 0x00000057 (87) Microsoft ACPI-Compliant System
	(ISA) 0x00000058 (88) Microsoft ACPI-Compliant System
	(ISA) 0x00000059 (89) Microsoft ACPI-Compliant System
	(ISA) 0x0000005A (90) Microsoft ACPI-Compliant System
	(ISA) 0x0000005B (91) Microsoft ACPI-Compliant System
	(ISA) 0x0000005C (92) Microsoft ACPI-Compliant System
	(ISA) 0x0000005D (93) Microsoft ACPI-Compliant System
	(ISA) 0x0000005E (94) Microsoft ACPI-Compliant System
	(ISA) 0x0000005F (95) Microsoft ACPI-Compliant System
	(ISA) 0x00000060 (96) Microsoft ACPI-Compliant System
	(ISA) 0x00000061 (97) Microsoft ACPI-Compliant System
	(ISA) 0x00000062 (98) Microsoft ACPI-Compliant System
	(ISA) 0x00000063 (99) Microsoft ACPI-Compliant System
	(ISA) 0x00000064 (100) Microsoft ACPI-Compliant System
	(ISA) 0x00000065 (101) Microsoft ACPI-Compliant System
	(ISA) 0x00000066 (102) Microsoft ACPI-Compliant System
	(ISA) 0x00000067 (103) Microsoft ACPI-Compliant System
	(ISA) 0x00000068 (104) Microsoft ACPI-Compliant System
	(ISA) 0x00000069 (105) Microsoft ACPI-Compliant System
	(ISA) 0x0000006A (106) Microsoft ACPI-Compliant System
	(ISA) 0x0000006B (107) Microsoft ACPI-Compliant System
	(ISA) 0x0000006C (108) Microsoft ACPI-Compliant System
	(ISA) 0x0000006D (109) Microsoft ACPI-Compliant System
	(ISA) 0x0000006E (110) Microsoft ACPI-Compliant System
	(ISA) 0x0000006F (111) Microsoft ACPI-Compliant System
	(ISA) 0x00000070 (112) Microsoft ACPI-Compliant System

	(ISA) 0x00000070 (112)	Microsoft ACPI-Compliant System
	(ISA) 0x00000071 (113)	Microsoft ACPI-Compliant System
	(ISA) 0x00000072 (114)	Microsoft ACPI-Compliant System
	(ISA) 0x00000073 (115)	Microsoft ACPI-Compliant System
	(ISA) 0x00000074 (116)	Microsoft ACPI-Compliant System
	(ISA) 0x00000075 (117)	Microsoft ACPI-Compliant System
	(ISA) 0x00000076 (118)	Microsoft ACPI-Compliant System
	(ISA) 0x00000077 (119)	Microsoft ACPI-Compliant System
	(ISA) 0x00000078 (120)	Microsoft ACPI-Compliant System
	(ISA) 0x00000079 (121)	Microsoft ACPI-Compliant System
	(ISA) 0x0000007A (122)	Microsoft ACPI-Compliant System
	(ISA) 0x0000007B (123)	Microsoft ACPI-Compliant System
	(ISA) 0x0000007C (124)	Microsoft ACPI-Compliant System
	(ISA) 0x0000007D (125)	Microsoft ACPI-Compliant System
	(ISA) 0x0000007E (126)	Microsoft ACPI-Compliant System
	(ISA) 0x0000007F (127)	Microsoft ACPI-Compliant System
	(ISA) 0x00000080 (128)	Microsoft ACPI-Compliant System
	(ISA) 0x00000081 (129)	Microsoft ACPI-Compliant System
	(ISA) 0x00000082 (130)	Microsoft ACPI-Compliant System
	(ISA) 0x00000083 (131)	Microsoft ACPI-Compliant System
	(ISA) 0x00000084 (132)	Microsoft ACPI-Compliant System
	(ISA) 0x00000085 (133)	Microsoft ACPI-Compliant System
	(ISA) 0x00000086 (134)	Microsoft ACPI-Compliant System
	(ISA) 0x00000087 (135)	Microsoft ACPI-Compliant System
	(ISA) 0x00000088 (136)	Microsoft ACPI-Compliant System
	(ISA) 0x00000089 (137)	Microsoft ACPI-Compliant System
	(ISA) 0x0000008A (138)	Microsoft ACPI-Compliant System
	(ISA) 0x0000008B (139)	Microsoft ACPI-Compliant System
	(ISA) 0x0000008C (140)	Microsoft ACPI-Compliant System
	(ISA) 0x0000008D (141)	Microsoft ACPI-Compliant System
	(ISA) 0x0000008E (142)	Microsoft ACPI-Compliant System
	(ISA) 0x0000008F (143)	Microsoft ACPI-Compliant System
	(ISA) 0x00000090 (144)	Microsoft ACPI-Compliant System
	(ISA) 0x00000091 (145)	Microsoft ACPI-Compliant System
	(ISA) 0x00000092 (146)	Microsoft ACPI-Compliant System
	(ISA) 0x00000093 (147)	Microsoft ACPI-Compliant System
	(ISA) 0x00000094 (148)	Microsoft ACPI-Compliant System
	(ISA) 0x00000095 (149)	Microsoft ACPI-Compliant System
	(ISA) 0x00000096 (150)	Microsoft ACPI-Compliant System
	(ISA) 0x00000097 (151)	Microsoft ACPI-Compliant System
	(ISA) 0x00000098 (152)	Microsoft ACPI-Compliant System
	(ISA) 0x00000099 (153)	Microsoft ACPI-Compliant System

	(ISA) 0x00000099 (153)	Microsoft ACPI-Compliant System
	(ISA) 0x0000009A (154)	Microsoft ACPI-Compliant System
	(ISA) 0x0000009B (155)	Microsoft ACPI-Compliant System
	(ISA) 0x0000009C (156)	Microsoft ACPI-Compliant System
	(ISA) 0x0000009D (157)	Microsoft ACPI-Compliant System
	(ISA) 0x0000009E (158)	Microsoft ACPI-Compliant System
	(ISA) 0x0000009F (159)	Microsoft ACPI-Compliant System
	(ISA) 0x000000A0 (160)	Microsoft ACPI-Compliant System
	(ISA) 0x000000A1 (161)	Microsoft ACPI-Compliant System
	(ISA) 0x000000A2 (162)	Microsoft ACPI-Compliant System
	(ISA) 0x000000A3 (163)	Microsoft ACPI-Compliant System
	(ISA) 0x000000A4 (164)	Microsoft ACPI-Compliant System
	(ISA) 0x000000A5 (165)	Microsoft ACPI-Compliant System
	(ISA) 0x000000A6 (166)	Microsoft ACPI-Compliant System
	(ISA) 0x000000A7 (167)	Microsoft ACPI-Compliant System
	(ISA) 0x000000A8 (168)	Microsoft ACPI-Compliant System
	(ISA) 0x000000A9 (169)	Microsoft ACPI-Compliant System
	(ISA) 0x000000AA (170)	Microsoft ACPI-Compliant System
	(ISA) 0x000000AB (171)	Microsoft ACPI-Compliant System
	(ISA) 0x000000AC (172)	Microsoft ACPI-Compliant System
	(ISA) 0x000000AD (173)	Microsoft ACPI-Compliant System
	(ISA) 0x000000AE (174)	Microsoft ACPI-Compliant System
	(ISA) 0x000000AF (175)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B0 (176)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B1 (177)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B2 (178)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B3 (179)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B4 (180)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B5 (181)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B6 (182)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B7 (183)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B8 (184)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B9 (185)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BA (186)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BB (187)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BC (188)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BD (189)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BE (190)	Microsoft ACPI-Compliant System
	(PCI) 0x00000010 (16)	High Definition Audio Controller
	(PCI) 0x00000011 (17)	AMD PCI IDE Controller
	(PCI) 0x00000011 (17)	PCI standard PCI-to-PCI bridge
	(PCI) 0x00000011 (17)	Standard Enhanced PCI to USB Host Controller

	(ISA) 0x000000B4 (180)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B5 (181)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B6 (182)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B7 (183)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B8 (184)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B9 (185)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BA (186)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BB (187)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BC (188)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BD (189)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BE (190)	Microsoft ACPI-Compliant System
	(PCI) 0x00000010 (16)	High Definition Audio Controller
	(PCI) 0x00000011 (17)	AMD PCI IDE Controller
	(PCI) 0x00000011 (17)	PCI standard PCI-to-PCI bridge
	(PCI) 0x00000011 (17)	Standard Enhanced PCI to USB Host Controller
	(PCI) 0x00000011 (17)	Standard Enhanced PCI to USB Host Controller
	(PCI) 0x00000012 (18)	High Definition Audio Controller
	(PCI) 0x00000012 (18)	PCI standard PCI-to-PCI bridge
	(PCI) 0x00000012 (18)	Standard OpenHCD USB Host Controller
	(PCI) 0x00000012 (18)	Standard OpenHCD USB Host Controller
	(PCI) 0x00000012 (18)	Standard OpenHCD USB Host Controller
	(PCI) 0x00000013 (19)	PCI standard PCI-to-PCI bridge
	(PCI) 0xFFFFFEEC (-20)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEEB (-19)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-18)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-17)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-16)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-15)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-14)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-13)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-12)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-11)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-10)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-9)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-8)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-7)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-6)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-5)	AMD USB 3.0 Host Controller
	(PCI) 0xFFFFFEED (-4)	Realtek PCIe GBE Family Controller
	(PCI) 0xFFFFFEED (-3)	Realtek PCIe GBE Family Controller #2
	(PCI) 0xFFFFFEED (-2)	AMD Radeon HD 7400G

Appendix

C

Mating Connecotor

C.1 List of Mating Connectors and Cables

The table notes mating connectors and available cables.

Connector Label	Function	Mating Connector		Available Cable	AAEON Cable P/N
		Vendor	Model no		
CN33	LAN Connector	UDE	RT7-17FAA M1A	NA	NA
CN34	LAN Connector	UDE	RT7-17FAA M1A	NA	NA
CN28	HDMI Connector	FOXCONN	QJ3119C-W FB1-4F	NA	NA
CN29	HDMI Connector	FOXCONN	QJ3119C-W FB1-4F	NA	NA
CN30	HDMI Connector	FOXCONN	QJ3119C-W FB1-4F	NA	NA
CN31	HDMI Connector	FOXCONN	QJ3119C-W FB1-4F	NA	NA
CN4	Front Panel Connector	PINREX	222-97-05GB E1	N/A	N/A
CN5	DIO Connector	PINREX	222-97-05GB E1	N/A	N/A
CN11	RS-232 Serial Port Connector	CATCH	2.00mm Pitch 10 pins (CATCH H754-2x5 or compatible)	Serial Port Cable	1701100206
CN35	MIC Connector	TACT	C1F2R1-560 -R	NA	NA
CN35	LINE OUT Connector	TACT	C1F2R1-570 -R	NA	NA
CN3	PS2 Connector	TechBest	DN508BS1-6 -L	NA	NA
CN2	FAN Connector	CATCH	1190-700-042	NA	NA
CN13	SATA+POWER Connector	FLYING WAY	FWT-S22-11 2202991-2	NA	NA

CN1	COM PORT Connector	Astron	DB6A-09-AM GN1-R	NA	NA
CN6	USB 2.0 Connector	CONTEK	UFN2441-F1 -00	NA	NA
CN7	USB 3.0 Connector	Contek	UDNFA199N -AY-21-A	NA	NA
CN37	DC IN Connector	Ho-Bas e	655-125	NA	NA
CN15	FAN Connector	CATCH	1190-700-04 2	NA	NA

Note:

The AAEON Cable P/N with “ * ” sign is for WiTAS series products.

Appendix

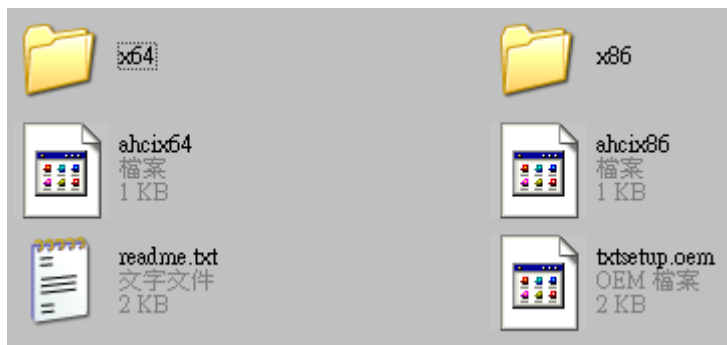
D

AHCI Setting

D.1 Setting AHCI

OS installation to setup AHCI Mode

Step 1: Copy the files below from “**Driver CD** ->|**Step2 - AHCI_RAID\WinXP\3.3.1540.26**” to Disk

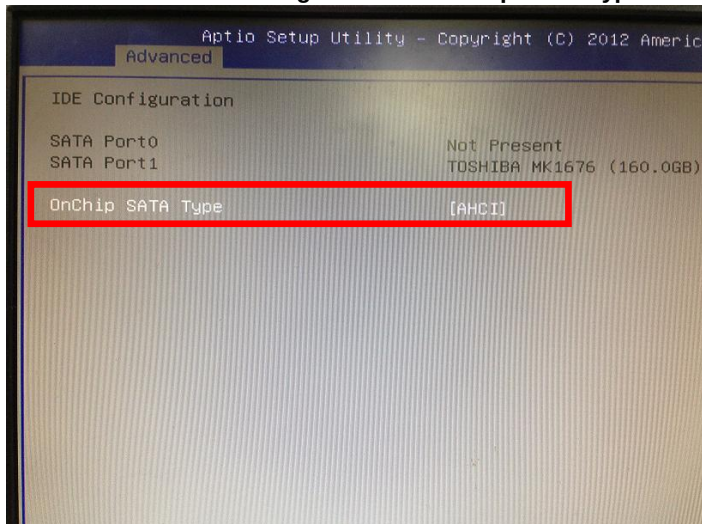


Step 2: Connect the USB Floppy (disk with AHCI files) to the board



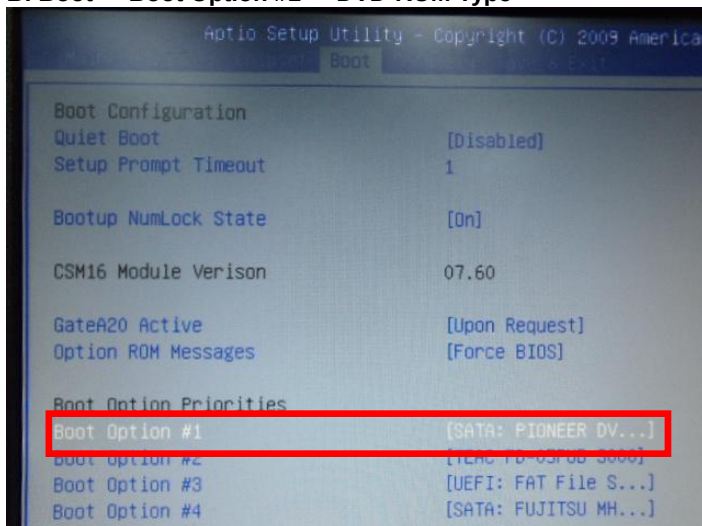
Step 3: The setting procedures “In BIOS Setup Menu”

A: Advanced -> IDE Configuration -> OnChip SATA Type -> AHCI



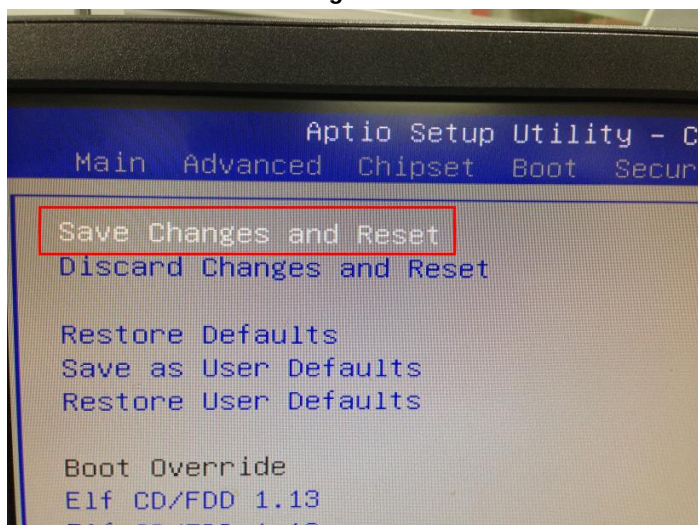
Step 4: The setting procedures “In BIOS Setup Menu”

B: Boot -> Boot Option #1 -> DVD-ROM Type

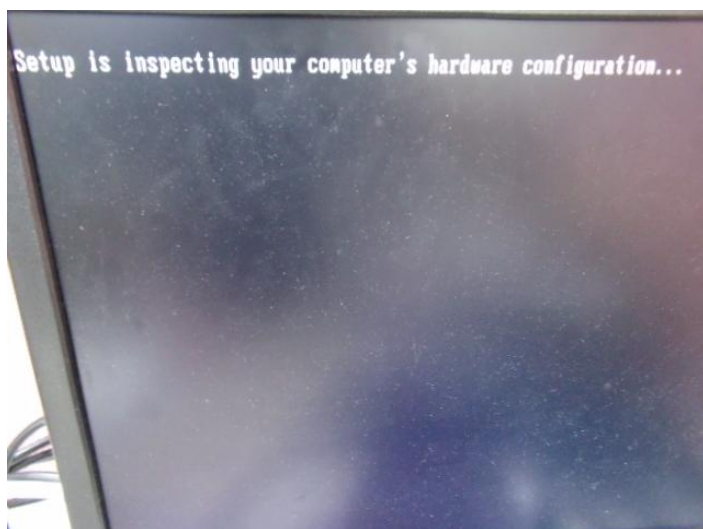


Step 5: The setting procedures "In BIOS Setup Menu"

C: Save & Exit -> Save Changes and Reset



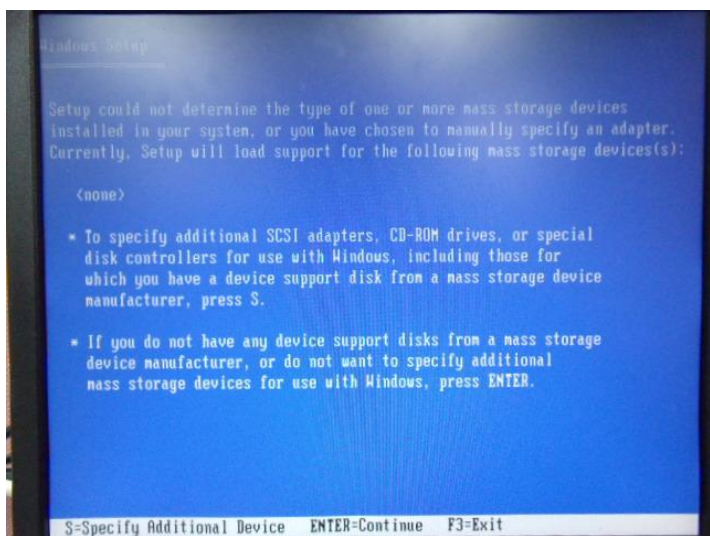
Step 6: Setup OS

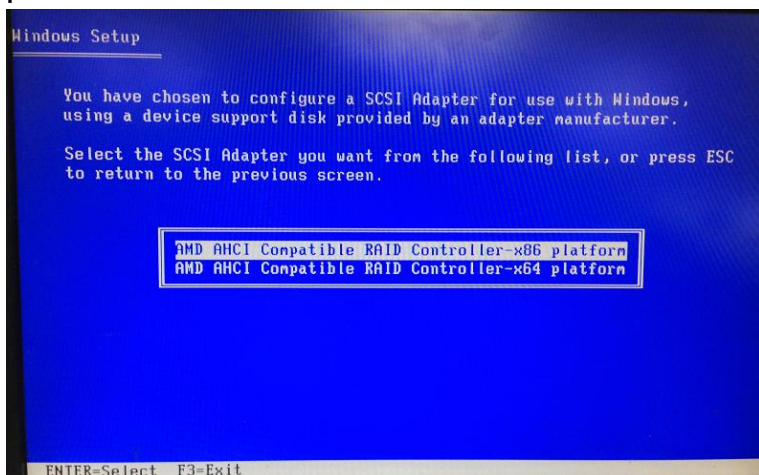
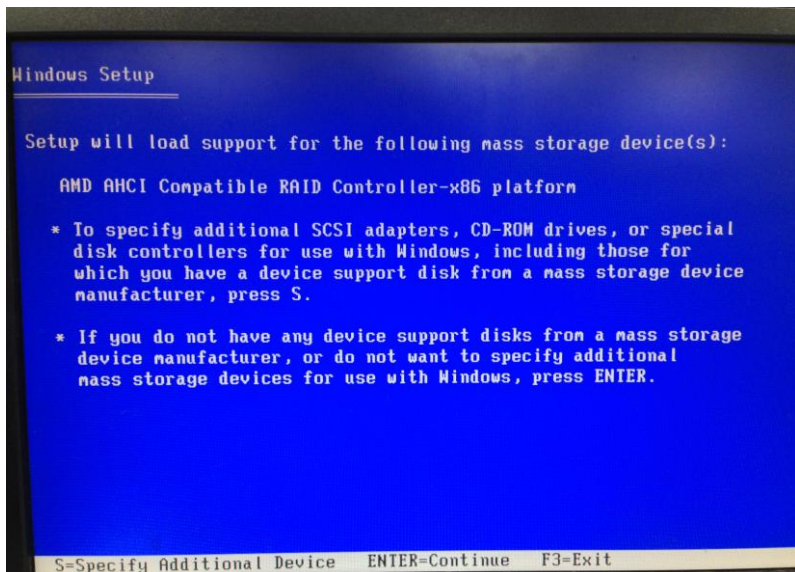


Step 7: Press “F6”



Step 8: Choose “S”



Step 9: Choose “AMD AHCI Compatible RAID Controller-x86/x64 platform”**Step 10: It will show the model number you select and then press “ENTER”**

Step 11: Setup is loading files

