

APC-3X15B Panel PC User Manual

Release Date		Revision
Nov. 2011		V1.0
®2011 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: <u>www.aplex.com.tw</u>

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.

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)	Accessories (as ticked) included in this package are:		
AC power cable			
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_____

Warning!	2
Disclaimer	2
Packing List	3
Safety Precautions	3

Chapter 1

Getting Started

Chapter 2	Hardware
1.6 Panel Mounting	13
1.5 Brief Description	12
1.4 Installation of PCI Addon	11
1.3 Installation of HDD	9
1.2 Dimensions	7
1.1 Specifications	6

Hardware

BIOS Setup

2.1 Mainboard	14
2.2 Installations	15
2.2.1 Jumpers Setting and Connectors	15

Chapter 3

3.1 Operations after POST Screen	.33
3.2 BIOS SETUP UTILITY	.34
3.3 System Overview	.34
3.4 Advanced Settings	35
3.5 Advanced PCI/PnP Settings	44
3.6 Boot Settings	47
3.7 Security Settings	49
3.8 Advanced Chipset Settings	50
3.9 Exit Options	.57

Chapter 4

Installation of Drivers

4.1 Intel Chipset Driver	60
4.2 Intel Graphics Media Accelerator Driver	63
4.3 Intel 82574L LAN Device Driver	67
4.4 Realtek ALC662 HD Audio Driver Installation	70
4.5 Microsoft .NET Framework 3.5 Service Installation	72

5.1 Int	roduction	to C	Controller	Boa	rd				- 	75
5.2 Wir	ndows 20	00/X	P USB D	river	Installatio	n for 5	000 Bc	ards	-	75

Figures

Figure 1.1: APC-3215B Dimensions	7
Figure 1.2: APC-3515B Dimensions	8
Figure 1.3: Front View	12
Figure 1.4: Rear View	12
Figure 1.5: Panel Mounting	13
Figure 2.1: Mainboard Dimensions	14
Figure 2.2: Jumpers and Connectors Location_ Board Top	15
Figure 2.3: Jumpers and Connectors Location_ Board Bottom	16
Figure 5.1 Birdeye's View of Control Board	75

1.1 Specifications

Specs	APC-3215B APC-3515B APC-3715B APC-3915B						
CPU	Intel Socket P Core 2 Duo Processor FSB 667/800/1066 MHz, up to Intel T9900 3.06GHz						
Chipset	Intel GM45 + ICH9M-E						
System Memory	2 x 204 Pin SO-DIM	N, up to 8GB DDRIII 80	0/1066MHz FSB				
Display Size	12.1"	12.1" 15" 17" 19"					
	800x600	1024x768	1280x1024	1280x1024			
Maximum Colors	262K		16.7M				
Viewing Angle	H:140 / V:110	H:150 / V:140	H:170 / V:160	H:170 / V:160			
(Degree)							
Luminance (cd/m ²)	350	300	350	450			
Backlight Lifetime		50,000	0 Hours				
Rating		Front Pa	anel IP65				
Touch Screen Type		Resistive T	ype (option)				
Outside I/O port	4 x USB connector						
	2 x GbE LAN connec	ctor					
	1 x VGA						
	1 x HDMI port						
	4 x COM port						
	1 x Terminal block fo	r additional power swite	h				
	2 x LED light for pow	er and HDD indication					
	1 x Audio jack line out and MIC in						
Extension	2 x PCI Expansion slots						
Storage	1 x CF slot external (option)						
	1 x 2.5" SATA HDD						
	1 x Slim CD/DVD RW device (option)						
Power Supply	9~32V DC						
Construction	Steel chassis						
Dimensions	390 x 265 x 122 410 x 310 x 122 mm 457 x 355 x 128 mm 484 x 400 x 129 r						
(WxHxD)	mm						
Operating		0~:	50 ℃				
Temperature							
Storage	-20~60°C						
Temperature							
Relative Humidity	10%~90%@ 40°C , non-condensing						
Certificate	CE / FCC Class A						

APC-3X15B User Manual

1.2 Dimensions



Figure 1.1: Dimensions of the APC-3215B



Figure 1.2: Dimensions of the APC-3515B

1.3 Installation of HDD

Step 1

There are 10 screws to deal with when enclosing or removing the chassis.





Get the HDD screwed to the bracket with the four screws as shown by the arrows in the picture.



Step 3

Connect the cable to the HDD as shown in the picture, making sure the red stripe of the cable is rightly positioned.





1.4 Installation of PCI Addon

Step 1

There are 5 screws to deal with when enclosing or removing the chassis.



Step 2

Now slide the addon into the PCI slot, making sure the golden part faces the slot. When the part that is interfaced together come into the right contact, slightly push the addon into the rail of the slot. This shows the addon is already completely connected.





Step 3

After sliding the addon into the PCI expansion slot, get the one screw as circled tightened to finish the connection.



Step 4

To finish the job, just fasten the 5 screws as shown in the picture.



1.5 Brief Description of the APC-3X15B

The APC-3215B/3515B/3715B/3915B is a high performance, compact and panel-mount industrial PC, which comes with a 12-inch (luminance of 350 cd/m²)/15-inch (luminance of 300 cd/m²)/17-inch (luminance of 350 cd/m²)/19-inch (luminance of 450 cd/m²) TFT LCD. It is powered by an Intel Socket P Core 2 Duo Processor, up to Intel T9900 3.06GHz. The industrial panel PC also features two PCI expansion slots, four COM ports, four USB 2.0 ports, one 2.5" HDD, one slim CD-ROM/DVD Combo, and 9~32V DC, etc. It is ideal for use as a PC-based controller for Automotive, Logistic Process, Materials Handling, and Kiosk applications.



Figure 1.3: Front View of APC-3515B



Figure 1.4: Rear View of APC-3515B

1.6 Panel Mounting of the APC-3215B/3515B/3715B/3915B

The APC-3215B/3515B/3715B/3915B panel PC is designed to be panel-mounted as shown in Figure 1.5. Just carefully place the unit through the hole and tighten the given 8 screws from the rear to secure the mounting.



Figure 1.5: Panel mounting of the APC-3215B/3515B/3715B/3915B

Chapter 2_

2.1 Mainboard



Figure 2.1: Mainboard Dimensions

2.2 Installations

ASB-M801 is a Mini-ITX industrial motherboard developed on the basis of Intel GM45 and ICH9M, which provides abundant peripheral interfaces to meet the needs of different customers. Also, it features dual 1000M LAN port, 6-COM port and one Mini PCIE configuration. To satisfy the special needs of high-end customers, PC104+ port (capable of adjusting IO voltage) richer extension functions. The product is widely used in various sectors of industrial control.

૾ૢ૾૾ૢૺ૾ (3)10 ATX 000 MIO1 -00000000000000000000000 BAT 00 JD CPU_FAN1 (5) (35) SATA_P1 (38) (38) \bigcirc \bigcirc (32)000 SATA3 0 **() (39)** JRI (30) (31) (7) MPCIE1 <mark>(36)</mark>≹ 36 () <mark>(39)</mark> 0 0 0 () <mark>(38)</mark> ස්ක් LED2 (38) () (9) (9) (29) PCIEX2 6 _٦ (33) (1 SODIMM1 SODIMM2 (2) 000 (******** UG, (27) (26)PC104+ \bigcirc (19) GM45 ICH9 (28) (6) <mark>(21)</mark>ອັ ATX12V <mark>(20)</mark> 등 SYS FAN1 (8) .000000000000000000000000000000 (13)(16)(25)(12) (11)VGA1 88888 888 AUDIO (23) (23) (17) COM1 COM2 (18) USB_LAN1 USB_LAN2 (24)(15) Q. <mark>(14)</mark> HDMI (22) (22) JACK1 BT1 CRT1 (10) (4) DCIN LED1 (40) Ð

2.2.1 Jumpers Setting and Connectors

Figure 2.2: Jumpers and Connectors Location_ Board Top



Figure 2.3: Jumpers and Connectors Location_ Board Bottom

1. JP2:

(2.0mm Pitch 1X2 Pin Header), ATX Power and Auto Power on jumper setting.

JP2	Mode
Open	ATX Power
Close	Auto Power on
	(Default)

2. RTC/SRTC:

(2.0mm Pitch 1X2 Pin Header)CMOS clear jumper, CMOS clear operation will permanently reset old BIOS settings to factory defaults.

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 pins1 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 <F1> or key to enter CMOS Setup Utility to load optimal defaults.
- e) After the above operations, save changes and exit BIOS Setup.

3. BAT1:

(1.25mm Pitch 1X2 box Pin Header) 3.0V Li battery is embedded to provide power for CMOS.

Pin#	Signal	
	Name	
Pin1	VBAT	
PIN2	Ground	

4. DCIN:

(5.08mm Pitch 1x3 Pin Connector), DC9V ~ DC32V System power input connector •



Pin#	Power
	Input
Pin1	DC+9V~32
	V
Pin2	Ground
Pin3	Ground

	Location	Location	Location (5.4.6.)
Power Mode	(5.4.4.)	(5.4.5.)	ΑΤΧ

	DCIN	ATX12V	
AT	input	output	
(Default)	DC9~32V	DC 12V	NC

5. ATX12V:

(2x2 Pin Connector), DC12V System power output connector.

۵	4 3	1 2		
Pin#		F	Power	
		output		
Pin1		G	round	
Pin2		Ground		
Pin3		DC+12V		
Pin4		DC+12V		

6. ATX (option):

(2.0mm Pitch 1X3 box Pin Header), connect PSON and 5VSB and Ground signal, support ATX Power model. Reserved.

Pin#	Signal Name
Pin1	ATX PSON
PIN2	ATX Ground
PIN3	ATX 5VSB

7. CPU1:

(Socket P), installing the CPU Socket.



8. CPU_FAN1/SYS_FAN1:

(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

0	5
0	

Note:

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

9. SODIMM1/SODIMM2:

(SO-DIMM 204Pin socket), DDRIII memory socket, the socket is located at the Top of the board and supports 204Pin 1.5V DDRIII 800/1066MHz FSB SO-DIMM memory module up to 8GB.

10. CRT1:

(CRT DB15 Connector),Video Graphic Array Port, provide high-quality video output. **they can not work at the same time for CRT1 and VGA1**.



11. VGA1:

(CRT 2.0mm Pitch 2X5 Pin Header), Video Graphic Array Port, Provide 2x5Pin cable to VGA Port, **they can not work at the same time for CRT and VGA1**.

Signal Name	Pin#	Pin#	Signal Name
CRT_RED	1	2	Ground
CRT_GREEN	3	4	Ground
CRT_BLUE	5	6	VGA_EN
CRT_H_SYN	7	8	CRT_DDCDAT

С			A
CRT_V_SYNC	9	10	CRT_DDCCL
			К

12. INVERTER1:

(2.0mm Pitch 1x6 box Pin Header), Backlight control connector for LVDS1.





Note:

Pin6 is backlight control signal, support DC or PWM mode, mode select at BIOS CMOS menu.

13. LVDS1:

(1.25mm Pitch 2x20 Connector), For 18/24-bit LVDS output connector, Fully supported by Intel GM45 chipset, the interface features dual channel 18/24-bit output.

Signal Name	Pin#	Pin#	Signal Name
VDD5	2	1	VDD5
Ground	4	3	Ground
VDD33	6	5	VDD33
LB_D0_N	8	7	LA_D0_N
LB_D0_P	10	9	LA_D0_P
Ground	12	11	Ground
LB_D1_N	14	13	LA_D1_N
LA_D1_P	16	15	LA_D1_P
Ground	18	17	Ground
LB_D2_N	20	19	LA_D2_N

LB_D2_P	22	21	LA_D2_P
Ground	24	23	Ground
LB_CLK_N	26	25	LA_CLK_N
LB_CLK_P	28	27	LA_CLK_P
Ground	30	29	Ground
DS_DDC_DATA	32	31	LVDS_DOC_CLK
Ground	34	33	Ground
LB_D3_N	36	35	LA_D3_N
LB_D3_P	38	37	LA_D3_P
NC	40	39	NC

14. HDMI:

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



15. BT1:

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.

16. JCOM1:

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

JP3 Pin#	Function
Close 1-2	COM1 RI (Ring Indicator)
	(default)
Close 3-4	COM1 Pin9=+5V
	(option)
Close 5-6	COM1 Pin9=+12V
	(option)

17. COM1:

(**Type DB9**),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 JCOM1,select output Signal RI or 5V or 12v, For details, please refer to description of JCOM1.



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	JCOM1 select Setting

18. COM2:

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



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	RI (Ring Indicator)

19. COM5:

(2.0mm Pitch 2X5 Pin Header), COM5 Port, standard RS232 ports are provided. They can be used directly via COM cable connection.

Signal	Pin#	Pin#	Signal Name
Name			
DCD	1	2	RXD
TXD	3	4	DTR
Ground	5	6	DSR
RTS	7	8	CTS
RI	9	10	NC

20. JCOM6:

(2.0mm Pitch 1x3 Pin Header) COM6 setting jumper, pin 1~3 are used to select signal out of pin 10 of COM6 port.

JP1 Pin#	Function	
Close 1-2	COM5 Pin10=+5V	(default)
Close 2-3	COM5 Pin10=+12V	(option)

21. COM6:

(2.0mm Pitch 2X5 Pin Header), COM6 Port, standard RS232 ports are provided. They can be used directly via COM cable connection. COM6 port is controlled by pins No.1~3 of JCOM6, select output Signal 5V or 12v, For details, please refer to description of **JCOM6**.

Signal	Pin#	Pin#	Signal Name
Name			
DCD	1	2	RXD
TXD	3	4	DTR
Ground	5	6	DSR
RTS	7	8	CTS
RI	9	10	JCOM6
			select Setting

22. USB4/USB5/USB6/USB7:

(Double stack USB type A), Rear USB connector, it provides up to 4 USB2.0 ports, speed up to 480Mb/s.



23. 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.



24. JACK1:

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



25. AUDIO:

(2.0mm Pitch 2X6 Pin Header), Front Audio, An onboard Realtek ALC662 codec is used to provide high-quality audio I/O ports. Line Out can be connected to a 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
FRONT_OUTP-L	1	2	FRONT_OUTP_
			R
FRONT_OUTN_	3	4	FRONT_OUTN_
L			R
FRONT_JD	5	6	LINE1_JD
LINE_IN_L	7	8	LINE1_IN_R
MIC2_IN_L	9	10	MIC2_IN_R
Ground	11	12	MIC2_JD

26. BZ:

Onboard buzzer.

27. JP_104P:

(2.0mm Pitch 1X3 Pin Header) PC104+ port voltage selection jumper, select voltage for PCI-104 Plus devices. The default for this jumper is "all open",meaning the user must select the voltage to be used.

JP_104P Pin#	PC104+ VIO Voltage
All Open	Default
Close 1-2	+3.3V PCI Card
Close 2-3	+5V PCI Card

28. PC104+ (option):

(4x30 Pin), PC104 plus connector, it conforms to standard PC104+ specification. Can expand support four PCI devices.

ASB-M801T/ET : PC104+ connector in the top.

ASB-M801B/EB : PC104+ connector in the Bottom.

29. PCIEX2 (option):

(4x10 Pin), PCIe bus connector, it conforms to standard PCI Express x1 specification. Can expand support two PCIe devices.

ASB-M801T/ET : PCIEX2 connector in the top.

ASB-M801B/EB : PCIEX2 connector in the Bottom.

MODEL	PC104+ / PCIEX2
ASB-M801T	Тор
ASB-M801ET	Тор
ASB-M801B	Bottom
ASB-M801EB	Bottom

30. MPCIE1:

(Socket 52Pin), mini PCIe socket, it is located at the top, it supports mini PCIe devices with USB2.0, SMBUS and PCIe signal. MPCIe card size is 30x30mm or 30x50.95mm.

31. JRI:

(2.0mm Pitch 1X3 Pin Header), Wake up setting jumper. pin 1~2 are used to select signal for COM4 Wake up, pin 2~3 are used to select signal for PCI devices Wake up,

JRI Pin#	Function
----------	----------

Close 1-2	PCI_PME for COM4
Close 2-3	PCI-PME for PCI

32. MIO1:

(1.25mm Pitch 2x20 Connector),For expand output connector, It provides two RS232 ports or one RS485 port, three USB ports, one power led, one power button, via a dedicated cable connected **to TB-522 MIO1**.

	_			_		
Functio	Signal Name	Pin#	Pin#	Signal Name	Function	
n						
	422RX+	1	2	485+ / 422TX+		
	422RX-	3	4	485- / 422TX-	COM3	
COM3	Ground	5	6	NC	RS422 or	
	NC	7	8	NC	RS485	
	NC	9	10	5V_S5		
	DCD4-	11	12	RXD4		
	TXD4	13	14	DTR4-		
COM4	Ground	15	16	DSR4-	COM4	
	RTS4-	17	18	CTS4-		
	RI4-	19	20	5V_S5		
	5V_USB_9	21	22	5V_USB_1011		
	USB9_N	23	24	USB10_N		
USB9	USB9_P	25	26	USB10_P	USB10	
	Ground	27	28	Ground		
	Ground	29	30	Ground		
	5V_USB_101	31	32	PWR_LED+	Power	
	1				LED	
USB11	USB11_N	33	34	PWR_LED-		
	USB11_P	35	36	MIO_PSON	Power	
	Ground	37	38	Ground	Button	
	Ground	39	40	Ground	1	

33. MIO2:

(1.25mm Pitch 2x20 Connector), Front panel connector.

Function	Signal Name	Pin#	Pin#	Signal Name	Function
H_LED+	HDD_LED	1	2	PWR-LED	P_LED+
H_LED-	Ground	3	4	Ground	P_LED-
RESET-	Ground	5	6	MIO_PSON-	PSON+
RESET	RESET	7	8	Ground	PSON-

+					
BUZZER+	BUZZER+	9	10	BUZZER-	BUZZER-
	GPIO_IN_1	11	12	GPIO_OUT_1	
GPIO_I	GPIO_IN_2	13	14	GPIO_OUT_2	GPIO_OU
Ν	GPIO_IN_3	15	16	GPIO_OUT_3	Т
	GPIO_IN_4	17	18	GPIO_OUT_4	
	Ground	19	20	5V_S5	
PS2_K/	Ps2_KBDATA	21	22	PS2_MSDATA	PS2_Mous
В	PS2_KBCLK	23	24	PS2_MSCLK	е
	5V_USB_23	25	26	5V_USB_23	
USB2	USB2_N	27	28	USB3_N	USB3
	USB2_P	29	30	USB3_P	
	Ground	31	32	Ground	
	5V_USB_01	33	34	5V_USB_01	
USB0	USB0_N	35	36	USB1_N	USB1
	USB0_P	37	38	USB1_P	
	Ground	39	40	Ground	

- Pin1-3: **HDD LED**, They are used to connect hard disk activity LED. The LED blinks when the hard disk is reading or writing data.
- Pin2-4: **POWER LED**, They are used to connect power LED. When the system is powered on or under S0/S1 state, the LED is normally on, when the system is

under S4/S5 state, the LED is off.

- Pin5-7: **RESET Button**, They are used to connect reset button. The two pins are disconnected under normal condition. You may short them temporarily to realize system reset.
- Pin6-8: **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.
- Pin9-10: **BUZZER**, They are used to connect an external buzzer.
- Pin11-18: **GPIO IN/GPIO OUT,** General-purpose input/output port, it provides a group of self-programming interfaces to customers for flexible use.

- Pin19-24: **PS2 KB/MS,** PS/2 keyboard and mouse port, the port can be connected to PS/2 keyboard and mouse via a dedicated cable for direct used.
- Pin25-40: **USB0/USB1/USB2/USB3**, Front USB connector, it provides 4 USB ports via a dedicated USB cable, speed up to 480Mb/s.

0	_
(CT	\mathcal{O}
S	

Note:

When connecting LEDs and buzzer and GPIO and USB, pay special attention to the signal polarity. Make sure that the connector pins have a one-to-one correspondence with chassis wiring, or it may cause boot up failure.

34. JCF/JSATA:

(2.0mm Pitch 3x4 Pin Header), it provides selectable IDE_CF1 or SATA4 signal output control.

Functio	Jumper setting					
n						
	JSATA					
	1 🗆 🗆 🔿					
	2 000					
SATA	3 0 0 0					
4	4 000					
(Default)						
	JCF					
	2					
IDE CF	0004					
1	0006					
(option)	0008					

35. SATA_P1/SATA_P2:

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

Pin#	Signal		
	Name		
1	+DC5V		
2	Ground		



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

36. SATA1/SATA2/SATA3/SATA4:

(SATA 7P), SATA Connectors, Four SATA connectors are provided, with transfer speed up to 3.0Gb/s.

ASB-M801ET/EB: SATA1/SATA2/SATA3 drives supporting RAID 0 or RAID 1 function.

MODEL	SATA Color	RAID
ASB-M801T	Black:	No
ASB-M801B	SATA1/SATA2/SATA3/SATA4	
ASB-M801ET	Blue: SATA1/SATA2/SATA3	Yes
ASB-M801EB	Black: SATA4	

37. IDE_CF1 (option):

<u>(CF_Card socket)</u>, it is located at the bottom of the board and serves as an insert interface for Type I and Type II Compact Flash card. The operating voltage of CF card can be set as 3.3V or 5V,**The default setting of the product is 3.3V**. Please refer to description of JCF/JSATA Jumper setting.



38. CPU SCREW HOLES:

CPU FAN SCREW HOLES, Four screw holes for fixed CPU Cooler assemble.

39. H5/H6:

MPCIE1 SCREW HOLES, H5 for mini PCIE card (30mmx30mm) assemble. <u>H6 for</u> mini PCIE card (30mmx50.95mm) assemble.

40. LED1:

LED STATUS. Green LED for Motherboard Standby Power Good status, Yellow LED for HDD status.

41. TB-522:

ASB-M801 I/O Card, via a dedicated cable connected to ASB-M801 MIO1.



LED2:

POWER LED status.

S1:

PWR BT: 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. **PWR LED:** <u>POWER LED</u> status.

COM3:

(Type DB9),I/O serial port, it provides selectable RS422/RS485 serial signal output.



RS422 Type (0	option)	RS485 Type (option)				
Signal Name	Pin#	Pin#	Signal Name			
422_RX+	1	1	NC			
422_RX-	2	2	NC			
422_TX-	3	3	485-			
422_TX+	4	4	485+			
Ground	5	5	Ground			
NC	6	6	NC			
NC	7	7	NC			
NC	8	8	NC			
NC	9	9	NC			



Note:

Use COM3 RS422 or RS485 Function, please enter BIOS CMOS Setup. Path: BIOS Setup Utility \ Advanced /Super IO Configuration \ Serial Port3 Type:

[RS-485]

[RS-422]

COM4:

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



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	RI (Ring Indicator)						

USB10,USB11:

(Double stack USB type A), I/O USB connector, it provides up to 2 USB2.0 ports, speed up to 480Mb/s.



CF:

<u>(CF_Card socket)</u>, it is located at TB-522 and serves as an insert interface for Type I and Type II Compact Flash card. The operating voltage of CF card can be set as 3.3V or 5V. **The default setting of the product is 3.3V**.



42. TB-520P2:

TB-520P1 connect to ASB-M801T/ET PC104+ connector, PC104+ is located at the top,

It provides two PCI slots.



3.1 Operations after POST Screen

After CMOS discharge or BIOS flashing operation, the system will display the following screen for your further operation. Press F2 key to continue or F1 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.

Press F11 key to enter Boot Menu during POST, as shown by the following figure.



3.2 BIOS SETUP UTILITY

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

	BIOS SETUP UTILITY								
Main	Advanced	PCIPnP	Boot	Security	Ch	ipset	Exit		
System	n Overviev	V				User	[ENTER],	[TAB]	
AMIE	BIOS					or [SHIFT-TAB]	to	
Version	: 08.00	.15				Selec	t a field		
Buil	ld Date : ()5/13/11							
ID	:N	A801V001				Use[+	+] or [-] to		
						config	gure system	n Time.	
Pro	cessor								
Gen	uine Intel(F	R) CPU	575	@ 2.00	GHz				
Spe	ed :200	0MHz				\leftarrow	Select Scre	een	
						¢↓	Select Item	1	
Syst	tem Memo	ry				+-	Charge Fie	ld	
Size	:19	981MB				Tab	Select Field	d	
						F1	General He	elp	
Svsi	tem Time		00]	:01:18]		F10	Save and I	Exit	
Svst	tem Date				[Tue	ESC	Exit		
05/15/20	011]								
	v02.61 (Copyright 1	985-2006 A	merican	Megati	rends	. Inc.		

3.3 System Overview

	BIOS SETUP UTILITY								
Main	Advanced	PCIPnP	Boot	Security	Ch	ipset	Exit		
Syste	em Overvie	ew				User	[ENTER]	, [TAB]	
AM	BIOS					or [SHIFT-TA	3] to	
Versio	n : 08.0	0.15				Seleo	ct a field		
Build	Date : 05/	13/11							
ID	: M8	301V001				Use[·	+] or [-] to		
Proc	essor					confi	gure syste	m Time.	
Genuir	ne Intel(R)	CPU	575	@ 2.00GHz					
Speed	:2000N	4Hz							
						←	Select Sc	reen	
Syste	em Memor	у				↑↓	Select Ite	m	
Size	:1981	MB				+-	Charge Fi	eld	
						Tab	Select Fie	eld	

System Time	[00:02	2:28]	F1	General Help			
System Date	[Tue	05/13/2011]	F10	Save and Exit			
			ESC	Exit			
V02.61 © Copyright 1985-2006 American Mega trends , 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 12Date:01 to 31Year:2009 to 2099

3.4 Advanced Settings

BIOS SETUP UTILITY							
Main Advanced	PCIPnP	Boot	Security	Chi	pset	Exit	
Advanced Settings					Configu	Ire CPU	
WARNING: S	Setting wro	ong valu	es In be	low			
sections							
may cause system to malfunction.							
CPU Configuration	ation						
► IDE Configuration							
 Super IO Configuration 							
 Hardware Health Configuration 							
► ACPI Configuration							
► AHCI Configuration							
 MPS Configuration 							
 PCI Express Configuration 							
Smbios Configuration							
► USB Configuration					←	Select Screen	

	¢↓	Select Item			
	Enter	Charge Field			
	F1	General Help			
	F10	Save and Exit			
	ESC	Exit			
V02.61 © Copyright 1985-2006 American Mega trends , Inc.					

3.4.1 CPU Configuration

BIOS SETUP UTILITY						
Advanced						
Configure advanced CPU settings Module Version: 3F.10 Manufacturer : Intel Genuine Intel(R) CPU 575 @ 2.00GHz Frequency :2.00GHz FSB Speed : 668MHz Cache L1 :32 KB Cache L2 :1024 KB Ratio Actual Value :L2	For UP platforms, Leave it enabled. For DP/MP serves, It may use to tune Performance to the Specific application.					
Hardware Prefetcher[Enabled]Adjacent Cache Line Prefetch[Enabled]Max CPUID Value Limit[Disabled]Execute-Disable Bit Capability[Enabled]Intel(R) C-SATAE tech[Disabled]	 ← Select Screen ↑↓ Select Item +- Charge Field F1 General Help F10 Save and Exit ESC Exit 					
V02.61 © Copyright 1985-2006 American Mega trends , Inc.						

Hardware Prefetcher:

[Enabled] [Disabled]

Adjacent Cache Line Prefetch:
[Enabled]

[Disabled]

Max CPUID Value Limit:

[Disabled] [Enabled]

Execute-Disable Bit Capability:

[Enabled] [Disabled]

Intel(R) C-STATE tech:

[Disabled]

[Enabled]

3.4.2 IDE Configuration

BIOS SETUP UTILITY			
Advanced			
IDE Configuration		Disabled	
SATA#1 Configuration	[Compatible]	Compatible	
Configure SATA as	[IDE]	Enhanced	
SATA#1 Configuration	[Enhanced]		
► Primary IDE Master	: [Not		
Detected]			
▶ Primary IDE Slaver	: [Not		
Detected]			
► Secondary IDE Master	: [Not		
Detected]			
► Secondary IDE Slaver	: [Not	← Select Screen	
Detected]		1↓ Select Item	
► Third IDE Master	: [Not	+- Charge Field	
Detected]		F1 General Help	
► Fourth IDE Master	: [Hard	F10 Save and Exit	
Disk]		ESC Exit	
Hard Disk Write Protect	[Disabled]		
IDE Detect Time Out (Sec)	[35]		

ATA(PI)	80Pin	Cable	Detection	[Host &	
Device]					
	V02.61 © Copyright 1985-2006 American Mega trends , Inc.				

SATA#1 Configuration:

[Compatible] [Disabled] [Enhanced]

Configure SATA as:

[IDE] [RAID] [AHCI]

SATA#2 Configuration:

[Enhanced]

[Disabled]

Hard Disk Write Protect:

[Disabled]

[Enabled]

IDE Detect Time Out :

[35]
[0]
[5]
[10]
[15]
[20]
[25]

[30]

ATA(PI) 80Pin Cable Detection:

[Host & Device] [Host] [Device]

3.4.3 Super IO Configuration

BIOS SETUP UTILITY			
Advanced			
Configure Win627UHG Sup	oer IO Chipset	Allow BIOS to Select	
Serial Port1 Address	[3F8]	Serial Port Base	
Serial Port2 Address	[2F8]	Address.	
Serial Port3 Address	[3E8]		
Serial Port3 IRQ	[IRQ4]		
Serial Port3 Mode	[RS-485]		
Serial Port4 Address	[2E8]		
Serial Port4 IRQ	[IRQ3]		
Serial Port5 Address	[238]		
Serial Port5 IRQ	[IRQ5]		
Serial Port6 Address	[228]		
Serial Port6 IRQ	[IRQ7]		
		← Select Screen	
		↑↓ Select Item	
		+- Charge Field	
		F1 General Help	
		F10 Save and Exit	
		ESC Exit	
V02.61 © Copyright 1985-2006 American Mega trends , Inc.			

Serial Port3 Mode:

COM3 Options:	[RS485]	
	[RS422]	
	[RS422]	for RS422 Mode
	[RS485]	for RS485 Mode

3.4.4 Hardware Health Configuration

BIOS SETUP UTILITY		
Advanced		
Hardware Health Config	uration	
System Temperature	:33℃/91°F	55℃/131°F
CPU Temperature	:30°C/86° F	60℃/140℃
CPUFAN Speed	:4800 RPM	65℃/149 ℉

		70℃/158℉	
Vcore	:1.064V		
AVCC	:5.058V		
5VCC	:5.067 V		
3.3V	:3.264 V		
5.0V	:5.029 V		
12V	:12.042 V		
VSB	:5.058 V		
VBAT	:3.366 V	← Select Screen	
		1 Select Item	
Smart Fan Configuration		+- Charge Field	
Maximum CPU Temperature	[60°C/140°F]	F1 General Help	
Maximum PWM Duty for CPU	U Fan [60%]	F10 Save and Exit	
v		ESC Exit	
V02.61 © Copyright 1985-2006 American Mega trends , Inc.			

System Temperature:

Show you the current system temperature.

CPU Temperature:

Show you the current CPU temperature.

CPUFAN Speed:

Show you the current CPU Fan operating speed.

Maximum CPU Temperature:

- **[60℃/140**°F]
 - [55℃/131°F] [65℃/149°F] [70℃/158°F]

Minimum PWM Duty for CPU Fan:

[60%] [50%] [70%] [80%]

3.4.5 ACPI Configuration

ACPI Setting:

[Advanced ACPI Configuration]

ACPI Version Features:

[ACPI	V1.0]
[ACPI	V2.0]
[ACPI	V3.0]

ACPI APIC support:

[Enabled]

[Disabled]

AMI OEMB table:

[Enabled] [Disabled]

Headless mode:

[Disabled] [Enabled]

[Chipset ACPI Configuration]: APIC ACPI SCI IRQ:

[Disabled]

[Enabled]

High Performance Event Timer:

[Disabled]

[Enabled]

3.4.6 AHCI Configuration

BIOS SETUP UTILITY				
Advanced				
AHCI Setting	Enables For supporting			
AHCI BIOS Support [Enabled]				
AHCI CD/DVD Boot Time out [35]				
► AHCI Port0 [Not Detected]				
► AHCI Port1 [Not Detected]				

► AHCI Port2	[Not Detected]		
► AHCI Port3	[Not Detected]		
► AHCI Port4	[Not Detected]	←	Select Screen
► AHCI Port5	[Not Detected]	↑↓	Select Item
		Enter	Go to sub screen
		F1	General Help
		F10	Save and Exit
		ESC	Exit
V02.61 © Copyright 1985-2006 American Mega trends , Inc.			

While entering setup, BIOS auto detects the presence of IDE devices. This displays the status of auto detecting of IDE devices

3.4.7 MPS Configuration

BIOS SETUP UTILITY		
Advanced		
MPS Configuration		Select MPS
MPS Revision	[1.1]	 ← Select Screen ↑↓ Select Item +- Charge Field F1 General Help F10 Save and Exit ECS Exit
V02.61 © Copyright 1985-2006 American Mega trends , Inc.		

MPS Revision:

[1.1] [1.4]

3.4.8 PCI Express Configuration

BIOS SETUP UTILITY			
	Advanced		
PCI	PCI Express Configuration Enables/Disables		

Active	State	Power	-Management	PCI Express L0s and		
[Disabled]				L1 Link Power		
				States.		
				← Select Screen		
				↑↓ Select Item		
				+- Charge Field		
				F1 General Help		
				F10 Save and Exit		
				ESC Exit		
V02.61 © Copyright 1985-2006 American Mega trends , Inc.						

Active State Power Management:

[Disabled]

[Enabled]

3.4.9 Smbios Configuration

BIOS SI						
Advanced						
Smbios Configuration		SMBIOS SMI Wrapper				
Smbios Smi Support	[Enabled]	Support for PnP Func				
		50h-54h				
		← Select Screen				
		1 Select Item				
		+- Charge Field				
		F1 General Help				
		F10 Save and Exit				
		ESC Exit				
V02.61 © Copyright 1985-2006 American Mega trends , Inc.						

Smbios Smi Support:

[Enabled] [Disabled]

3.4.10 USB Configuration

BIOS SETUP		
Advanced		
USB Configuration		Enables support for
Module Version – 2.24.3-13.4		legacy USB.ATUO
		option disables legacy
USB Devices Enabled :		support if no USB
1Keyboard		devices are connected
Legacy USB Support	[Enabled]	
USB2.0 Controller Mode	[Fullspeed]	
BIOS EHCI Hand-Off	[Enabled]	← Select Screen
		1 Select Item
		+- Charge Field
		F1 General Help
		F10 Save and Exit
		ESC Exit
V02.61 © Copyright 1985-2006 A	American Mega	trends , Inc.

Legacy USB Support:

[Enabled] [Disabled]

USB2.0 Controller Mode:

[FullSpeed] [HiSpeed]

BIOS EHCI Hand-Off:

[Enabled] [Disabled]

3.5 Advanced PCI/PnP Settings

This part describes configurations to be made on PCI bus system. PCI, namely Personal Computer Interconnect, is a computer bus that allows I/O device to operate nearly as fast as CPU in its own way. Some technical terms will be mentioned here. **We recommend that non-professional users not make changes from factory default settings.**

		В	IOS SETU				
Main	Advanced	PCIPNP	Boot	Security	/ Ch	ipset	Exit
Adva	nced PCI/	PnP Settin	ngs			Clear I	NURAM during
WAR	NING: S	etting wr	ong valu	ies In h	below	System	n Boot.
sections	5						
	ma	iy cause sy	ystem to	malfunct	tion.		
Clear N	VRAM			[No]	-		
Plug &	Play O/S			[No]			
PCI Lat	ency Time	r		[64]			
Allocate	e IRQ to P	CI VGA		[Yes]			
Palette S	Snooping			[Disable	ed]		
PCI IDI	E BusMast	er		[Disabl	led]		
OffBoar	rd PCI/ISA	IDE Card		[Auto]			
IRQ3						← Se	elect Screen
[Availat	ble]					↑↓ Se	elect Item
IRQ4						+- Cł	harge Field
[Availat	ble]					F1 G	eneral Help
IRQ5						F10 \$	Save and Exit
[Availat	ble]					ESC	Exit
IRQ7							
[Availat	ble]						
IRQ9							
[Availat	ble]						
IRQ10							
[Availat	ble]						
IRQ11							
[Availat	ble]						
	V02.61 ©	Copyright	1985-2006	American	Mega	trends ,	Inc.

Clear NVRAM:

[**No**] [Yes]

Plug & Play OS:

[No]

[Yes]

PCI Latency Timer:

[32]
[96]
[128]
[160]
[192]
[224]
[248]

Allocate IRQ to PCI VGA:

[Yes]

[No]

Palette Snooping:

[Disabled]

[Enabled]

PCI IDE BusMaster:

[Disabled]

[Enabled]

OffBoard PCI/ISA IDE Card:

Some PCI IDE cards may require this to be set to the PCI slot number that is holding the card. Auto:Works for most PCI IDE Cards.

[Auto] [PCI Slot1] [PCI Slot2] [PCI Slot3] [PCI Slot4] [PCI Slot5] [PCI Slot6]

IRQ3/4/5/7/9/10/11/14/15:

[Available]

[Reserved]

Available: Specified IRQ is available to be used by PCI/PnP devices. Reserved: Specified IRQ is reserved for use by legacy ISA devices.

DMA Channel 0/1/3/5/6/7:

[Available]

[Reserved]

Available: Specified DMA is available to be used by PCI/PnP devices.

Reserved: Specified DMA is reserved for use by legacy ISA devices.

Reserved Memory Size:

Size of memory block to reserve for legacy ISA devices.

[Disabled] [16k] [32k] [64k]

3.6 Boot Settings

		BI	OS SETUP	UTILITY			
Main	Advanced	PCIPnP	Boot	Security	Ch	nipset	Exit
Boot	Settings					Config	ure Settings
						During	System Boot
► E	Boot Setting	Configurat	tion				
► Boo	ot Device Pr	riority					
► Har	d Disk Driv	/es					
						← S	elect Screen
						↑↓ S	elect Item
						Enter	Go to sub screen
						F1 G	eneral Help
						F10	Save and Exit
						ESC	Exit
V02.61 © Copyright 1985-2006 American Mega trends , I							Inc.

Boot Setting Configuration :

Configure Settings during System Boot.

Quick Boot:

[Enabled]

[Disabled]

Allows BIOS to skip certain tests while booting .This will decrease the time needed to boot the system.

Quiet Boot:

[Disabled]

[Enabled]

Disabled: Displays normal POST messages.

Enabled: Displays OEM logo instead of POST messages.

AddOn ROM Display Mode:

Set display mode for Option ROM.

[Force BIOS]

[Keep Current]

Bootup Num-Lock:

Select Power-on state for Numlock.

[**On]** [Off]

Wait For 'F1' If Error:

Wait for F1 key to be pressed if error occurs.

[Enabled]

[Disabled]

Hit 'DEL'Messgae Display :

Displays "press" DEL to run Setup in POST.

[Enabled]

[Disabled]

Interrupt 19 Capture:

Enabled: Allows option ROMs to trap interrupt 19.

[Disabled]

[Enabled]

Boot Device Priority:

Specifies the Boot Device Priority sequence.

Hard Disk Devices :

Specifies the Boot Device Priority sequence from available Hard Drives.

3.7 Security Settings

		BI	OS SETUR	UTILITY		
Main	Advanced	PCIPnP	Boot	Security	Chipset	Exit
Secu	rity Setting	gs			Install	or Change the
Sup	ervisor Pass	sword :N	ot Instal	led	passw	ord.
User	Password	:N	lot Insta	lled		
Chang	e Superviso	r Password				
Chang	e User Pass	word				
Boot S	Sector Virus	Protection	[Disab]	ed]		
					← 8	Select Screen
					t↓ \$	Select Item
					Enter	Charge
					F1 (General Help
					F10	Save and Exit
					ESC	Exit
	V02.61 @	Copyright 1	985-2006	American M	ega trends ,	Inc.

Change Supervisor Password:

Install or Change the password.

Change User Password:

Install or Change the password.

Password Check:

[Setup] [Always] Setup: Check password while invoking setup. Always: Check password while invoking setup a well as on each boot.

Boot Sector Virus Protection: [Disabled] [Enabled] Enabled / Disabled Boot Sector Virus Protection.

Type the password with up to 6 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.

3.8 Advanced Chipset Settings

	BIOS SETUP UTILITY						
Main	Advanced	PCIPnP	Boot	Security	Ch	ipset	Exit
Adva	nced Chip	oset Setting	<u></u> şs			Confi	gure North Bridge
WAR	NING: S	etting wr	ong valu	ies in be	low	featu	е
section	s						
	ma	ay cause sy	stem to	malfunctio	n		
► Nort	th Bridge C	Configuratio	on				
► Se	outh Bridge	e Configura	ation				
						←	Select Screen
						↑↓	Select Item
						Enter	Go to sub screen
					_	F1	General Help
						F10	Save and Exit
						ESC	Exit
	V02.61 @	Copyright	1985-2006	American M	ega t	rends	, Inc.

	BIOS SETU			
			Chipset	
North Bridge Chip	oset Configurati	on	ENABL	E: Allow
Memory	Remap	Featur	e Remap	ping of
[Enabled]			Over la	pped PCI Memory
PCI MMIO Alloca	tion: 4Gb To 30	72MB	Above	the total
Memory		Hol	e Physica	al memory
[Disabled]				
			DISABI	LE: Do not allow
Initate Graphic Adapt	er	[PCI/IGD]	remapp	bing of memory
IGD Graphics	s Mode	Selec	t	
[Enabled ,64MB]				
IGD GTI Graphic s	memory size	[No V	Γ	
mode,2MB]			← S	elect Screen
			↑↓ S	elect Item
PEG Port Configu	ration		+- C	harge Field
			F1 G	Seneral Help
► Video Function Co	onfiguration		F10 S	Save and Exit
			ESC	Exit
V02.61 © C	opyright 1985-2006	American Meg	ga trends	, Inc.

3.8.1 North Bridge Configuration

Memory Remap Feature:

[Enabled] [Disabled]

Memory Hole:

[Disabled]

[15MB-16MB]

Initate Graphic Adapter:

Select which graphics controller to use as the primary boot device.

[PCI/IGD]

[IGD]

IGD Graphics Mode Select:

[Enabled, 64MB] [Disabled]

[Enabled, 32MB] [Enabled, 128MB]

Video Function Configuration:

	BIOS SETL		
		Ch	ipset
Video Function (Configuration		Options
DVMT Mode Sele	ect	[DVMT	Fixed Mode
Mode]			DVMT Mode
DVMT/FIXE	D	Memory	
[256MB]			
Boot	Display	Device	
[VBIOS-Default]			
Flat Panel Type		[1024x768	
18bit 1c]		-	
Backlight	Control	Support	
[VBIOS-Default]			T↓ Select item
Backlight Control I	Level	[Level 8]	F1 Conoral Holp
Backlight Control N	Aode	[DC]	F1 General help
Backlight	Image	Adaptation	ESC Evit
[VBIOS-Default]			
		-	
	Comunicable 4005-0000		
V02.61 © 0	copyright 1985-2000	o American Mega	rends, Inc.

DVMT Mode Select:

[DVMT Mode]

[FIXED Mode]

DVMT/FIXED Memory Size:

[**256MB**] [128MB] [Maximum DVMT]

Boot Display Device:

[VBIOS-Default] [CRT] [HDMI] [CRT + HDMI] [LVDS] [CRT + LVDS]

Flat Panel Type:

[1024x 768 18bit 1ch] [640x480 18bit 1ch] [800x480 18bit 1ch]

[800x600 18bit 1ch] [1280x800 18bit 1ch] [1366x768 18bit 1ch] [1024x768 24bit 2ch] [1280x1024 24bit 2ch] [1440x900 24bit 2ch] [1600x900 24bit 2ch] [1680x1050 24bit 2ch] [1920x1080 24bit 2ch]

Backlight Control Support

[VBIOS-Default]

[Both BLC & BIA Disabled] [BLC Enabled]

Backlight Control Control:

[Level8] [Level0] [Level1] [Level2] [Level3] [Level4] [Level6] [Level7] [Level9] [Level10] [Level11] [Level12] [Level13] [Level14] [Level15]



Note: Panel support PWM Function.

Backlight Control Mode:

[DC] [PWM]

Backlight Image Adaptation:

[VBIOS-Default] [BIA Disabled] [BIA Enabled at Level1] [BIA Enabled at Level2] [BIA Enabled at Level3] [BIA Enabled at Level4] [BIA Enabled at Level5]

3.8.2 South Bridge Configuration:

BIOS SETUP UTILITY						
Chipset						
South Bridge Chipset Confi	Options					
USB Functions	[12 USB	Disabled				
Ports]		2 USB Ports				
USB2.0 Controller	[Enabled]	4 USB Ports				
Keep USB Power at S5	[Enabled]	6 USB Ports				
Wireless Controller	[Enabled]	8 USB Ports				
HAD Controller	[Enabled]	10 USB Ports				
SMBUS Controller	[Enabled]	12 USB Ports				

SLP_S4# Min. Assertion Width	n [4 to 5	
Seconds]		
Restore on AC Power loss	[Power off]	
PCIE Ports Configuration		
PCIE Port 0	[Auto]	← Select Screen
PCIE Port 1	[Auto]	1↓ Select Item
PCIE Port 2	[Auto]	+- Charge Field
PCIE Port 3	[Auto]	F1 General Help
PCIE Port 4	[Auto]	F10 Save and Exit
PCIE High Priority Port	[Disabled]	ESC Exit
V02.61 © Copyright 1985-20	trends , Inc.	

USB Functions:

[12 USB Ports]

[Disabled], [2 USB Ports] [4 USB Ports] [6 USB Ports] [8 USB Ports] [10 USB Ports]

USB 2.0 Controller:

[Enabled]

Keep USB Power at S5:

[Enabled]

[Disabled]

Wireless Controller

[Enabled] [Disabled]

HDA Controller:

[Enabled] [Disabled]

SMBUS Controller:

[**Enabled**] [Disabled]

SLP_S4# Min. Assertion Width:

[4 to 5 Seconds] [3 to 4 Seconds] [2 to 3 Seconds] [1 to 2 Seconds]

Restore on AC Power Loss:

[Power Off] [Power On] [Last Status]

PCIE Ports Configuration:

PCIE Port 0:

[Auto] [Enabled] [Disabled]

PCIE Port 1:

[Auto]

[Enabled] [Disabled]

PCIE Port 2:

[Auto]

[Enabled] [Disabled]

PCIE Port 3:

[Auto]

[Enabled] [Disabled]

PCIE Port 4:

[Auto]

[Enabled] [Disabled]

PCIE High priority Port:

[Disabled] [Port 0] [Port1]

[Port2] [Port3] [Port4] [Port5]

PCIE Port 0 IOxAPIC Enabled: PCIE Port 1 IOxAPIC Enabled: PCIE Port 2 IOxAPIC Enabled: PCIE Port3 IOxAPIC Enabled: PCIE Port4 IOxAPIC Enabled: PCIE Port5 IOxAPIC Enabled:

[Disabled]

[Enabled]

3.9 Exit Options

	BIOS SETUP UTILITY							
Main	Advanced	PCIPnP	Boot	Security	Ch	ipset	Exit	
Exit	Options					Exit s	ystem setup)
Save C	hanges and	Exit				after s	aving the	
Disc	ard Change	s and Exit				chang	jes	
Discar	d Changes							
						F10 k	ey can be u	sed
Load C	Optimal Def	aults				For th	is operatior	ı
Load F	ailsafe Def	aults						
						← S	elect Scree	n
						↑↓ S	elect Item	
						Enter	Go to sub s	screen
						F1	General He	lp
						F10	Save and E	Exit
						ESC	Exit	
	V02.61 @	Copyright 19	985-2006	American Mo	ega	trends	, Inc.	

Save Changes and Exit:

Save configuration changes and exit setup?

(F10 key can be used for this operation)

[OK] [Cancel]

Discard Changes and Exit:

Discard Changes and Exit setup?

(ESC key can be used for this operation)

[OK]

[Cancel]

Discard Changes:

Discard changes?

(F7 key can be used for this operation)

[OK]

[Cancel]

Load Optimal Defaults:

Load Optimal Defaults? (F9 key can be used for this operation) [OK] [Cancel]

Load FailSafe Defaults:

Load FailSafe Defaults?

(F9 key can be used for this operation)

[OK]

[Cancel]

Chapter 4

Installation of Drivers

This chapter describes the installation procedures for software and drivers under the windows XP. The software and drivers are included with the motherboard. The contents include Intel chipset driver VGA driver LAN drivers Audio driver .NET framework 3.5 driver Installation instructions are given below.

Important Note:

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

Aplex Technology Drivers	al Pan APC - 3)	
	DRIVERS	Intel GM45/ICH9M Chipset DriverIntel(R) VGA Chipset DriverIntel(R) Network AdapterRealtek ALC662 Audio Codec DriverMicrosoft .NET Framework 3.5 ServiceTouch Panel Driver
	OTHERS	User Manual
	http://www.	aplex.com.tw View EXIT

4.1 Intel Chipset Driver

To install the Intel chipset driver, please follow the steps below. Step 1: Select Chipset from the list



Follow the step-by-step installation process to install the driver.





Readme File Information

Refer to the Readme file below to view the system requirements and installation information. Press the Page Down key to view the rest of the file.

* Product	: Intel(R) Chip	set Device	Software	
* Release	Production Ve	rsion		
* Version	9.0.0.1008			
* Target (Chipset#: Intel	(R) 4 Seri	es Chipse	t
* Date: Ma	ay 01 2008	******	*******	*****
* Date: Ma	ty 01 2008	*******	******	*******
* Date: Ma	AY 01 2008	*******		
* Date: Ma ************************************	ty 01 2008	< 8	**********	t > Cancel



Click Finish, when the installation process is complete, the Setup Complete screen appears. See as picture.

4.2 Intel Graphics Media Accelerator driver

To install the VGA drivers, follow the steps below to proceed with the installation.

1. Click Intel(R) GM45 Chipset Family Graphics Driver.



Follow the step-by-step installation process to install the Graphics Media Accelerator driver.

an inter(k) Chipset Graphics briver Software - Instatishietd wizard
<pre>* Production Version Releases * * * Microsoft Windows* XP * Package: 107289 * * * Graphics: 6.14.10.5303 * Display Audio Driver: 5.12.0.3069 * Legacy Audio: 5.10.0.1049 * * * October 06, 2010 * * NOTE: This document refers to systems containing the * * following Intel chipsets/processors: * * * * * * * * * * * * * * * * * * *</pre>

Warnin	g 🛛 🕅
<u>.</u>	Please install the latest version of Microsoft .NET Framework from Microsoft Download Center to run this application correctly. Are you sure you want to continue?
	<u>Y</u> es <u>N</u> o

Intel® Graphics Media Accelerator Driver	
Intel® Graphics Media Accelerator Driver	(intal)
Welcome to the Setup Program	Clinter
This setup program will install the following components: - Intel® Graphics Media Accelerator Driver - Intel® High Definition Audio HDMI Driver It is strongly recommended that you exit all programs before continuing. (< <u>Back</u> Ne	Click Next to continue.



Intel® Graphics Media Accelerator Driver	
Intel® Graphics Media Accelerator Drive Readme File Information	er
Refer to the Readme file below to view the system requiremen * Production Version Releases * * Microsoft Windows* XP * Deduce: 107280	its and installation information.
* Graphics: 6.14.10.5303 * Display Audio Driver: 5.12.0.3069 * Legacy Audio: 5.10.0.1049 *	<u>N</u> ext > <u>C</u> ancel Intel® Installation Framework.



Click FINISH; A Driver Installation Complete.

4.3 Intel 82574L LAN Device Driver

To install the Intel R 82574L Gigabit LAN connect device driver, please follow the steps below. Select LAN from the list



Follow the step-by-step installation process to install the LAN driver.

Welcome to the InstallShield Wizard for Intel(R) Network Connections	(intel)
Installs drivers, Intel(R) PROSet for Windows* Device Manager, and Advanced Networking Services.	
WARNING: This program is protected by copyright law an international treaties.	ıd
InstallShield	Cancel

i Intel(R) Network Connections - InstallShield Wizard	
License Agreement Please read the following license agreement carefully.	(intel)
INTEL SOFTWARE LICENSE AGREEMENT (Final, Li IMPORTANT - READ BEFORE COPYING, INSTALLIN	cense) 🚔 NG OR
<u>USING</u> .	
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms	s of this 💌
I accept the terms in the license agreement	Print
< <u>B</u> ack <u>N</u> ext >	Cancel

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

🞲 Intel(R) Network Connections - InstallShield Wizard	
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. C exit the wizard.	lick Cancel to
InstallShield	Cancel

词 Intel(R) Network Connections - InstallShield Wizard InstallShield Wizard Completed	(intel)
To access new features, open Device Manager, and view to properties of the network adapters.	ne
InstaliShield	
< Back Einish	Cancel

Click FINISH; A Driver Installation Complete.

4.4 Realtek ALC662 HD Audio Driver Installation

To install the Realtek High Definition (HD) Audio driver, please follow the steps below. Select Audio from the list



Follow the step-by-step installation process to install the Realtek HD Audio driver.

Realtek High Definition Audio Dr	iver Setup (2.70) R2.17	×
	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>) Cancel	

APC-3X15B User Manual

Realtek High Definition Audio Driver Setup (2.70) R2.17		
Setup Status		
	Realtek High Definition Audio Driver is configuring your new software installation.	
InstallShield	Cano	;el

Realtek High Definition Audio Driver Setup (2.70) R2.17		
	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	

Click FINISH; A Driver Installation Complete.

4.5 Microsoft .NET Framework 3.5 Service Installation

To install the Microsoft .NET Framework 3.5 Service, please follow the steps below.


Microsoft .NET Framewor	k 3.5 SP1 Setup	
Welcome to Setup	. Nicro	et Framework
Be sure to carefully read and under license terms. You must accept the	erstand all the rights and res e license terms before you ca	trictions described in the an install the software.
MICROSOFT SOF	TWARE SUPPL	EMENTAL
Press the Page Down key to see m	nore text.	Print
● I have read and ACCEPT the te	erms of the License Agreeme	nt
O I DO <u>N</u> OT ACCEPT the terms o	f the License Agreement	
Send information about my set Details regarding the data collection	up experiences to Microsoft (on policy	Corporation.
Download File Size:	53 MB	
Download Time Estimate:	2 hr 9 min (56 kbps)	
	14 min (512 kbps)	
		Install > Cancel
Microsoft .NET Framewor	k 3.5 SP1 Setup	
Microsoft .NET Framewor Download and Install Prog	k 3.5 SP1 Setup	Et Framework
Microsoft .NET Framewor Download and Install Prog	k 3.5 SP1 Setup	Et Framework
Microsoft .NET Framewor Download and Install Prog Installing:	k 3.5 SP1 Setup	E Framework
Microsoft .NET Framewor Download and Install Prog Installing:	k 3.5 SP1 Setup	Framework
Microsoft .NET Framewor Download and Install Prog Installing: Download complete. You car	k 3.5 SP1 Setup	E Framework
Microsoft .NET Framewor Download and Install Prog Installing:	k 3.5 SP1 Setup	soft Et Framework
Microsoft .NET Framewor Download and Install Prog Installing:	k 3.5 SP1 Setup	soft Framework
Microsoft .NET Framewor Download and Install Prog Installing: Download complete. You car	k 3.5 SP1 Setup	Ternet.
Microsoft .NET Framewor Download and Install Prog	k 3.5 SP1 Setup	soft Framework ternet.
Microsoft .NET Framewor Download and Install Prog Installing:	k 3.5 SP1 Setup	Tramework ternet.
Microsoft .NET Framewor Download and Install Prog Installing: Download complete. You car	iress	Ternet.
Microsoft .NET Framewor Download and Install Prog	k 3.5 SP1 Setup	ternet.
Microsoft .NET Framewor Download and Install Prog	k 3.5 SP1 Setup	Ternet.
Microsoft .NET Framewor Download and Install Prog	tress	Ternet.
Microsoft .NET Framewor Download and Install Prog	k 3.5 SP1 Setup	ternet.

Microsoft .NET Framework 3.5 SP	1 Setup 📃 🗖 🔀
Setup Complete	. Framework
Microsoft .NET Framework 3.5 SP1 has	been installed successfully.
It is highly recommended that you down updates for this product.	load and install the latest service packs and security
For more information, see Windows Upo	late
	Exit

Chapter 5____

Touch Screen Installation

This chapter describes how to install drivers and other software that will allow your PenMount 6000 Controller Board to work with different operating systems.

NOTE: PenMount USB drivers support up to 15 USB controllers.

5.1 Introduction to Touch Screen Controller Board

PenMount 6300 USB control board is a touch screen control board designed for USB interface and specific for 4, 5, 8-wire touch screens. It is designed with USB interface features with multiple devices supporting function. PenMount 6300 control board using PenMount 6000 controller that has been designed for those who may like and all-in-one solution with 10-bit A/D converter built-in to make the total printed circuit board denser, circuit diagram also designed for 12-bit ADC for optional. There are two connectors on this board, one connector is for 4, 5, 8-wire touch screen cable (optional), and another is for 4-pin USB A type cable (optional).



Figure 5.1: Bird's Eye View of Control Board

5.2 Windows 2000/XP/2003/Vista Universal Driver Installation

for PenMount 6000 Series

Before installing the Windows 2000/XP driver software, you must have the Windows 2000/XP 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.

5.2.1 Installing Software

If you have an older version of the PenMount Windows 2000/XP driver installed in your system, please remove it first. Follow the steps below to install the PenMount DMC6000 Windows 2000/XP driver.

1. Please make sure your PenMount 6000 device had plugged in advance. If your device uses RS232 interface, please plugged in before the machine is turned on. When the system first detects the controller board, a screen appears that shows "Unknown Device". Do not use this hardware wizard. Press Cancel.

2. Insert the product CD install setup.exe. the screen below would appear. Click touch panel driver

🍘 Aplex Technology Drivers			
Industria	al Pan		
	APC - 3)	(15B - XP	
	DRIVERS	Intel GM45/ICH9M Chipset Driver Intel(R) VGA Chipset Driver Intel(R) Network Adapter Realtek ALC662 Audio Codec Driver Microsoft .NET Framework 3.5 Service Touch Pand Britan	e •
	OTHERS	User Manual	
	http://www.	aplex.com.tw View	EXIT



3. A License Agreement appears. Click "I accept..." and "Next"

PenMount Universal Driver 2.1.0.234 Setup	
icense Agreement Please review the license terms before installing PenMount Universal Driver 2.1.0.234.	
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 control will be prosecuted to the full extent of the law.	ler
If you accept the terms of the agreement, click I Agree to continue. You must accept agreement to install PenMount Universal Driver 2.1.0.234.	the
< Back I Agree	Cancel

PenMount Universal Driver 2.1.0	.234 Setup		
Choose Install Location			(1000)
Choose the folder in which to install P	enMount Universal Driver 2	2.1.0.234.	
Setup will install PenMount Universal D different folder, click Browse and sele	Driver 2.1.0.234 in the folk ct another folder. Click Ins	owing folder. To itall to start the	install in a installation.
Destination Folder			
Destination Folder	ersal Driver	Bro	wse
Destination Folder	ersal Driver	Bro	wse
Destination Folder	ersal Driver	Bro	wse
Destination Folder C:\Program Files\PenMount Univer Space required: 0.0KB Space available: 72.3GB	ersal Driver	Bro	wse
Destination Folder C:\Program Files\PenMount University Space required: 0.0KB Space available: 72.3GB Ilsoft Install System v2.41	ersal Driver	Bro	wse
Destination Folder C:\Program Files\PenMount University Space required: 0.0KB Space available: 72.3GB illsoft Install System v2.41	ersal Driver	Bro	wse

4. Ready to Install the Program. Click "Install"

5. Installing

1 P		
Please wait while PenMount Univer	rsal Driver 2.1.0.234 is being installed.	G
Create folder: C:\Documents and :	Settings\All Users\Start Menu\Programs\Per	Mount Universa
Show details		
ulleaft Tastall Sustan u2 d1		
IUIISUI U II ISCAIL U YSCCHT V2/11		24-1

😽 PenMount Universal Driver 2.1.0.23	4 Setup		<u> </u>
Installing Please wait while PenMount Universal Driv	ver 2.1.0.234 is being ins	stalled.	
Execute: "C:\Program Files\PenMount Un	iversal Driver\INSTALL.e	xe"	
Show c PenMo X			
Nullsoft Install System v2,41	< Back	Next >	Cancel



6. The "Install Shield Wizard Completed" appears. Click "Finish".

5.2.2 Software Functions

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

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.	
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'.
Command Calibration	Command call calibration function. Use command mode call calibration function, this can uses Standard, 4, 9, 16 or 25 points to calibrate E.g. Please run ms-dos prompt or command prompt c:\Program Files\PenMount Universa Driver\Dmcctrl.exe -calibration 0 (Standard Calibration) Dmcctrl.exe - calibration (\$) 0= Standard Calibration 4=Advanced Calibration 4 9=Advanced Calibration 9 16=Advanced Calibration 16 25=Advanced Calibration 25

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

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

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:

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



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 storage	The function disable for calibration data to write in
	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 the mouse only
	provides a click function, and dragging is disabled
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 hold as	You can set the time out and area for you need
right click	

🖉 Device 0 (PenMount 6000 USI	B) 📃 🗖 🔀
Calibrate Setting About About	C. Click on Touch
Beep Sound Beep Mode Beep on pen down Beep on pen up	Kind of Sound Buzzer Beep 🗐 Beep Frequency 1000 Hz Beep Duration 100 ms
C Beep on both Cursor Stabilizer You can use Cursor Stabilizer to remove jitter of cursor.	Use press and hold as right click Delay: 2.0 sec
	Back to Default OK

About

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



Multiple Monitors

Multiple Monitors supports from two to six touch screen displays for one system. The PenMount drivers for Windows 2000/XP 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 RS-232 interface. Driver installation procedures are the same as for a single monitor. Multiple Monitors supports the following modes:

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

NOTE: The Multiple Monitors 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 **"Multiple Monitor Support"** box; then click **"Map Touch Screens"** to assign touch controllers to displays.

PenMount Control Panel	
Device Multiple Monitors Tools About	
	ОК

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

🃲 PenMount Control Panel 📃 🖃 🔀
Device Multiple Monitors Tools About
☑ <u>M</u> ultiple Monitor Support
Mapping 🔀
Please touch the panel as indicated in the following screens.
OK
map Louch percens
ОК

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



4. After the setting procedure is finished, maybe you need to calibrate for each panel and controller

NOTES:

1. If you used a single VGA output for multiple monitors, please do not use the **Multiple Monitors** 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 Monitors 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.

4. If you more monitor mapping one touch screen, Please press 'S' to skip mapping step.

Tools

Draw	Tests or demonstrates the PenMount touch
	screen operation.
Advanced Calibration	Enable Advanced Calibration function
Right Button Icon	Enable right button function. The icon can
	show on Desktop or System Tray (menu bar).

RenMount Control Panel	
Device Multiple Monitors Tools About	
Draw Test by drarwing on the touch screen	<u>~</u>
Turn ON/OFF Advanced Calibration Mode Advanced Calibration	×
Show/Hide the icon for switching buttons Right Button Icon Desktop System Tray 	<u>S</u>
Back to Defaul <u>t</u>	ок

About

You can see how many devices of PenMount controller that are plugged to your system



PenMount Monitor Menu Icon

The PenMount monitor icon (PM) appears in the menu bar of Windows 2000/XP system when you turn on PenMount Monitor in PenMount Utilities.



PenMount Monitor has the following function



Control Panel	Open Control Panel Windows
Beep	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.

PenMount Rotating Functions

The PenMount driver for Windows 2000/XP supports several display rotating software packages. APC-3X15B User Manual

Windows Me/2000/XP support display rotating software packages such as:

- Portrait's Pivot Screen Rotation Software
- ATI Display Driver Rotate Function
- nVidia Display Driver Rotate Function
- SMI Display Driver Rotate Function
- Intel 845G/GE Display Driver Rotate 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.

ease touch the	e point		

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