AHP-2153

Onboard Intel[®] Atom[™] D2700 2.13 GHz Processor Touch Panel PC With 15" TFT LCD

> AHP-2153 Manual 1st Ed. May 2012

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Packing List

Before you begin operating your PC, please make sure that the following materials are enclosed:

- AHP-2153 Touch Panel PC
- Mounting brackets and screws
- DVD-ROM for manual (in PDF format) and drivers

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

Safety & Warranty

- 1. Read these safety instructions carefully.
- 2. Keep this user's manual for later reference.
- 3. Disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.
- 4. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.
- 5. Keep this equipment away from humidity.
- 6. Put this equipment on a firm surface during installation. Dropping it or letting it fall could cause damage.
- 7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
- 8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
- 9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
- 10. All cautions and warnings on the equipment should be noted.
- 11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
- 12. Never pour any liquid into an opening. This could cause fire or electrical shock.
- 13. Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.
- 14. If any of the following situations arises, get the equipment checked by service personnel:
 - a. The power cord or plug is damaged.
 - b. Liquid has penetrated into the equipment.
 - c. The equipment has been exposed to moisture.

- d. The equipment does not work well, or you cannot get it to work according to the user's manual.
- e. The equipment has been dropped and damaged.
- f. The equipment has obvious signs of breakage.
- DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20°C (-4°F) OR ABOVE 60°C (140°F). IT MAY DAMAGE THE EQUIPMENT.

FCC



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.

AHP-2153

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

AAEON Panel PC/ Workstation

有毒有害物质或元素					
铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
(Pb)	(Hg)	(Cd)	(Cr(VI))	(PBB)	(PBDE)
~	0	0		0	0
^	0	0	0	0	0
~	0	0	0	0	0
^	0	0	0	0	0
×	0	0	0	0	0
~	0	0	0	0	0
	0	0	0	0	0
×	0	0	0	0	0
×	0	0	0	0	0
×	0	0	0	0	0
×	0	0	0	0	0
×	0	0	0	0	0
	(Pb) × × × × × × × × ×	(Pb) (Hg) X O X O X O X O X O X O X O X O X O X O X O X O X O X O X O X O X O X O X O	铅汞锅(Pb)(Hg)(Cd)×○○×○○×○○×○○×○○×○○×○○×○○×○○×○○×○○×○○×○○×○○×○○×○○×○○	铅 汞 锅 六价铬 (Pb) (Hg) (Cd) (Cr(VI)) × 〇 〇 〇	铅 天 锅 六价铬 多溴联苯 (Pb) (Hg) (Cd) (Cr(VI)) (PBB) × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇 〇 × 〇 〇 〇

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。

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AHP-2153

Chapter

General Information

Chapter 1 General Information 1-1

1.1 Introduction

The AHP-2153 operator panel is an Intel[®] Atom[™] D2700 2.13 GHz processor computer that is designed to serve as a human machine interface (HMI). It is a PC-based system with 15" color TFT LCD display, onboard Ethernet controller, multi-COM port interfaces and an audio controller. With a built-in CompactFlash socket, the AHP-2153 is as compact and user friendly as a multi-function computer. In addition, its "fit anywhere" design makes it very flexible and able to be used in many different kinds of installations. It can be VESA 100 wall mounted.

For system integrators, this simple, complete, compact and highly integrated system let you easily build an operator panel into your applications. Common industrial applications include factory automation systems, precision machinery, and production process control. It is also suitable for many non-industrial applications, including vending machine, and car park automation. Our operator panel is a reliable, cost-effective solution to your application's processing requirements.

1.2 Specification

System

•	CPU	Onboard Intel [®] Atom™ D2700 2.13 GHz
		Processor
•	System Memory	DDR3 SODIMM x 1, Max. 4 GB
•	Ethernet	10/100/1000Base-T, RJ-45 x 2
•	LCD / CRT Controller	Integrated in Processor
•	I/O Port	USB2.0 x 4 (2 on front, 2 on rear)
		RS-232 x 2
		RS-232/422/485 x 1
		LAN x 2
		VGA x 1
		Line-out x 1
		Power switch x 1
•	Storage Disk Drive	CompactFlash™ slot x 1 (Internal);
		2.5" SATA Hard Disk Drive x 1
•	Expansion Slot	Mini Card x 1
•	OS Support	$Windows^{\texttt{®}} XP, Windows^{\texttt{®}} 7 32 bits,$
		Linux Fedora

Mechanical

•	Construction	IP-65 aluminum die cast front bezel
•	Mounting	Panel/ Wall/ VESA 100/ Desktop
•	Dimension	15.35"(W) x 12.74"(H) x 3.08"(D)

Chapter 1 General Information 1-3

	Touch Panel PC	A H P - 2 1 5 3
		(389.98mm x 323.48mm x 78.3mm)
•	Carton Dimension	17.9"(W) x 12.6"(H) x 15.75"(D) (455mi
		x 320mm x 400mm)
•	Net Weight	13.64 lb (6.2 kg)
•	Gross Weight	18.96 lb (8.62 kg)

Environmental

•	Operating Temperature	-4°F~140°F (-20°C~60°C)
•	Storage Temperature	-4°F~158°F (-20°C~70°C)
•	Operating Humidity	5% to 95% @ 40° C, non-condensing
•	Vibration	1 g rms/ 5-500Hz/ Operation (HDD)
•	Shock	20 G peak acceleration (11 msec.
		duration)
•	EMC	CE/FCC Class A
•	Power Supply	9~30V DC input ;
		Over-voltage protection
		Low-voltage protection
		Reverse protection

Power Supply

•

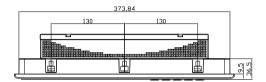
DC Input	9~30V DC input ;
	Over-voltage protection
	Low-voltage protection
	Reverse protection

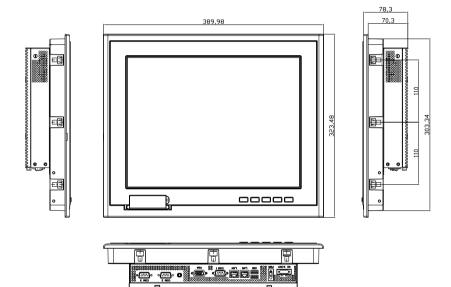
	Touch Panel PC	-	A H P - 2 1 5 3
LCI)		
•	Display Type	15" TF	T LCD
•	Max. Resolution	1024x	768
•	Max. Colors	16.7M	l colors
•	Luminance (cd/m ²)	HTT : 400	
		STT :	800
•	Viewing Angle	HTT: 170° (H),160° (V)	
		STT:1	60° (H),140° (V)
•	Backlight	LED	
•	Backlight MTBF (Hours)	HTT : 50,000	
		STT :	60,000

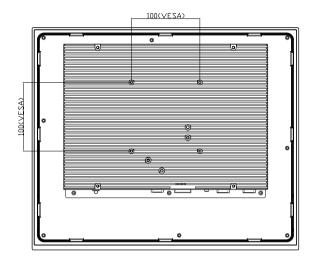
Touch Screen

•	Туре	5-wire analog resistive
•	Resolution	2048x2048
•	Light Transmission	> 80%
•	Lifetime	35 million activations

1.3 Dimension









Hardware Installation

Chapter 2 Quick Installation Guide 2-1

2.1 Panelmount Installation

The display panel can be mounted into the wall. You will need the screws along with the mounting brackets, which be packed in the accessory box. Follow the steps below:

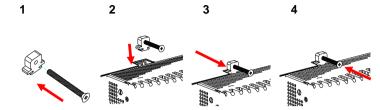
Before you start to follow the instructions, please place the display panel into the wall. See the following illustration on the left.

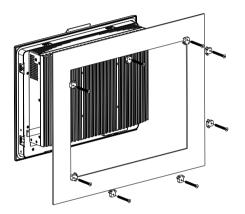
Step 1: Place the mounting brackets and plug the screw.

Step 2: Aim the mounting set at the hole on the monitor.

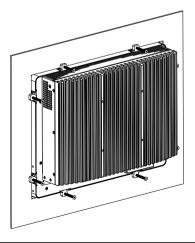
Step 3: Move the mounting set to the narrow gauge and fix it with screws.

Step 4: You've completed the preliminary when the mounting set is tightened. Next, repeat the steps and tighten all mounting set around the monitor until the monitor is firmly mounting on the wall.





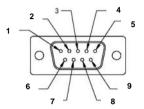
Complete Illustration



Chapter 2 Quick Installation Guide 2 - 3

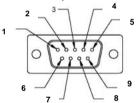
2.2 COM1/2 RS-232/422/485 Serial Port Connector

COM1 (D-sub 9 male)



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

COM2 RS-232/422/485 (D-sub 9 male)



Pin	Signal	Pin	Signal
1	DCD (422TXD-/485DATA-)	2	RXD (422RXD+)
3	TXD (422TXD+/485DATA+)	4	DTR (422RXD-)
5	GND	6	DSR
7	RTS	8	CTS
9	RI/+5Volt/+12Volt		

2.3 Hard Disk Drive Installation

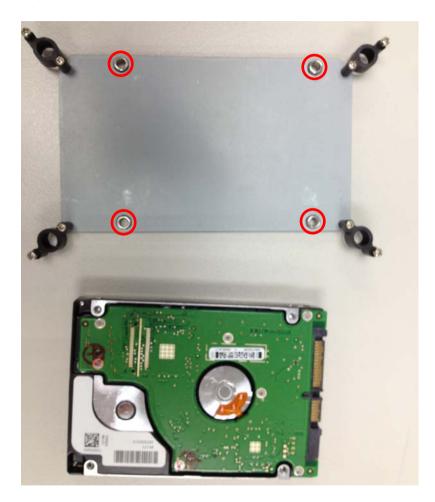
Step 1: Unfasten the screws of the heatsink



Step 2: Get the Bracket of Hard Disk Drive from the package



Step 3: Fasten the Hard Disk onto the bracket





Step 4: Fasten the screws of the hard disk bracket onto the AHP-2153



Touch Panel PC	Τοι	ıch	Pan	el	PC
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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 against the values stored in the CMOS memory. If they do not match, the program outputs an error message. You will then need to run the BIOS setup program to set the configuration information in memory.

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

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

The AHP-2153 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 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/disable quiet boot option.

Security

Set setup administrator password.

Save&Exit

Exit system setup after saving the changes.

<u>Setup Menu</u>

Setup submenu: Main

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc. Main Advanced Chipset Boot Security Save & Exit			
		Set the Date. Use Tab to switch between Data elements.	
BIOS Vendor Core Version Compliancy	American Megatrends 4.6.5.1 UEFI 2.3; PI 1.2		
System Date System Time	[Thu 01/01/2009] [05:19:15]		
Access Level	Administrator		
		<pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre>	
Version 2.1	4.1219. Copyright (C) 2011 American	Megatrends, Inc.	

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.				

A H P - 2 1 5 3

Setup submenu: Advanced

Aptio Setup Main Advanced Chipset	Utility – Copyr Boot Security		American Me	egatrends,	Inc.
 ACPI Settings CPU Configuration SATA Configuration USB Configuration Super IO Configuration H/W Monitor 			Sy	ystem ACPI	Parameters.
			11 Er +/ F1 F2 F3 F2 F3	+: Select S ↓: Select I nter: Selec /-: Change 1: General 2: Previous 3: Optimize 4: Save & E 5C: Exit	tem t Opt. Help Values d Defaults
Version 2.	14.1219. Copyrig	nt (C) 2011 Am	erican Mega	atrends, In	с.

ACPI Settings		
System ACPI Parameters		
CPU Configuration		
CPU Configuration Parameters		
SATA Configuration		
SATA Device Options Settings		
USB Configuration		
USB Configuration Parameters		
Super IO Configuration		

System Super IO Chip Parameters			
H/W Monitor			
Monitor hardware status			

ACPI Settings

ACPI Settings		Select the highest ACPI sleep state the system will enter
ACPI Sleep State Wake on Ring RTC Wake Settings	[S1 (CPU Stop Clock)] [Enabled]	when the SUSPEND button is pressed.
		++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults
		F4: Save & Exit ESC: Exit

Options summary: (*default setting*)

	Suspend Disabled	
ACPI Sleep State	S1 only(CPU Stop Clock)	
	S3 only(Suspend to RAM)	
Select the ACPI state used for System Suspend		
Wake on Ring	Enabled	

Chapter 3 AMI BIOS Setup 3-6

Touch	Panel	PC
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	Disabled			
Enabled or disabled wake on ring function.				
RTC Wake Settings				
Enable system to wake from S5 using RTC alarm.				

RTC Wake Settings

Aptio Setup Utility Advanced	– Copyright (C) 2011 A	merican Megatrends, Inc.
Wake system with Fixed Time Wake up hour Wake up minute Wake up second Wake system with Dynamic Time Wake up minute increase	[Enabled] 0 0 [Disabled] 1	Enable or disable System wake on alarm event. When enabled, System will wake on the hr::min::sec specified
		++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.14.1219.	Copyright (C) 2011 Amer	rican Megatrends, Inc.

Wake system with Fixed	Disabled			
Time	Enabled			
Enable or disable System wake on alarm event. Wake up time is setting by following				
settings.				

A H P - 2 1 5 3

Wake up hour	0-23				
Wake up minute	0-59				
Wake up second 0-59					
Wake system with	Disabled				
Dynamic Time Enabled					
Enable or disable System wake on alarm event. Wake up time is current time +					
Increase minutes.					
Wake up minute increase 1-5					

CPU Configuration

Aptio Setup Utility - Advanced	Copyright (C) 2011 American	Megatrends, Inc.
Advanced CPU Configuration Processor Type EMT64 Processor Speed System Bus Speed Ratio Status Actual Ratio System Bus Speed Processor Stepping Microcode Revision	Intel(R) Atom(TM) CPU Supported 2132 MHz 533 MHz 16 16 533 MHz 30661 269	Enabled for Windows XP and Linux (OS optimized for Hyper-Threading Technology) and Disabled for other OS (OS not optimized for Hyper-Threading Technology).
L1 Cache RAM L2 Cache RAM	2x56 k 2x512 k	
Processor Core Hyper-Threading	Dual Supported	++: Select Screen ↑↓: Select Item Enter: Select
Hyper-Threading	[Enabled]	+/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.14.1219. Co	pyright (C) 2011 American Me	egatrends, Inc.

Chapter 3 AMI BIOS Setup 3-8

Options summary: (*default setting*)

Hyper-Threading	Disabled	
	Enabled	
En/Disable CPU Hyper-Threading function		

SATA Configuration (IDE)

SATA PortO SATA Port1	MAXTOR STM3320 (320.0 Not Present	Select a configuration for SATA Controller.
SATA Controller(s)	[Enabled]	
		<pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt, F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre>

SATA Controller(s)	Disabled		
	Enabled		
En/Disable SATA controller			
Configure SATA as	IDE		

Touch Panel PC

AHCI

Configure SATA controller operating as IDE/AHCI mode.

SATA Configuration (AHCI)

SATA PortO SATA Port1	MAXTOR STM3320 (320.0 Not Present	SATA Ports (0–3) Device Names if Present and Enabled.
Configure SATA as	[AHCI]	
SATA Port 0 SATA Port 0 Hot Plug SATA Port 1 SATA Port 1 Hot Plug	(Enabled) (Enabled) (Enabled) (Enabled)	
		++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

SATA Controller(s)	Disabled			
	Enabled			
En/Disable SATA controller				
Configure SATA as IDE				
	АНСІ			
Configure SATA controller operating as IDE/AHCI mode.				

SATA Port 0/Port 1	Disabled	
	Enabled	
En/Disable the selected port.		
SATA Port 0/Port 1 Hot Plug Disabled		
	Enabled	
En/Disable Hot Plug feature for specified port.		

USB Configuration

Aptio Setup Utilit Advanced	y – Copyright (C) 2011 A:	merican Megatrends, Inc.
USB Configuration		Enables Legacy USB support.
USB Devices: 1 Drive, 1 Keyboard		AUTO option disables legacy support if no USB devices are connected. DISABLE option will keep USB devices available
Legacy USB Support		only for EFI applications.
Mass Storage Devices: USB FLASH DRIVE PMAP	[Auto]	
		++: Select Screen ↑↓: Select Item
		Enter: Select +/-: Change Opt.
		F1: General Help
		F2: Previous Values F3: Optimized Defaults
		F4: Save & Exit ESC: Exit
		Loof Exit
Version 2.14.1219). Copyright (C) 2011 Ame	rican Megatrends, Inc.

Legacy USB Support	Enabled	
	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. DISABLE option will keep USB devices available only for EFI application

Device Name Auto
(Emulation Type)
Forced FDD
Hard Disk
CD-ROM

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

	Aptio Setup Utility - Advanced	Copyright (C) 2011 American	Megatrends, Inc.
ſ	Super IO Configuration		Set Parameters of Serial Port 1 (COMA)
	Super IO Chip ▶ Serial Port 1 Configuration ▶ Serial Port 2 Configuration ▶ Serial Port 3 Configuration	IT8783F	I (Com)
	Restore AC Power Loss	(Power Off)	
			++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit
	Version 2.14.1219. Co	ppyright (C) 2011 American M	ESC: Exit egatrends, Inc.

Serial Port 1/2/3 Configuration				
Set Parameters of Serial Port 1/2/3				
Restore AC Power Loss	Power Off			
	Power On			
	Last State			
Select AC power state when power is re-applied after a power failure.				

Serial Port 1 Configuration

Aptio Setup Util: Advanced	ity – Copyright (C) 2011 Ameria	can Megatrends, Inc.		
Serial Port 1 Configuration		Enable or Disable Serial Port (COM)		
Serial Port Device Settings	[Enabled] IO=3F8h; IRQ=4;	(504)		
Change Settings	[Auto]			
		++: Select Screen ↑↓: Select Item		
		Enter: Select +/-: Change Opt.		
		F1: General Help F2: Previous Values		
		F3: Optimized Defaults F4: Save & Exit ESC: Exit		
		ESC. EXIL		
ا Version 2.14.1219. Copyright (C) 2011 American Megatrends, Inc.				

Serial Port	Disabled			
	Enabled			
En/Disable specified serial port.				
Change Settings	Auto			
	IO=3F8h; IRQ=4;			
	IO=3F8h; IRQ=3,4,5,7,10,11,12;			
	IO=2F8h; IRQ=3,4,5,7,10,11,12;			
	IO=3E8h; IRQ=3,4,5,7,10,11,12;			
	IO=2E8h; IRQ=3,4,5,7,10,11,12;			

Select a resource setting for Super IO device.

Serial Port 2 Configuration

Aptio Setup Utility - Advanced	Copyright (C) 2011 American	Megatrends, Inc.
Serial Port 2 Configuration		Enable or Disable Serial Port (COM)
Serial Port Device Settings	[Enabled] IO=2F8h; IRQ=3;	(604)
Change Settings	[Auto]	
COM2 Type Select	[RS232]	
		++: Select Screen
		†∔: Select Item Enter: Select
		+/−: Change Opt. F1: General Help
		F2: Previous Values F3: Optimized Defaults
		F4: Save & Exit ESC: Exit
		ESU: EXIL
Version 2.14.1219. Co	pyright (C) 2011 American M	egatrends, Inc.

Serial Port	Disabled	
	Enabled	
En/Disable specified seria	l port.	
Change Settings	Auto	
	IO=2F8h; IRQ=3;	
	IO=3F8h; IRQ=3,4,5,7,10,11,12;	
	IO=2F8h; IRQ=3,4,5,7,10,11,12;	

	IO=3E8h; IRQ=3,4,5,7,10,11,12;	
	IO=2E8h; IRQ=3,4,5,7,10,11,12;	
Select a resource setting for Super IO device.		
COM2 Type Select	RS232	
	RS422	
RS485		
Configure COM2 operated as RS232, RS422 or RS485.		

Serial Port 3 Configuration

	Aptio Setup Utility – (Advanced	Copyright	(C) 2011 American	Megatrends, Inc.
Serial	Port 3 Configuration			Enable or Disable Serial Port (COM)
Serial Device	Port Settings	[Enabled] IO=3E8h;		(0017)
Change	Settings	[Auto]		
				++: Select Screen 14: Select Item
				Enter: Select +∕–: Change Opt. F1: General Help
				F2: Previous Values F3: Optimized Defaults F4: Save & Exit
				ESC: Exit
	Version 2.14.1219. Cop	oyright (C	:) 2011 American Me	egatrends, Inc.

	Serial Port	Disabled	
--	-------------	----------	--

	Enabled			
En/Disable specified se	En/Disable specified serial port.			
Change Settings	Auto			
	IO=3E8h; IRQ=10;			
	IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12;			
	IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12;			
	IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12;			
	IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12;			
Select a resource setting for Super IO device.				

H/W Monitor

Aptio S Advanced	Setup Utility – Copyright (C)	2011 American	Megatrends,	Inc.
Pc Health Status				
CPU temperature SB temperature System temperature Vccr 1.5V Vcc 3.3V Vcc 3.3V Vcc 5V Vcc 12V SV Dual VBAT	: +41 C : +39 C : +34 C : +1.213 V : +1.541 V : +3.412 V : +5.048 V : +11.772 V : +5.040 V : +3.271 V		++: Select S t1: Select : Enter: Select +/-: Change F1: General F2: Previous F3: Optimizs F4: Save & E ESC: Exit	Item St Opt. Help S Values ed Defaults
Versid	on 2.14.1219. Copyright (C) (2011 American Me	egatrends, Ir	ю.

Setup submenu: Chipset

Aptio Setup Utility – Copyright (C) 2011 American Main Advanced <mark>Chipset</mark> Boot Security Save & Exit	Megatrends, Inc.
 Host Bridge South Bridge 	Host Bridge Parameters ++: Select Screen 11: Select Item Enter: Select /-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.14.1219. Copyright (C) 2011 American Ma	egatrends, Inc.

Host Bridge	
Host Bridge Parameters	
South Bridge	
South Bridge Parameters	

Host Bridge

Aptio Setup Utility - Chipset	Copyright (C) 2011 American	Megatrends, Inc.
▶ Intel IGD Configuration ******** Memory Information ******* Memory Frequency Total Memory	1067 MHz(DDR3) 2048 MB	Config Intel IGD Settings.
		++: Select Screen ++: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values
		F2: Previous values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.14.1219. Co	pyright (C) 2011 American Mo	egatrends, Inc.

Intel IGD Configuration	
Config Intel IGD Settings.	

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Intel IGD Configuration

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc. <mark>Chipset</mark>				
Intel IGD Configuration IGFX - Boot Type LCD Panel Type Control LVDS1 Fixed Graphics Memory Size	[VBIOS Default] [1024x768 24Bit] [Enable] [256MB]	Select the Video Device which will be activated during POST. This has no effect if external graphics present.		
		<pre>+: Select Screen 14: Select Item Enter: Select +/-: Change Opt, F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre>		
Version 2.14.1219. C	Copyright (C) 2011American ⊧	legatrends, Inc.		

IGFX - Boot Type	VBIOS Default	
	CRT	
	LVDS	
	CRT+LVDS	
Select Primary boot displa	y device	
LVDS Panel Type	640x480 18-Bit	
	800x600 18-Bit	
	1024x768 18-Bit	
	800x480 18-Bit	

	1280x768	18-Bit
	640x480	24-Bit
	800x600	24-Bit
	1024x768	24-Bit
	1280x768	24-Bit
	1366x768	24-Bit
Select panel native resolut	ion.	
Control LVDS1	Disable	
	Enable	
Enable/Disable LVDS		
Fixed Graphics Memory	128MB	
Size	256MB	
Configure Fixed Graphics I	Memory Size	е

South Bridge

Aptio Setu Chipset	o Utility – Copyright (C) 2011 America	n Megatrends, Inc.
Power Mode ▶ TPT Devices ▶ PCIe mini-Card Slot	(ATX Type)	Enable or disable 'It is now safe to turn off your computer.' string
		+t: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2	.14.1219. Copyright (C) 2011 American	Megatrends, Inc.

Power Mode	АТХ Туре	
	АТ Туре	
Select the power type use	ed on the system	
TPT Devices		
HD audio and onboard LA	AN Settings.	
PCIe mini-Card Slot		
PCIe mini-Card Slot Setti	ngs.	

TPT Devices

Aptio Setup Uti Chipset	ility – Copyright (C) 2011 A	merican Megatrends, Inc.
Azalia Controller R8111E #1 Controller R8111E #2 Controller	[HD Audio] [Enabled] [Enabled]	Azalia Controller +-: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.14.1	1219. Copyright (C) 2011 Ame	

Azalia Controller	Disabled	
	HD Audio	
Enable or disabled Azalia controller		
R8111E #1 Controller	Disabled	
	Enabled	
Enable or disable PCIE Lan.		
R8111E #2 Controller	Disabled	
	Enabled	
Enable or disable PCIE Lan.		

PCIe mini-Card Slot

Aptio Setup Chipset	Utility – Copyright (C) 2011 A	merican Megatrends, Inc.
PCIe mini-Card Slot	[Auto]	Enable / Disable PCIe mini-Card Slot.
		<pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre>
Version 2.1	4.1219. Copyright (C) 2011 Ame	rican Megatrends, Inc.

PCIe MiniCard Slot	Disabled	
	Enabled	
Control the PCI Express Root Port.		

A H P - 2 1 5 3

Setup submenu: Boot

Aptio Setup Util. Main Advanced Chipset <mark>Boot</mark>	ity – Copyright (C) 2011 America Security Save & Exit	n Megatrends, Inc.
Boot Configuration Quiet Boot Launch 8111E PXE OpROM	[Enabled] [Disabled]	Enables or disables Quiet Boot option
Boot Option Priorities Boot Option #1 Boot Option #2	[UEFI: USB FLASH D] [USB FLASH DRIVE PMAP]	
Hand Drive BBS Priorities		
		++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.14.12	19. Copyright (C) 2011 American	Megatrends, Inc.

Quiet Boot	Disabled	
	Enabled	
En/Disable showing boot lo	go.	
Launch RTL8111E PXE	Disabled	
OpROM	Enabled	
En/Disable PXE boot for RT	L8111E LAN	
Boot Option #X/		
XXXX Drive BBS Priorities		
The order of boot priorities.		

BBS Priorities

Boot Option #1 [USB FLASH DRIVE PMAP] Boot Option #2 [SATA PM: MAXTOR S] ++: Select Screen 14: Select Item Enter: Select +/-: Obage Opt.	Aptio Setup Utility – Boot	Copyright (C) 2011 American	Megatrends, Inc.
	/1		++: Select Screen f4: Select Item
F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit Version 2.14.1219. Copyright (C) 2011 American Megatrends, Inc.			+/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

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

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Setup submenu: Security

Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc. Main Advanced Chipset Boot <mark>Security</mark> Save & Exit		
Password Description		Set Administrator Password
If ONLY the Administrator's pass then this only limits access to only asked for when entering Se If ONLY the User's password is a is a power on password and must boot or enter Setup. In Setup th have Administrator rights. The password length must be in the following range: Minimum length	Setup and is tup. set, then this be entered to ne User will 3	
Maximum length	20	↔: Select Screen
Administrator Password User Password		<pre>tl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values</pre>
HDD Security Configuration: HDD 0:MAXTOR STM33		F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.14.121	9. Copyright (C) 2011 American M	egatrends, Inc.

Administrator Password/	Not set	
User 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.

Install the Password:

Press Enter on this item, 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.

HDD Security

Aptio Setu		Copyright (C) 2011 American urity	Megatrends, Inc.
HDD Password Description	:		
Allows Access to Set, Modify and Clear HardDisk User and Master Passwords. User Password need to be installed for Enabling Security. Master Password can be Modified only when successfully unlocked with Master Password in POST.			
HDD PASSWORD CONFIGURATI	ON:		
Security Supported Security Enabled Security Locked Security Frozen HDD User Pud Status HDD Master Pud Status Set User Password Set Master Password	:	Yes No No NOT INSTALLED INSTALLED	++: Select Screen 1↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2	.14.1219. C	opyright (C) 2011 American M	egatrends, Inc.

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Options summary: (*default setting*)

Set User Password/	Not set	
Set Master Password		
You can install a Master and User password. Before booting to OS, HDD will be set to		
frozen state. On S3 resume HDD will be unlocked using the HDD Password we		
entered while system booting.		

Install the Password:

Press Enter on this item, 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

Aptio Setup Utility – Copyright (C) 2011 Americar Main Advanced Chipset Boot Security <mark>Save & Exit</mark>	Megatrends, Inc.
Save Changes and Reset Discand Changes and Reset	Reset the system after saving the changes.
Restore Defaults Save as User Defaults Restore User Defaults	
	++: Select Screen 14: Select Item Enter: Select +/-: Change Opt.
	F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.14.1219. Copyright (C) 2011 American ⊦	legatrends, Inc.

Options summary: (*default setting*)

Save Changes and Reset		
Reset the system after saving the changes		
Discard Changes and Reset		
Reset system setup without saving any changes		
Restore Defaults		
Restore/Load Default values for all the setup options.		
Save as User Defaults		
Save the changes done so far as User Defaults		
Restore User Defaults		
Restore the User Defaults to all the setup options		

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Chapter

Driver Installation

Chapter 4 Driver Installation 4 - 1

The AHP-2153 comes with a DVD-ROM that contains all drivers and utilities that meet your needs.

Follow the sequence below to install the drivers:

- Step 1 Install Chipset Driver
- Step 2 Install VGA Driver
- Step 3 Install LAN Driver
- Step 4 Install Audio Driver
- Step 5 Install AHCI Driver
- Step 6 Install Touch Panel Driver
- Step 7 Install Wireless LAN & Bluetooth Driver (Optional)
- Step 8 Install GPS (Optional)

Please read instructions below for further detailed installations.

4.1 Installation:

Insert the AHP-2153 DVD-ROM into the DVD-ROM Drive. And install the drivers from Step 1 to Step 8 in order.

Step 1 – Install Chipset Driver

- 1. Click on the **STEP1-CHIPSET** and double click on the **Setup.exe** file
- 2. Follow the instructions that the window shows
- 3. The system will help you install the driver automatically
- Step 2 Install VGA Driver
 - 1. Click on the *STEP2-VGA* folder and double click on the *Setup.exe* file
 - 2. Follow the instructions that the window shows
 - 3. The system will help you install the driver automatically
- Step 3 Install LAN Driver
 - 1. Click on the **STEP3-LAN** folder and select the OS folder your system is
 - 2. Double click on the setup.exe 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 your system is

- 2. Double click on the Setup.exe located in each OS folder
- 3. Follow the instructions that the window shows
- 4. The system will help you install the driver automatically
- Step 5 Install AHCI Driver

For Windows[®] 7:

- 1. Click on the **STEP5-AHCI** folder and select the **WIN7_32** folder
- 2. Double click on the **setup.exe** file
- 3. Follow the instructions that the window shows
- 4. The system will help you install the driver automatically

For Windows[®] XP:

Please refer to Appendix A AHCI Setting

Step 6 – Install Touch Panel Driver

- 1. Click on the **STEP6-TOUCH PANEL** folder and select the OS folder your system is
- 2. Double click on the setup.exe located in each OS folder
- 3. Follow the instructions that the window shows
- 4. The system will help you install the driver automatically

Step 7 – Install Wireless LAN & Bluetooth Driver (Optional)

- 1. Click on the **STEP7-WIRELESS LAN&BT (option)** folder and select the OS folder your system is
- 2. Double click on the **setup.exe** located in **Install_CD** folder under each OS folder

- 3. Follow the instructions that the window shows
- 4. The system will help you install the driver automatically

Step 8 – Install GPS Driver (Optional)

- Click on the STEP8-GPS (option) folder and select the OS folder your system is.
- 2. Double click on the Setup.exe 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

AHCI Setting

AHP-2153

A.1 Setting AHCI

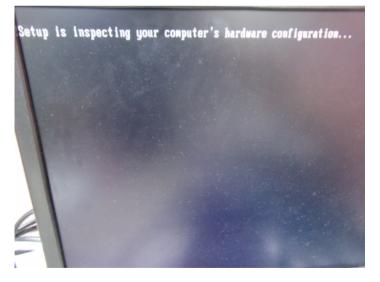
OS installation to setup AHCI Mode.

Step 1: Copy the files below from "Driver CD -> STEP5-AHCI\WINXP_32"

to Disk



Step 3: Setup OS



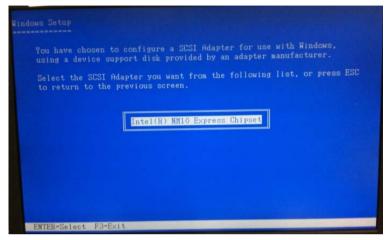
Step 4: Press "F6"



Step 5: Choose "S"



Step 6: Choose "Intel(R) NM10 Express Chipset"



Step 7: It will show the model number you select and then press "ENTER

Step 8: Setup is loading files



Appendix A AHCI Setting A-4