

AHP-1125

Industrial HMI Touch Panel

User's Manual 1st Ed

Copyright Notice

This document is copyrighted, 2016. All rights are reserved. The original manufacturer reserves the right to make improvements to the products described in this manual at any time without notice.

No part of this manual may be reproduced, copied, translated, or transmitted in any form or by any means without the prior written permission of the original manufacturer. Information provided in this manual is intended to be accurate and reliable. However, the original manufacturer assumes no responsibility for its use, or for any infringements upon the rights of third parties that may result from its use.

The material in this document is for product information only and is subject to change without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, AAEMON assumes no liabilities resulting from errors or omissions in this document, or from the use of the information contained herein.

AAEMON reserves the right to make changes in the product design without notice to its users.

Acknowledgement

All other products' name or trademarks are properties of their respective owners.

- Microsoft Windows® is a registered trademark of Microsoft Corp.
- ITE is a trademark of Integrated Technology Express, Inc.
- IBM, PC/AT, PS/2, and VGA are trademarks of International Business Machines Corporation.

All other product names or trademarks are properties of their respective owners.

Packing List

Before setting up your product, please make sure the following items have been shipped:

Item

- AHP-1125
- Mounting brackets and screws
- Phoenix terminal block
- Product CD with User's Manual (in pdf) and drivers

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

About this Document

This User's Manual contains all the essential information, such as detailed descriptions and explanations on the product's hardware and software features (if any), its specifications, dimensions, jumper/connector settings/definitions, and driver installation instructions (if any), to facilitate users in setting up their product.

Users may refer to the AAEON.com for the latest version of this document.

Safety Precautions

Please read the following safety instructions carefully. It is advised that you keep this manual for future references

1. All cautions and warnings on the device should be noted.
2. Make sure the power source matches the power rating of the device.
3. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
4. Always completely disconnect the power before working on the system's hardware.
5. No connections should be made when the system is powered as a sudden rush of power may damage sensitive electronic components.
6. If the device is not to be used for a long time, disconnect it from the power supply to avoid damage by transient over-voltage.
7. Always disconnect this device from any AC supply before cleaning.
8. While cleaning, use a damp cloth instead of liquid or spray detergents.
9. Make sure the device is installed near a power outlet and is easily accessible.
10. Keep this device away from humidity.
11. Place the device on a solid surface during installation to prevent falls
12. Do not cover the openings on the device to ensure optimal heat dissipation.
13. Watch out for high temperatures when the system is running.
14. Do not touch the heat sink or heat spreader when the system is running
15. Never pour any liquid into the openings. This could cause fire or electric shock.
16. As most electronic components are sensitive to static electrical charge, be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and contain all electronic components in any static-shielded containers.

17. If any of the following situations arises, please contact our service personnel:
 - i. Damaged power cord or plug
 - ii. Liquid intrusion to the device
 - iii. Exposure to moisture
 - iv. Device is not working as expected or in a manner as described in this manual
 - v. The device is dropped or damaged
 - vi. Any obvious signs of damage displayed on the device
18. **DO NOT LEAVE THIS DEVICE IN AN UNCONTROLLED ENVIRONMENT WITH TEMPERATURES BEYOND THE DEVICE'S PERMITTED STORAGE TEMPERATURES (SEE CHAPTER 1) TO PREVENT DAMAGE.**

Warning!



This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

Caution:

There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions and your local government's recycling or disposal directives.

Attention:

Il y a un risque d'explosion si la batterie est remplacée de façon incorrecte. Ne la remplacer qu'avec le même modèle ou équivalent recommandé par le constructeur. Recycler les batteries usées en accord avec les instructions du fabricant et les directives gouvernementales de recyclage.

China RoHS Requirements (CN)

产品中有毒有害物质或元素名称及含量

AAEON Panel PC/ Workstation

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	×	○	○	○	○	○
外壳	×	○	○	○	○	○
中央处理器 与内存	×	○	○	○	○	○
硬盘	×	○	○	○	○	○
液晶模块	×	○	○	○	○	○
光驱	×	○	○	○	○	○
触控模块	×	○	○	○	○	○
电源	×	○	○	○	○	○

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:

- 一、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。
- 二、上述部件物质中央处理器、内存、硬盘、光驱、触控模块为选购品。

China RoHS Requirement (EN)

Poisonous or Hazardous Substances or Elements in Products

AAEON Panel PC/ Workstation

Component	Poisonous or Hazardous Substances or Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
PCB & Other Components	X	○	○	○	○	○
Wires & Connectors for External Connections	X	○	○	○	○	○
Chassis	X	○	○	○	○	○
CPU & RAM	X	○	○	○	○	○
Hard Disk	X	○	○	○	○	○
LCD	X	○	○	○	○	○
Optical Drive	X	○	○	○	○	○
Touchscreen	X	○	○	○	○	○
PSU	X	○	○	○	○	○
<p>○: The quantity of poisonous or hazardous substances or elements found in each of the component's parts is below the SJ/T 11363-2006-stipulated requirement.</p> <p>X: The quantity of poisonous or hazardous substances or elements found in at least one of the component's parts is beyond the SJ/T 11363-2006-stipulated requirement.</p> <p>Note: The Environment Friendly Use Period as labeled on this product is applicable under normal usage only</p>						

Table of Contents

Chapter 1 - Product Specifications	1
1.1 Specifications.....	2
Chapter 2 – Hardware Information.....	5
2.1 List of Jumpers	6
2.1.1 Front Panel Connector (JP1).....	7
2.1.2 LVDS Port Backlight Inverter VCC Selection (JP3).....	7
2.1.3 LVDS Port Operating VDD Selection (JP4).....	8
2.1.4 LVDS Port Backlight Lightness Control Selection (JP6).....	8
2.1.5 Auto Power Button Enable/Disable Selection (JP12)	8
2.1.6 Touchscreen 4/5/8-wire Selection (JP14).....	9
2.1.7 Clear CMOS Jumper (JP15).....	9
2.2 Port Definition.....	9
2.2.1 VDC Power Input.....	9
2.2.2 USB 2.0.....	10
2.2.3 COM 1/4: D-SUB 9P (M).....	10
2.2.4 COM 2/3: D-SUB 9P (M).....	11
2.2.5 USB 3.0.....	13
2.2.6 VGA Port: D-SUB 15P (F)	14
2.2.7 LAN (RJ-45) Port1 (CN26).....	15
2.2.8 LAN (RJ-45) Port2 (CN27).....	16
2.3 Panel-mount Installation.....	17
2.4 HDD Installation.....	19
Chapter 3 - AMI BIOS Setup.....	20
3.1 System Test and Initialization	21
3.2 AMI BIOS Setup.....	22
3.3 Setup Submenu: Main.....	23

3.4	Setup Submenu: Advanced	24
3.4.1	Advanced: CPU Configuration.....	26
3.4.2	Advanced: SATA Configuration.....	27
3.4.3	Advanced: USB Configuration	28
3.4.4	Advanced: Hardware Monitor	30
3.4.5	Advanced: SIO Configuration	31
3.4.5.1	SIO Configuration: Serial Port 1/2/3/4 Configuration.....	32
3.4.6	Advanced: Power Management.....	34
3.5	Setup Submenu: Chipset	36
3.5.1	Chipset: North Bridge Configuration	37
3.5.1.1	North Bridge Configuration: LVDS Panel Configuration.....	39
3.5.2	Chipset: South Bridge.....	41
3.6	Setup Submenu: Security	42
3.7	Setup Submenu: Boot.....	44
3.7.1	Boot: BBS Priorities.....	45
3.8	Setup Submenu: Exit.....	46
Chapter 4 – Drivers Installation		47
4.1	Product CD/DVD.....	48
Appendix A - Watchdog Timer Programming		55
A.1	Watchdog Timer Registers.....	56
A.2	Watchdog Sample Program	57
Appendix B - I/O Information		60
B.1	I/O Address Map.....	61
B.2	Memory Address Map.....	63
B.3	IRQ Mapping Chart	64
Appendix C –Digital I/O Ports.....		75
C.1	Electrical Specifications for Digital I/O Ports	76
C.2	DI/O programming.....	77

Appendix D –Notes for Users 78

 D.1 Electrical Specifications for I/O Ports 79

Appendix E – Window 7 Installation (Copyright by Intel and Microsoft)..... 80

 E.1 Windows 7 USB 3.0 Creator Utility 81

Chapter 1

Product Specifications

1.1 Specifications

System

- **Processor**
 - Intel® Atom™ N3710 processor, 1.6 GHz (Quad-Core)
 - Intel® Atom™ N3060 processor, 1.6 GHz (Dual-Core)
- **System Memory**
 - 204-pin DDR3L SODIMM x 1, default 2GB, up to 8GB
- **LCD / CRT Controller**
 - Intel® Atom™ N3710/N3060 Processor SoC
- **Ethernet**
 - 10/100/1000Base-TX, RJ-45 x 2
- **I/O Port**
 - 3-pin terminal block for power input
 - DB-15 VGA x 1
 - DB9 Type RS-232 x 2
 - DB9 Type RS-232/422/485 x 2
 - Power button x 1
 - RJ-45 10/100/1000 LAN x 2
 - USB 2.0 x 2
 - USB 3.0 x 2
- **Storage Disk Drive**
 - CFast™ x 1
 - 2.5" SATA HDD bay x 1
- **Expansion Slot**
 - Half-size Mini-Card x 1
 - Full size Mini-Card x 1
- **OS Support**
 - Windows® 7, Windows® 8.1, Windows® 10, Linux kernel 2.6.3 or above

Mechanical

- **Construction** Plastic Front Bezel + Aluminum Chassis
- **Mounting** VESA 100/ Panel mount/ Stand
- **Dimension (W x H x D)** 12.5"(W) x 9.6"(H) x 2.5"(D)
(317mm x 243mm x 63.5mm)
- **Carton Dimension (W x H x D)** 16.6"(W) x 15.9"(H) x 7.7"(D)
(422mm x 404mm x 196mm)
- **Net Weight** 7.9 lb (3.6 kg)
- **Gross Weight** 10.1 lb (4.6 kg)

Environmental

- **Operating Temperature** 14°F ~ 140°F (-10°C ~ 60°C) with 0.5 m/s airflow
- **Storage Temperature** -4°F ~ 158°F (-20°C ~ 70°C)
- **Operating Humidity** 90% @ 40°C, non-condensing
- **Anti-Vibration** 1 G_{rms}/ 5-500Hz/ Operation (HDD)
- **Anti-Shock** 15G peak acceleration (11 msec. duration) - with HDD
- **EMC** CE/FCC Class A

Power Supply

- **DC Input** DC 12V, DC 9~30V

LCD

- Display Type 12.1" TFT-LCD, LED
- Max. Resolution 1024x768
- Max Colors 262K colors (6-bit for R,G,B)
- Luminance (cd/m²) 500 cd/m²
- Viewing Angle 160° (H),160° (V)
- Backlight LED
- Backlight MTBF (Hours) 50,000

Touchscreen

- Type 5-wire resistive
- Light Transmission 80%
- Lifetime 10 million activations

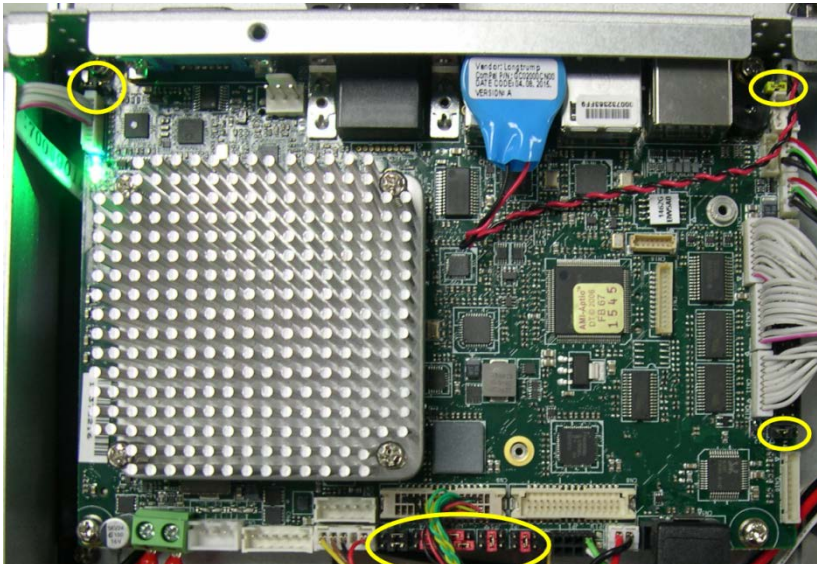
Chapter 2

Hardware Information

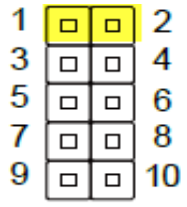
2.1 List of Jumpers

Please refer to the table below for all of the system's jumpers that you can configure for your application

Label	Function
JP1	Front Panel Connector
JP2	COM3 Pin8 Function Selection
JP3	LVDS Port Backlight Inverter VCC Selection
JP4	LVDS Port Operating VDD Selection
JP5	COM2 Pin8 Function Selection
JP6	LVDS Port Backlight Lightness Control Mode Selection
JP11	Flash Descriptor Security
JP12	Auto Power Button Enable/Disable Selection
JP14	Touch Screen 4/5/8-wire Mode Selection
JP15	Clear CMOS Jumper

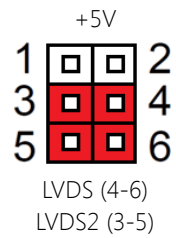
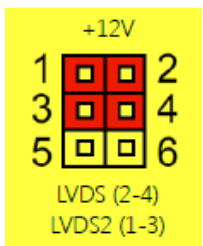


2.1.1 Front Panel Connector (JP1)

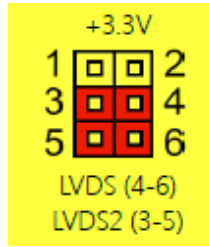
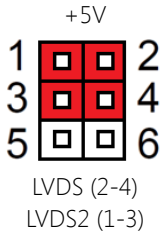


Pin	Pin Name	Pin	Pin Name
1	PWR_BTN-	2	PWR_BTN+
3	HDD_LED-	4	HDD_LED+
5	SPEAKER-	6	SPEAKER+
7	PWR_LED-	8	PWR_LED+
9	H/W RESET-	10	H/W RESET+

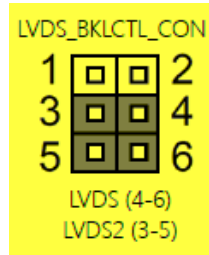
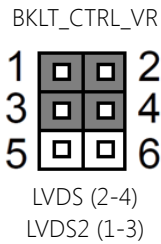
2.1.2 LVDS Port Backlight Inverter VCC Selection (JP3)



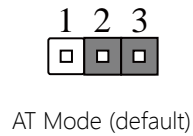
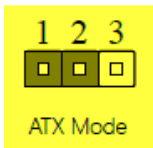
2.1.3 LVDS Port Operating VDD Selection (JP4)



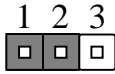
2.1.4 LVDS Port Backlight Lightness Control Selection (JP6)



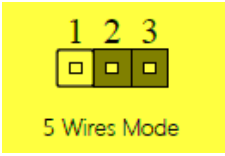
2.1.5 Auto Power Button Enable/Disable Selection (JP12)



2.1.6 Touchscreen 4/5/8-wire Selection (JP14)

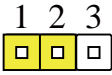


4/8 Wires Mode (default)

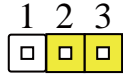


5 Wires Mode

2.1.7 Clear CMOS Jumper (JP15)

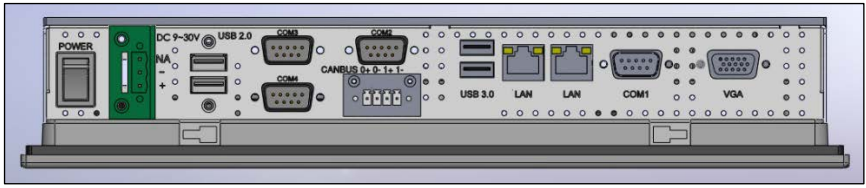


Normal (default)

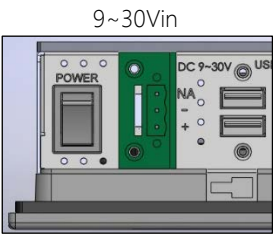


Clear CMOS

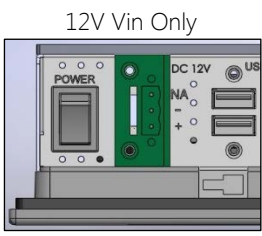
2.2 Port Definition



2.2.1 VDC Power Input

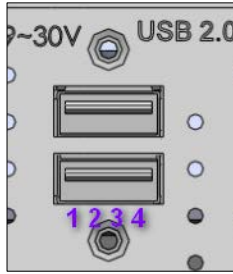


V+: 9~30V
V-: GND
NA: NA



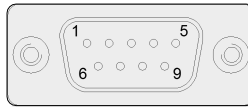
V+: 12V
V-: GND
NA: NA

2.2.2 USB 2.0



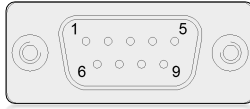
Pin	Pin Name	Signal Type	Signal Level
1	+5VSB	PWR	+5V
2	USB4_D-	DIFF	
3	USB4_D+	DIFF	
4	GND	GND	

2.2.3 COM 1/4: D-SUB 9P (M)



Pin	Pin Name	Signal Type	Signal Level
1	DCD	IN	
2	RX	IN	
3	TX	OUT	±9V
4	DTR	OUT	±9V
5	GND	GND	
6	DSR	IN	
7	RTS	OUT	±9V
8	CTS	IN	
9	RI	IN	

2.2.4 COM 2/3: D-SUB 9P (M)



RS-232

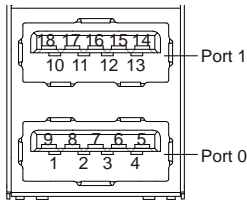
Pin	Pin Name	Signal Type	Signal Level
1	DCD	IN	
2	RX	IN	
3	TX	OUT	±5V
4	DTR	OUT	±5V
5	GND	GND	
6	DSR	IN	
7	RTS	OUT	±5V
8	CTS	IN	
9	RI/ +5V/ +12V	IN/ PWR	+5V/ +12V

RS-422

Pin	Pin Name	Signal Type	Signal Level
1	RS422_TX-	OUT	-
2	RS422_TX+	OUT	-
3	RS422_RX+	IN	-
4	RS422_RX-	IN	-
5	GND	GND	-
6	NC		-
7	NC		-
8	NC		-
9	NC/ +5V/ +12V	PWR	-

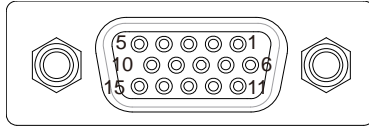
RS-485			
Pin	Pin Name	Signal Type	Signal Level
1	RS485_D-	I/O	-
2	RS485_D+	I/O	-
3	NC	IN	-
4	NC	IN	-
5	GND	GND	-
6	NC		-
7	NC		-
8	NC		-
9	NC/ +5V/ +12V	PWR	-

2.2.5 USB 3.0



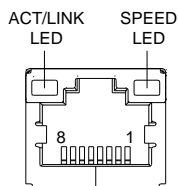
Pin	Pin Name	Signal Type	Signal Level
1	+5VSB	PWR	+5V
2	USB0_D-	DIFF	
3	USB0_D+	DIFF	
4	GND	GND	
5	USB0_SSRX-	DIFF	
6	USB0_SSRX+	DIFF	
7	GND	GND	
8	USB0_SSTX-	DIFF	
9	USB0_SSTX+	DIFF	
10	+5VSB	PWR	+5V
11	USB1_D-	DIFF	
12	USB1_D+	DIFF	
13	GND	GND	
14	USB1_SSRX-		
15	USB1_SSRX+		
16	GND	GND	
17	USB1_SSTX-		
18	USB1_SSTX+		

2.2.6 VGA Port: D-SUB 15P (F)



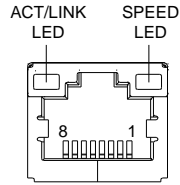
Pin	Pin Name	Signal Type	Signal Level
1	RED	OUT	
2	GREEN	OUT	
3	BLUE	OUT	
4	NC		
5	GND	GND	
6	RED_GND_RTN	GND	
7	GREEN_GND_RTN	GND	
8	BLUE_GND_RTN	GND	
9	+5V	PWR	+5V
10	CRT_PLUG#		
11	NC		
12	DDC_DATA	I/O	+5V
13	HSYNC	OUT	
14	VSYNC	OUT	
15	DDC_CLK	I/O	+5V

2.2.7 LAN (RJ-45) Port1 (CN26)



Pin	Pin Name	Signal Type	Signal Level
1	MDI0+	DIFF	
2	MDI0-	DIFF	
3	MDI1+	DIFF	
4	MDI2+	DIFF	
5	MDI2-	DIFF	
6	MDI1-	DIFF	
7	MDI3+	DIFF	
8	MDI3-	DIFF	

2.2.8 LAN (RJ-45) Port2 (CN27)

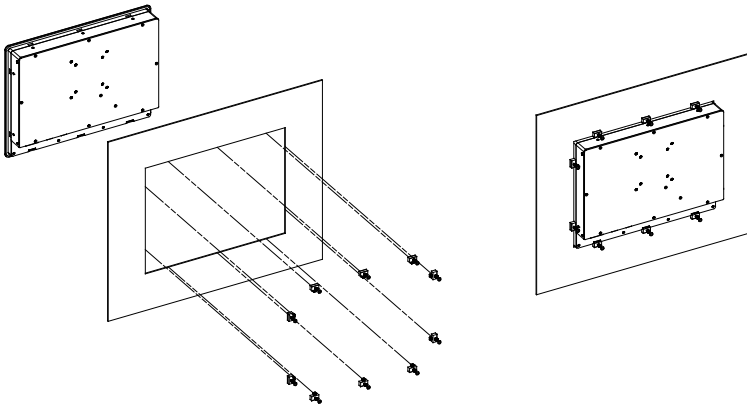


Pin	Pin Name	Signal Type	Signal Level
1	MDI0+	DIFF	
2	MDI0-	DIFF	
3	MDI1+	DIFF	
4	MDI2+	DIFF	
5	MDI2-	DIFF	
6	MDI1-	DIFF	
7	MDI3+	DIFF	
8	MDI3-	DIFF	

2.3 Panel-mount Installation

To mount the panel onto a wall, you will need a strong mounting surface, screws, along with the mounting brackets.

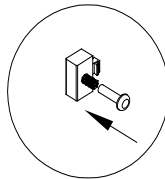
Please take a look at the illustration below before starting to mount the panel.



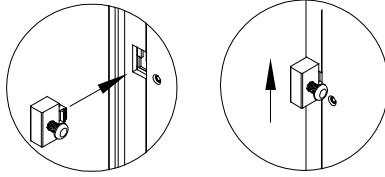
Step 1: Prepare a 394 x 297.5mm opening on the surface to be mounted

Step 2: Place the rear of the panel through the opening

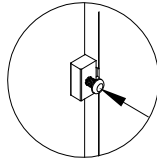
Step 3: Insert a screw through each of the mounts



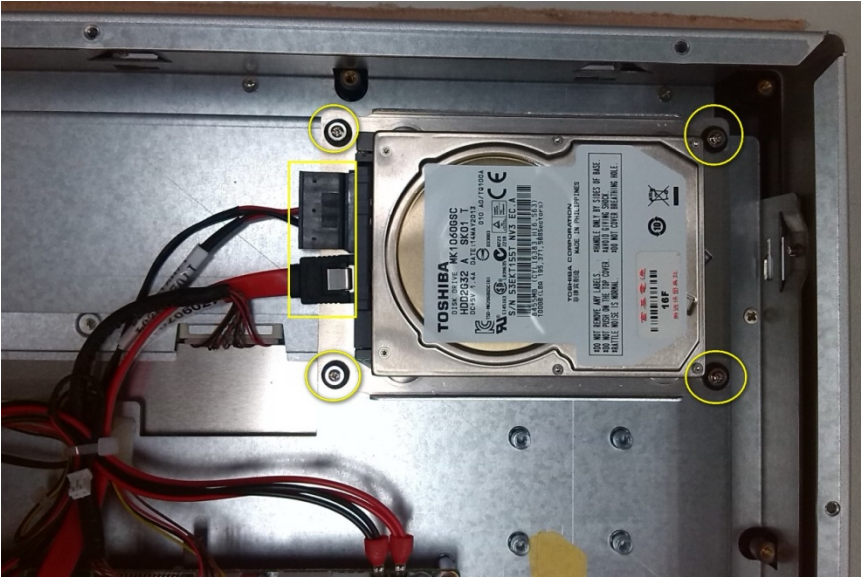
Step 4: There is a funnel-shaped track inside each of the mount holes on the panel. Insert each mount into the holes from the wide end of the track and push it towards the narrow end to secure. Do this for all the mounts.



Step 5: Once all the mounts are secured, secure the panel itself by tightening the screws.



2.4 HDD Installation



Step 1: Remove the rear cover

Step 2: Remove the HDD bracket

Step 3: Place the HDD onto the bracket. Tighten the screws to secure

Step 4: Connect the SATA cable to the HDD

Step 5: Tighten the screws to secure the assembly to the chassis

Step 6: Close and secure the rear cover

Chapter 3

AMI BIOS Setup

3.1 System Test and Initialization

The system uses certain routines to perform testing and initialization. If an error, fatal or non-fatal, is encountered, a few short beeps or an error message will be outputted. The board can usually continue the boot up sequence with non-fatal errors.

The system configuration verification routines check the current system configuration against the values stored in the CMOS memory. If they do not match, an error message will be outputted, in which case you will 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:

- You are starting your system for the first time
- You have changed your system's hardware
- The CMOS memory has lost power and the configuration information is erased

The system's CMOS memory uses a backup battery for data retention, which is to be replaced once emptied.

3.2 AMI BIOS Setup

The AMI BIOS ROM has a pre-installed Setup program that allows users to modify basic system configurations, which is stored in the battery-backed CMOS RAM and BIOS NVRAM so that the information is retained when the power is turned off.

To enter BIOS Setup, press or <F2> immediately while your computer is powering up.

The function for each interface can be found below.

Main – Date and time can be set here. Press <Tab> to switch between date elements

Advanced – Enable/ Disable boot option for legacy network devices

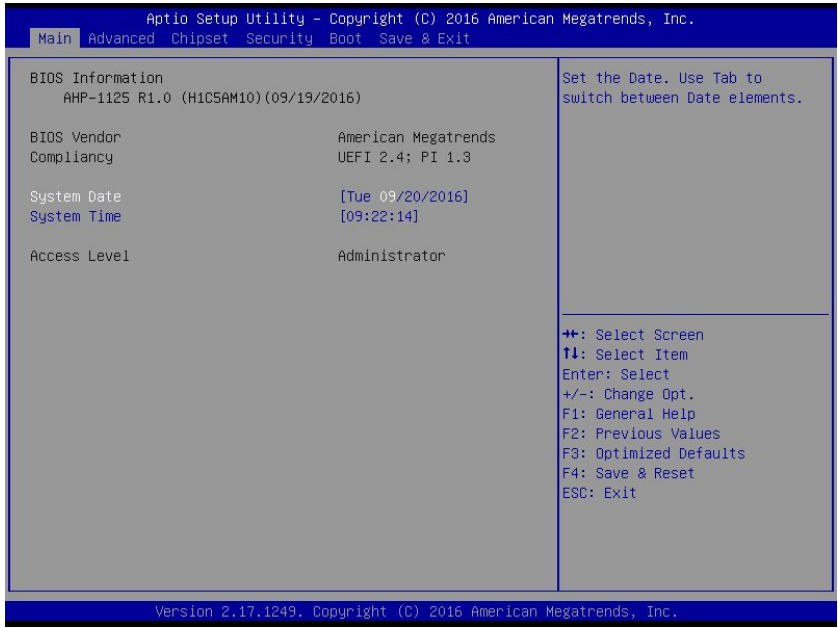
Chipset – For hosting bridge parameters

Security – The setup administrator password can be set here

Boot – Enable/ Disable quiet Boot Option

Save & Exit – Save your changes and exit the program

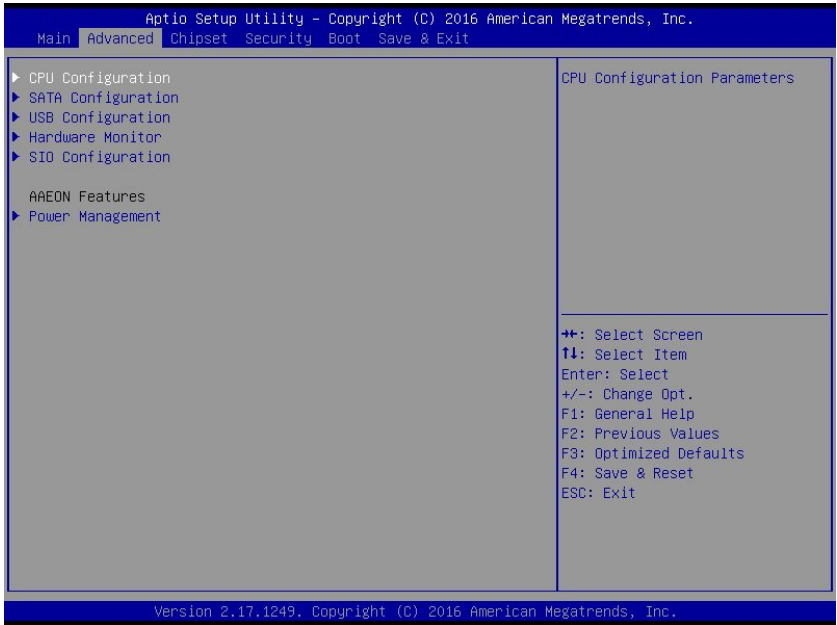
3.3 Setup Submenu: Main



Options summary: (default setting)

System Date	Day MM:DD:YYYY	
Change the month, year and century. The 'Day' is changed automatically.		
System Time	HH : MM : SS	
Change the clock of the system.		

3.4 Setup Submenu: Advanced

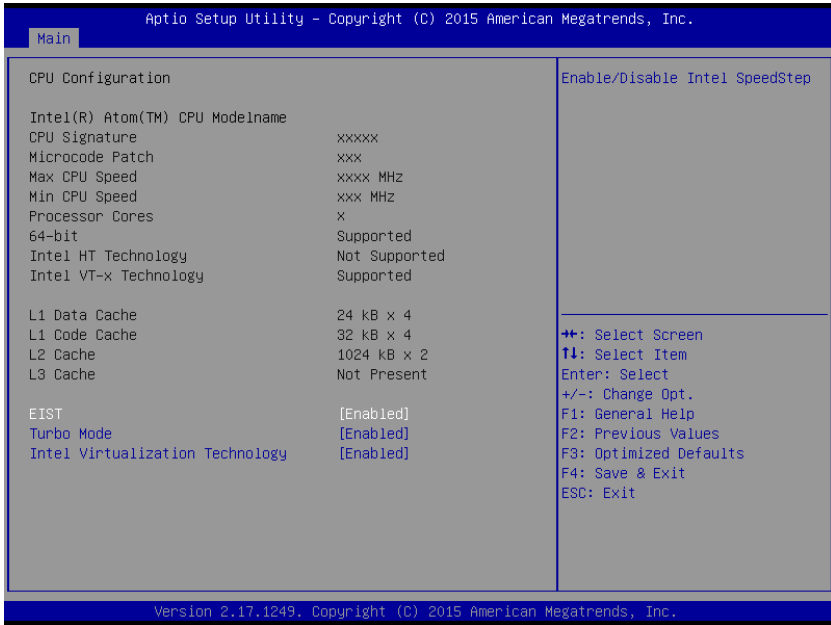


Options summary: (default setting)

CPU Configuration		
CPU Configuration Parameters		
SATA Configuration		
SATA Device Options Settings		
USB Configuration		
USB Configuration Parameters		
Hardware Monitor		
Monitor hardware status		
SIO Configuration		
Super IO Configuration Parameters		

Power Management		
System ACPI/Power Mode/Wake Event Configuration		
Digital IO Port Configuration		
DIO configuration		

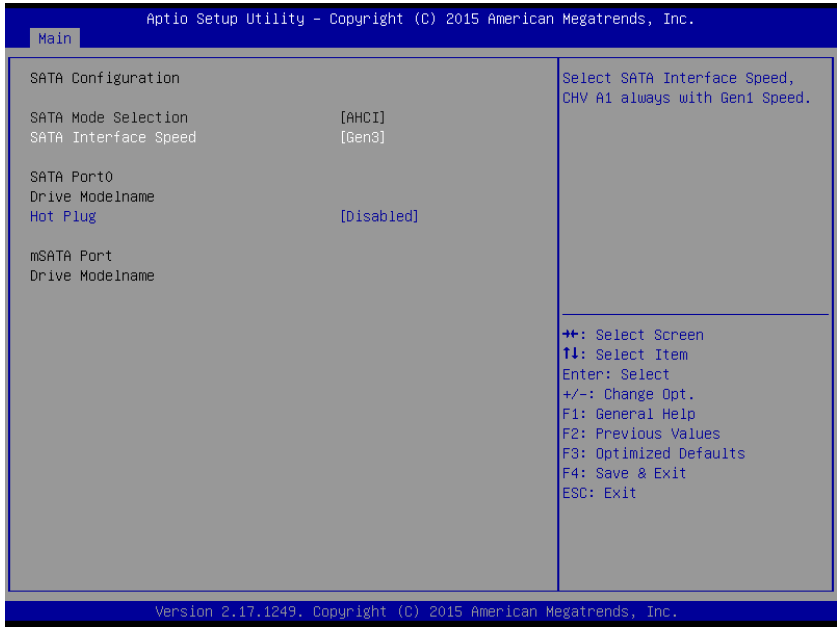
3.4.1 Advanced: CPU Configuration



Options summary: (default setting)

EIST	<i>Enabled</i>	
	Disabled	
Enable/Disable Intel SpeedStep feature.		
Turbo Mode	<i>Enabled</i>	
	Disabled	
En/Disable Turbo mode.		
Intel Virtualization Technology	<i>Enabled</i>	
	Disabled	
When enabled, a VMM can utilize the additional hardware capabilities provide by Vanderpool Technology		

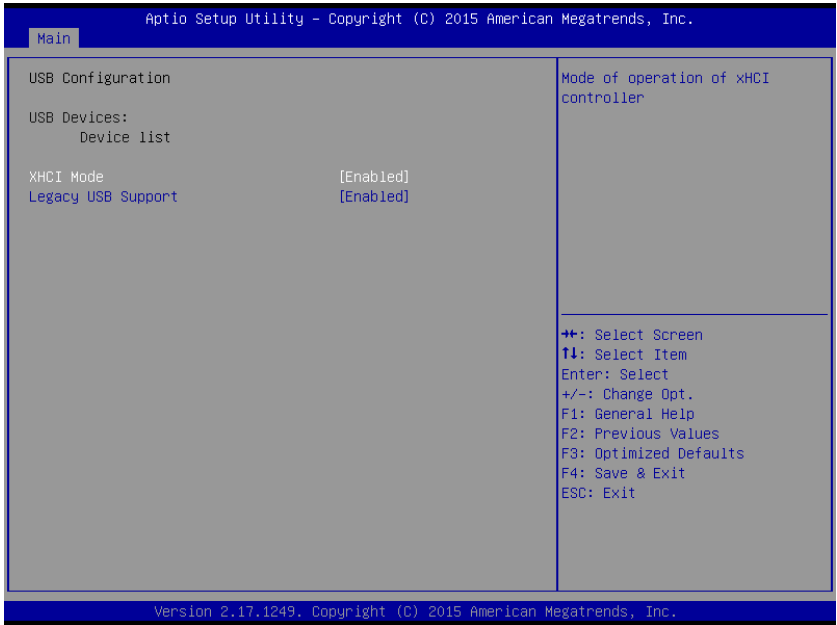
3.4.2 Advanced: SATA Configuration



Options summary: (default setting)

SATA Speed Support	<i>Gen3</i>	
	Gen2	
	Gen1	
SATA Speed Support Gen3, Gen2 or Gen1		
SATA Mode	<i>AHCI Mode</i>	
Only AHCI mode support on this platform		
SATA Port0/Port1	<i>Enabled</i>	
HotPlug	Disabled	
Enabled/Disabled SATA Port0/Port1 HotPlug function		

3.4.3 Advanced: USB Configuration

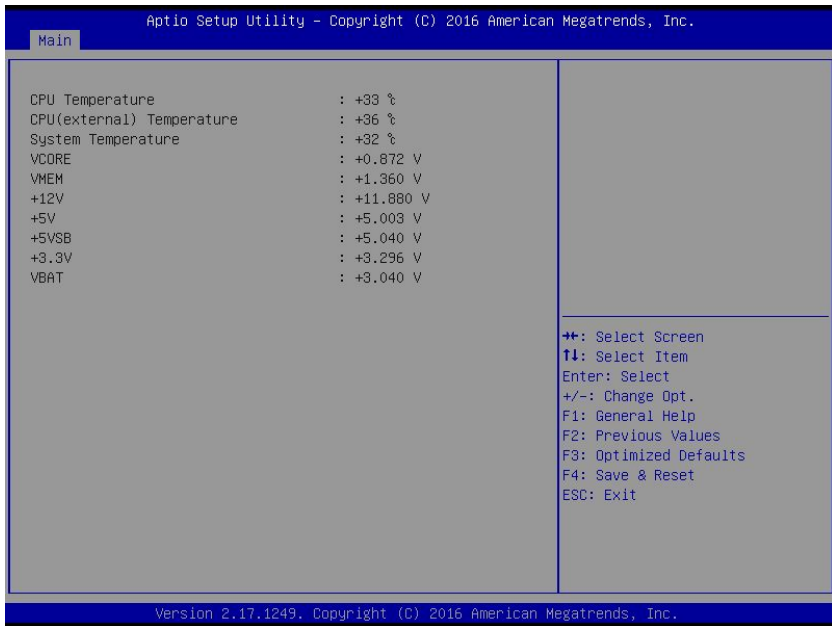


Options summary: (default setting)

XHCI Mode	<i>Enabled</i>	
	Disabled	
Enable/Disable for xHCI controller:		
USB 2.0(EHCI) Support	Enabled	
	<i>Disabled</i>	
Control the USB EHCI (USB 2.0) functions. This item active when xHCI controller disabled because all ports are routed to xHCI controller when xHCI enabled.		
Legacy USB Support	<i>Enabled</i>	
	Disabled	

	Auto	
<p>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. DISABLE option will keep USB devices available only for EFI application</p>		

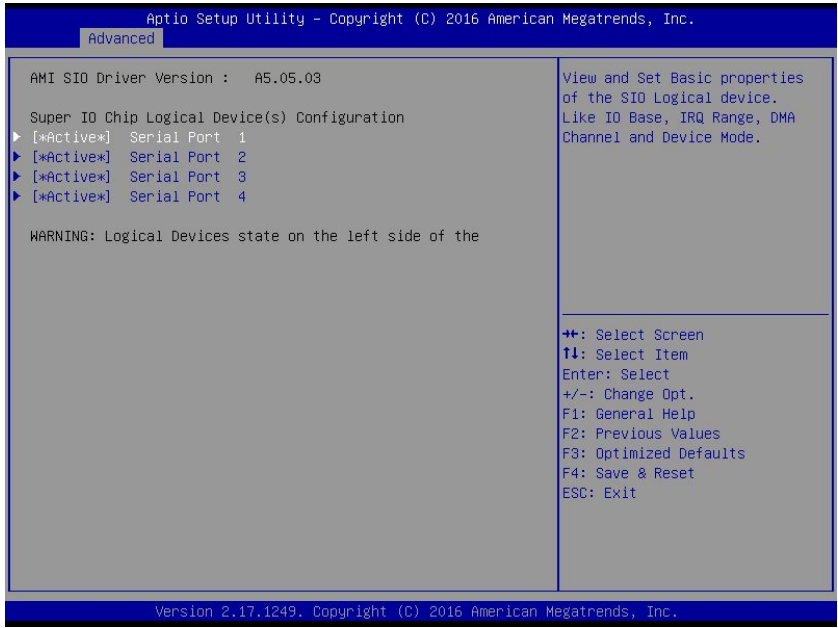
3.4.4 Advanced: Hardware Monitor



Options summary: (default setting)

Smart Fan	Disabled	
	<i>Enabled</i>	
En/Disable specified Smart Fan.		

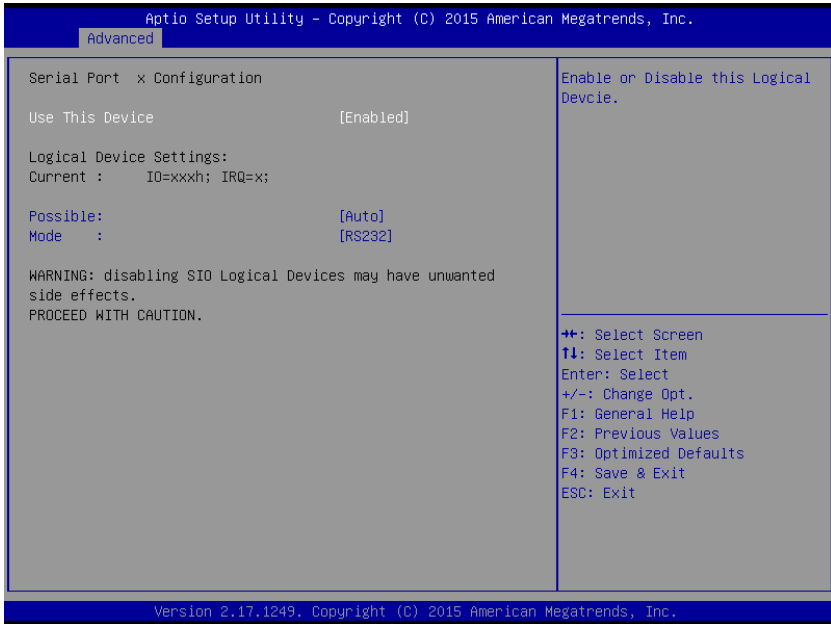
3.4.5 Advanced: SIO Configuration



Options summary: (default setting)

Parallel Port/Serial Port		
1/2/3/4 Configuration		
Set Parameters of Serial Port 1/2/3/4		

3.4.5.1 SIO Configuration: Serial Port 1/2/3/4 Configuration

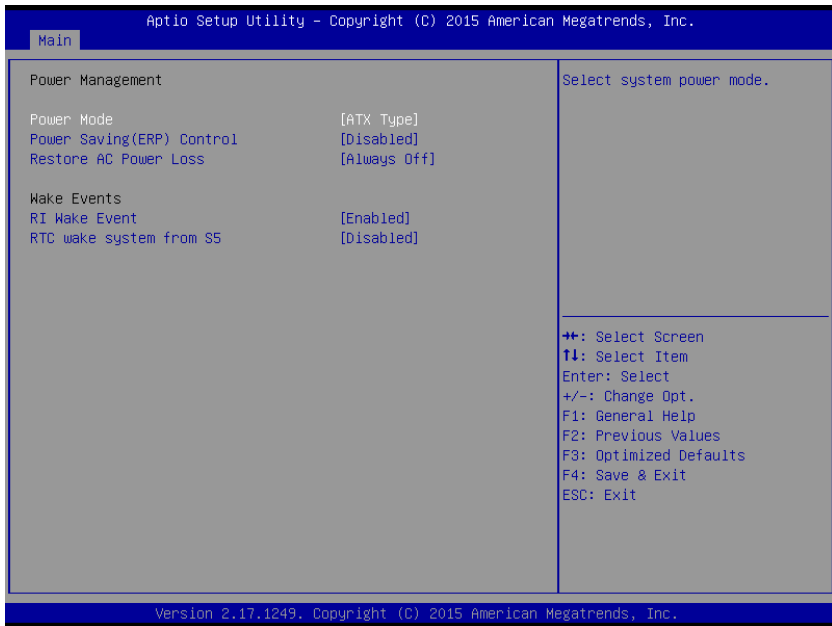


Options summary: (default setting)

Use This Device	Disabled	
	<i>Enabled</i>	
En/Disable specified serial port.		
Change Settings (COM1)	<i>Use Automatic Settings</i>	
	IO=3F8h; IRQ=4;	
	IO=2F8h; IRQ=3;	
Change Settings (COM2)	<i>Use Automatic Settings</i>	
	IO=2F8h; IRQ=3;	
	IO=3F8h; IRQ=4;	
Change Settings	<i>Use Automatic Settings</i>	

(COM3)	IO=3E8h; IRQ=11;	
	IO=2E8h; IRQ=11;	
Change Settings	<i>Use Automatic Settings</i>	
(COM4)	IO=2E8h; IRQ=11;	
	IO=3E8h; IRQ=11;	
Select a resource setting for Super IO device.		
Mode	RS232	
	RS422	
	RS485	
Configure COM operated as RS232, RS422 or RS485. Only COM2 and COM3 support this function.		

3.4.6 Advanced: Power Management

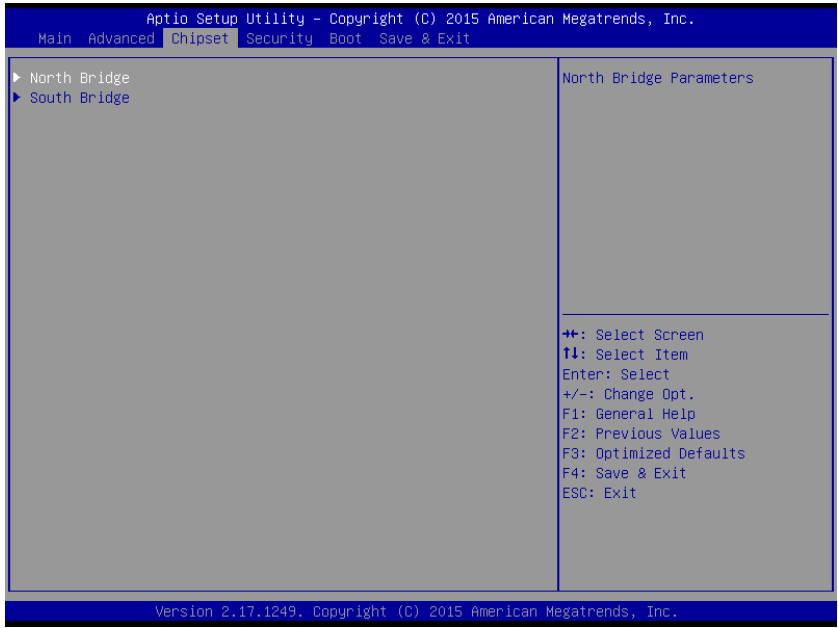


Options summary: (default setting)

Power Mode	<i>ATX Type</i>	
	AT Type	
Select system power mode		
Power Saving (ERP) Control	Enabled	
	<i>Disabled</i>	
Enabled or disabled ERP feature for power saving in S5 state.		
Restore AC Power Loss	<i>Power Off</i>	
	Power on	
	Late State	
Select AC power state when power is re-applied after a power failure		
RI Wake Event	<i>Enabled</i>	

	Disabled	
Enabled or disabled wake on ring function.		
RTC wake system from S5	<i>Disabled</i>	
	Fixed Time	
	Dynamic Time	
Enable system to wake from S5 using RTC alarm.		
Wake up day	0-31	
Select 0 for daily system wake up 1-31 for which day of the month that you would like the system to wake up		
Wake up hour	0-23	
Wake up minute	0-59	
Wake up second	0-59	
Wake up minute increase	1-5	

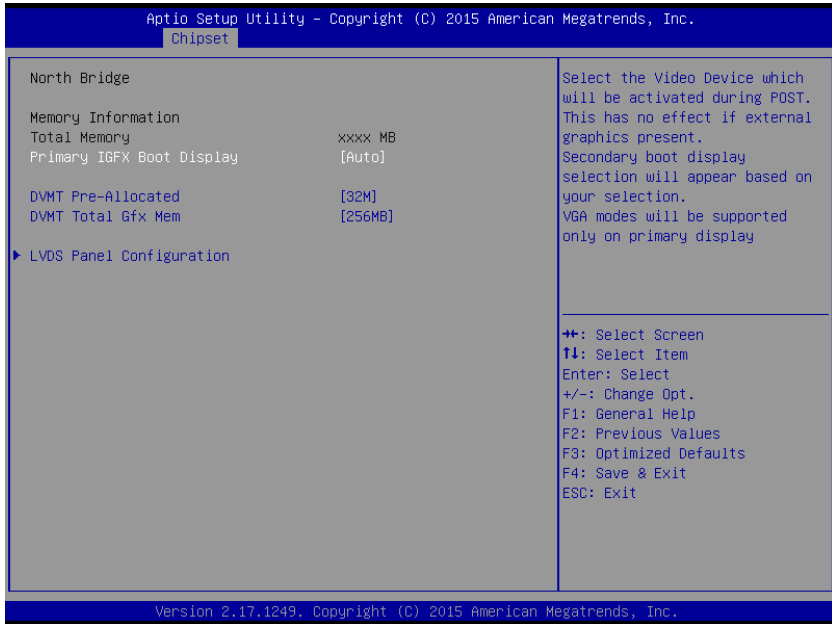
3.5 Setup Submenu: Chipset



Options summary: (default setting)

North Bridge Configuration		
North Bridge Parameters.		
South Bridge		
South Bridge Parameters		

3.5.1 Chipset: North Bridge Configuration



Options summary: (default setting)

Max TOLUD	2 GB	
	2.25 GB	
	2.5 GB	
	2.75 GB	
Maximum Value of TOLUD		
Primary Boot Display	Auto	
	CRT	
	LVDS1	
	LVDS2/HDMI	
Select Primary boot display device		

Secondary Boot Display	<i>Disabled</i>	
	CRT	
	LVDS1	
	LVDS2/HDMI	
Select Primary boot display device		
DVMT Pre-Allocated	<i>32MB</i>	
	32MB~512MB	
Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.		
DVMT Total Gfx Mem	128MB	
	<i>256MB</i>	
	Max	
Select DVMT 5.0 Total Graphic Memory size used by the IGD.		
LVDS Panel Configuration		
Config LVDS panel parameters.		

3.5.1.1 North Bridge Configuration: LVDS Panel Configuration



Options summary: (default setting)

LVDS	Disabled	
	<i>Enabled</i>	
Enable or Disable LVDS interface		
Panel Type	<i>1024x768</i>	
Select panel resolution.		
Color Depth	<i>18-Bit</i>	
Select color depth of the panel		
Backlight Type	<i>Normal</i>	

Select Backlight control type.

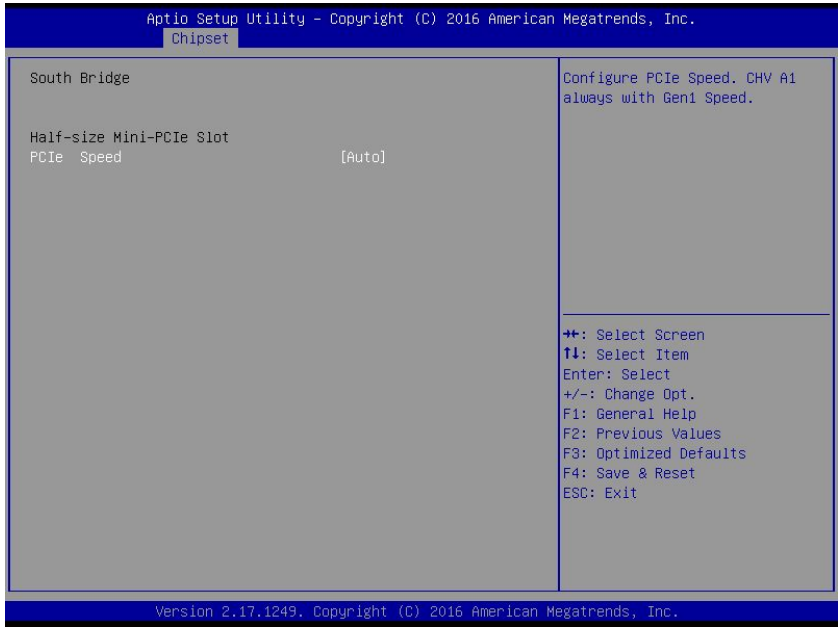
Inverted: Brightest for low PWM duty cycle and low voltage.

Normal: Brightest for high PWM duty cycle and high voltage.

Backlight Level	100%	
	90%	
	80%	
	70%	
	60%	
	50%	
	40%	
	30%	
	20%	
	10%	
	0%	

Select Backlight Level

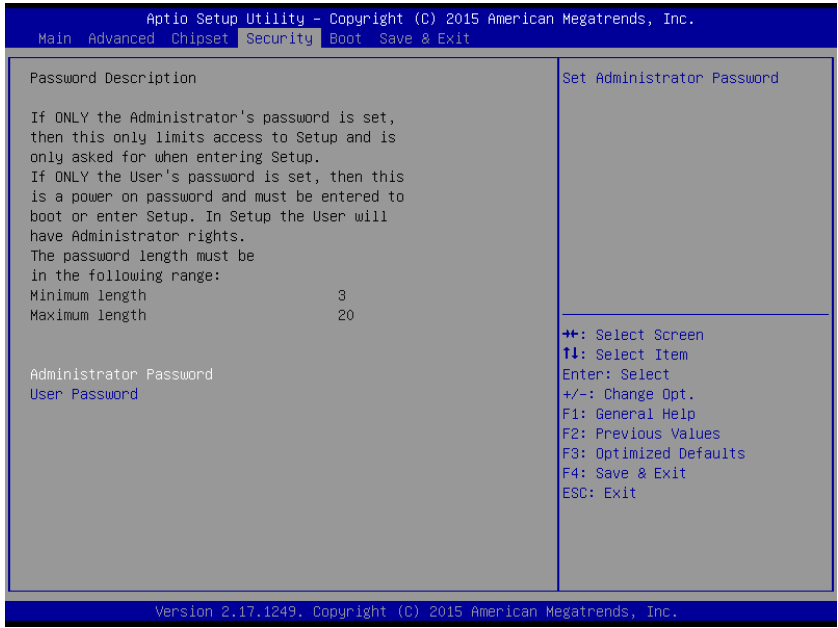
3.5.2 Chipset: South Bridge



Options summary: (default setting)

PCIe Speed	<i>Auto</i>	
	Gen 2	
	Gen 1	
Configuration PCIe Speed.		

3.6 Setup Submenu: Security



Options summary: (default setting)

Administrator Password/	<i>Not set</i>	
User Password		

Change User/Administrator Password

You can set a User Password once an Administrator Password is set. The password will be required during boot up, or when the user enters the Setup utility. Please Note that a User Password does not provide access to many of the features in the Setup utility.

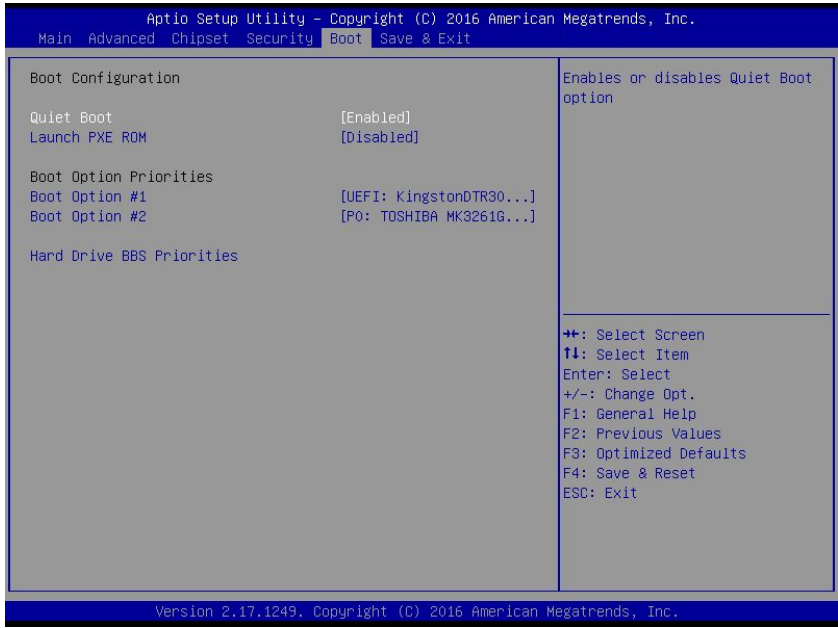
Select the password you wish to set, press Enter to open a dialog box to enter your password (you can enter no more than six letters or numbers). Press Enter to confirm your entry, after which you will be prompted to retype your password for a final

confirmation. Press Enter again after you have retyped it correctly.

Removing the Password

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

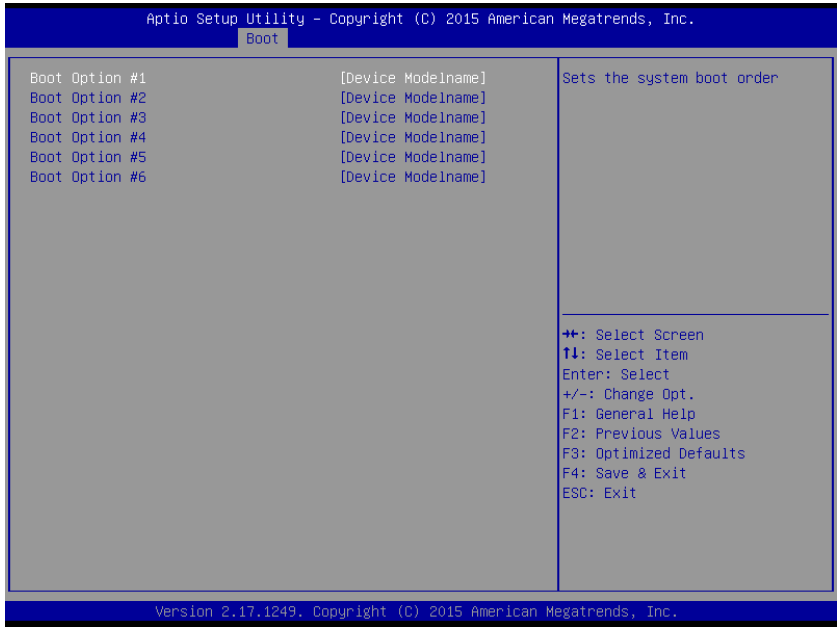
3.7 Setup Submenu: Boot



Options summary: (default setting)

Quiet Boot	Disabled	
	<i>Enabled</i>	
En/Disable showing boot logo.		
Launch PXE ROM	<i>Disabled</i>	
	Enabled	
En/Disable network ROM for legacy PXE boot		
Boot Option #X/ XXXX Drive BBS Priorities		
The order of boot priorities.		

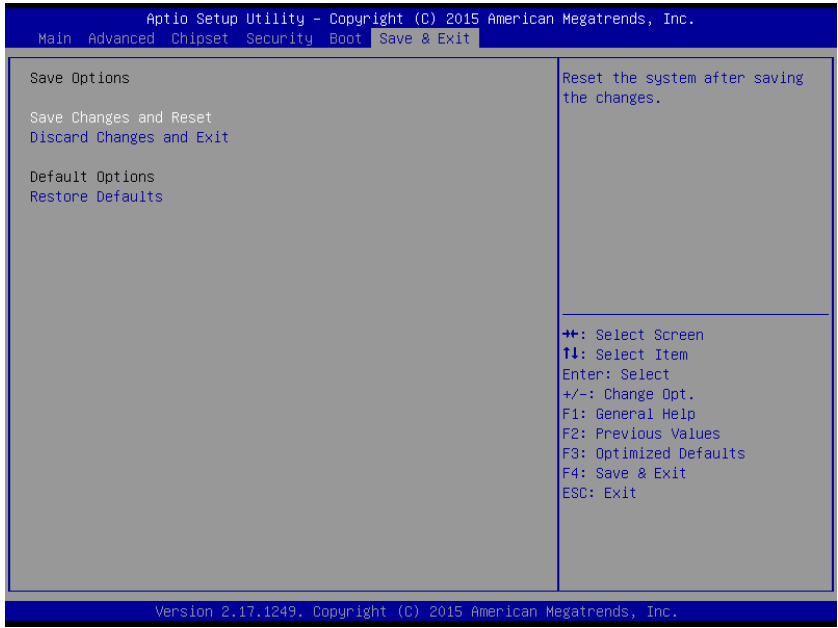
3.7.1 Boot: BBS Priorities



Options summary: (default setting)

Boot Option #x	Disabled	
	Device name	
Sets the system boot order		

3.8 Setup Submenu: Exit



Options summary: (default setting)

Save Changes and Reset		
Reset the system after saving the changes		
Discard Changes and Exit		
Reset system setup without saving any changes		
Restore Defaults		
Restore/Load Default values for all the setup options.		

Chapter 4

Drivers Installation

4.1 Product CD/DVD

The AHP-1125 comes with a product DVD that contains all the drivers and utilities you need to setup your product. Insert the DVD and follow the steps in the autorun program to install the drivers.

In case the program does not start, follow the sequence below to install the drivers.

Step 1 – Install Chipset Driver

1. Open the **STEP1 – Chipset** folder and select your OS
2. Open the **SetupChipset.exe** file in the folder
3. Follow the instructions
4. Drivers will be installed automatically

Step 2 – Install Graphics Driver

1. Open the **STEP2 - Graphics** folder and select your OS
2. Open the **Setup.exe** file in the folder
3. Follow the instructions
4. Drivers will be installed automatically

Note: There is a known issue in Windows® 8.1 whereby running Direct3D graphic tools such as BurnIn Test will cause the system to freeze. Microsoft has provided the KB2979265 hotfix to address this issue. In order to apply this hotfix without dependency issues, it is advised that users install it via Windows® Update.

Step 3 – Install LAN Drivers

1. Open the **STEP3 – LAN** folder and select your OS
2. Open the **Setup.exe** file in the folder
3. Follow the instructions
4. Drivers will be installed automatically

Step 4 –Install Touch Panel Driver

1. Open the **STEP4 –TOUCHPANEL** folder followed by **Setup.exe**
2. Follow the instructions
3. Drivers will be installed automatically

Step 5 – Install TXE Drivers

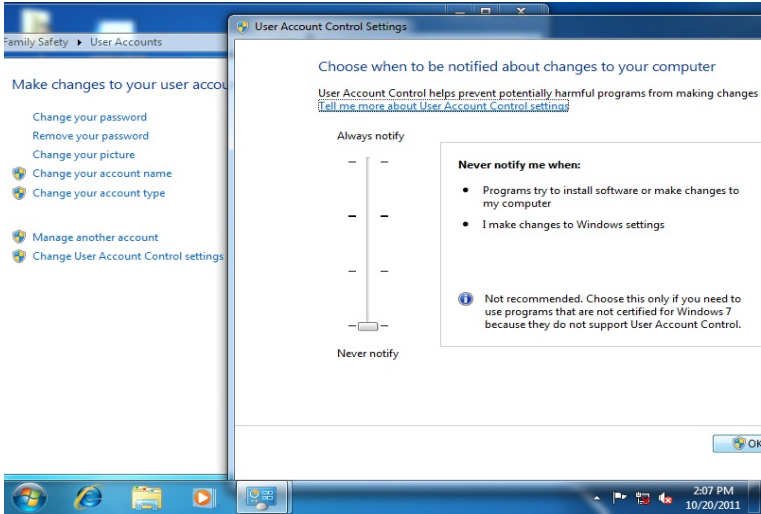
1. Open the **STEP5 - TXE** folder followed by **Setup.exe**
2. Follow the instructions
3. Drivers will be installed automatically

Step 6 – Install USB 3.0 Drivers (Windows 7/8.1 only)

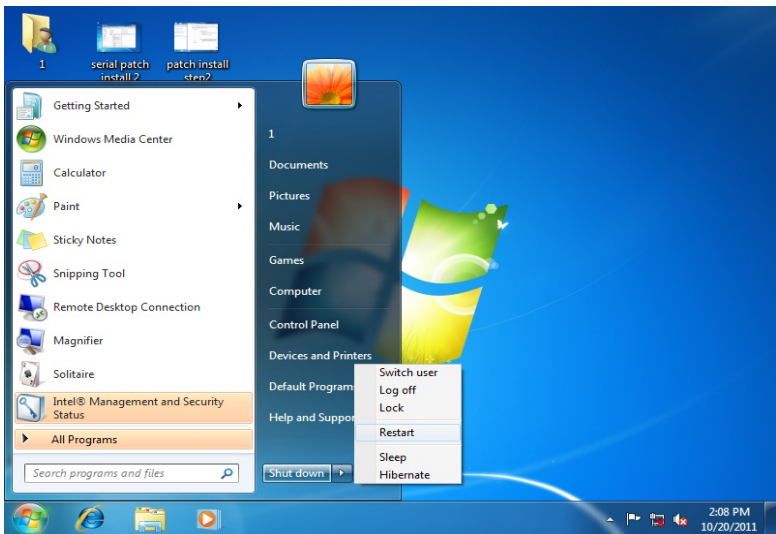
1. Open the **STEP6 – USB 3.0** and select your OS
2. Open the **.exe** file in the folder
3. Follow the instructions
4. Drivers will be installed automatically

Step 7 – Install Serial Port Drivers

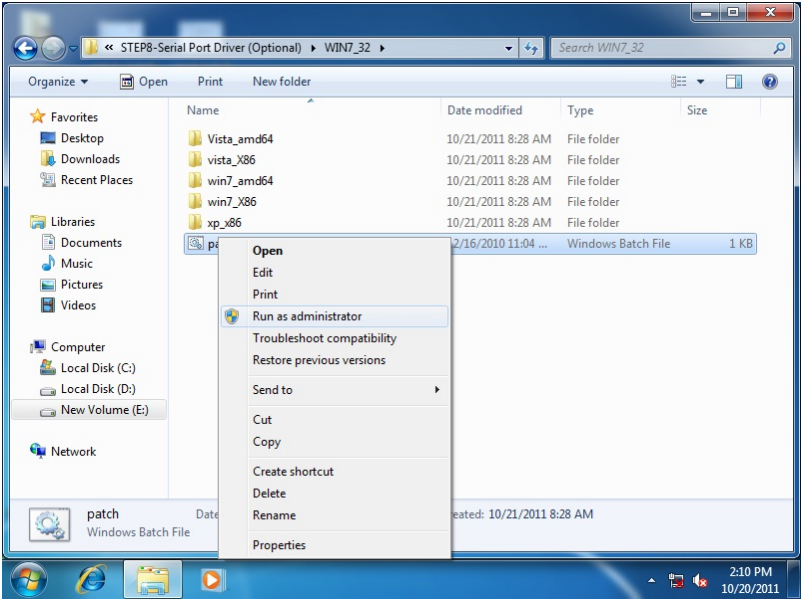
1. Change User Account Control settings to **Never notify**



2. Reboot and log in as administrator

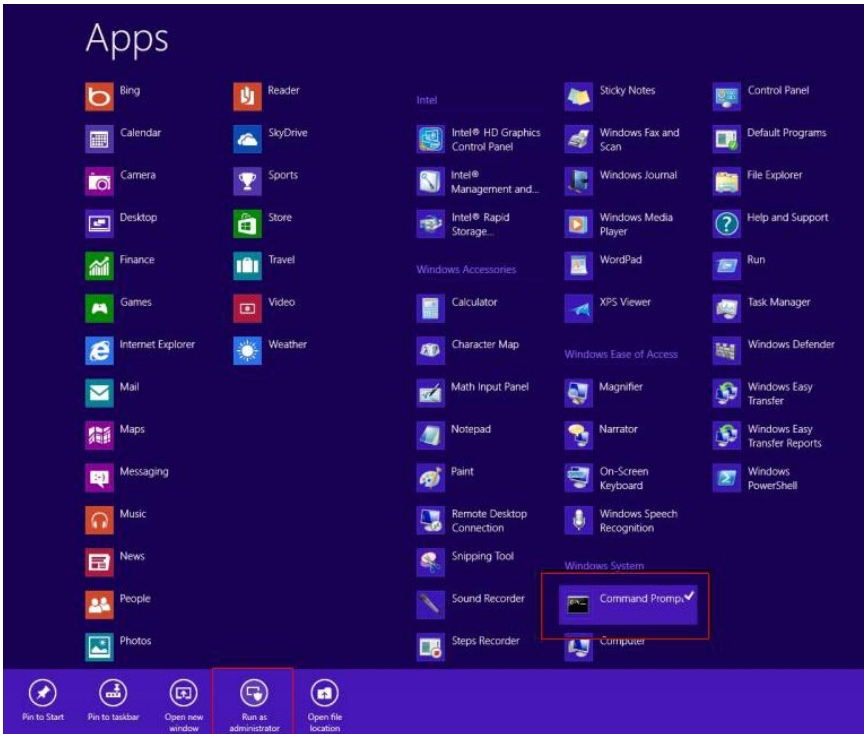


3. Run patch.bat as administrator

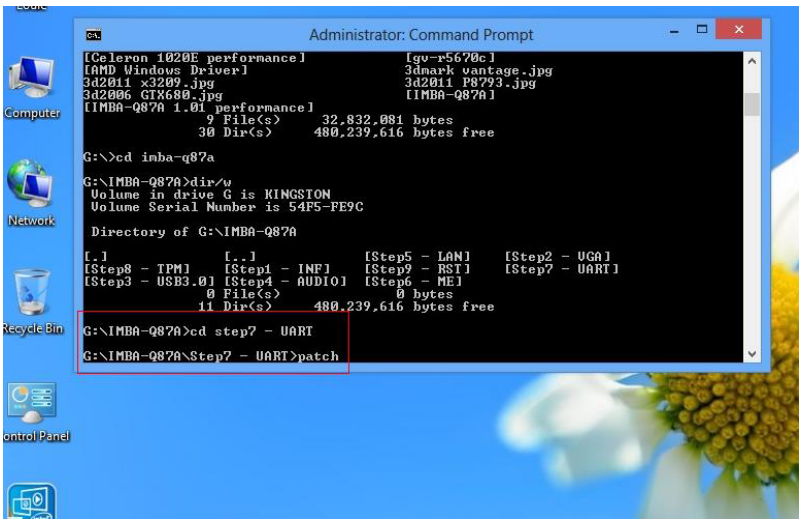


For Windows 8:

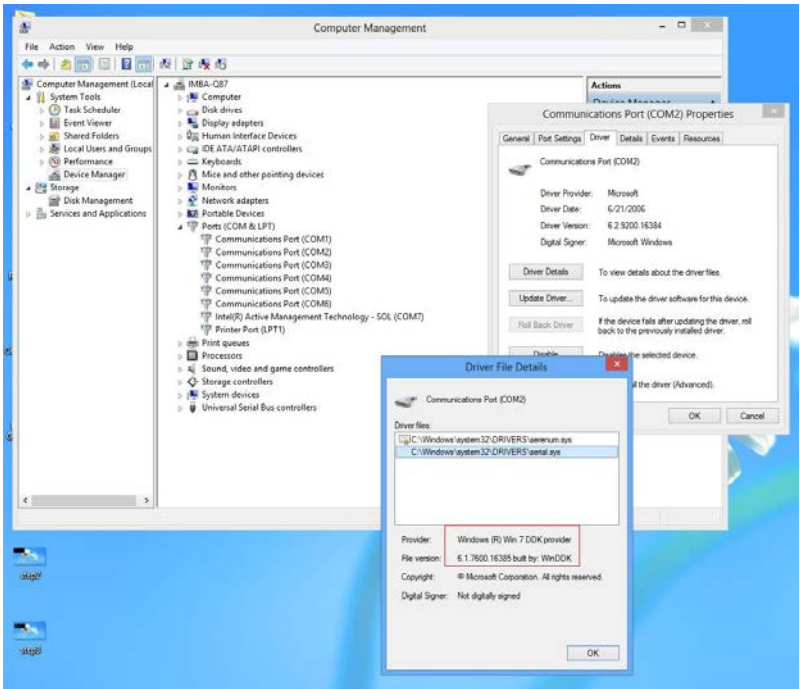
1. Open the Apps Screen, right click on the **Command Prompt** tile and select **Run as Administrator**



2. To install the driver (patch.bat), you will first have to locate the file in command prompt. To do that, go to the folder in which the file resides by entering **cd (file path)** eg: if the file is in a folder named abc in c drive, enter **cd c:\abc** (screenshot for reference only)
3. You are now at the folder where the file is located. Enter the **patch.bat** to open and install the drivers.



4. Reboot after installation completes.
5. To confirm the installation, go to Device Manager, expand the Ports (COM & LPT) tree and double click on any of the COM ports to open its properties. Go to the Driver tab, select Driver Details and click on **serial.sys**, you should see its provider as **Windows (R) Win 7 DDK Provider**.



For Windows 10

1. Open the **STEP7 –Serial Port Driver (Optional)** and Windows 10 folder
2. Open the **.exe** file in the folder
3. Follow the instructions
4. Drivers will be installed automatically

Appendix A

Watchdog Timer Programming

A.1 Watchdog Timer Registers

Table 1 : Watch dog relative IO address		
	Default Value	Note
I/O Base Address	0xA10	I/O Base address for Watchdog operation. This address is assigned by SIO LDN7, register 0x60-0x61.

Table 2 : Watchdog relative register table				
Register	Offset	BitNum	Value	Note
Watchdog WDTRST# Enable	0x00	7	1	Enable/Disable time out output via WDTRST# 0: Disable 1: Enable
Pulse Width	0x05	0:1	01	Width of Pulse signal 00: 1ms (do not use) 01: 25ms 10: 125ms 11: 5s <i>Pulse width is must longer then 16ms.</i>
Signal Polarity	0x05	2	0	0: low active 1: high active <i>Must set this bit to 0</i>
Counting Unit	0x05	3	0	Select time unit. 0: second 1: minute
Output Signal Type	0x05	4	1	0: Level 1: Pulse <i>Must set this bit to 1</i>
Watchdog Timer Enable	0x05	5	1	0: Disable 1: Enable
Timeout Status	0x05	6	1	1: timeout occurred. Write a 1 to clear timeout status
Timer Counter	0x06			Time of watchdog timer (0~255)

A.2 Watchdog Sample Program

```
*****
// WDT I/O operation relative definition (Please reference to Table 1)
#define WDTAddr    0x510 // WDT I/O base address
Void  WDTWriteByte(byte Register, byte Value);
byte  WDTReadByte(byte Register);
Void  WDTSetReg(byte Register, byte Bit, byte Val);
// Watch Dog relative definition (Please reference to Table 2)
#define DevReg     0x00 // Device configuration register
    #define WDRstBit 0x80 // Watchdog WDTRST# (Bit7)
    #define WDRstVal 0x80 // Enabled WDTRST#
#define TimerReg   0x05 // Timer register
    #define PSWidthBit 0x00 // WDTRST# Pulse width (Bit0:1)
    #define PSWidthVal 0x01 // 25ms for WDTRST# pulse
    #define PolarityBit 0x02 // WDTRST# Signal polarity (Bit2)
    #define PolarityVal 0x00 // Low active for WDTRST#
    #define UnitBit    0x03 // Unit for timer (Bit3)
    #define ModeBit    0x04 // WDTRST# mode (Bit4)
    #define ModeVal    0x01 // 0:level 1: pulse
    #define EnableBit  0x05 // WDT timer enable (Bit5)
    #define EnableVal  0x01 // 1: enable
    #define StatusBit  0x06 // WDT timer status (Bit6)
#define CounterReg 0x06 // Timer counter register
*****

*****
VOID  Main(){
    // Procedure : AaeonWDTConfig
    // (byte)Timer : Counter of WDT timer.(0x00~0xFF)
    // (boolean)Unit : Select time unit(0: second, 1: minute).
    AaeonWDTConfig(Counter, Unit);

    // Procedure : AaeonWDTEnable
    // This procedure will enable the WDT counting.
    AaeonWDTEnable();
}
*****

*****
// Procedure : AaeonWDTEnable
```

```

VOID  AeonWDTEnable (){
    WDTEnableDisable(1);
}

// Procedure : AeonWDTConfig
VOID  AeonWDTConfig (byte Counter, BOOLEAN Unit){
    // Disable WDT counting
    WDTEnableDisable(0);
    // Clear Watchdog Timeout Status
    WDTClearTimeoutStatus();
    // WDT relative parameter setting
    WDTParameterSetting(Timer, Unit);
}

VOID  WDTEnableDisable(byte Value){
    If (Value == 1)
        WDTSetBit(TimerReg, EnableBit, 1);
    else
        WDTSetBit(TimerReg, EnableBit, 0);
}

VOID  WDTParameterSetting(byte Counter, BOOLEAN Unit){
    // Watchdog Timer counter setting
    WDTWriteByte(CounterReg, Counter);
    // WDT counting unit setting
    WDTSetBit(TimerReg, UnitBit, Unit);
    // WDT output mode set to pulse
    WDTSetBit(TimerReg, ModeBit, ModeVal);
    // WDT output mode set to active low
    WDTSetBit(TimerReg, PolarityBit, PolarityVal);
    // WDT output pulse width is 25ms
    WDTSetBit(TimerReg, PSWidthBit, PSWidthVal);
    // Watchdog WDTRST# Enable
    WDTSetBit(DevReg, WDTRstBit, WDTRstVal);
}

VOID  WDTClearTimeoutStatus(){
    WDTSetBit(TimerReg, StatusBit, 1);
}

*****
*****

```

```
VOID  WDTWriteByte(byte Register, byte Value){
    IOWriteByte(WDTAddr+Register, Value);
}

byte  WDTReadByte(byte Register){
    return IOReadByte(WDTAddr+Register);
}

VOID  WDTSetBit(byte Register, byte Bit, byte Val){
    byte TmpValue;

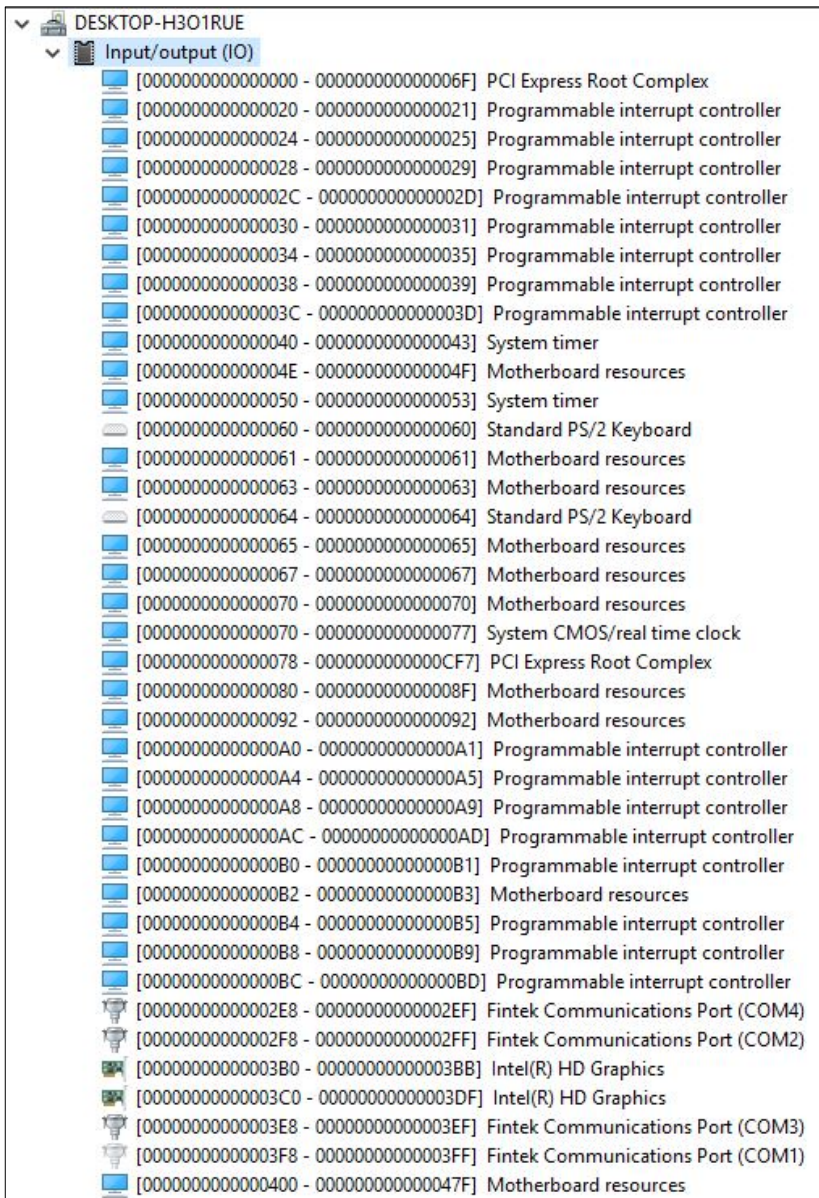
    TmpValue = WDTReadByte(Register);
    TmpValue &= ~(1 << Bit);
    TmpValue |= Val << Bit;
    WDTWriteByte(Register, TmpValue);
}
```

```
*****
```


Appendix B








































I/O Information

B.1 I/O Address Map

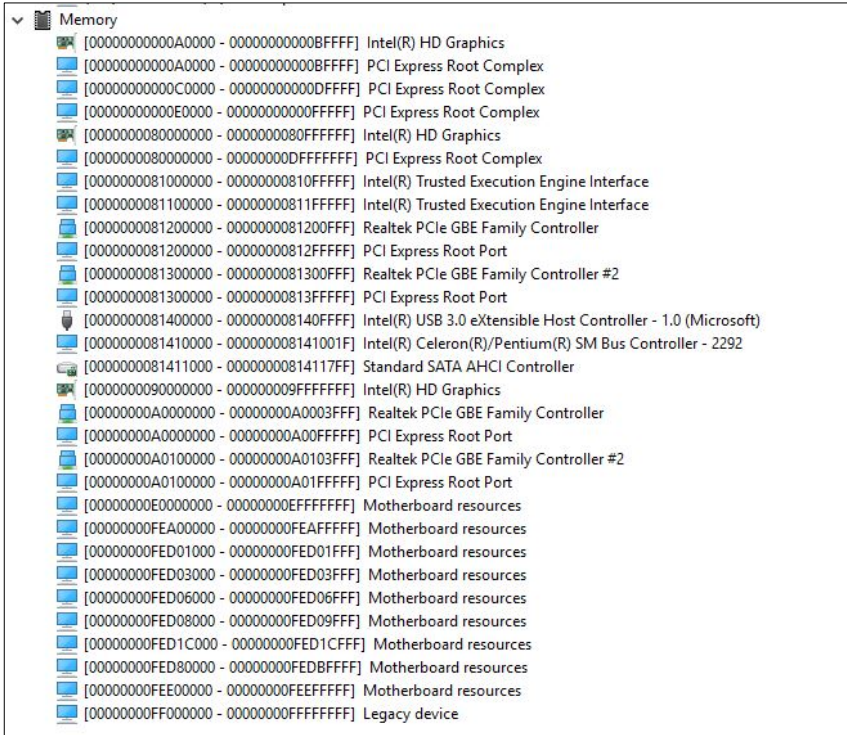


The screenshot displays the I/O Address Map for a desktop system named 'DESKTOP-H3O1RUE'. The 'Input/output (IO)' category is expanded, showing a list of hardware devices with their corresponding I/O addresses and descriptions. The devices include PCI Express Root Complex, Programmable interrupt controllers, System timers, Motherboard resources, Standard PS/2 Keyboard, System CMOS/real time clock, and Fintek Communications Ports (COM1, COM2, COM3, COM4). Intel(R) HD Graphics are also listed.

Address Range	Device Description
[0000000000000000 - 000000000000006F]	PCI Express Root Complex
[0000000000000020 - 0000000000000021]	Programmable interrupt controller
[0000000000000024 - 0000000000000025]	Programmable interrupt controller
[0000000000000028 - 0000000000000029]	Programmable interrupt controller
[000000000000002C - 000000000000002D]	Programmable interrupt controller
[0000000000000030 - 0000000000000031]	Programmable interrupt controller
[0000000000000034 - 0000000000000035]	Programmable interrupt controller
[0000000000000038 - 0000000000000039]	Programmable interrupt controller
[000000000000003C - 000000000000003D]	Programmable interrupt controller
[0000000000000040 - 0000000000000043]	System timer
[000000000000004E - 000000000000004F]	Motherboard resources
[0000000000000050 - 0000000000000053]	System timer
[0000000000000060 - 0000000000000060]	Standard PS/2 Keyboard
[0000000000000061 - 0000000000000061]	Motherboard resources
[0000000000000063 - 0000000000000063]	Motherboard resources
[0000000000000064 - 0000000000000064]	Standard PS/2 Keyboard
[0000000000000065 - 0000000000000065]	Motherboard resources
[0000000000000067 - 0000000000000067]	Motherboard resources
[0000000000000070 - 0000000000000070]	Motherboard resources
[0000000000000070 - 0000000000000077]	System CMOS/real time clock
[0000000000000078 - 000000000000CF7]	PCI Express Root Complex
[0000000000000080 - 000000000000008F]	Motherboard resources
[0000000000000092 - 0000000000000092]	Motherboard resources
[00000000000000A0 - 00000000000000A1]	Programmable interrupt controller
[00000000000000A4 - 00000000000000A5]	Programmable interrupt controller
[00000000000000A8 - 00000000000000A9]	Programmable interrupt controller
[00000000000000AC - 00000000000000AD]	Programmable interrupt controller
[00000000000000B0 - 00000000000000B1]	Programmable interrupt controller
[00000000000000B2 - 00000000000000B3]	Motherboard resources
[00000000000000B4 - 00000000000000B5]	Programmable interrupt controller
[00000000000000B8 - 00000000000000B9]	Programmable interrupt controller
[00000000000000BC - 00000000000000BD]	Programmable interrupt controller
[00000000000002E8 - 00000000000002EF]	Fintek Communications Port (COM4)
[00000000000002F8 - 00000000000002FF]	Fintek Communications Port (COM2)
[00000000000003B0 - 00000000000003BB]	Intel(R) HD Graphics
[00000000000003C0 - 00000000000003DF]	Intel(R) HD Graphics
[00000000000003E8 - 00000000000003EF]	Fintek Communications Port (COM3)
[00000000000003F8 - 00000000000003FF]	Fintek Communications Port (COM1)
[0000000000000400 - 000000000000047F]	Motherboard resources

	[000000000000063 - 000000000000063]	Motherboard resources
	[000000000000064 - 000000000000064]	Standard PS/2 Keyboard
	[000000000000065 - 000000000000065]	Motherboard resources
	[000000000000067 - 000000000000067]	Motherboard resources
	[000000000000070 - 000000000000070]	Motherboard resources
	[000000000000070 - 000000000000077]	System CMOS/real time clock
	[000000000000078 - 000000000000CF7]	PCI Express Root Complex
	[000000000000080 - 00000000000008F]	Motherboard resources
	[000000000000092 - 000000000000092]	Motherboard resources
	[0000000000000A0 - 0000000000000A1]	Programmable interrupt controller
	[0000000000000A4 - 0000000000000A5]	Programmable interrupt controller
	[0000000000000A8 - 0000000000000A9]	Programmable interrupt controller
	[0000000000000AC - 0000000000000AD]	Programmable interrupt controller
	[0000000000000B0 - 0000000000000B1]	Programmable interrupt controller
	[0000000000000B2 - 0000000000000B3]	Motherboard resources
	[0000000000000B4 - 0000000000000B5]	Programmable interrupt controller
	[0000000000000B8 - 0000000000000B9]	Programmable interrupt controller
	[0000000000000BC - 0000000000000BD]	Programmable interrupt controller
	[0000000000002E8 - 0000000000002EF]	Fintek Communications Port (COM4)
	[0000000000002F8 - 0000000000002FF]	Fintek Communications Port (COM2)
	[0000000000003B0 - 0000000000003BB]	Intel(R) HD Graphics
	[0000000000003C0 - 0000000000003DF]	Intel(R) HD Graphics
	[0000000000003E8 - 0000000000003EF]	Fintek Communications Port (COM3)
	[0000000000003F8 - 0000000000003FF]	Fintek Communications Port (COM1)
	[000000000000400 - 00000000000047F]	Motherboard resources
	[0000000000004D0 - 0000000000004D1]	Programmable interrupt controller
	[000000000000500 - 0000000000005FE]	Motherboard resources
	[000000000000680 - 00000000000069F]	Motherboard resources
	[000000000000A00 - 000000000000A0F]	Motherboard resources
	[000000000000A10 - 000000000000A1F]	Motherboard resources
	[000000000000A20 - 000000000000A2F]	Motherboard resources
	[000000000000D00 - 000000000000FFFF]	PCI Express Root Complex
	[00000000000D000 - 00000000000D0FF]	Realtek PCIe GBE Family Controller
	[00000000000D000 - 00000000000DFFF]	PCI Express Root Port
	[00000000000E000 - 00000000000E0FF]	Realtek PCIe GBE Family Controller #2
	[00000000000E000 - 00000000000EFFF]	PCI Express Root Port
	[00000000000F000 - 00000000000F03F]	Intel(R) HD Graphics
	[00000000000F040 - 00000000000F05F]	Intel(R) Celeron(R)/Pentium(R) SM Bus Controller - 2292
	[00000000000F060 - 00000000000F07F]	Standard SATA AHCI Controller

B.2 Memory Address Map





















































































The screenshot displays the 'Memory' section of the Windows System Information tool. It lists various hardware components and their corresponding memory address ranges. Each entry includes a small icon representing the device type, a hexadecimal address range in brackets, and the device name. The devices listed include Intel(R) HD Graphics, PCI Express Root Complex, Intel(R) Trusted Execution Engine Interface, Realtek PCIe GBE Family Controller, Intel(R) USB 3.0 eXtensible Host Controller - 1.0 (Microsoft), Intel(R) Celeron(R)/Pentium(R) SM Bus Controller - 2292, Standard SATA AHCI Controller, and Motherboard resources. The address ranges are consistently formatted as [start-end].










































Address Range	Device Name
[0000000000A0000 - 0000000000BFFFF]	Intel(R) HD Graphics
[0000000000A0000 - 0000000000BFFFF]	PCI Express Root Complex
[0000000000C0000 - 0000000000DFFFF]	PCI Express Root Complex
[0000000000E0000 - 0000000000FFFFFF]	PCI Express Root Complex
[0000000080000000 - 0000000080FFFFFF]	Intel(R) HD Graphics
[0000000080000000 - 00000000DFFFFFF]	PCI Express Root Complex
[0000000081000000 - 00000000810FFFFFF]	Intel(R) Trusted Execution Engine Interface
[0000000081100000 - 00000000811FFFFFF]	Intel(R) Trusted Execution Engine Interface
[0000000081200000 - 0000000081200FFF]	Realtek PCIe GBE Family Controller
[0000000081200000 - 00000000812FFFFFF]	PCI Express Root Port
[0000000081300000 - 0000000081300FFF]	Realtek PCIe GBE Family Controller #2
[0000000081300000 - 00000000813FFFFFF]	PCI Express Root Port
[0000000081400000 - 000000008140FFFFFF]	Intel(R) USB 3.0 eXtensible Host Controller - 1.0 (Microsoft)
[0000000081410000 - 000000008141001F]	Intel(R) Celeron(R)/Pentium(R) SM Bus Controller - 2292
[0000000081411000 - 00000000814117FF]	Standard SATA AHCI Controller
[0000000090000000 - 000000009FFFFFF]	Intel(R) HD Graphics
[00000000A0000000 - 00000000A0003FFF]	Realtek PCIe GBE Family Controller
[00000000A0000000 - 00000000A00FFFFFF]	PCI Express Root Port
[00000000A0100000 - 00000000A0103FFF]	Realtek PCIe GBE Family Controller #2
[00000000A0100000 - 00000000A01FFFFFF]	PCI Express Root Port
[00000000E0000000 - 00000000EFFFFFF]	Motherboard resources
[00000000FEA00000 - 00000000FEAFFFFFF]	Motherboard resources
[00000000FED01000 - 00000000FED01FFF]	Motherboard resources
[00000000FED03000 - 00000000FED03FFF]	Motherboard resources
[00000000FED06000 - 00000000FED06FFF]	Motherboard resources
[00000000FED08000 - 00000000FED09FFF]	Motherboard resources
[00000000FED1C000 - 00000000FED1CFFF]	Motherboard resources
[00000000FED80000 - 00000000FEDBFFFF]	Motherboard resources
[00000000FEE00000 - 00000000FEEFFFFFF]	Motherboard resources
[00000000FF000000 - 00000000FFFFFF]	Legacy device









































B.3 IRQ Mapping Chart










































IRQ	Device
(00)	System timer
(01)	Standard PS/2 Keyboard
(03)	Fintek Communications Port (COM2)
(04)	Fintek Communications Port (COM1)
(0B)	Fintek Communications Port (COM3)
(0B)	Fintek Communications Port (COM4)
(0C)	PS/2 Compatible Mouse
(54)	Microsoft ACPI-Compliant System
(55)	Microsoft ACPI-Compliant System
(56)	Microsoft ACPI-Compliant System
(57)	Microsoft ACPI-Compliant System
(58)	Microsoft ACPI-Compliant System
(59)	Microsoft ACPI-Compliant System
(60)	Microsoft ACPI-Compliant System
(61)	Microsoft ACPI-Compliant System
(62)	Microsoft ACPI-Compliant System
(63)	Microsoft ACPI-Compliant System
(64)	Microsoft ACPI-Compliant System
(65)	Microsoft ACPI-Compliant System
(66)	Microsoft ACPI-Compliant System
(67)	Microsoft ACPI-Compliant System
(68)	Microsoft ACPI-Compliant System
(69)	Microsoft ACPI-Compliant System
(70)	Microsoft ACPI-Compliant System
(71)	Microsoft ACPI-Compliant System
(72)	Microsoft ACPI-Compliant System
(73)	Microsoft ACPI-Compliant System
(74)	Microsoft ACPI-Compliant System
(75)	Microsoft ACPI-Compliant System
(76)	Microsoft ACPI-Compliant System
(77)	Microsoft ACPI-Compliant System
(78)	Microsoft ACPI-Compliant System
(79)	Microsoft ACPI-Compliant System
(80)	Microsoft ACPI-Compliant System
(81)	Microsoft ACPI-Compliant System
(82)	Microsoft ACPI-Compliant System
(83)	Microsoft ACPI-Compliant System
(84)	Microsoft ACPI-Compliant System
(85)	Microsoft ACPI-Compliant System
(86)	Microsoft ACPI-Compliant System










































	(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) 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) 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) 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) 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
	(ISA) 0x000000BF (191)	Microsoft ACPI-Compliant System
	(ISA) 0x000000C0 (192)	Microsoft ACPI-Compliant System
	(ISA) 0x000000C1 (193)	Microsoft ACPI-Compliant System
	(ISA) 0x000000C2 (194)	Microsoft ACPI-Compliant System
	(ISA) 0x000000C3 (195)	Microsoft ACPI-Compliant System
	(ISA) 0x000000C4 (196)	Microsoft ACPI-Compliant System
	(ISA) 0x000000C5 (197)	Microsoft ACPI-Compliant System
	(ISA) 0x000000C6 (198)	Microsoft ACPI-Compliant System
	(ISA) 0x000000C7 (199)	Microsoft ACPI-Compliant System
	(ISA) 0x000000C8 (200)	Microsoft ACPI-Compliant System
	(ISA) 0x000000C9 (201)	Microsoft ACPI-Compliant System










































	(ISA) 0x000000C9 (201)	Microsoft ACPI-Compliant System
	(ISA) 0x000000CA (202)	Microsoft ACPI-Compliant System
	(ISA) 0x000000CB (203)	Microsoft ACPI-Compliant System
	(ISA) 0x000000CC (204)	Microsoft ACPI-Compliant System
	(ISA) 0x00000100 (256)	Microsoft ACPI-Compliant System
	(ISA) 0x00000101 (257)	Microsoft ACPI-Compliant System
	(ISA) 0x00000102 (258)	Microsoft ACPI-Compliant System
	(ISA) 0x00000103 (259)	Microsoft ACPI-Compliant System
	(ISA) 0x00000104 (260)	Microsoft ACPI-Compliant System
	(ISA) 0x00000105 (261)	Microsoft ACPI-Compliant System
	(ISA) 0x00000106 (262)	Microsoft ACPI-Compliant System
	(ISA) 0x00000107 (263)	Microsoft ACPI-Compliant System
	(ISA) 0x00000108 (264)	Microsoft ACPI-Compliant System
	(ISA) 0x00000109 (265)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010A (266)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010B (267)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010C (268)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010D (269)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010E (270)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010F (271)	Microsoft ACPI-Compliant System
	(ISA) 0x00000110 (272)	Microsoft ACPI-Compliant System
	(ISA) 0x00000111 (273)	Microsoft ACPI-Compliant System
	(ISA) 0x00000112 (274)	Microsoft ACPI-Compliant System
	(ISA) 0x00000113 (275)	Microsoft ACPI-Compliant System
	(ISA) 0x00000114 (276)	Microsoft ACPI-Compliant System
	(ISA) 0x00000115 (277)	Microsoft ACPI-Compliant System
	(ISA) 0x00000116 (278)	Microsoft ACPI-Compliant System
	(ISA) 0x00000117 (279)	Microsoft ACPI-Compliant System
	(ISA) 0x00000118 (280)	Microsoft ACPI-Compliant System
	(ISA) 0x00000119 (281)	Microsoft ACPI-Compliant System
	(ISA) 0x0000011A (282)	Microsoft ACPI-Compliant System
	(ISA) 0x0000011B (283)	Microsoft ACPI-Compliant System
	(ISA) 0x0000011C (284)	Microsoft ACPI-Compliant System
	(ISA) 0x0000011D (285)	Microsoft ACPI-Compliant System
	(ISA) 0x0000011E (286)	Microsoft ACPI-Compliant System
	(ISA) 0x0000011F (287)	Microsoft ACPI-Compliant System
	(ISA) 0x00000120 (288)	Microsoft ACPI-Compliant System
	(ISA) 0x00000121 (289)	Microsoft ACPI-Compliant System
	(ISA) 0x00000122 (290)	Microsoft ACPI-Compliant System
	(ISA) 0x00000123 (291)	Microsoft ACPI-Compliant System









































	(ISA) 0x00000123 (291)	Microsoft ACPI-Compliant System
	(ISA) 0x00000124 (292)	Microsoft ACPI-Compliant System
	(ISA) 0x00000125 (293)	Microsoft ACPI-Compliant System
	(ISA) 0x00000126 (294)	Microsoft ACPI-Compliant System
	(ISA) 0x00000127 (295)	Microsoft ACPI-Compliant System
	(ISA) 0x00000128 (296)	Microsoft ACPI-Compliant System
	(ISA) 0x00000129 (297)	Microsoft ACPI-Compliant System
	(ISA) 0x0000012A (298)	Microsoft ACPI-Compliant System
	(ISA) 0x0000012B (299)	Microsoft ACPI-Compliant System
	(ISA) 0x0000012C (300)	Microsoft ACPI-Compliant System
	(ISA) 0x0000012D (301)	Microsoft ACPI-Compliant System
	(ISA) 0x0000012E (302)	Microsoft ACPI-Compliant System
	(ISA) 0x0000012F (303)	Microsoft ACPI-Compliant System
	(ISA) 0x00000130 (304)	Microsoft ACPI-Compliant System
	(ISA) 0x00000131 (305)	Microsoft ACPI-Compliant System
	(ISA) 0x00000132 (306)	Microsoft ACPI-Compliant System
	(ISA) 0x00000133 (307)	Microsoft ACPI-Compliant System
	(ISA) 0x00000134 (308)	Microsoft ACPI-Compliant System
	(ISA) 0x00000135 (309)	Microsoft ACPI-Compliant System
	(ISA) 0x00000136 (310)	Microsoft ACPI-Compliant System
	(ISA) 0x00000137 (311)	Microsoft ACPI-Compliant System
	(ISA) 0x00000138 (312)	Microsoft ACPI-Compliant System
	(ISA) 0x00000139 (313)	Microsoft ACPI-Compliant System
	(ISA) 0x0000013A (314)	Microsoft ACPI-Compliant System
	(ISA) 0x0000013B (315)	Microsoft ACPI-Compliant System
	(ISA) 0x0000013C (316)	Microsoft ACPI-Compliant System
	(ISA) 0x0000013D (317)	Microsoft ACPI-Compliant System
	(ISA) 0x0000013E (318)	Microsoft ACPI-Compliant System
	(ISA) 0x0000013F (319)	Microsoft ACPI-Compliant System
	(ISA) 0x00000140 (320)	Microsoft ACPI-Compliant System
	(ISA) 0x00000141 (321)	Microsoft ACPI-Compliant System
	(ISA) 0x00000142 (322)	Microsoft ACPI-Compliant System
	(ISA) 0x00000143 (323)	Microsoft ACPI-Compliant System
	(ISA) 0x00000144 (324)	Microsoft ACPI-Compliant System
	(ISA) 0x00000145 (325)	Microsoft ACPI-Compliant System
	(ISA) 0x00000146 (326)	Microsoft ACPI-Compliant System
	(ISA) 0x00000147 (327)	Microsoft ACPI-Compliant System
	(ISA) 0x00000148 (328)	Microsoft ACPI-Compliant System
	(ISA) 0x00000149 (329)	Microsoft ACPI-Compliant System
	(ISA) 0x0000014A (330)	Microsoft ACPI-Compliant System
	(ISA) 0x0000014B (331)	Microsoft ACPI-Compliant System

	(ISA) 0x0000014B (331)	Microsoft ACPI-Compliant System
	(ISA) 0x0000014C (332)	Microsoft ACPI-Compliant System
	(ISA) 0x0000014D (333)	Microsoft ACPI-Compliant System
	(ISA) 0x0000014E (334)	Microsoft ACPI-Compliant System
	(ISA) 0x0000014F (335)	Microsoft ACPI-Compliant System
	(ISA) 0x00000150 (336)	Microsoft ACPI-Compliant System
	(ISA) 0x00000151 (337)	Microsoft ACPI-Compliant System
	(ISA) 0x00000152 (338)	Microsoft ACPI-Compliant System
	(ISA) 0x00000153 (339)	Microsoft ACPI-Compliant System
	(ISA) 0x00000154 (340)	Microsoft ACPI-Compliant System
	(ISA) 0x00000155 (341)	Microsoft ACPI-Compliant System
	(ISA) 0x00000156 (342)	Microsoft ACPI-Compliant System
	(ISA) 0x00000157 (343)	Microsoft ACPI-Compliant System
	(ISA) 0x00000158 (344)	Microsoft ACPI-Compliant System
	(ISA) 0x00000159 (345)	Microsoft ACPI-Compliant System
	(ISA) 0x0000015A (346)	Microsoft ACPI-Compliant System
	(ISA) 0x0000015B (347)	Microsoft ACPI-Compliant System
	(ISA) 0x0000015C (348)	Microsoft ACPI-Compliant System
	(ISA) 0x0000015D (349)	Microsoft ACPI-Compliant System
	(ISA) 0x0000015E (350)	Microsoft ACPI-Compliant System
	(ISA) 0x0000015F (351)	Microsoft ACPI-Compliant System
	(ISA) 0x00000160 (352)	Microsoft ACPI-Compliant System
	(ISA) 0x00000161 (353)	Microsoft ACPI-Compliant System
	(ISA) 0x00000162 (354)	Microsoft ACPI-Compliant System
	(ISA) 0x00000163 (355)	Microsoft ACPI-Compliant System
	(ISA) 0x00000164 (356)	Microsoft ACPI-Compliant System
	(ISA) 0x00000165 (357)	Microsoft ACPI-Compliant System
	(ISA) 0x00000166 (358)	Microsoft ACPI-Compliant System
	(ISA) 0x00000167 (359)	Microsoft ACPI-Compliant System
	(ISA) 0x00000168 (360)	Microsoft ACPI-Compliant System
	(ISA) 0x00000169 (361)	Microsoft ACPI-Compliant System
	(ISA) 0x0000016A (362)	Microsoft ACPI-Compliant System
	(ISA) 0x0000016B (363)	Microsoft ACPI-Compliant System
	(ISA) 0x0000016C (364)	Microsoft ACPI-Compliant System
	(ISA) 0x0000016D (365)	Microsoft ACPI-Compliant System
	(ISA) 0x0000016E (366)	Microsoft ACPI-Compliant System
	(ISA) 0x0000016F (367)	Microsoft ACPI-Compliant System
	(ISA) 0x00000170 (368)	Microsoft ACPI-Compliant System
	(ISA) 0x00000171 (369)	Microsoft ACPI-Compliant System
	(ISA) 0x00000172 (370)	Microsoft ACPI-Compliant System
	(ISA) 0x00000173 (371)	Microsoft ACPI-Compliant System

	(ISA) 0x00000173 (371)	Microsoft ACPI-Compliant System
	(ISA) 0x00000174 (372)	Microsoft ACPI-Compliant System
	(ISA) 0x00000175 (373)	Microsoft ACPI-Compliant System
	(ISA) 0x00000176 (374)	Microsoft ACPI-Compliant System
	(ISA) 0x00000177 (375)	Microsoft ACPI-Compliant System
	(ISA) 0x00000178 (376)	Microsoft ACPI-Compliant System
	(ISA) 0x00000179 (377)	Microsoft ACPI-Compliant System
	(ISA) 0x0000017A (378)	Microsoft ACPI-Compliant System
	(ISA) 0x0000017B (379)	Microsoft ACPI-Compliant System
	(ISA) 0x0000017C (380)	Microsoft ACPI-Compliant System
	(ISA) 0x0000017D (381)	Microsoft ACPI-Compliant System
	(ISA) 0x0000017E (382)	Microsoft ACPI-Compliant System
	(ISA) 0x0000017F (383)	Microsoft ACPI-Compliant System
	(ISA) 0x00000180 (384)	Microsoft ACPI-Compliant System
	(ISA) 0x00000181 (385)	Microsoft ACPI-Compliant System
	(ISA) 0x00000182 (386)	Microsoft ACPI-Compliant System
	(ISA) 0x00000183 (387)	Microsoft ACPI-Compliant System
	(ISA) 0x00000184 (388)	Microsoft ACPI-Compliant System
	(ISA) 0x00000185 (389)	Microsoft ACPI-Compliant System
	(ISA) 0x00000186 (390)	Microsoft ACPI-Compliant System
	(ISA) 0x00000187 (391)	Microsoft ACPI-Compliant System
	(ISA) 0x00000188 (392)	Microsoft ACPI-Compliant System
	(ISA) 0x00000189 (393)	Microsoft ACPI-Compliant System
	(ISA) 0x0000018A (394)	Microsoft ACPI-Compliant System
	(ISA) 0x0000018B (395)	Microsoft ACPI-Compliant System
	(ISA) 0x0000018C (396)	Microsoft ACPI-Compliant System
	(ISA) 0x0000018D (397)	Microsoft ACPI-Compliant System
	(ISA) 0x0000018E (398)	Microsoft ACPI-Compliant System
	(ISA) 0x0000018F (399)	Microsoft ACPI-Compliant System
	(ISA) 0x00000190 (400)	Microsoft ACPI-Compliant System
	(ISA) 0x00000191 (401)	Microsoft ACPI-Compliant System
	(ISA) 0x00000192 (402)	Microsoft ACPI-Compliant System
	(ISA) 0x00000193 (403)	Microsoft ACPI-Compliant System
	(ISA) 0x00000194 (404)	Microsoft ACPI-Compliant System
	(ISA) 0x00000195 (405)	Microsoft ACPI-Compliant System
	(ISA) 0x00000196 (406)	Microsoft ACPI-Compliant System
	(ISA) 0x00000197 (407)	Microsoft ACPI-Compliant System
	(ISA) 0x00000198 (408)	Microsoft ACPI-Compliant System
	(ISA) 0x00000199 (409)	Microsoft ACPI-Compliant System
	(ISA) 0x0000019A (410)	Microsoft ACPI-Compliant System
	(ISA) 0x0000019B (411)	Microsoft ACPI-Compliant System

	(ISA) 0x0000019B (411)	Microsoft ACPI-Compliant System
	(ISA) 0x0000019C (412)	Microsoft ACPI-Compliant System
	(ISA) 0x0000019D (413)	Microsoft ACPI-Compliant System
	(ISA) 0x0000019E (414)	Microsoft ACPI-Compliant System
	(ISA) 0x0000019F (415)	Microsoft ACPI-Compliant System
	(ISA) 0x000001A0 (416)	Microsoft ACPI-Compliant System
	(ISA) 0x000001A1 (417)	Microsoft ACPI-Compliant System
	(ISA) 0x000001A2 (418)	Microsoft ACPI-Compliant System
	(ISA) 0x000001A3 (419)	Microsoft ACPI-Compliant System
	(ISA) 0x000001A4 (420)	Microsoft ACPI-Compliant System
	(ISA) 0x000001A5 (421)	Microsoft ACPI-Compliant System
	(ISA) 0x000001A6 (422)	Microsoft ACPI-Compliant System
	(ISA) 0x000001A7 (423)	Microsoft ACPI-Compliant System
	(ISA) 0x000001A8 (424)	Microsoft ACPI-Compliant System
	(ISA) 0x000001A9 (425)	Microsoft ACPI-Compliant System
	(ISA) 0x000001AA (426)	Microsoft ACPI-Compliant System
	(ISA) 0x000001AB (427)	Microsoft ACPI-Compliant System
	(ISA) 0x000001AC (428)	Microsoft ACPI-Compliant System
	(ISA) 0x000001AD (429)	Microsoft ACPI-Compliant System
	(ISA) 0x000001AE (430)	Microsoft ACPI-Compliant System
	(ISA) 0x000001AF (431)	Microsoft ACPI-Compliant System
	(ISA) 0x000001B0 (432)	Microsoft ACPI-Compliant System
	(ISA) 0x000001B1 (433)	Microsoft ACPI-Compliant System
	(ISA) 0x000001B2 (434)	Microsoft ACPI-Compliant System
	(ISA) 0x000001B3 (435)	Microsoft ACPI-Compliant System
	(ISA) 0x000001B4 (436)	Microsoft ACPI-Compliant System
	(ISA) 0x000001B5 (437)	Microsoft ACPI-Compliant System
	(ISA) 0x000001B6 (438)	Microsoft ACPI-Compliant System
	(ISA) 0x000001B7 (439)	Microsoft ACPI-Compliant System
	(ISA) 0x000001B8 (440)	Microsoft ACPI-Compliant System
	(ISA) 0x000001B9 (441)	Microsoft ACPI-Compliant System
	(ISA) 0x000001BA (442)	Microsoft ACPI-Compliant System
	(ISA) 0x000001BB (443)	Microsoft ACPI-Compliant System
	(ISA) 0x000001BC (444)	Microsoft ACPI-Compliant System
	(ISA) 0x000001BD (445)	Microsoft ACPI-Compliant System
	(ISA) 0x000001BE (446)	Microsoft ACPI-Compliant System
	(ISA) 0x000001BF (447)	Microsoft ACPI-Compliant System
	(ISA) 0x000001C0 (448)	Microsoft ACPI-Compliant System
	(ISA) 0x000001C1 (449)	Microsoft ACPI-Compliant System
	(ISA) 0x000001C2 (450)	Microsoft ACPI-Compliant System
	(ISA) 0x000001C3 (451)	Microsoft ACPI-Compliant System

	(ISA) 0x000001C3 (451)	Microsoft ACPI-Compliant System
	(ISA) 0x000001C4 (452)	Microsoft ACPI-Compliant System
	(ISA) 0x000001C5 (453)	Microsoft ACPI-Compliant System
	(ISA) 0x000001C6 (454)	Microsoft ACPI-Compliant System
	(ISA) 0x000001C7 (455)	Microsoft ACPI-Compliant System
	(ISA) 0x000001C8 (456)	Microsoft ACPI-Compliant System
	(ISA) 0x000001C9 (457)	Microsoft ACPI-Compliant System
	(ISA) 0x000001CA (458)	Microsoft ACPI-Compliant System
	(ISA) 0x000001CB (459)	Microsoft ACPI-Compliant System
	(ISA) 0x000001CC (460)	Microsoft ACPI-Compliant System
	(ISA) 0x000001CD (461)	Microsoft ACPI-Compliant System
	(ISA) 0x000001CE (462)	Microsoft ACPI-Compliant System
	(ISA) 0x000001CF (463)	Microsoft ACPI-Compliant System
	(ISA) 0x000001D0 (464)	Microsoft ACPI-Compliant System
	(ISA) 0x000001D1 (465)	Microsoft ACPI-Compliant System
	(ISA) 0x000001D2 (466)	Microsoft ACPI-Compliant System
	(ISA) 0x000001D3 (467)	Microsoft ACPI-Compliant System
	(ISA) 0x000001D4 (468)	Microsoft ACPI-Compliant System
	(ISA) 0x000001D5 (469)	Microsoft ACPI-Compliant System
	(ISA) 0x000001D6 (470)	Microsoft ACPI-Compliant System
	(ISA) 0x000001D7 (471)	Microsoft ACPI-Compliant System
	(ISA) 0x000001D8 (472)	Microsoft ACPI-Compliant System
	(ISA) 0x000001D9 (473)	Microsoft ACPI-Compliant System
	(ISA) 0x000001DA (474)	Microsoft ACPI-Compliant System
	(ISA) 0x000001DB (475)	Microsoft ACPI-Compliant System
	(ISA) 0x000001DC (476)	Microsoft ACPI-Compliant System
	(ISA) 0x000001DD (477)	Microsoft ACPI-Compliant System
	(ISA) 0x000001DE (478)	Microsoft ACPI-Compliant System
	(ISA) 0x000001DF (479)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E0 (480)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E1 (481)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E2 (482)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E3 (483)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E4 (484)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E5 (485)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E6 (486)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E7 (487)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E8 (488)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E9 (489)	Microsoft ACPI-Compliant System
	(ISA) 0x000001EA (490)	Microsoft ACPI-Compliant System
	(ISA) 0x000001EB (491)	Microsoft ACPI-Compliant System

	(ISA) 0x000001E1 (481)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E2 (482)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E3 (483)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E4 (484)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E5 (485)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E6 (486)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E7 (487)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E8 (488)	Microsoft ACPI-Compliant System
	(ISA) 0x000001E9 (489)	Microsoft ACPI-Compliant System
	(ISA) 0x000001EA (490)	Microsoft ACPI-Compliant System
	(ISA) 0x000001EB (491)	Microsoft ACPI-Compliant System
	(ISA) 0x000001EC (492)	Microsoft ACPI-Compliant System
	(ISA) 0x000001ED (493)	Microsoft ACPI-Compliant System
	(ISA) 0x000001EE (494)	Microsoft ACPI-Compliant System
	(ISA) 0x000001EF (495)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F0 (496)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F1 (497)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F2 (498)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F3 (499)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F4 (500)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F5 (501)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F6 (502)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F7 (503)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F8 (504)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F9 (505)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FA (506)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FB (507)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FC (508)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FD (509)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FE (510)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FF (511)	Microsoft ACPI-Compliant System
	(PCI) 0x00000004 (04)	Intel(R) Celeron(R)/Pentium(R) SM Bus Controller - 2292
	(PCI) 0xFFFFFFFF7 (-9)	Realtek PCIe GBE Family Controller #2
	(PCI) 0xFFFFFFFF8 (-8)	Intel(R) Trusted Execution Engine Interface
	(PCI) 0xFFFFFFFF9 (-7)	Intel(R) USB 3.0 eXtensible Host Controller - 1.0 (Microsoft)
	(PCI) 0xFFFFFFFFFA (-6)	Intel(R) HD Graphics
	(PCI) 0xFFFFFFFFFB (-5)	Realtek PCIe GBE Family Controller
	(PCI) 0xFFFFFFFFFC (-4)	Standard SATA AHCI Controller
	(PCI) 0xFFFFFFFFFD (-3)	PCI Express Root Port
	(PCI) 0xFFFFFFFFFE (-2)	PCI Express Root Port

>  Memory

Appendix C

Digital I/O Ports

C.1 Electrical Specifications for Digital I/O Ports

Table 1 : Digital Input/Output Pin Electrical Specification

Pin	Type	Input Threshold Voltage		Output Voltage		Note
		Low	High	Low	High	
DIO0	I/O	0.8	2.0	0	5	
DIO1	I/O	0.8	2.0	0	5	
DIO2	I/O	0.8	2.0	0	5	
DIO3	I/O	0.8	2.0	0	5	
DIO4	I/O	0.8	2.0	0	5	
DIO5	I/O	0.8	2.0	0	5	
DIO6	I/O	0.8	2.0	0	5	
DIO7	I/O	0.8	2.0	0	5	

Note: All DIO pins are 5V tolerant in input mode.

C.2 DI/O programming

AHP-1125 utilizes FINTEK F81801U chipset as its Digital I/O controller. Below are the procedures to complete its configuration and the AAEON initial DI/O program is also attached, based on which you can develop customized program to fit your application.

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.

Appendix D

Notes for Users

D.1 Electrical Specifications for I/O Ports

Please observe the following items to ensure optimal performance:

1. To achieve SATA Gen 3 transfer speeds, please use a SATA Gen 3 SSD with a SATA GEN 3 cable not longer than 60 cm in length.

Appendix E

Window 7 Installation
(Copyright by Intel and Microsoft)

E.1 Windows 7 USB 3.0 Creator Utility

The Windows 7 USB 3.0 Creator Utility automates the steps to update a Windows 7 installation image so that it contains USB 3.0 drivers.

Assumptions

- You have a valid copy of Windows 7 on ISO or DVD.
- You have Administrator access to another working computer (the Admin system) with Windows 7 or later to follow these steps.
- You have downloaded and unzipped the Windows 7 USB 3.0 Creator Utility.

1. Create a USB flash drive installer

Use your Windows 7 DVD or ISO image to create a bootable USB flash drive.

Instructions on how to do are found on Microsoft's site.

2. Run the Utility

- a) Download and unzip the Windows 7 USB 3.0 Creator utility to a temporary folder on the Admin system.
- b) Connect the USB device containing the Windows 7 image to the Admin system.
- c) Right-click the file `Installer_Creator.exe` and select `Run as administrator`.
- d) Browse to the root of the USB drive.
- e) Click `Create Image` to begin the creation process.
- f) Wait for the process to finish. It can take up to 15 minutes.

3. Install Windows 7 on the target Intel NUC

Using the updated installer, proceed with the Windows 7 installation as you normally would.

More detail, please reference bellow link:

<http://download.intel.com/support/motherboards/desktop/sb/installingwin7fromusbflashdrivesontousb30computers.pdf>