



# APC-3X95P\_R

# 15", 17", 19" Intel 4<sup>th</sup> Core i3/i5/i7 IP65/69K Stainless

**Steel Panel PC** 

# **User Manual**

Release Date	Revision
Mar. 2015	V1.0
©2015 Aplex Technology, Inc. All Rights Reserved. Published in Taiwan	
Aplex Technology, Inc.	
15F-1, No.186, Jian Yi Road, Zhonghe District, New Taipei City 235, Taiwan	
Tel: 886-2-82262881 Fax: 886-2-82262883 E-mail: aplex@aplex.com.tw URL: www.a	plextec.com

# **Revision History**

Reversion	Date	Description
1.0	2015/03/27	Official Version

# Warning!

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, it may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Electric Shock Hazard – Do not operate the machine with its back cover removed. There are dangerous high voltages inside.

#### Caution

Risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Disposal of used batteries must be in accordance with local environmental regulations.

#### Disclaimer

This information in this document is subject to change without notice. In no event shall Aplex Technology Inc. be liable for damages of any kind, whether incidental or consequential, arising from either the use or misuse of information in this document or in any related materials.

## Packing List

Accessories (as ticked) included in this package are:		
Adaptor		
Driver & manual CD disc		
Other	_(please specify)	

### **Safety Precautions**

Follow the messages below to prevent your systems from damage:

• Avoid your system from static electricity on all occasions.



- Prevent electric shock. Don't touch any components of this card when the card is power-on. Always disconnect power when the system is not in use.
- Disconnect power when you change any hardware devices. For instance, when you connect a jumper or install any cards, a surge of power may damage the electronic components or the whole system.

# **Table of Contents**

Revision History	1
Warning!/Caution/Disclaimer	2
Packing List	3
Safety Precautions	

## Chapter 1 Getting Started

1.1 Features	7
1.2 Specifications	7
1.3 Dimensions	9
1.4 Brief Description of APC-3X95P/R	11

### Chapter 2

### Hardware

2.1 Mainboard Introduction	14
2.2 Specifications	14
2.3 Jumpers and Connectors Location	17
2.4 Jumpers Setting and Connectors	18

### Chapter 3

### **BIOS Setup**

3.1 Operations after POST Screen	32
3.2 BIOS Setup Utility	32
3.3 Main Settings	33
3.4 Advanced Settings	34
3.5 Chipset Settings	38
3.6 Boot Settings	40
3.7 Security Settings	41
3.8 Save & Exit Settings	42

### Chapter 4 Installation of Drivers

4.1 Intel (R) CORE AMT Driver	45
4.2 Intel (R) VGA Chipset	47
4.3 Intel (R) LAN Driver	50
4.4 Realtek ALC662 HD Audio Driver	53
4.5 USB 3.0 Driver	55
4.6 Intel (R) AMT Driver	58

## Chapter 5 Touch Screen Installation

5.1 Windows XP/2003/Vista/WIN7 Universal Driver Installation for

PenMount 6000 Series	61
5.2 Software Functions	72

### **Figures**

Figure 1.1: Dimensions of APC-3595P/R	9
Figure 1.2: Dimensions of APC-3795P/R	9
Figure 1.3: Dimensions of APC-3995P	10
Figure 1.4: Dimensions of APC-3995R	10
Figure 1.5: Front View of APC-3595P/R	11
Figure 1.6: Rear View of APC-3595P/R	11
Figure 1.7: Front View of APC-3795P/R	12
Figure 1.8: Rear View of APC-3795P/R	12
Figure 1.9: Front View of APC-3995P/R	13
Figure 1.10: Rear View of APC-3995P/R	13
Figure 2.1: Mainboard Dimensions	16
Figure 2.2: Jumpers and Connectors Location-Board Top	17
Figure 2.3: Jumpers and Connectors Location-Board Bottom	17

# Chapter 1

### **1.1 Features**

- Fanless and High Performance Panel PC
- Intel 4<sup>th</sup> Core i3/i5/i7 Processor
- Onboard DDR3 4GB 1333/1600MHz
- SUS304 Grade Stainless Steel Enclosure (SUS 316 Optional)
- Full Flat bezel Design and Totally IP65/IP69K
- Projective Capacitive Touch / Resistive Touch window
- 9~36V DC wide-ranging power input

### **1.2 Specifications**

	APC-3595P/R	APC-3795P/R	APC-3995P/R		
System					
CPU	Intel Core i3-4010U Processor (3M Cache, 1.7GHz) / TDP: 15W				
	Intel Core i5-4310	J Processor (3M Cache, 2	.0GHz) / TDP: 15W		
Chipset		SoC			
Memory	Onbo	ard DDR3L 4GB 1333/160	0MHz		
Graphic	Inte	grated Intel HD Graphics	1400		
IO Port					
USB	1	x M12 8pin for 1 x USB 3.	0		
	1 x M12 8pin for 2 x USB 2.0				
Serial/Parallel	1 x M12 8pin for COM1, RS-232/422/485 selectable (Default RS-232)				
	1 x M12 8pin for COM2, RS-232				
LAN		1 x M12 8pin for LAN			
Power	1 x M12 3pin DC Power				
Storage Space	Storage Space				
Storage	1 x 2.5" SATA HDD or SSD (easily accessible design)				
	1 x Internal SD Card slot onboard				
Expansion	Expansion				
Expansion Slot	1 x Mini PCIe half size				

for option WLAN/BT Module and Antenna at rear side					
Display					
Display Type	15" TFT LCD	17" TFT LCD	19" TFT LCD		
Max. Resolution	1024 x 768	1280 x 1024	1280 x 1024		
Max. Color	16.7M	16.7M	16.7M		
Luminance	420				
Contrast Ratio	800:1				
Viewing Angle	160 (H) / 160 (V)	170 (H) / 170 (V)	170 (H) / 165 (V)		
Backlight Lifetime	50,000 hrs	50,000 hrs	50,000 hrs		
Touch Screen – Resi	stive Touch Window Type	9			
Model no.	APC-3595R	APC-3795R	APC-3995R		
Interface		USB			
Light Transmission		80%			
Touch Screen – Proj	ected Capacitive Type				
Model no.	APC-3595P	APC-3795P	APC-3995P		
Interface		USB			
Light Transmission		90%			
Power					
Power Input	9~36V DC				
Mechanical	Mechanical				
Structure		Stainless Steel Chassis			
Mounting	VESA Mou	nt 75 x 75	VESA Mount 100 x 100		
IP Rating		Total IP65/IP69K			
Dimension(mm)	399 x 323.9 x 48.5	432 x 358 x 56	470 x 415.4 x 60		
<b>Operating System S</b>	upport				
OS Support	Windows 7	Professional for Embedd	ed Systems		
	Windows	7 Ultimate for Embedded	d Systems		
	Windows Embedded 8 Standard				
	'	Windows Embedded 8 Pro	)		
	Windows Embedded 8.1 Pro				
	Windows Embedded 8.1 Industry Pro				
Environmental					
Operating temperat	ture 0~50°C				
Extended Temperat	ture $-20^{\circ}$ C ~60°C (with industrial SSD, for 15" and 17" option)				
Storage temperatu	<b>.re</b> − <b>30~70</b> °C				
Storage humidity	y 10 to 90% @ 40°C, non- condensing				
Certification	fication CE / FCC Class A				

### 1.3 Dimensions





Figure 1.2: Dimensions of APC-3795P/R







Figure 1.4: Dimensions of APC-3995R

### 1.4 Brief Description of APC-3X95P/R

APC-3X95P/3X95R series are powered by Intel 4<sup>th</sup> Core i3/i5/i7 Processor. It is a full flat bezel designed and totally IP65/69K certificated fanless high performance panel PC. The stainless steel chassis design makes it exceptionally suitable for strict hygiene regulations for food/chemical industry, medical, restaurant/kitchen applications, storage management and outdoor/information segment and so on. APC-3X95P/3X95R series has touch screen of projected capacitive type and resistive type window for option. The model supports 4GB DDR3 1333/1600MHz onboard and 1 x 2.5" SATA HDD or SSD (easily accessible design), and it is 9~36V DC wide-ranging power input. APC-3X95P/3X95R series supports OS such as Windows 7 Professional for Embedded Systems, Windows 7 Ultimate for Embedded Systems and so on.



Figure 1.6: Front View of APC-3595P/R



Figure 1.7: Rear View of APC-3595P/R



Figure 1.8: Front View of APC-3795P/R



Figure 1.9: Rear View of APC-3795P/R



Figure 1.10: Front View of APC-3995P/R



Figure 1.11: Rear View of APC-3995P/R

# Chapter 2

### 2.1 Mainboard Introduction

SBC-7110 is a 4" industrial motherboard developed on the basis of Intel Haswell-U Processors, which provides abundant peripheral interfaces to meet the needs of different customers. Also, it features dual GbE ports, 5-COM ports and one Mini PCIE configuration, one eDP port, one HDMI port, one LVDS interface. To satisfy the special needs of high-end customers, CN1 and CN2 and CN3 richer extension functions. The product is widely used in various sectors of industrial control.

Specifications		
Board Size	170mm x 113mm	
CPU Support	Intel <sup>®</sup> Core <sup>™</sup> i3-4010U /1.7GHz (onboard) Intel <sup>®</sup> Core <sup>™</sup> /i5-4310U /2.0 up to 3.00GHz (option ) Intel <sup>®</sup> Core <sup>™</sup> /i7-4510U /2.0 up to 3.10GHz (option )	
Chipset	SoC	
Memory Support	Onboard 4GB DDR3L SDRAM	
Graphics	Intel <sup>®</sup> HD Graphics 4400	
Display Mode	1 x HDMI Port 1 x LVDS (18/24-bit dual LVDS) <i>1 x eDP Port (EDP1, option)</i>	
Support Resolution	Up to 1920 x 1200 for HDMI Up to 1920 x 1200 for LVDS (PS8625) <i>Up to 1920 x 1200 for eDP</i>	
Dual Display	HDMI + LVDS	
Super I/O	ITE IT8518E Fintek F81216AD	
BIOS	AMI/UEFI	
Storage	1 x SATAIII Connector (7P) 1 x SATAIII Connector (7P+15P) 1 x SD Slot	

### 2.2 Specifications

Ethernet	2 x PCIe Gbe LAN by Intel 82574L	
USB	<ul> <li>2 x USB 3.0 (type A)stack ports (USB3) (USB 3.0: USB3-1/USB3-2, USB 2.0: USB1/USB2)</li> <li>2 x USB 2.0 Pin header for CN3 (USB3/USB4)</li> <li>1 x USB 2.0 Pin header for CN2 (USB5)</li> <li>1 x USB 2.0 Pin header for CN1 (USB7 or Touch, option)</li> <li>1 x USB 2.0 for MPCIE1 (USB8)</li> </ul>	
Serial	<ul> <li>1 x RS232/RS422/RS485 port, DB9 connector for external (COM1) Pin 9 w/5V/12V/Ring select</li> <li>1 x RS232 port, DB9 connector for external (COM2) Pin 9 w/5V/12V/Ring select</li> <li>2 x UART for CN3 (COM3,COM4)</li> <li>1 x RS422/485 header for CN2 (IT8518E/COM5)</li> <li>1 x RS422/485 header for CN2 (IT8518E/COM6,option)</li> </ul>	
Digital I/O	<ul> <li>8-bit digital I/O by Pin header (CN2)</li> <li>4-bit digital Input</li> <li>4-bit digital Output</li> <li>4-bit digital I/O by Pin header (CN3)</li> <li>2-bit digital Input</li> <li>2-bit digital Output</li> </ul>	
Battery	Support CR2477 Li battery by 2-pin header (BAT1/CMOS)	
Smart Battery	1 x Smart battery Support 3 Serial Li battery by 10-pin header (BAT2)	
Audio	Support Audio via Realtek ALC662-VD HD audio codec Support Line-in, Line-out, MIC by 2x6-pin header	
Keyboard /Mouse	1 x PS2 keyboard/mouse by box pin header (CN3)	
Expansion Bus	1 x mini-PCI-express slot 1 x PCI-express (CN3)	
Touch Ctrl	1 x Touch ctrl header for TCH1 (ITE8518E/COM6) (JP4 setting: RS232 or USB 2.0)	
Power Management	Wide Range DC9V~36V input 1 x 3-pin power input connector	
Switches and LED Indicators	1 x Power on/off switch (BT1/BT2/CN2/CN3) 1 x Reset (CN2)	

	1 x HDD LED status (CN2) 1 x Power LED status (CN1) 1 x Buzzer	
External I/O port	2 x COM Ports (COM1/COM2) 2 x USB 3.0 Ports (stack) 2 x RJ45 GbE LAN Ports 1 x HDMI Port 1 x Stack audio Jack (Line out)	
Watchdog Timer	Software programmable 1–255 level by Super I/O (Reserve)	
Temperature	Operating: -20 $^{\circ}$ C to 70 $^{\circ}$ C Storage: -40 $^{\circ}$ C to 85 $^{\circ}$ C	
Humidity	10% - 90%, non-condensing, operating	
Power Consumption	12V /1.33A (Intel I3-4010U processor with 4GB DDR3L DRAM) 12V /1.33A (Intel I5-4310U processor with 4GB DDR3L DRAM) 12V /1.33A (Intel I7-4510U processor with 4GB DDR3L DRAM)	
EMI/EMS	Meet CE/FCC class A	



Figure 2.1: Mainboard Dimensions

APC-3X95P\_R User Manual



### 2.3 Jumpers and Connectors Location

Figure 2.2: Jumpers and Connectors Location- Board Top



Figure 2.3: Jumpers and Connectors Location- Board Bottom

### 2.4 Jumpers Setting and Connectors

### 1. CPU1:

(FCBGA1168), onboard Intel Haswell-U Processors.

Model	Processor				
	Number	PBF	Cores/Threads	TDP	Remarks
SBC-7110-i34010P-4G	i3-4010U	1.7GHz	2 / 4	15W	Option
SBC-7110-i54310P-4G	i5-4310U	2.0 up to 3.0GHz	2 / 4	15W	Option

#### 2. H3/H4/H5/H6(option):

CPU1 Heat Sink Screw holes, four screw holes for intel Haswell-U Processors Heat Sink assemble.

#### 3. FAN1(option):

(2.54mm Pitch 1x3 Pin Header), Fan connector, cooling fans can be connected directly for use. You may set the rotation condition of cooling fan in menu of BIOS CMOS Setup.



Pin#	Signal Name
1	Ground
2	VCC
3	Rotation detection



Output power of cooling fan must be limited under 5W.

#### 4. U2/U3/U4/U5/U7/U8/U9/U10:

(FBGA96)Onboard DDR3L Memory.

Model	Memory
SBC-7110-i34010P-4G	4GB
SBC-7110-i54310P-4G	4GB

#### 5. S-422 (PIN6):

(Switch), ATX Power and Auto Power on jumper setting.

S-422(Switch)	Mode
Pin6 (Off)	ATX Power
Pin6 (On)	Auto Power on (Default)

#### 6. PS\_ON (option):

(2.0mm Pitch 1x2 Pin wafe Header), ATX Power and Auto Power on jumper setting.

Pin#	Mode
Open	ATX Power
Close 1-2	Auto Power on (Default)

#### 7. BAT1:

(1.25mm Pitch 1x2 Wafer Pin Header) 3.0V Li battery is embedded to provide power for CMOS.

Pin#	Signal Name
Pin1	VBAT
Pin2	Ground

#### 8. JP3:

(2.0mm Pitch 1x2 Pin Header) CMOS clear jumper, CMOS clear operation will permanently reset old BIOS settings to factory defaults.

JP3	CMOS
Open	NORMAL (Default)
Close 1-2	Clear CMOS



#### Procedures of CMOS clear:

- a) Turn off the system and unplug the power cord from the power outlet.
- b) To clear the CMOS settings, use the jumper cap to close pins 1 and 2 for about 3 seconds then reinstall the jumper clip back to pins open.
- c) Power on the system again.
- d) When entering the POST screen, press the <ESC> or <DEL> key to enter CMOS Setup Utility to load optimal defaults.
- e) After the above operations, save changes and exit BIOS Setup.

#### 9. BAT2:

(2.0mm Pitch 1x10 Wafer Pin Header), Smart battery Interface.

Pin#	Signal Name
Pin1	VCC_BAT1
Pin2	VCC_BAT1
Pin3	VCC_BAT1
Pin4	SMB_DAT_SW
Pin5	SMB_SCL_SW
Pin6	BAT1_TEMP
Pin7	Ground
Pin8	Ground
Pin9	Ground
Pin10	SET_BAT1_ON

Function	Specifications
Nominal voltage (3S1P)	11.1~12.6V
Charge voltage	12.6V
Charge current	0.5C

#### 10. BAT\_LED:

(2.0mm Pitch 1x4 Wafer Pin Header), The Charge status indicator for BAT2. Pin1-Pin3: Charge LED status.

Pin2-Pin3: Discharge LED status.

Pin4-Pin3: EC LED status.

Pin#	Signal Name	
Pin1	BAT2_LED+	
Pin2	BAT2_LED-	
Pin3	Ground	
Pin4	RST_EC	

#### 11. DC\_IN1:

(5.08mm Pitch 1x3 Pin Connector), DC9V~36V System power input connector.

Pin#	Signal Name	
Pin1	DC+9V~36V	
Pin2	Ground	
Pin3	FG	

Model	DC_IN1
SBC-7110-i34010U-4G	180°Connector
SBC-7110-I54310U-4G	180°Connector
SBC-7110-I74510U-4G	180°Connector
SBC-7110-I34010UP-4G	45°Connector
SBC-7110-I54310UP-4G	45°Connector
SBC-7110-I74510UP-4G	45°Connector

#### 12. BT1/BT2:

**Power on/off button,** They are used to connect power switch button. The two pins are disconnected under normal condition. You may short them temporarily to realize system startup & shutdown or awaken the system from sleep state.

#### 13. LED2/LED3/LED4/LED5:

LED2: LED STATUS. Green LED for Motherboard EC status. LED3: LED STATUS. Green LED for Power status. LED4: LED STATUS. Green LED for Motherboard Standby Power Good status. LED5: LED STATUS. Green LED for CPU1 status

#### 14. HDMI1:

(HDMI 19P Connector), High Definition Multimedia Interface connector.



#### 15. JP6:

(2.0mm Pitch 2x2 Pin Header), LVDS jumper setting.



JP6	Function (CN1)		
Pin1-Pin2 (Close)	Signal channel LVDS		
Pin1-Pin2 (Open)	Dual channel LVDS (Default)		
Pin3-Pin4 (Close)	8⁄24 bit (Default)		
Pin3-Pin4 (Open)	6/18 bit		

#### 16. U22:

AT24C02-DIP8, The EEPROM IC (U22) is the set of LVDS resolution. If you need other resolution settings, please upgrade U22 data.

Model	LVDS resolution
	1280 x 1024 (Default)
SBC-7110-i34010U-XX	800 x 480 (option)
SBC-7110-i54310U-XX	800 x 600 (option)
SBC-7110-i74510U-XX	1024 x 768 (option)
	1920 x 1080 (option)

#### 17. INVT1:

(2.0mm Pitch 1x6 wafer Pin Header), Backlight control connector for LVDS.



Pin#	Signal Name		
1	+DC12V_S0		
2	+DC12V_S0		
3	Ground		
4	Ground		
5	BKLT_EN_OUT		
6	BKLT_CTRL		

#### 18. CN1:

(1.25mm Pitch 2x20 Connector, DF13-40P), For 18/24-bit LVDS output connector, Fully supported by Parad PS8625(DP to LVDS), the interface features dual channel 24-bit output. Low Voltage Differential Signaling, A high speed, low power data transmission standard used for display connections to LCD panels.

Function	Signal Name	Pin#	Pin#	Signal Name	Function
	12V_S0	2	1	12V_S0	
	BKLT_EN_OUT	4	3	BKLT_CTRL	
	Ground	6	5	Ground	

LVDS_VDD5	8	7	LVDS_VDD5	
LVDS_VDD3	10	9	LVDS_VDD3	
Ground	12	11	Ground	
LA_D0_P	14	13	LA_D0_N	
LA_D1_P	16	15	LA_D1_N	LVDS
LA_D2_P	18	17	LA_D2_N	
LA_D3_P	20	19	LA_D3_N	
LA_CLKP	22	21	LA_CLKN	
LB_D0_P	24	23	LB_D0_N	
LB_D1_P	26	25	LB_D1_N	
LB_D2_P	28	27	LB_D2_N	
LB_D3_P	30	29	LB_D3_N	
LB_CLKP	32	31	LB_CLKN	
Ground	34	33	Ground	USB7
USB7_P	36	35	USB7_N	(JP4 open)
5V_S5_USB	38	37	5V_S5_USB	
PWR_LED+	40	39	Ground	Power LED
	LVDS_VDD3 Ground LA_D0_P LA_D1_P LA_D2_P LA_D3_P LA_CLKP LB_D0_P LB_D1_P LB_D1_P LB_D2_P LB_D3_P LB_CLKP Ground USB7_P 5V_S5_USB	LVDS_VDD3       10         Ground       12         LA_D0_P       14         LA_D1_P       16         LA_D2_P       18         LA_D3_P       20         LA_CLKP       22         LB_D0_P       24         LB_D1_P       26         LB_D3_P       30         LB_CLKP       32         Ground       34         USB7_P       36         5V_S5_USB       38	LVDS_VDD3         10         9           Ground         12         11           LA_D0_P         14         13           LA_D1_P         16         15           LA_D2_P         18         17           LA_D3_P         20         19           LA_CLKP         22         21           LB_D0_P         24         23           LB_D1_P         26         25           LB_D2_P         28         27           LB_D3_P         30         29           LB_CLKP         32         31           Ground         34         33           USB7_P         36         35           SV_S5_USB         38         37	LVDS_VDD3       10       9       LVDS_VDD3         Ground       12       11       Ground         LA_D0_P       14       13       LA_D0_N         LA_D1_P       16       15       LA_D1_N         LA_D2_P       18       17       LA_D3_N         LA_CLKP       22       21       LA_CLKN         LB_D0_P       24       23       LB_D0_N         LB_D1_P       26       25       LB_D1_N         LB_D2_P       28       27       LB_D2_N         LB_D3_P       30       29       LB_D3_N         LB_CLKP       32       31       LB_CLKN         Ground       34       33       Ground         USB7_P       36       35       USB7_N         5V_S5_USB       38       37       5V_S5_USB

### 19. EDP1 (option)

-					
Function	Signal Name	Pin#	Pin#	Signal Name	Function
	12V_S0_EDP	2	1	12V_S0_EDP	
	12V_S0_EDP	4	3	12V_S0_EDP	
	Ground	6	5	Ground	
	EDP_VDD5	8	7	EDP_VDD5	
	EDP_VDD3	10	9	EDP_VDD3	
	Ground	12	11	Ground	
EDP	EDP_BKLT_EN	14	13	EDP_TXN_1	EDP
	EDP_BKLT_CTRL	16	15	EDP_TXP_1	
	EDP_VDD_EN	18	17	Ground	
	EDP_TXN_2	20	19	EDP_TXN_0	
	EDP_TXP_2	22	21	EDP_TXP_0	
	Ground	24	23	Ground	
	EDP_TXN_3	26	25	EDP_AUX_N	
	EDP_TXP_3	28	27	EDP_AUX_P	
	EDP_DISP_UTIL	30	29	12C1_SCL	12C
	EDP_HP_CN	32	31	12C1_SDA	
	Ground	34	33	Ground	USB7

USB7	USB7_P	36	35	USB7_N	(option)
(option)	5V_S5_USB	38	37	5V_S5_USB	
Power LED	PWR_LED+	40	39	Ground	Power LED

#### 20. JP4:

(2.0mm Pitch 2x2 wafer Pin Header), USB3(CN1) or Touch jumper setting.

	2 4 1 3 Δ	
JP4	Func	tion
	USB7 (CN1)	Touch (TCH1)
Close 3-4 ( <b>default)</b>	-	Yes
Open 3-4 (option)	Yes	-
Open 1-2 ( <b>default)</b>	-	-

#### 21. TCH1:

(2.0mm Pitch 1x6 wafer Pin Header), internal Touch controller connector.

Pin#	Signal Name	
1	SENSE	
2	Х+	
3	X-	
4	Y+	
5	Y-	
6	GND_EARCH	

#### 22. LED1:

LED1: LED STATUS. Green LED for Touch Power status.

#### 23. JP1:

(2.0mm Pitch 2x3 Pin Header), COM1 jumper setting, pin 1~6 are used to select signal out of pin 9 of COM1 port.

JP1 Pin#	Function		
Close 1-2	COM1 RI (Ring Indicator) (default)		
Close 3-4	COM1 Pin9: DC+5V	(option)	
Close 5-6	COM1 Pin9: DC+12V	(option)	

#### 24. S\_232

(Switch), COM1 jumper setting, it provides selectable RS232 or RS422 or RS485 serial signal output.

Function	S_232 Pin#	
RS232 (Default)	ON: Pin1, Pin2, Pin3, Pin4	
RS422 (option)	OFF: Pin1, Pin2, Pin3, Pin4	
RS485 (option)	OFF: Pin1, Pin2, Pin3, Pin4	

#### 25. S\_422:

(Switch), COM1 setting, it provides selectable RS232 or RS422 or RS485 serial signal output.

Function	S_422 Pin#		
RS232 (Default)	OFF: Pin1, Pin2, Pin3, Pin4, Pin5		
RS422 (option)	ON: Pin1, Pin2, Pin3, Pin4, Pin5		
RS485 (option)	ON: Pin1, Pin2, Pin3, Pin4, Pin5		

#### 26. COM1

**(Type DB9M)**, Rear serial port, standard DB9 Male serial port is provided to make a direct connection to serial devices. COM1 port is controlled by pins No. 1~6 of JP1, select output Signal RI or 5V or 12V, For details, please refer to description of JP1 and S\_232 and S\_422 setting.



RS232 (Default)				
Pin#	Signal Name			
1	DCD# (Data Carrier Detect)			
2	RXD (Received Data)			
3	TXD (Transmit Data)			
4	DTR (Data Terminal Ready)			
5	Ground			
6	DSR (Data Set Ready)			
7	RTS (Request To Send)			

8 CTS (Clear To Send)				
9 JP1 select Setting (RI/5V/12V)				
BIOS Setup:				
Advanced/F81216 Super IO Configuration/Serial Port 0				

Configuration [RS-232]

RS422 (option)					
Pin#	Signal Name				
1	422_RX+				
2	422_RX-				
3	422_TX-				
4	422_TX+				
5	Ground				
6	NC				
7	NC				
8 NC					
9 NC					
BIOS Setup:					
Advanced/F81216 Super IO Configuration/Serial Port 0					
Configuration 【RS-422】					

RS485 (option)					
Pin#	Signal Name				
1	NC				
2	NC				
3	485-				
4	485+				
5	Ground				
6 NC					
7	NC				
8 NC					
9	9 NC				
BIOS Setup:					
Advanced/F81216 Super IO Configuration/Serial Port 0					
Configuration 【RS-485】					

#### 27. JP2:

(2.0mm Pitch 2x3 Pin Header), COM2 jumper setting, pin 1~6 are used to select signal out of pin 9 of COM2 port.

JP2 Pin#	Function		
Close 1-2	COM2 RI (Ring Indicator) (default)		
Close 3-4	COM2 Pin9: DC+5V	(option)	
Close 5-6	COM2 Pin9: DC+12V	(option)	

#### 28. COM2:

**(Type DB9M)**, Rear serial port, standard DB9 Male serial port is provided to make a direct connection to serial devices.



Signal Name		
DCD# (Data Carrier Detect)		
RXD (Received Data)		
TXD (Transmit Data)		
DTR (Data Terminal Ready)		
Ground		
DSR (Data Set Ready)		
RTS (Request To Send)		
CTS (Clear To Send)		
JP2 select Setting (RI/5V/12V)		

#### 29. SATA\_P:

(2.5mm Pitch 1x2 box Pin Header), One onboard 5V output connector are reserved to provide power for SATA devices.

Pin#	Signal Name		
1	+DC5V		
2	Ground		

Note:

#### Output current of the connector must not be above 1A.

#### 30. SATA2:

(SATA 7Pin), SATA Connectors, one SATA connector are provided, with transfer speed up to 6.0Gb/s.

#### 31. SATA1:

(SATA 7Pin+15Pin), SATA Connectors, one SATA connector are provided, with transfer speed up to 6.0Gb/s.

#### 32. SD1:

(SD card slot), Secure Digital Memory Card socket.

#### 33. MPCIE1:

(Socket 52Pin), mini PCIe socket, it is located at the top, it supports mini PCIe devices with USB2.0 and LPC and SMBUS and PCIe signal. MPCIe card size is 30 x 50.95mm.

#### 34. H1/H2:

MPCIE1 SCREW HOLES, H1 and H2 for mini PCIE card (30mm x 50.95mm) assemble.

#### 35. AUDIO1:

(2.0mm Pitch 2x6 Pin Header), Front Audio, An onboard Realtek ALC662-VD codec is used to provide high-quality audio I/O ports. Line Out can be connected to headphone or amplifier. Line In is used for the connection of external audio source via a Line in cable. MIC is the port for microphone input audio.

Signal Name	Pin#	Pin#	Signal Name	
+5V	1	2	GND_AUD	
LINE-OUT-L	3	4	LINE-OUT-R	
FRONT_JD	5	6	LINE1_JD	
LINE-IN-L	7	8	LINE-IN-R	
MIC-IN-L	9	10	MIC-IN-R	
GND_AUD	11	12	MIC1_JD	

#### 36. LINE\_OUT:

(Diameter 3.5mm Jack), HD Audio port, An onboard Realtek ALC662-VD codec is used to provide high quality audio I/O ports. Line Out can be connected to a headphone or amplifier.



#### 37. USB3:

**USB3-1/USB3-2:** (Double stack USB type A), Rear USB connector, it provides up to two USB3.0 ports, High-speed USB 2.0 allows data transfers up to 480 Mb/s, USB3.0 allows data transfers up to 5.0Gb/s, support USB full-speed and low-speed signaling.



Each USB Type A Receptacle (2 Ports) Current limited value is 1.5A. If the external USB device current exceeds 1.5A, please separate connectors into different Receptable.

#### 38. LAN1/LAN2:

LAN1/LAN2: (RJ45 Connector), Rear LAN port, Two standard 10/100/1000M RJ-45 Ethernet ports are provided. Used intel 82574L chipset, LINK LED (green) and ACTIVE LED (yellow) respectively located at the left-hand and right-hand side of the Ethernet port indicate the activity and transmission state of LAN.



#### 39. BUZ1:

Onboard buzzer.

#### 40. CN2:

(DF13-30P Connector), For expand output connector, It provides eight GPIO, one RS422 or RS485, one USB2.0, one Power on/off, one Reset.

Function	Signal Name	Pin#	Pin#	Signal Name	Function
5V	5V_S5	2	1	5V_S5	5V
PCH_GPIO49	GPIO_IN2	4	3	GPIO_IN1	PCH_GPIO48
PCH_GPIO51	GPIO_IN4	6	5	GPIO_IN3	PCH_GPIO50

APC-3X95P\_R User Manual

PCH_GPIO53	GPIO_OUT2	8	7	GPIO_OUT1	PCH_GPIO52	
PCH_GPIO55	GPIO_OUT4	10	9	GPIO_OUT3	PCH_GPIO54	
	Ground	12	11	Ground		
485 or 422	485+_422TX5+	14	13	485422TX5-	485 or 422	
(COM5)	422_RX5+	16	15	422_RX5-	(COM5)	
485 or 422	485+_422TX6+	18	17	485422TX6-	485 or 422	
(COM6)	422_RX6+	20	19	422_RX6-	(COM6)	
5V	5V_S0	22	21	HDD_LED+	HDD LED	
	5V_USB5	24	23	5V_USB5	USB2.0	
USB2.0	USB5_P	26	25	USB5_N		
	Ground	28	27	FP_RST-	RESET	
Power auto on	PWRBTN_ON	30	29	Ground		
COM5 BIOS Setup:						
Advanced/Super IO Configuration/Serial Port0 Configuration 【RS-422】						
Advanced/Super IO Configuration/Serial Port 0 Configuration 【RS-485】						
COM6 BIOS Setup:						
Advanced/Super IO Configuration/Serial Port 1 Configuration 【RS-422】						
Advanced/Super IO Configuration/Serial Port 1 Configuration 【RS-485】						

### 41. EC\_GPIO:

(2.0mm Pitch 1x10 Pin Header), For expand connector, It provides eight GPIO.

Pin#	Signal Name
1	Ground
2	EC_GPIO1
3	EC_GPIO2
4	EC_GPIO3
5	EC_GPIO4
6	EC_GPIO5
7	EC_GPIO6
8	EC_GPIO7
9	EC_GPIO8
10	3.3V_ALLS_EC

#### 42. CN3:

(1.27mm Pitch 2X30 Female Header), For expand output connector, It provides four GPIO, two USB 2.0, one PS/2 mouse, one PS/2 keyboard, two uart, one PCIex1, one SMbus. It's connected to the TB-528 riser Card

Function	Signal Name	Pin#	Pin#	Signal Name	Function
	5V_S5_USB	1	2	5V_S5_USB	
	5V_S5_USB	3	4	5V_\$5_\$B	
	USB34_OC	5	6	PSON_ATX-	
USB3	USB3_N	7	8	USB3_P	USB3
USB4	USB4_N	9	10	USB4_P	USB4
	Ground	11	12	Ground	
PS/2 MS	PS2_MSCLK	13	14	PS2_MSDATA	PS/2 MS
PS/2 KB	PS2_KBCLK	15	16	PS2_KBDATA	PS/2 KB
	COM4_RI	17	18	COM4_DCD-	
COM4	COM4_TXD	19	20	COM4_RXD	COM4
(UART)	COM4_DTR	21	22	COM4_RTS-	(UART)
	COM4_DSR	23	24	COM4_CTS-	
	Ground	25	26	Ground	
	COM3_RI	27	28	COM3_DCD-	
COM3	COM3_TXD	29	30	COM3_RXD	COM3
(UART)	COM3_DTR	31	32	COM3_RTS-	(UART)
	COM3_DSR	33	34	COM3_CTS-	
GPIO56	PCH_GPIO56	35	36	PCH_GPIO58	GPIO58
GPIO57	PCH_GPIO57	37	38	PCH_GPIO59	GPIO59
	Ground	39	40	Ground	
	PCIE1_TX_N0	41	42	PE1_TX_P0	
	PCIE1_RX_N0	43	44	PE1_RX_PO	
PCIE	Ground	45	46	Ground	PCIE
	CLK_100M_PE1_N	47	48	CLK_100M_PE1_P	
	PCIE1_WAKE_N	49	50	PLT_RST_BUF2-	
SMBUS	SMB_CLK_S5	51	52	SMB_DATA_S5	SMBUS
PCIE	CLKREQ_PE1-	53	54	Ground	
	3P3V_S5	55	56	PWRBTN_ON-	Power Auto on
	3P3V_S5	57	58	3P3V_S5	
12V	12V_S0	59	60	12V_S0	12V

### 3.1 Operations after POST Screen

After CMOS discharge or BIOS flashing operation, press [Delete] key to enter CMOS Setup.



After optimizing and exiting CMOS Setup, the POST screen displayed for the first time is as follows and includes basic information on BIOS, CPU, memory, and storage devices.

### 3.2 BIOS Setup Utility

Press [Delete] key to enter BIOS Setup utility during POST, and then a main menu containing system summary information will appear.

### 3.3 Main Settings

	Aptio Setup L	Jtility – Cop	oyright (C) 2	015 Ameri	can Megatrends, Inc.
Main	Advanced	Chipset	Security	Boot	Save & Exit
BIOS Ir	nformation				Choose the system default
BIOS V	/endor	Ame	rican Megatr	ends	Language
Core V	ersion	4.6.5	.4		
Compli	ancy	UEFI	2.3.1; PI 1.2	!	
Project	Version	7110	V 0.08 x64		
Build D	ate and Time	01/05	/2015 10:27:	48	
System	n Language	[Engl	ish]		
System	n Date	[Thu	01/01/2009]		
System	n Time	[00:0	0:18]		
Access	Level	Adm	inistrator		
					→←: Select Screen
					↑↓ : Select Item
					Enter: Select
					+/- : Charge Opt.
					F1 : General Help
					F2: Previous Values
					F3:Optimized Defaults
					F4:Save and Exit
					ESC Exit
	Version 2.17.	1246. Copy	right (C) 20	15 Americ	an Megatrends , Inc.

#### System Time:

Set the system time, the time format is:

Hour :	0 to 23
Minute :	0 to 59
Second :	0 to 59

#### System Date:

Set the system date, the date format is:

**Day**: Note that the 'Day' automatically changes when you set the date.

Month:	01 to 12
Date:	01 to 31
Year:	1998 to 2099

### **3.4 Advanced Settings**

	Aptio Set	tup Utility –	Copyright (C)	2015 America	n Megatrends, Inc.
Main	Advanced	Chipset	Security	Boot	Save & Exit
					System ACPI Parameters.
ACPI Se	ttings				
CPU Co	nfiguration				
SATA Co	onfiguration				
USB Co	nfiguration				
Super IC	) Configuration	n			
F81216	Second Super	r IO Configur	ation		
Intel (R	) 82574L Gig	abit Network	Configuration	70:B3:D5:E7	
Intel (R	) 82574L Gig	abit Network	Configuration	70:B3:D5:E7	
					→←: Select Screen
					↑↓ : Select Item
					Enter: Select
					+/- : Charge Opt.
					F1 : General Help
					F2: Previous Values
					F3:Optimized Defaults
					F4:Save and Exit
					ESC Exit
	Version	2.17.1246. 0	opyright (C)	2015 American	Megatrends , Inc.

#### 3.4.1 ACPI Settings

#### Enable ACPI Auto Conf:

	[Disabled]
	[Enabled]
Enable Hibernation:	
	[Enabled]
	[Disabled]
ACPI Sleep State:	
	[S1 only (CPU Stop Clock) ]
	[S3 (Suspend to RAM)]
	[Suspend Disabled]
	[Both S1 and S3 available for OS to choose from]
Lock Legacy Resources:	
	[Disabled]
	[Enabled]

#### S3 Video Repost:

[Disabled]

[Enabled]

#### ACPI Low Power SO Idle:

[Disabled] [Enabled]

### 3.4.2 CPU Configuration

Intel(R) Core(TM) i5-4310U @ 2.00GHz				
CPU Signature	40651			
Processor Family	6			
Microcode Patch	17			
FSB Speed	100 MHz			
Max CPU Speed	2000 MHz			
Mix CPU Speed	800 MHz			
CPU Speed	2400 MHz			
Processor Cores	2			
Intel HT Technology	Supported			
Intel HT-X Technology	Supported			
Intel SMX Technology	Supported			
64-bit	Supported			
EIST Technology	Supported			
CPU C3 State	Supported			
CPU C6 State	Supported			
CPU C7 State	Supported			
L1 Date Cache	32KB x 2			
L1 Code Cache	32KB x 2			
L2 Cache	256KB x 2			
L3 Cache	3072KB			
Hyper-threading	[Enabled]			
Active Processor Cores	[Enabled]			
Overclocking lock	[AII]			
Limit CPUID Maximum	[Disabled]			
Execute Disabled Bit	[Enabled]			
Intel Virtualization Technology [Enabled]				
Hardware Prefetcher [Enabled]				
Asjacent Cache Line Prefetch [Enabled]				
CPU AES [Enabled]				
Boot Performance mode [Turbo Performance]				
EIST	[Enabled]			
------------	-----------			
Turbo Mode	[Enabled]			

#### 3.4.3 SATA Configuration

••••

SATA Configuration(S)	
	[Enabled]
	[Disabled]
SATA Mode Selection	
	[AHCI]
	[RAID]
SATA Test Mode	
	[Disabled]
	[Enabled]
Aggressive LPM Support	
	[Enabled]
	[Disabled]
SATA Controller Speed	
	[Default]
	[Gen1]
	[Gen2]
	[Gen3]

#### Software Feature Mask Configuration

Serial ATA Port 0	Empty
Software Preserve	Unknown

Serial ATA Port 1 Empty Software Preserve Unknown

#### .....

#### 3.4.4 USB Configuration

USB Configuration USB Module Version 8.10.31 USB Devices: 1 Keyboard, 1 Mouse, 1 Hubs Legacy USB Support:

		[Enabled]
		[Disabled]
	XHCI Hand-off:	
		[Enabled]
		[Disabled]
	EHCI Hand-off:	
		[Disabled]
		[Enabled]
	USB Mass Storage Driver	Support
		[Enabled]
		[Disabled]
	USB hardware delays and	d time-outs:
	USB transfer time-out:	
		[20 sec]
		[10 sec]
		[5 sec]
		[1 sec]
	Device reset time-out:	
		[20 sec]
		[10 sec]
		[30 sec]
		[40 sec]
	Device power-up delay	
		[Auto]
		[Manual]
3.4.5 Super IO Config	guration	
	Super IO chip	IT8518/IT8519
	Serial Port 0 Configuration	on (COM5)
	Device Mode Selec	tion:
		[RS-485]
		[RS-422]

Serial Port 1 Configuration (COM6)

Device Mode Selection:

[RS-485]

[RS-422]

#### 3.4.6 F81216 Second Super IO Configuration

Super IO chip F81216 Second IO Serial Port 0 Configuration UART1 Mode Selection: [**RS-232**] [RS-485]

[RS-422] Serial Port 1 Configuration Change Settings [Auto] Serial Port 2 Configuration Change Settings [Auto] Serial Port 3 Configuration Change Settings [Auto]

3.4.7 Intel (R) 82574L Gigabit Network Configuration-70:B3:D5:E7

3.4.8 Intel (R) 82574L Gigabit Network Configuration-70:B3:D5:E7

### **3.5 Chipset Settings**

	Aptio Setup	Utility – Cop	yright (C) 20	15 America	an Megatrends, Inc.
Main	Advanced	Chipset	Security	Boot	Save & Exit
					PCH Parameters
PCH-IO	Configuration				
System	Agent (SA)	Configuration	า		
					→←: Select Screen
					↑↓ : Select Item
					Enter: Select
					+/- : Charge Opt.
					F1 : General Help
					F2: Previous Values
					F3:Optimized Defaults
					F4:Save and Exit
					ESC Exit
Version 2.17.1246. Copyright (C) 2015 American Megatrends , Inc.					

#### 3.5.1 PCH-IO Configuration

Intel PCH RC Version	1.8.0.0
Intel PCH SKU Name	Premium SKU
Intel PCH Rev ID	04/B2

PCH Express Configuration

PCI Express Clock Gating	[Enabled]
DMI Link ASPM Control	[Enabled]
DMI Link Extended Synch Control	[Disabled]
PCIe-USB Glitch W/A	[Disabled]
PCIE Root Port Function Swapping	g [Disabled]
Subtractive Decode	[Disabled]
PCI Express Root Port 1	
PCI Express Root Port 2	
PCI Express Root Port 3	
PCI Express Root Port 4	
PCI Express Root Port 5	
PCI Express Root Port 6	
USB Configuration	

USB Precondition	[Disabled]
XHCI Mode	
XHCI Idle L1	
BTCG	
USB Ports Per-Port Disabled Control	[Disabled]
Restore AC Power Loss	[Power off]

### **3.6 Boot Settings**

Aptio Setup	Utility – C	opyright (C)	2015 Ameri	can Megatrends, Inc.
Main Advanced	Chipset	Boot	Security	Save & Exit
Boot Configuration				Number of seconds toWait for
Setup Prompt Time	out			Setup Activation key.
Bootup Numlock St	ate	[On]		65535(0xFFFF)means Indef
				inite waiting.
Quiet Boot		[Disabled]		
Fast Boot		[Enabled]		
Boot Option Prioritie	es			
Boot Option #1		[UEFI:Built-i	n EFI]	
				→←: Select Screen
				↑↓ : Select Item
				Enter: Select
				+/- : Charge Opt.
				F1 : General Help
				F2: Previous Values
				F3:Optimized Defaults
				F4:Save and Exit
				ESC Exit
Version 2.1	7.1246. Co	pyright (C)	2015 Americ	an Megatrends , Inc.

#### 3.6.1 Administrator Password



#### 3.6.2 User Password

Type the password with up to 20 characters and then press *<*Enter*>* key. This will clear all previously typed CMOS passwords. You will be requested to confirm the password. Type the password again and press *<*Enter*>* key. You may press *<*Esc*>* key to abandon password entry operation.

To clear the password, just press *<*Enter key when password input window pops

up. A confirmation message will be shown on the screen as to whether the password will be disabled. You will have direct access to BIOS setup without typing any password after system reboot once the password is disabled.

Once the password feature is used, you will be requested to type the password each time you enter BIOS setup. This will prevent unauthorized persons from changing your system configurations.

Also, the feature is capable of requesting users to enter the password prior to system boot to control unauthorized access to your computer. Users may enable the feature in Security Option of Advanced BIOS Features. If Security Option is set to System, you will be requested to enter the password before system boot and when entering BIOS setup; if Security Option is set to Setup, you will be requested for password for entering BIOS setup.

#### Aptio Setup Utility – Copyright (C) 2015 American Megatrends, Inc. Chipset Boot Security Save & Exit Main Advanced Set Administrator Password Password Description If ONLY the Administrator's password is set, Then this only limits access to Setup and is Only asked for when entering Setup. If ONLY the User's password is set, then this Is a power on password and must be entered to →←: Select Screen Is a power on password and must be entered to ↑↓ : Select Item Boot or enter Setup. In Setup the User will Enter: Select Have Administrator rights. +/-: Charge Opt. The password length must be F1 : General Help In the following range: F2: Previous Values Minimum length 3 F3:Optimized Defaults Maximum length 20 F4:Save and Exit ESC Exit Administrator Password User Password Secure Boot menu Version 2.17.1246. Copyright (C) 2015 American Megatrends , Inc. Setup Prompt Timeout [1] Bootup Numlock State

### **3.7 Security Settings**

	[On]
	[off]
Quiet Boot	
	[Disabled]
	[Enabled]
Fast Boot	
	[Disabled]
	[Enabled]
<b>Boot Option Priorities</b>	
Boot Option #1	
	Sets the system boot order
Hard Drive BBS Priorities	[SATA PM:*** ]
	Boot Option #1
	SATA PM:***
	****
	Disabled

# 3.8 Save & Exit Settings

Aptio S	etup Utility – Co	pyright (C)	2015 America	n Megatrends, Inc.
Main Advan	ced Chipset	Boot	Security	Save & Exit
Save Change	s and Exit			Exit system setup after
Discard Chang	ges and Exit			Saving the changes.
Save Changes	and Reset			
Discard Chang	ges and Reset			
Save Options				
Save Changes	5			
Discard Chang	jes			
Restore Defau	Its			→ —: Select Screen
Save user Def	aults			↑↓ : Select Item
Restore user [	Defaults			Enter: Select
				+/- : Charge Opt.
Boot Override				F1 : General Help
UEFI:Built-in E	FI Shell			F2: Previous Values
				F3:Optimized Defaults
				F4:Save and Exit
				ESC Exit
Version 2.17.1246. Copyright (C) 2015 American Megatrends , Inc.				

Save Changes and Exit	
Save & Exit Setup save Configuration and exit ?	
	[Yes]
	[No]
Discard Changes and Ext	
Exit Without Saving Quit without saving?	
	[Yes]
	[No]
Save Changes and Reset	
Save & reset Save Configuration and reset?	
	[Yes]
	[No]
Discard Changes and Reset	
Reset Without Saving Reset without saving?	
	[Yes]
	[No]
Save Changes	
Save Setup Values Save configuration?	
	[Yes]
	[No]
Discard Changes	
Load Previous Values Load Previous Values?	
	[Yes]
	[No]
Restore Defaults	
Load Optimized Defaults Load optimized Defaults	?
	[Yes]
	[No]
Save user Defaults	[110]
Save Values as User Defaults Save configuration?	
Save values as osci Deraults save configuration:	[Yes]
	[No]
Postoro usor Defaults	[NO]
Restore user Defaults	
Restore User Defaults Restore User Defaults?	[Ves]
	[Yes]
	[No]

# **Chapter 4** Installation of Drivers

This chapter describes the installation procedures for software and drivers under the windows 7. The software and drivers are included with the motherboard. The contents include Intel CORE TM SoC chipset driver, VGA driver, LAN drivers, Audio driver, USB 3.0 Driver, Intel<sup>®</sup> AMT Driver Installation instructions are given below.

#### **Important Note:**

After installing your Windows operating system, you must install first the Intel Chipset Software Installation Utility before proceeding with the installation of drivers.

Drivers CD	al Par	EL PG	3
	WIN7 - D	RIVER	
	DRIVERS	Intel(R) CORE TM SoC Chipset Intel(R) VGA Chipset Intel(R) 82574L LAN Driver Realtek ALC662 HD Audio Driver USB 3.0 Driver Touch Panel Driver Intel(R) AMT Driver	
	OTHERS	User Manual	
		View EXIT	

# 4.1 Intel(R) CORE TM SoC Chipset

To install the Intel chipset driver, please follow the steps below.

Step 1. Select Intel (R) CORE TM SoC Chipset from the list



Step 2. Click Next to setup program.

Intel(R) Chipset Device Software	D
You are about to install the following product:	
Intel(R) Chipset Device Software	
It is strongly recommended that you exit all programs before continuing.	
Press Next to continue, or press Cancel to exit the setup program.	
Next C	ancel

**Step 3.** Read the license agreement. Click **Accept** to accept all of the terms of the license agreement.



Step 4. Click Install to begin the installation.

Intel(R) Chipset Device Software Readme File Information	
<pre>* Product: Intel(R) Chipset Device Software * Version: 10.0 * Target PCH/Chipset: Mixed Platform * Date: 2014-04-24 NOTE: For the list of supported chipsets, please refer to the Release Notes</pre>	*
* CONTENTS OF THIS DOCUMENT This document contains the following sections:	
<ol> <li>Overview</li> <li>System Requirements</li> <li>Contents of the Distribution Package         <ul> <li>A. Public and NDA Configurations</li> <li>III</li> </ul> </li> </ol>	*
Back Install Cancel	

Step 5. Click Finish to complete the setup process.



# 4.2 Intel(R) VGA Chipset

To install the VGA drivers, follow the steps below to proceed with the installation. **Step 1**.Select **Intel(R) VGA Chipset** from the list.

Drivers CD	al Par win7 - D		
	DRIVERS	Intel(R) CORE TM SoC Chipset Intel(R) VGA Chipset Intel(R) 82574L LAN Driver Realtek ALC662 HD Audio Driver USB 3.0 Driver Touch Panel Driver Intel(R) AMT Driver	•
	OTHERS	User Manual	
		View	EXIT

APC-3X95P\_R User Manual

### Step 2. Click Automatically run WinSAT and enable the Windows Aero desktop

theme(if supported). Click Next.



Step 3. Read license agreement. Click Yes.



Step 4. Click Next to continue.

Intel® Installation Framework	
Intel® Graphics Driver	
Readme File Information	(intel)
Refer to the Readme file below to view the system requirements a	and installation information.
README FILE	
Release Version: Production Version	
Driver Version: 15.33.22.3621	
Operating System(s):	
Microsoft Windows* 7 Microsoft Windows* 8 Microsoft Windows* 8.1	-
< <u>B</u> ack	Next > Cancel



Intel® Installation Framework	
Intel® Graphics Driver	(intel)
Setup Progress	
Please wait while the following setup operations are performed: Copying File: C:\Windows\system32\difxapi.dll Deleting Registry Key: HKLM\SOFTWARE\Intel\IGDI Deleting Registry Key: HKLM\SOFTWARE\Intel\IGDI Deleting File: C:\ProgramData\Microsoft\Windows\Start Menu\Prog Deleting File: C:\Users\Public\Desktop\Intel(R) HD Graphics Contro Deleting File: C:\Users\Public\Desktop\Intel(R) Iris(TM) Graphics Co	grams\Intel\Intel(R) HD Grap grams\Intel(R) HD Graphics grams\Intel(R) Graphics and grams\Intel\Intel(R) Graphic I Panel.Ink grams\Intel\Intel(R) Iris(TM)
Click Next to continue.	
	Next >

**Step 6.** Select **Yes, I want to restart this computer now.** Then click **Finish** to complete the installation.



### 4.3 Intel(R) LAN Driver

To install the Intel (R) LAN driver, please follow the steps below. **Step 1.** Select **Intel(R) 82574L LAN Driver** from the list.

Drivers CD	al Pan	
	WIN7 - D	RIVER
	DRIVERS	Intel(R) CORE TM SoC Chipset Intel(R) VGA Chipset Intel(R) 825741 LAN Driver Realtek ALC662 HD Audio Driver USB 3.0 Driver Touch Panel Driver Intel(R) AMT Driver
	OTHERS	User Manual
		View EXIT

APC-3X95P\_R User Manual

Step 2. . Click Next.



Step 3. Read license agreement. Click I accept the terms in the license agreement. Click Next.

提 Intel(R) Network Connections Install Wizard			
License Agreement	(intel)		
Please read the following license agreement carefully.			
INTEL SOFTWARE LICENSE AGREEMENT	<b>^</b>		
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.			
Do not copy, install, or use this software and any associated materials (collectively, the "Software") provided under this license agreement ("Agreement") until you have carefully read the following terms and conditions.			
By copying, installing, or otherwise using the Software, you agree to be the terms of this Agreement. If you do not agree to the terms of this Agr de not copy install or use the Software	-		
I accept the terms in the license agreement     I do not accept the terms in the license agreement	Print		
< <u>B</u> ack <u>N</u> ext >	Cancel		



Intel(R) Network Connections Install Wizard	
Setup Options Select the program features you want installed.	(intel)
Install: Drivers Intel(R) PROSet for Windows* Device Manager Advanced Network Services Windows* PowerShell Module Intel(R) Network Connections SNMP Agent	
Feature Description          Feature Description         < Back	Next > Cancel

#### Step 5. Click Install to begin the installation.

HINTER INTERIOR Install Wizard	<b>-X</b> -
Ready to Install the Program The wizard is ready to begin installation.	(intel)
Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Clic exit the wizard.	ck Cancel to
< <u>B</u> ack Install	Cancel

Step 6. Click Finish to exit the wizard.



## 4.4 Realtek ALC662 HD Audio Driver

To install the Realtek ALC662 HD Audio Driver, please follow the steps below.

Step 1. Select Realtek AL662 HD Audio Driver from the list

Drivers CD	al Pan win7 - D		
	DRIVERS	Intel(R) CORE TM SoC Chipset Intel(R) VGA Chipset Intel(R) 82574L LAN Driver Realtek ALC662 HD Audio Driver USB 3.0 Driver Touch Panel Driver Intel(R) AMT Driver	Ð
	OTHERS	User Manual	
		View	EXIT

APC-3X95P\_R User Manual

Step 2. Click Next to continue.

Realtek High Definition Audio Dr	iver Setup (3.65) R2.71	
	Welcome to the InstallShield Wizard for Realtek High Definition Audio Driver The InstallShield Wizard will install Realtek High Definition Audio Driver on your computer. To continue, click Next.	
InstallShield	< Back Next> Cance	el

**Step 3.** Click **Yes, I want to restart my computer now**. Click **Finish** to complete the installation.

Realtek High Definition Audio Driver Setup (3.65) R2.71		
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed Realtek High Definition Audio Driver. Before you can use the program, you must restart your computer. • Yes, I want to restart my computer now. • No, I will restart my computer later. Remove any disks from their drives, and then click Finish to complete setup.	
InstallShield	< Back Finish Cancel	

APC-3X95P\_R User Manual

### 4.5 USB 3.0 Driver

To install the USB 3.0 Driver, please follow the steps below.

Step 1. Select USB 3.0 Driver from the list





Intel® Installation Framework	- • •
Intel® USB 3.0 eXtensible Host Controller Driver	(intel)
Welcome to the Setup Program	
This setup program will install the following components: • Intel® USB 3.0 eXtensible Host Controller Driver • Intel® USB 3.0 Hub Driver • Intel® USB 3.0 Host Controller Switch Driver • Intel® USB 3.0 Monitor	
Click Next to continue.	
< <u>B</u> ack Next > Intel® Ir	<b><u>C</u>ancel</b> Istallation Framework

APC-3X95P\_R User Manual

Step 3. Read the license agreement. Then click Yes to continue.



Step 4. Click Next to continue.



Step 5. Click Next to continue.

ntel® Installation Framework	
Intel® USB 3.0 eXtensible H Setup Progress	Host Controller Driver
Copying File: C:\Program Files\Intel\Intel\R Copying File: C:\Program Files\Intel\Intel\R	ions are performed: ) USB 3.0 eXtensible Host Controller Driver \Applica' ) USB 3.0 eXtensible Host Controller Driver \Applica'
< III	•
	Next > Intel® Installation Framework

Step 6. Select Yes, I want to restart this computer now. Then click Finish to complete

the installation.



# 4.6 Intel(R) AMT Driver

To install the Intel(R) AMT Driver, please follow the steps below.

Step 1. Select Intel(R) AMT Driver from the list.







Step 3. Read the License Agreement and then click Yes to continue.

Intel® Installation Framework	
Intel® Management Engine Components License Agreement	(intel)
You must accept all of the terms of the license agreement in order to continue program. Do you accept the terms?	the setup
INTEL SOFTWARE LICENSE AGREEMENT (OEM / IHV / ISV Distribution & Single IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING. Do not use or load this software and any associated materials (collectively, th until you have carefully read the following terms and conditions. By loading or Software, you agree to the terms of this Agreement. If you do not wish to so install or use the Software.	e "Software") using the
* If you are an Original Equipment Manufacturer (OEM), Independent Hardwa (IHV), or Independent Software Vendor (ISV), this complete LICENSE AGREEN * If you are an End-User, then only Exhibit A, the INTEL SOFTWARE LICENSE	IENT applies;
<back i<="" intel®="" td="" yes=""><td>No No</td></back>	No No

### Step 4. Click Next to continue.

₅ (intel)
Engine Components FWService e Components FWService Inte e Components FWService Inte Engine Components FWService Engine Components FWService Engine Components FWService e Components FWService
-

### Step 5. Select Yes, I want to restart this computer now. Then click Finish to complete

the installation.



# **Chapter 5 Touch Screen Installation**

This chapter describes how to install drivers and other software that will allow your touch screen work with different operating systems.

# 5.1 Windows XP/2003/Vista/WIN7 Universal Driver

## Installation for PenMount 6000 Series

Before installing the Windows XP/2003/Vista/WIN7 driver software, you must have the Windows XP/2003/Vista/WIN7 system installed and running on your computer. You must also have one of the following PenMount 6000 series controller or control boards installed: PM6500, PM6300.

### 5.1.1 Installing Software(Resistive Touch)

If you have an older version of the PenMount Windows WIN7 driver installed in your system, please remove it first. Follow the steps below to install the PenMount DMC6000 Windows WIN7 driver.

**Step 1.** Insert the product CD, the screen below would appear. Click **Touch Panel Driver** from the list.



APC-3X95P\_R User Manual

#### Step 2. Select Resistive Touch.

Drivers CD		
i.	Touch -	Driver
	DRIVERS	Resistive Touch Projected Capacitive
	OTHERS	Oser Manual
		View EXIT

### Step 3. Click Next to continue.

🖳 PenMount Windows Universal Driver(WHQL) V2.4.0.306 Setup 🛛 🔲 🔀			
	Welcome to the PenMount Windows Universal Driver(WHQL) V2.4.0.306 Setup Wizard		
	This wizard will guide you through the installation of PenMount Windows Universal Driver(WHQL) V2.4.0.306.		
	It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer. Click Next to continue.		
	Next > Cancel		

APC-3X95P\_R User Manual

**Step 4.** Read the license agreement. Click **I Agree** to agree the license agreement.

🖳 PenMount Windows Universal Driver(WHQL) V2.4.0.306 Setup 🛛 🔲 🔀		
License Agreement Please review the license terms before installing PenMount Windows Universal Driver(WHQL) V2.4.0.306.		
Press Page Down to see the rest of the agreement.		
PLEASE READ THE LICENSE AGREEMENT		
PenMount touch screen driver software is only for using with PenMount touch screen controller or control board.		
Any person or company using a PenMount driver on any piece of equipment which does not utilize an PenMount touch screen controller		
will be prosecuted to the full extent of the law.		
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install PenMount Windows Universal Driver(WHQL) V2.4.0.306.		
Nullsoft Install System v2.46		
< <u>B</u> ack I <u>Agree</u> Cancel		

**Step 5.** Choose the folder in which to install PenMount Windows Universal Driver. Click **Install** to start the installation.

🖳 PenMount Windows Universal Driver(WHQL) V2.4.0.306 Setup 💦 🔲 🔀
Choose Install Location Choose the folder in which to install PenMount Windows Universal Driver(WHQL) V2.4.0.306.
Setup will install PenMount Windows Universal Driver(WHQL) V2.4.0.306 in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation.
Destination Folder  C:\Program Files\PenMount Windows Universal Driver(WHQL)  Browse
Space required: 0.0KB Space available: 13.9GB Nullsoft Install System v2.46
< <u>B</u> ack Install Cancel

APC-3X95P\_R User Manual

**Step 6.** Wait for installation. Then click **Next** to continue.

PenMount Windows Universal Driver(WHQL) V2.4.0.306 Setup	
Installing Please wait while PenMount Windows Universal Driver(WHQL) V2.4.0.306 is being installed.	P
Execute: "C:\Program Files\PenMount Windows Universal Driver(WHQL)\install.exe" /	Install
Show <u>d</u> etails	
Nullsoft Install System v2:46	Cancel

Step 7. Click Continue Anyway.

Hardwa	Hardware Installation		
<u>.</u>	The software you are installing for this hardware: PenMount 6000 Serial has not passed Windows Logo testing to verify its compatibility with Windows XP. ( <u>Tell me why this testing is important.</u> ) <b>Continuing your installation of this software may impair</b> or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.		
	Continue Anyway		

Step 8. Click Finish to complete installation.



### 5.1.2 Installing Software (Projected Capacitive)

**Step 1.** Insert the product CD, the screen below would appear. Click **touch panel driver** from the list.

Drivers CD	al Pan WIN7 - D	
	DRIVERS	Intel(R) CORE TM SoC Chipset Intel(R) VGA Chipset Intel(R) 82574L LAN Driver Realtek ALC662 HD Audio Driver USB 3.0 Driver Touch Panel Driver
	OTHERS	User Manual
		View EXIT

APC-3X95P\_R User Manual

Step 2. Select Projected Capacitive.

Drivers CD Industria	al Par	
£	Touch -	Driver
	DRIVERS	Resistive Touch Projected Capacitive
		Θ
	OTHERS	User Manual
		View EXIT

Step 3. Click Next to continue.



**Step 4.** Select I accept the terms of the license agreement. Click Next.

eGalaxTouch
License Agreement
Please read the following license agreement carefully.
Declaration and Disclaimer
The programs, including but not limited to software and/or firmware (hereinafter referred to "Programs" or "PROGRAMS"), are owned by eGalax_eMPIA Technology Inc. (hereinafter referred to EETI) and are compiled from EETI Source code. EETI hereby grants to licensee a personal, non-exclusive, non-transferable license to copy, use and create derivative works of Programs for the sole purpose in conjunction with an EETI Product, including but not limited to integrated circuit and/or controller. Any reproduction, copies, modification, translation, compilation, application, or representation of Programs except as specified above is prohibited without the express written permission by EETI.
I do not accept the terms of the license agreement
< <u>Back</u> <u>Next</u> Cancel

Step.5. Click Next to continue.

eGalaxTouch
Setup Туре
Select the setup type that best suits your needs.
Extra PS/2 interface driver for eGalaxTouch controller. Please check the check box for PS/2 touch controller.
Install PS/2 interface driver
InstallShield
< <u>B</u> ack <u>N</u> ext > Cancel

Step 6. Click Install RS232 interface driver. Then click Next to continue.



Step 7. Select None. Click Next.

eGalaxTouch	×
Setup Type	
Select the setup type that best suits your needs.	
Do 4 point calibration after system reboot	
O Every system boot up	
Next system boot up	
⊙ None	
InstallShield	_
< <u>B</u> ack <u>N</u> ext > Cancel	J

#### Step 8. Click OK to continue.



Step 9. Click Support Muti-Monitor System. Click Next.

eGalaxTouch	×
Setup Type	
Select the setup type that best suits your needs.	
If you want to use Multi-Monitor, please check the box.	
Support Multi-Monitor System	
InstallShield	
< <u>B</u> ack <u>N</u> ext > Cancel	

Step 10. Go to C:\Program Files\eGalaxTouch. Click Next.

eGalaxTouch	X
Choose Destination Location Select folder where setup will install files.	
Setup will install eGalaxTouch in the following folder. To install to this folder, click Next. To install to a different folder, click Browse and select another folder.	
Destination Folder       C:\Program Files\eGalaxTouch       InstallShield	]
< <u>B</u> ack <u>N</u> ext > Cancel	

APC-3X95P\_R User Manual

#### Step 11. Click Next.

eGalaxTouch	X
Select Program Folder Please select a program folder.	
Setup will add program icons to the Program Folder listed below. You may type a new for name, or select one from the existing folders list. Click Next to continue. <u>Program Folder:</u> <u>eGalaxTouch</u> Existing Folders:	older
Accessories Administrative Tools Games Startup	
InstallShield <u>Back</u> <u>N</u> ext > C	ancel

### Step 12. Click Create a eGalaxTouch Utility shortcut on desktop. Click Next.

eGalaxTouch	×
Setup Type Select the setup type that best suits your needs.	
Select the features you want to install, and deselect the features you do not want to install. Click Next to continue.	
Create a eGalaxTouch Utility shortcut on desktop	
InstallShield	
< <u>Back</u> <u>Next</u> Cancel	

Step 13. Wait for installation.



Step 14. Click Yes to do 4 point calibration.

Questio	n
2	The eGalaxTouch driver has been installed, before operating touch function, please do 4 point calibration. Would you do 4 point calibration now ?
	Yes No
# 5.2 Software Functions

# 5.2.1 Software Functions(Resistive Touch)

Upon rebooting, the computer automatically finds the new 6000 controller board. The touch screen is connected but not calibrated. Follow the procedures below to carry out calibration.

- 1. After installation, click the PenMount Monitor icon "PM" in the menu bar.
- 2. When the PenMount Control Panel appears, select a device to "Calibrate."

## PenMount Control Panel(Resistive Touch)

The functions of the PenMount Control Panel are **Device**, **Multiple Monitors**, **Tools** and **About**, which are explained in the following sections.

#### Device

In this window, you can find out that how many devices be detected on your system.

👫 PenMount Control Panel	
Device Multiple Monitors Tools About	
Select a device to configure.	
6	
PenMount 6000 USB	
Configure Refresh	
	ОК

### Calibrate

This function offers two ways to calibrate your touch screen. 'Standard Calibration' adjusts most touch screens. 'Advanced Calibration' adjusts aging touch screens.

Standard Calibration	Click this button and arrows appear pointing to red squares. Use your finger or stylus to touch the red squares in sequence. After the fifth red point calibration is complete. To skip, press 'ESC'.
Advanced Calibration	Advanced Calibration uses 4, 9, 16 or 25 points to effectively calibrate touch panel linearity of aged touch screens. Click this button and touch the red squares in sequence with a stylus. To skip, press ESC'.

**Step 1.** Please select a device then click "Configure". You can also double click the device too.

RenMount Control Panel	
Device Multiple Monitors Tools About	
Select a device to configure.	
6	
PenMount 6000 USB	
Configure Refresh	
	ОК



Step 2. Click "Standard Calibration" to start calibration procedure

**NOTE:** The older the touch screen, the more Advanced Mode calibration points you need for an accurate calibration. Use a stylus during Advanced Calibration for greater accuracy. Please follow the step as below:

**Step 3.**Come back to "PenMount Control Panel" and select **Tools** then click **Advanced Calibration**.

🎕 PenMount Control Panel		
Device Multiple Monitors Tools About		
Draw     Test by drarwing on the touch screen       Image: Comparison of the touch screen     Turn ON/OFF Advanced Calibration		
Show/Hide the icon for switching buttons       Right Button Icon       © Desktop       © System Tray		
Back to Defaul <u>t</u>	ок	

Step 4. Select Device to calibrate, then you can start to do Advanced Calibration.



**NOTE:** Recommend to use a stylus during Advanced Calibration for greater accuracy.



Plot Calibration Data	Check this function and a touch panel linearity		
	comparison graph appears when you have finished		
	Advanced Calibration. The blue lines show linearity		
	before calibration and black lines show linearity after		
	calibration.		
Turn off EEPROM	The function disable for calibration data to write in		
storage	Controller. The default setting is Enable.		

## Setting



·			
Touch Mode	This mode enables and disables the mouse's ability to drag		
	on-screen icons – useful for configuring POS terminals.		
	Mouse Emulation – Select this mode and the mouse		
	functions as normal and allows dragging of icons.		
	Click on Touch – Select this mode and mouse only provides a		
	click function, and dragging is disables.		
Beep Sound	Enable Beep Sound – turns beep function on and off		
	Beep on Pen Down – beep occurs when pen comes down		
	Beep on Pen Up – beep occurs when pen is lifted up		
	Beep on both – beep occurs when comes down and lifted up		
	Beep Frequency – modifies sound frequency		
	Beep Duration – modifies sound duration		
Cursor Stabilizer	Enable the function support to prevent cursor shake.		
Use press and	You can set the time out and area for you need.		
hold as right click			

# About

This panel displays information about the PenMount controller and driver version.

🖉 Device O (PenM	ount 6000 USB)		_ 🗆 🔀
Calibrate Setting 4	About		
	PenMount 6000 USB (10-bit)		
	Driver Version	2.1.0	
	Firmware Version		
	Firmware version	6000.3.0.0	
	Firmware Config Data	6,36864,341,32,7,0,0	
			ОК

## **Multiple Monitors**

Multiple Monitors support from two to six touch screen displays for one system. The PenMount drivers for Windows XP/2003/Vista/WIN7 support Multiple Monitors. This function supports from two to six touch screen displays for one system. Each monitor requires its own PenMount touch screen control board, either installed inside the display or in a central unit. The PenMount control boards must be connected to the computer COM ports via the USB interface. Driver installation procedures are the same as for a single monitor. Multiple Monitors support the following modes:

Windows Extends Monitor Function Matrox DualHead Multi-Screen Function nVidia nView Function

**NOTE:** The Multiple Monitor function is for use with multiple displays only. Do not use this function if you have only one touch screen display. Please note once you turn on this function the rotating function is disabled.

Enable the multiple display function as follows:

**1.** Check the **Enable Multiple Monitor Support** box; then click **Map Touch Screens** to assign touch controllers to displays.

PenMount Control Panel	
Calibrate Draw Multiple Monitors Option About	
	ОК

2. When the mapping screen message appears, click OK.

🏽 PenMount Control Panel 📃 🗖 🔀
Calibrate Draw Multiple Monitors Option About
Enable Multiple Monitor Support
PanM Iount
Mapping 🛛 🔀
Please touch the panel as indicated in the following screens.
ОК

**3.** Touch each screen as it displays "Please touch this monitor". Following this sequence and touching each screen is called **mapping the touch screens.** 



- **4.** Touching all screens completes the mapping and the desktop reappears on the monitors.
- **5.** Select a display and execute the "Calibration" function. A message to start calibration appears. Click **OK**.



- **6.** "Touch this screen to start its calibration" appears on one of the screens. Touch the screen.
- 7. "Touch the red square" messages appear. Touch the red squares in sequence.
- **8.** Continue calibration for each monitor by clicking **Standard Calibration** and touching the red squares.

#### NOTES:

- 1. If you use a single VGA output for multiple monitors, please do not use the **Multiple Monitor** function. Just follow the regular procedure for calibration on each of your desktop monitors.
- 2. The Rotating function is disabled if you use the Multiple Monitor function.
- 3. If you change the resolution of display or screen address, you have to redo **Map Touch Screens,** so the system understands where the displays are.

## About

This panel displays information about the PenMount controller and this driver version.

Calibrate   Draw   Multiple Monitors   Option About   PenMount DMC9000 and DMC9100	
PenMount DMC9000 and DMC9100	
Driver Version 4.01	
Firmware Version	
A1.20 [COM1@19200bps] A2.00 [COM2@19200bps]	
E-mail: <u>salt@salt.com.tw</u> Website: <u>www.salt.com.</u> t	tw
Copyright(C) 2003 Salt Int'l Corp.	

#### PenMount Monitor Menu Icon

The PenMount monitor icon (PM) appears in the menu bar of Windows XP/2003/Vista/WIN7 system when you turn on PenMount Monitor in PenMount Utilities.



#### PenMount Monitor has the following function



Control Panel	Open Control Panel Windows
Веер	Setting Beep function for each device
Right Button	When you select this function, a mouse icon appears in the right-bottom of the screen. Click this icon to switch between Right and Left Button functions.
Exit	Exits the PenMount Monitor function.

#### Configuring the Rotate Function

- 1. Install the rotation software package.
- 2. Choose the rotate function (0°, 90°, 180°, 270°) in the 3rd party software. The calibration screen appears automatically. Touch this point and rotation is mapped.

Please touch the p	oint		

**NOTE:** The Rotate function is disabled if you use Monitor Mapping

# 5.2.2 Software Functions(Projected Capacitive)

## General

In this window, you can see there is USB Controller. Click **OK** to continue.

🖻 eGalaxTouch : USB Controller	
General Setting Tools Display Hardwa	are About
Installed Touchscreen Controllers	
<b>Q</b>	
USB Controller	
Monitor Mapping	Add Remove
ОК	Cancel Apply

#### **Monitor Mapping**

to adjust touch panel

Add

to search for device

## Setting

🖻 eGalaxTouch : USB Controller	×
General Setting Tools Display Hardware About	
Beep       Frequency         Image: Beep On Touch       Image: Frequency         Image: Beep On Release       Image: Frequency         Image: Beep From System Beep       Duration         Image: Beep From Sound Card       Image: Frequency	
Linearization Style © 9 Points © 25 Points	
Double Click Time       Shorter<	
Double Click Area       Smaller<	
Normal Mode Option	
OK Cancel Apply	

### Веер

- Beep On Touch
- Beep On Release
- Beep From System Beep
- Beep From Sound Card

#### Linearization Style

- 9 points
- 25 points

#### **Double Click Time**

Shorter

Longer

#### **Double Click Area**

Smaller

Bigger

#### Normal mode

Simulate the mouse mode

Option	×
Option	
Function ✓ Enable Constant Touch ✓ Enable Auto Right Click ✓ Enable Touch ✓ Enable Cursor Stabilization Constant Touch Area	
Smaller<<>Bigger	
Auto Right Click Time 1000 ms Shorter<< >>Longer	
OK Cancel Apply	

## Option

Function Enable Constant Touch Enable Auto Right Click Enable Touch Enable Cursor Stabilization Constant Touch Area Auto Right Click Time

#### Tools

Click **OK** to continue the settings.

🖻 e	🖻 eGalaxTouch : USB Controller 🛛 🔀			
Ge	General Setting Tools Display Hardware About			
	Linearization Curve			
	4 Points Calibration	Do 4 points alignment to match display.		
	Clear and Calibrate	Clear linearization parameter and do 4 points alignment.		
	Linearization	Do 9 points linearization for better touchscreen linearity.		
	Draw Test	Draw Test Do draw test to verify the touch accuracy.		
		OK Cancel <u>Apply</u>		

#### **4** Points Calibration

Do 4 points alignment to match display.

#### **Clear and Calibrate**

Clear linearization parameter and do 4 points alignment.

#### Linearization

Do 9 points linearization for better touchscreen linearity.

#### **Draw Test**

Do draw test to verify the touch accuracy.

# Display

In this window, it shows the mode of display.

🖻 eGalaxTouch : USB Controller	×
General Setting Tools Display Hardware About	
Display	
Double click on the monitor area to map the touchscreen to the display monitor. I Enable Multiple Monitors.	
🧮 Map to main display if system has only one display monitor.	
Operation Mode	
Full Screen     C Lower Screen     C Left Screen	
C Upper Screen C Right Screen Other	1
OK Cancel Apply	

Enable Multiple Monitors.

Map to main display if system has only one display monitor

Full Screen Lower Screen Left Screen Upper Screen Right Screen

Other	
Other Active Area	
Other	
C Quarter 1	C Quarter 3 C Customized
C Quarter 2	C Quarter 4
Customized Area800 X 4	80
Left 0	Тор 0
Right 800	Bottom 480
Drag W	/orking Area
	OK Cancel Apply



Other mode of display. Quarter1~4 and Customized area.

Other		
Other Active Area		
Active Area		
🔲 Enable The Active Area	a Function.	
Active Area List	Left 0	Тор 0
1 💌	Right 0	Bottom 0
Drag Active Are	a	
	OK	Cancel

## **Active Area**

Drag active area to enable Active Area Function.

## Hardware

🖻 eGalaxTouch : USB Controller 🛛 🔀
General Setting Tools Display Hardware About
Controller Model PCAP7200 Series
Firmware Version 1030
Hardware Calibration
OK Cancel Apply

Saturn Hardware Configuration

Saturn - Hardware Configuration			
Saturn			
Saturn - Hardware Configuration			
Sensitivity 128			
Delay Time     800 us       Shorter<			
Reset all of the control parameters to factory default setting.			
OK Cance	el 🛛		

# About

To display information about eGalaxTouch and its version.

ବ eGalaxTouch : U	SB Controller	X		
General Setting Too	ols Display Hardware About			
	Touch Screen Utility			
	Copyright (C) 2000-2011			
eGalaxTouch	eGalax_eMPIA_TechnologyInc.			
	Version 5.11.0.9126			
	We provide a full range of controllers for south analog resistive and capacitive touch panels.			
The resistive contro through RS232, PS	oller communicates with the PC system directly 5/2 or USB port.			
	The design is optimized for an accurate, sensitive and quick touch performance as well as an ease of use interface.			
The driver supports a set of operating systems, i.e. Windows(R) 2000 / Windows(R) XP , Windows Vista(R), Wind				
<				
	OK Cancel Apply	,		