USER'S MANUAL

POS-6630 Series

POS System Powered by

Intel® 2nd Gen. Core™ Platform

POS-6630 Series M3

POS-6630 Series POS System
With LCD / Touchscreen

DISCLAIMER

This user's manual is meant to assist users in installing and setting up the system. The information contained in this document is subject to change without any notice.

CE NOTICE

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void your authority to operate such equipment.

CAUTION! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

WARNING! Some internal parts of the system may have high electrical voltage. And therefore we strongly recommend that qualified engineers can open and disassemble the system. The LCD and Touchscreen are easily breakable, please handle them with extra care.

TABLE OF CONTENTS

INTRODUCTION

CHAPTER

1

This chapter gives you the information for the POS-6630. It also outlines the system specifications.

Sections included:

- About This Manual
- POS System Illustration
- System Specifications
- Safety Precautions

Experienced users can jump to chapter 2 on page 2-1 for a quick start.

1-1. ABOUT THIS MANUAL

Thank you for purchasing our POS-6630 Series System. The POS-6630 is an updated system designed to be comparable with the highest performance of IBM AT personal computers. The POS-6630 provides faster processing speed, greater expandability and can handle more tasks than before. This manual is designed to assist you how to install and set up the whole system. It contains four chapters and three appendixes. Users can configure the system according to their own needs.

Chapter 1 Introduction

This chapter introduces you to the background of this manual. It also includes illustrations and specifications for the whole system. The final section of this chapter indicates some safety reminders on how to take care of your system.

Chapter 2 System Configuration

This chapter outlines the location of motherboard components and their function. You will learn how to set the jumper and configure the system to meet your own needs.

Chapter 3 Software Utilities

This chapter contains helpful information for proper installations of the Intel Utility, VGA Utility, LAN Utility, Sound Utility, and Touch Screen Utility. It also describes the Wireless Utility.

Chapter 4 AMI BIOS Setup

This chapter indicates you how to change the BIOS configurations.

Appendix A System Assembly

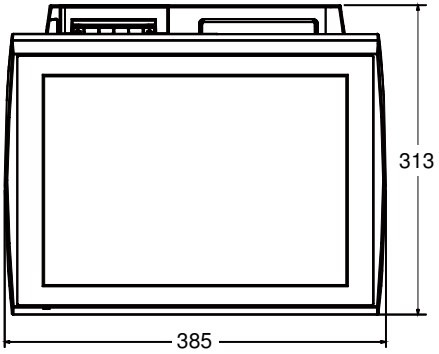
This appendix gives you the exploded diagrams and part numbers of the POS-6630.

Appendix B Technical Summary

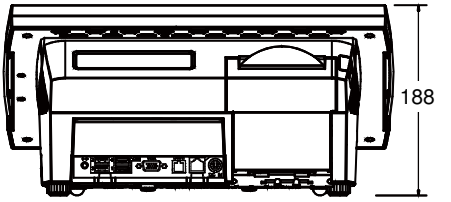
This appendix gives you the information about the allocation maps for the system resources, Watchdog Timer Configuration, and Flash BIOS Update.

1-2. POS SYSTEM ILLUSTRATION

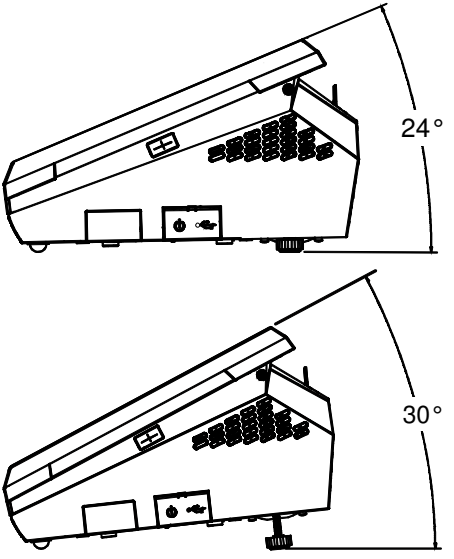
Top View



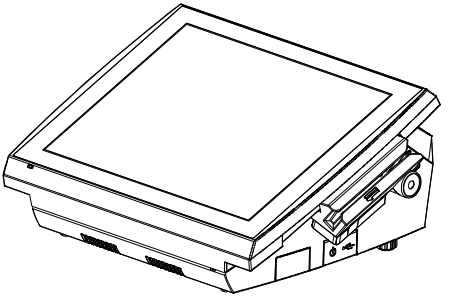
Rear View



Side View



Quarter View



Unit: mm

1-3. SYSTEM SPECIFICATIONS

MAINBOARD (PB-3251)

System

CPU Support	Intel® Sandy Bridge CPU series: Core i3-2120 3.3 GHz, L2 Cache-3MB Pentium G850 2.9 GHz, L2 Cache-3MB Celeron G530 2.4 GHz, L2 Cache-2MB
Chipset	Intel® H61
Memory	One 204-pin DDRIII SO-DIMM socket on board, up to 4GB
OS Support	POSReady2009, POSReady7, WES2009, WES7
BIOS	AMI SPI BIOS, 8Mbits with VGA BIOS
Power Supply	120~150 Watt power adapter
System Weight	8 kg
Real-Time Clock / Calendar	Embedded in Intel® H61
Dimension (W x H x D)	385mm x 313mm x 188mm
Certificate	FCC/CE
MSR / Fingerprint / i-Button (Optional)	External vertical module: MSR (Read only) ISO Tracker 1+2+3 (PS/2 KB Interface) + Fingerprint (USB Interface) + i-Button (Read only)

Storage

HDD	1 x 2.5” SATA HDD
SD/MMC	1 x SATA half-slim type SSD
CF	Bootable compact flash slot for CF type I/II

I/O Ports

USB	4 x USB2.0 ports 1 x USB2.0 on side bezel
Serial Port	1 x RJ45 (COM1) 1 x DB-9 (COM 2) 2 x DB-9 (COM 2/3, Wafer or DB-9 optional) +5/12V Selectable (COM 1~4)
LAN	1 x 10/100/1000 Mbps
Wireless LAN (Optional)	Mini PCI-e Wireless LAN Module (802.11b/g)
VGA	1 x DB-15 VGA Interface
Audio	1 x 2W Speaker
Keyboard & Mouse	PS/2 Keyboard with mini DIN connector on rear panel

Display

LCD Interface	15" TFT XGA
Max. Resolution	1024 x 768
Brightness	250 cd/m^2
Signal Interface	TTL (24-bit)
Viewing Angel	24~30 degrees
Touch Panel	15" Flat 5wire Analog resistive

Environment

Temperature	Operation: 0 ~ 35°C (32 ~ 95°F) Storage: -20 ~ 60°C (-4 ~ 140°F)
Humidity	20 ~ 90%

1-4. SAFETY PRECAUTIONS

The following messages are safety reminders on how to protect your systems from damages, and extending the life cycle of the system.

1. Check the Line Voltage

a. The operating voltage for the power supply should be within the range of 100V to 240V AC; otherwise the system may be damaged.

2. Environmental Conditions

a. Place your POS-6630 on a sturdy, level surface. Be sure to allow enough space around the system to have easy access needs.

b. Avoid installing your POS-6630 Series POS system in extremely hot or cold places.

c. Avoid exposure to sunlight for a long period of time (for example, in a closed car in summer time. Also avoid the system from any heating device.). Or do not use the POS-6630 when it has been left outdoors in a cold winter day.

d. Bear in mind that the operating ambient temperature is between 0°C and 35°C (32°F and 95°F).

e. Avoid moving the system rapidly from a hot place to a cold place, and vice versa, because condensation may occur inside the system.

f. Protect your POS-6630 against strong vibrations, which may cause hard disk failure.

g. Do not place the system too close to any radio-active device. Radio-active device may cause signal interference.

h. Always shutdown the operating system before turning off the power.

3. Handling

a. Avoid placing heavy objects on the top of the system.

b. Do not turn the system upside down. This may cause the hard drive to malfunction.

c. Do no allow any objects to fall into this product.

d. If water or other liquid spills into the product, unplug the power cord immediately.

4. Good Care

a. When the outside case gets stained, remove the stains using neutral washing agent with a dry cloth.

b. Never use strong agents such as benzene and thinner to clean the surface of the case.

c. If heavy stains are present, moisten a cloth with diluted neutral washing agent or alcohol and then wipe thoroughly with a dry cloth.

d. If dust is accumulated on the case surface, remove it by using a special vacuum cleaner for computers.

SYSTEM CONFIGURATION

CHAPTER

2

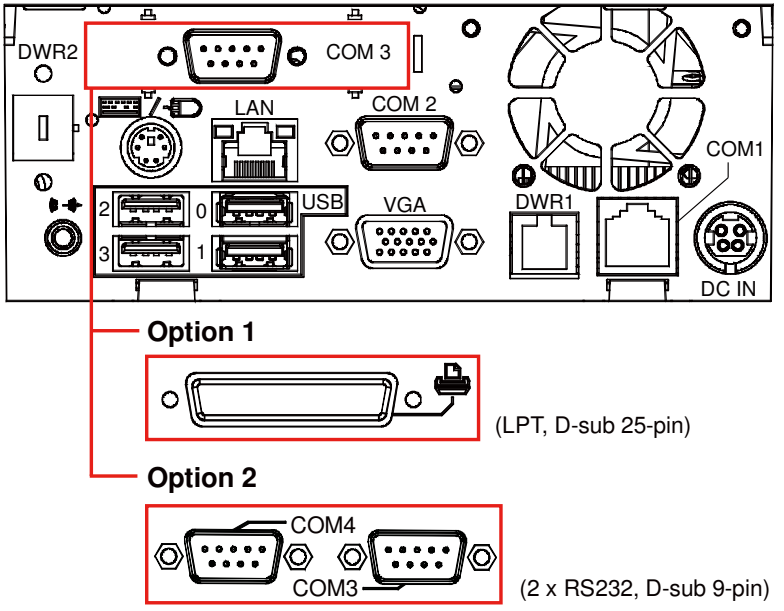
Helpful information that describes the jumper and connector settings, component locations, and pin assignment.

Sections included:

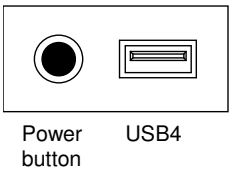
- How to Set Jumpers
- Component Locations & Jumper Settings
  - Mainboard (External I/O ports & other components)
  - Printer Board
  - VFD Board (peripheral device)
  - MSR Board (peripheral device)

2-1. SYSTEM EXTERNAL I/O PORT & PIN ASSIGNMENT

Rear I/O



Side I/O



2-1-1. Power Button

To turn on the system, press the power button on the side of the system briefly.

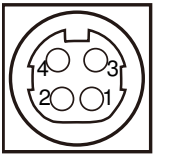
ACTION	ASSIGNMENT
Press button	0V
Release button	+3.3V

SW1

2-1-2. DC-IN Port

PWR_IN1: DC Power-In Port (rear IO)

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	GND	3	+24V
2	GND	4	+24V

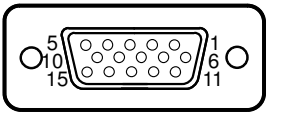


PWR_IN1

2-1-3. VGA Port

VGA: VGA Port, D-Sub 15-pin (rear IO)

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	RED	9	+5V
2	GREEN	10	GND
3	BLUE	11	NC
4	NC	12	DDCA DATA
5	GND	13	HSYNC
6	GND	14	VSYNC
7	GND	15	DDCA CLK
8	GND		



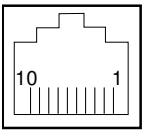
VGA

2-1-4. COM Port

Caution: When using a 72W power adaptor, do not set the voltage at "12V" for three COM ports or above; otherwise, the system may shut down due to power deficiency.

COM1: RJ45 Serial Port (rear IO), support VFD

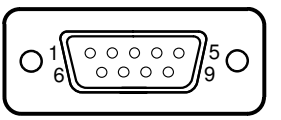
PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	DCD1	6	DSR1
2	RXD1	7	RTS1
3	TXD1	8	CTS1
4	DTR1	9	RI / +5V / +12V selectable
5	GND	10	NC



COM1

COM2, COM3, COM4: D-Sub9 Serial Port (rear IO)
COM3: Co-lay with COM3-1
COM4 (Optional): Co-lay with COM4-1 & COM4-2

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	DCD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	RI/+5V/+12V selectable (Max. current: 1A)
5	GND		

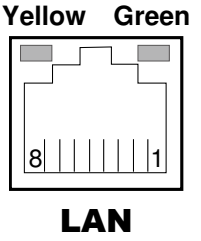


COM2/
COM3/
COM4

Note: COM3 & COM3-1 will not function when the jumpers are set as "i-Button." Refer to the section *2-3-2-4. i-Button Function Selection* for details.
COM4 & COM4-2 will not function when COM4-1 is selected as the printer control interface.

2-1-5. LAN Port

LAN: LAN RJ45 Port (rear IO)



PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	MDIP0	5	MDIP2
2	MDIN0	6	MDIN2
3	MDIP1	7	MDIP3
4	MDIN1	8	MDIN3

LAN LED Indicator:

Left Side LED

Yellow Color Blinking	LAN Message Active
Off	No LAN Message Active

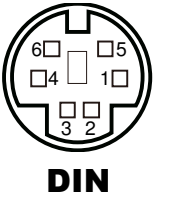
Right Side LED

Green Color On	10/100Mbps LAN Speed Indicator
Orange Color on	Giga LAN Speed Indicator
Off	No LAN switch/ hub connected.

2-1-6. Mini-DIN Port

Mini-DIN: Mini-DIN Port

The MINI-DIN connector can support keyboard, Y-cable, or PS/2 Mouse.

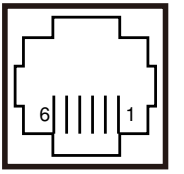


PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	GND	4	V5SB
2	KDAT	5	KCLK
3	MDAT	6	MCLK

2-1-7. Cash Drawer Port

DRW1, DRW2: Cash Drawer Port

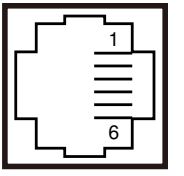
PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	GND	4	+12V (Max. current: 1A)
2	Drawer Open	5	NC
3	Drawer Sense	6	GND



DRW1

DRW1 cash drawer control in GPIO port:

- **To Open Drawer1 (GPIO 7)**
  Write "0"h to I/O space register "50C"h Bit 7
- **To Close Drawer1**
  Write "1"h to I/O space register "50C"h Bit 7
- **Detect Drawer1 Status**
  Read I/O space register "50C"h (GPIO 6)
  Definition (bit6)



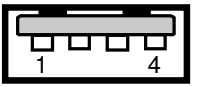
DRW2

Caution: DRW2 signal comes from the printer control board.

2-1-8. USB Ports

USB0~3: USB Type A Ports (rear IO)
USB4: USB Type A Port (side IO, named USB10-2 on board)

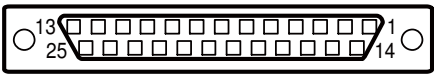
PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	+5V (Max. current: 0.5A)	3	DP
2	DM	4	GND



USB0/USB1/ USB2/USB3/ USB4

2-1-9. Printer Port (Optional)

LPT: Printer Port, D-Sub 25-pin, co-lay with LPT1

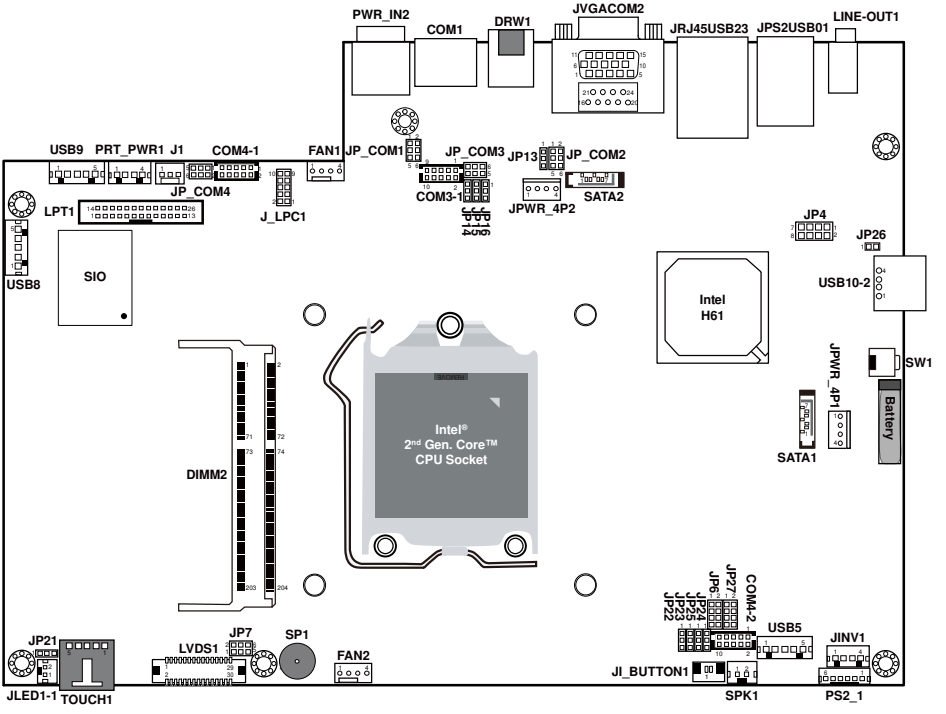


LPT

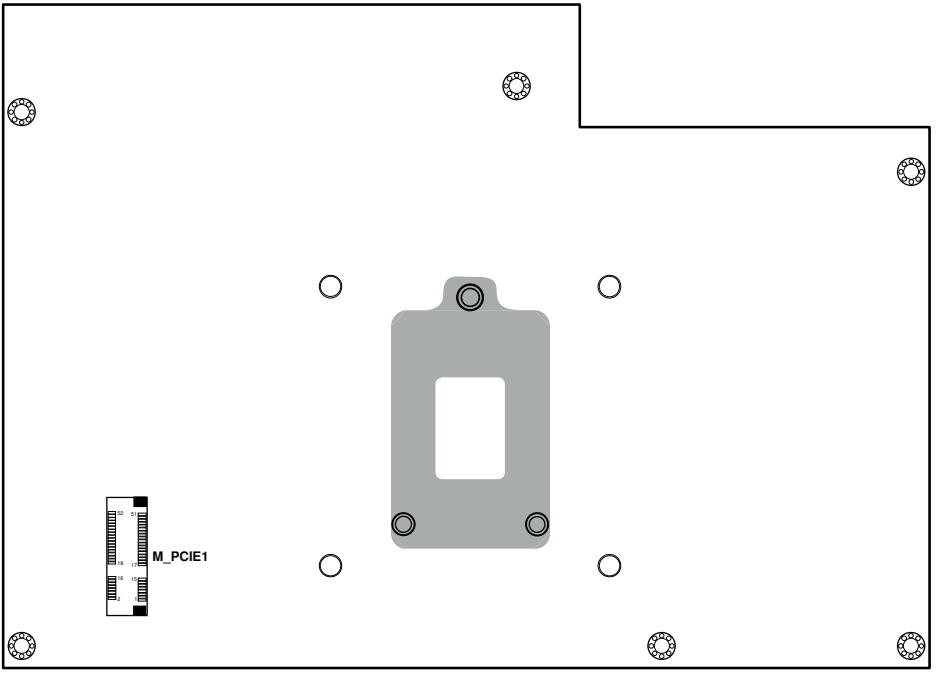
PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	STBJ	14	ALFJ
2	PDR0	15	ERRJ
3	PDR1	16	PARR_INITJ
4	PDR2	17	SLCTINJ
5	PDR3	18	GND
6	PDR4	19	GND
7	PDR5	20	GND
8	PDR6	21	GND
9	PDR7	22	GND
10	ACKJ	23	GND
11	BUSY	24	GND
12	PE	25	GND
13	SLCTJ		

2-2. MAINBOARD COMPONENT LOCATIONS & JUMPER SETTINGS

M/B: PB-3251



POS-6630 Mainboard Component Locations - Front



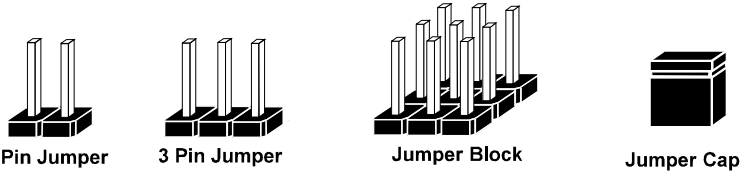
POS-6630 Mainboard Component Locations - Rear

2-2-1. How to Set Jumpers

You can configure your board by setting the jumpers. A jumper consists of two or three metal pins with a plastic base mounted on the card, and by using a small plastic "cap", also known as the jumper cap (with a metal contact inside), you are able to connect the pins. So you can set-up your hardware configuration by "opening" or "closing" pins.

Jumpers can be combined into sets that called jumper blocks. When jumpers are all in the block, you have to put them together to set up the hardware configuration. The figure below shows what this looks like.

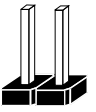
Jumpers & caps



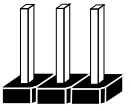
If a jumper has three pins for example, labelled PIN1, PIN2, and PIN3. You can connect PIN1 & PIN2 to create one setting and shorting. You can either connect PIN2 & PIN3 to create another setting. The same jumper diagrams are applied all through this manual. The figure below shows what the manual diagrams look and what they represent.

Jumper diagrams

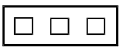
Jumper Cap looks like this

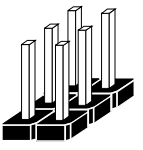


2 pin Jumper looks like this

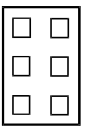


3 pin Jumper looks like this



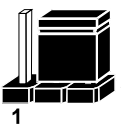


Jumper Block looks like this

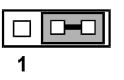


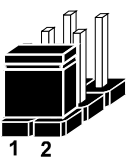
Jumper settings

2 pin Jumper closed(enabled)
looks like this

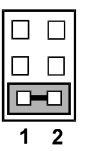


3 pin Jumper
2-3 pin closed(enabled)
looks like this





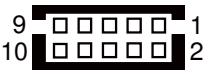
Jumper Block
1-2 pin closed(enabled)
looks like this



2-2-2. COM Connector

COM3-1, COM4-1, COM4-2: Connectors (wafers on board)

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	DCD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	RI/+5V/+12V selectable (Max. current: 1A)
5	GND	10	NC

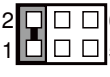
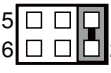
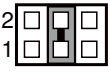
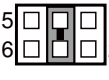
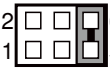


COM3-1/ COM4-1/ COM4-2

Note: The COM connectors or wafers named after the corresponding serial numbers can't be used at the same time. (e.g. COM4 can't be used along with COM4-1 or COM4-2.)

2-2-3. COM Ports RI & Voltage Selection

JP_COM1, JP_COM2, JP_COM3, JP_COM4: Pin-headers on board

SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION			
RI	1-2	 **JP_COM1**	 **JP_COM2**	 **JP_COM3**	 **JP_COM4**
+12V	3-4	 **JP_COM1**	 **JP_COM2**	 **JP_COM3**	 **JP_ COM4**
+5V	5-6	 **JP_COM1**	 **JP_COM2**	 **JP_COM3**	 **JP_ COM4**

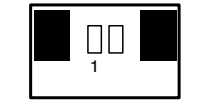
Note: Manufacturing Default is RI.

Caution: When using a 120 Watt power adaptor, do not set the voltage at "12V" for three COM ports or above; otherwise, the system may shut down due to power deficiency.

2-2-4. I-Button Connector

JI-BUTTON1: i-Button Connector

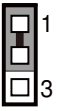
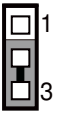
PIN	ASSIGNMENT
1	COM3_DTR_R_I
2	COM3_RXD_R_I



JI_BUTTON1

2-2-5. I-Button Function Connector

JP14, JP15, JP16: i-Button Function Selection

SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
COM 3	1-2	 **JP14/ JP15/ JP16**
i-Button*	2-3	 **JP14/ JP15/ JP16**

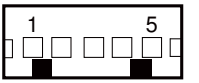
Note: Manufacturing Default is COM3.

*When these jumpers are set as 'i-Button,' the COM3-1 connector will not function.

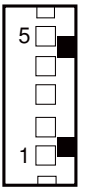
2-2-6. USB Connector

USB5, USB8, USB9: USB wafers.

PIN	ASSIGNMENT
1	USB-
2	USB+
3	GND
4	5V (Max. current: 0.5A)
5	GND



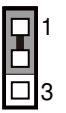
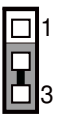
USB5/ USB9



USB8

2-2-7. Cash Drawer Power Selection

JP13: Cash Drawer Power Selection

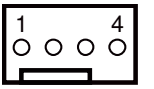
SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
+24V	1-2	 **JP13**
+12V	2-3	 **JP13**

Note: Manufacturing Default is +24V.

2-2-8. Fan Connector

FAN1: System Fan Connector
FAN2: CPU Fan Connector

PIN	ASSIGNMENT
1	GND
2	VCC12
3	SYS_FANIN
4	SYS_FANOUT

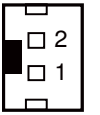


FAN1/ FAN2

2-2-9. LED Connector

JLED1-1: Power indication LED Connector

PIN	ASSIGNMENT
1	PWR_LED
2	5V

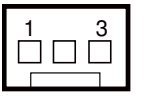


JLED1-1

2-2-10. Power Connector

J1: 12-Voltage Provider Connector

PIN	ASSIGNMENT
1	VCC12
2	GND
3	VCC12

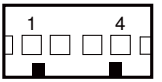


J1

2-2-11. Power for Thermal Printer Connector

PRT_PWR1: Power for Thermal Printer Connector

PIN	ASSIGNMENT
1	VCC24SB
2	VCC24SB
3	GND
4	GND

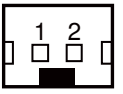


PRT_PWR1

2-2-12. External Speaker Connector

SPK1: External Speaker Connector

PIN	ASSIGNMENT
1	SPK_GND
2	SPK_OUT

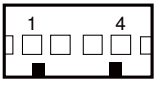


SPK1

2-2-13. Inverter Connector

JINV1: Inverter Connector

PIN	ASSIGNMENT
1	+12V
2	GND
3	LVDS_BKLTEN
4	BRCTR



JINV1

2-2-14. Clear CMOS Data Selection

JP2: Clear CMOS Data Selection

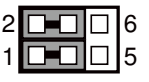
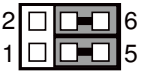
SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
Normal	Open	 **JP2**
Clear CMOS*	1-2	 **JP2**

Note: Manufacturing Default is Normal.

*To clear CMOS data, you must power-off the computer and set the jumper to "Clear CMOS" as illustrated above. After five to six seconds, set the jumper back to "Normal" and power-on the computer.

2-2-15. LVDS Voltage Selection

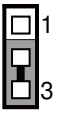
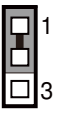
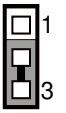
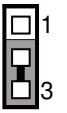
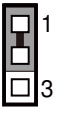
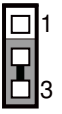
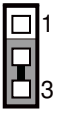
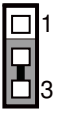
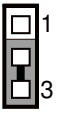
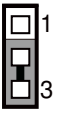
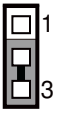
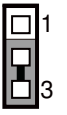
JP7: LVDS Voltage Selection

SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
3.3V	1-3 2-4	 **JP7**
5V	3-5 4-6	 **JP7**

Note: Manufacturing Default is 3.3V.

2-2-16. LVDS Output Resolution Selection

JP22~JP25: LVDS Output Resolution Selection

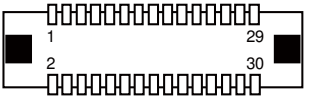
SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION			
15" 24bit, 1024 x 768	JP22(2,3) JP23(1,2) JP25(2,3) JP24(2,3)	 **JP22**	 **JP23**	 **JP25**	 **JP24**
10.4" 18bit, 1024 x 768	JP22(1,2) JP23(2,3) JP25(2,3) JP24(2,3)	 **JP22**	 **JP23**	 **JP25**	 **JP24**
10.4" 18bit, 800 x 600	JP22(2,3) JP23(2,3) JP25(2,3) JP24(2,3)	 **JP22**	 **JP23**	 **JP25**	 **JP24**

Note: Manufacturing Default is 15" 24bit, 1024 x 768.

2-2-17. LVDS Connector

LVDS1: LVDS Connector

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	LVDS_VCC	16	CLKO+
2	GND	17	CLKO-
3	NC	18	GND
4	NC	19	RINO2+
5	GND	20	RINO2-
6	NC	21	GND
7	NC	22	RINO1+
8	GND	23	RINO1-
9	NC	24	GND
10	NC	25	RINO0+
11	NC	26	RINO0-
12	NC	27	NC
13	NC	28	NC
14	NC	29	LVDS_VCC
15	GND	30	LVDS_VCC

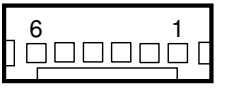


LVDS1

2-2-18. MSR/Card Reader Connector

PS2_1: MSR/ Card Reader Connector

PIN	ASSIGNMENT
1	KB_CLK (Output)
2	KB_CLK_C (Input)
3	KB_DATA_C (Input)
4	KB_DATA (Output)
5	+5V
6	GND



PS2_1

2-2-19. SATA & SATA Power Connector

SATA1, SATA2: Serial ATA Connectors

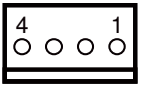
PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	G1	5	RX-
2	TX+	6	RX+
3	TX-	7	G3
4	G2		

SATA1

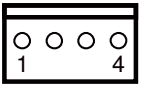
SATA2

JPWR_4P1, JPWR_4P2: Serial ATA Power Connectors

PIN	ASSIGNMENT
1	VCC
2	GND
3	GND
4	VCC12



JPWR_4P1

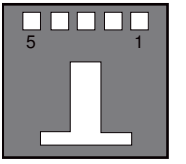


JPWR_4P2

2-2-20. Touch Panel Connector

TOUCH1: Touch Panel Connector

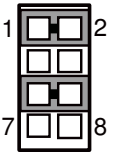
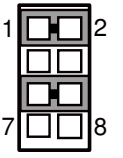
PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	LR (Low Right)	4	UR (Up Right)
2	LL (Low Left)	5	UL (Up Left)
3	Probe		



TOUCH1

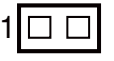
2-2-21. Touch Panel Selection

JP6, JP27: Touch Panel Selection

SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION	
Elo	1-2 5-6	 **JP6**	 **JP27**

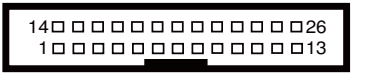
2-2-22. Security Override Mode Selection

JP26: Flash Descriptor Security Override/Intel® ME Debug Mode Selection

SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
Disable	Open	 **JP26**
Enable	1-2	 **JP26**

Note: Manufacturing Default is Disable.

2-2-23. Printer Connector



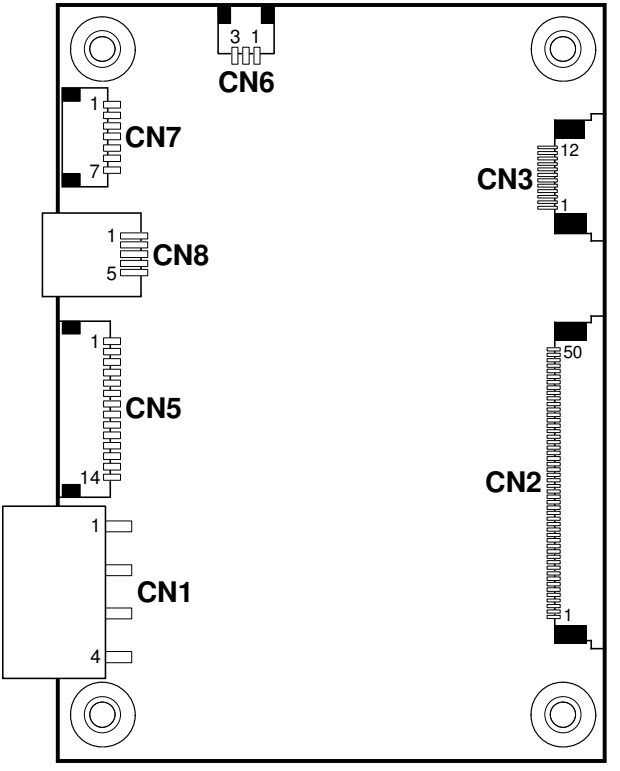
LPT1

LPT1: Printer Connector (wafer on board)

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	STBJ	14	ALFJ
2	PDR0	15	ERRJ
3	PDR1	16	PAR_INITJ
4	PDR2	17	SLCTINJ
5	PDR3	18	GND
6	PDR4	19	GND
7	PDR5	20	GND
8	PDR6	21	GND
9	PDR7	22	GND
10	ACKJ	23	GND
11	BUSY	24	GND
12	PE	25	GND
13	SLCTJ	26	NC

2-3. PRINTER BOARD COMPONENT LOCATIONS & PIN ASSIGNMENT

2-3-1. Printer Board: PDAC-3100

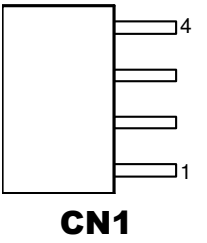


POS-6630 Printer Board Component Locations

2-3-1-1. Power Supply Connector

CN1: Power Supply Wafer

PIN	ASSIGNMENT
1	+24V
2	+24V
3	GND
4	GND

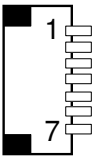


CN1

2-3-1-2. RS-232 Interface Connector

CN7: RS-232 Interface Connector

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	TXD	5	DTR
2	RXD	6	DSR
3	RTS	7	GND
4	CTS		

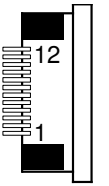


CN7

2-3-1-3. Auto-Cutter Connector

CN3: Auto-cutter Wafer

PIN	ASSIGNMENT	FUNCTION
1	NC	Unused
2	Vcs	Power supply of the home position sensor
3	GND	GND of the home position sensor
4	CUTS	Signal of the hom position sensor
5	2B-1	Auto-cutter motor drive signal
6	2B-2	Auto-cutter motor drive signal
7	2A-1	Auto-cutter motor drive signal
8	2A-2	Auto-cutter motor drive signal
9	1B-1	Auto-cutter motor drive signal
10	1B-2	Auto-cutter motor drive signal
11	1A-1	Auto-cutter motor drive signal
12	1A-2	Auto-cutter motor drive signal

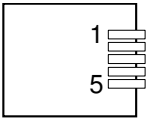


CN3

2-3-1-4. USB Connector

CN8: USB Connector

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	Vbus	4	NC
2	D-	5	GND
3	D+		

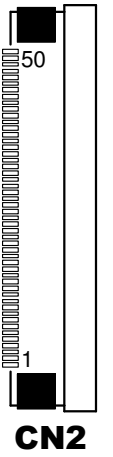


CN8

2-3-1-5. Thermal Head/Motor/Sensor Connector

CN2: Thermal Head/Motor/Sensor Connector

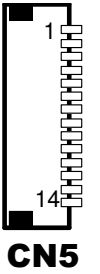
PIN	ASSIGNMENT	FUNCTION
1	24V	Head drive power
2	24V	Head drive power
3	24V	Head drive power
4	24V	Head drive power
5	24V	Head drive power
6	24V	Head drive power
7	DAT	Print data output
8	CLK	Synchronizing signal for print data transfer
9	GND	Head GND
10	GND	Head GND
11	GND	Head GND
12	GND	Head GND
13	GND	Head GND
14	GND	Head GND
15	NC	Unused
16	DST4	Head strobe signal
17	DST3	Head strobe signal
18	3.3V	Logic Power
19	GND	Thermistor GND
20	GND	Thermistor GND
21	TH	Thermistor signal
22	NC	Unused
23	DST2	Head strobe signal
24	DST1	Head strobe signal
25	GND	Head GND
26	GND	Head GND



PIN	ASSIGNMENT	FUNCTION
27	GND	Head GND
28	GND	Head GND
29	GND	Head GND
30	GND	Head GND
31	LATCH	Print data latch
32	24V	Head drive power
33	24V	Head drive power
34	24V	Head drive power
35	24V	Head drive power
36	24V	Head drive power
37	24V	Head drive power
38	NC	Unused
39	PS	Signal of the out-of-paper sensor
40	Vps	Power supply of the out-of-paper sensor
41	GND	GND of the platen position/ out-of-paper sensor
42	HS	Signal of the platen position sensor
43	NC	Unused
44	FG	Frame GND
45	FG	Frame GND
46	NC	Unused
47	2A	Motor drive signal
48	1B	Motor drive signal
49	1A	Motor drive signal
50	2B	Motor drive signal

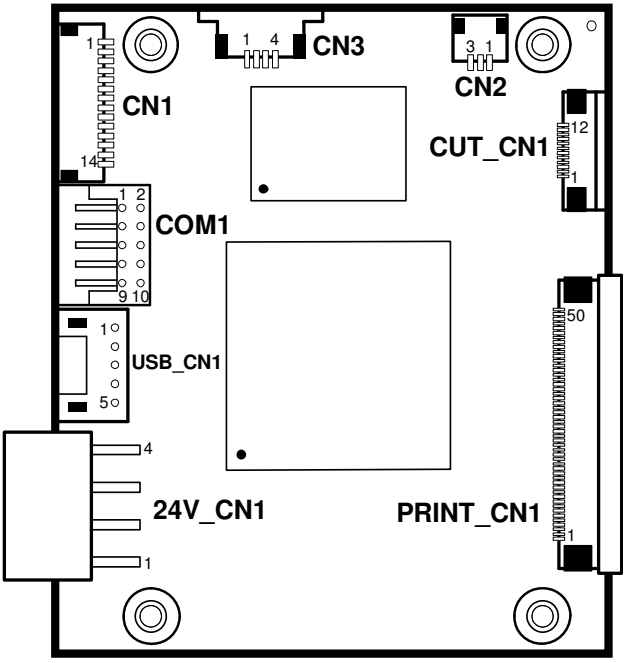
2-3-1-6. Terminal Assignment Connector

CN5: Terminal Assignment Connector



PIN	ASSIGNMENT	FUNCTION
1	FEED	Feed signal
2	RESET	Reset signal
3	GND	GND
4	ST1	Status signal
5	ST2	Status signal
6	ST3	Status signal
7	ST4	Status signal
8	GND	GND
9	DRS	Drawer sensor signal
10	DSW	Drawer switch signal
11	Vdu	Drive terminal for the drawer (Vp side)
12	GNDdu	Drive terminal for the drawer (GND side)
13	GND	GND
14	NC	Unused

2-3-2. Printer Board: MB-1030

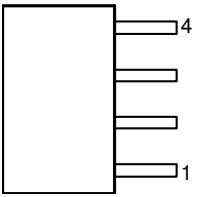


POS-6630 Printer Board Component Locations

2-3-2-1. Power Supply Connector

24V_CN1: Power Supply Wafer

PIN	ASSIGNMENT
1	GND
2	GND
3	+24V
4	+24V

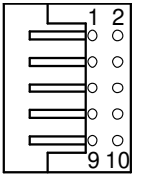


24V_CN1

2-3-2-2. RS-232 Interface Connector

COM1: RS-232 Interface Connector

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	NC	6	DSR /CTS
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR /RTS	9	NC
5	GND	10	NC

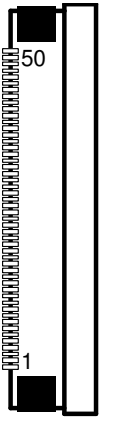


COM1

2-3-2-3. Thermal Head/Motor/Sensor Connector

PRINT_CN1: Thermal Head/Motor/Sensor Connector

PIN	ASSIGNMENT	FUNCTION
1	24V	Head drive power
2	24V	Head drive power
3	24V	Head drive power
4	24V	Head drive power
5	24V	Head drive power
6	24V	Head drive power
7	DAT	Print data output
8	CLK	Synchronizing signal for print data transfer
9	GND	Head GND
10	GND	Head GND
11	GND	Head GND
12	GND	Head GND
13	GND	Head GND
14	GND	Head GND
15	NC	Unused
16	DST4	Head strobe signal
17	DST3	Head strobe signal
18	3.3V	Logic Power
19	GND	Thermistor GND
20	GND	Thermistor GND
21	TH	Thermistor signal
22	NC	Unused
23	DST2	Head strobe signal
24	DST1	Head strobe signal
25	GND	Head GND
26	GND	Head GND



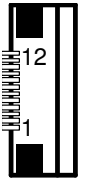
PRINT_CN1

PIN	ASSIGNMENT	FUNCTION
27	GND	Head GND
28	GND	Head GND
29	GND	Head GND
30	GND	Head GND
31	!LATCH	Print data latch
32	24V	Head drive power
33	24V	Head drive power
34	24V	Head drive power
35	24V	Head drive power
36	24V	Head drive power
37	24V	Head drive power
38	NC	Unused
39	PS	Signal of the out-of-paper sensor
40	Vps	Power supply of the out-of-paper sensor
41	GND	GND of the platen position/ out-of-paper sensor
42	HS	Signal of the platen position sensor
43	NC	Unused
44	FG	Frame GND
45	FG	Frame GND
46	NC	Unused
47	2A	Motor drive signal
48	1B	Motor drive signal
49	1A	Motor drive signal
50	2B	Motor drive signal

2-3-2-4. Auto-Cutter Connector

CUT_CN1: Auto-cutter Connector

PIN	ASSIGNMENT	FUNCTION
1	NC	Unused
2	Vcs	Power supply of the home position sensor
3	GND	GND of the home position sensor
4	CUTS	Signal of the hom position sensor
5	2B-1	Autocutter motor drive signal
6	2B-2	Autocutter motor drive signal
7	2A-1	Autocutter motor drive signal
8	2A-2	Autocutter motor drive signal
9	1B-1	Autocutter motor drive signal
10	1B-2	Autocutter motor drive signal
11	1A-1	Autocutter motor drive signal
12	1A-2	Autocutter motor drive signal

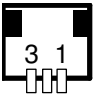


CUT_CN1

2-3-2-5. Paper-Near-END Sensor Connector

CN2: Paper-near-end Sensor Connector

PIN	ASSIGNMENT	FUNCTION
1	Vns	Power supply of the near end sensor
2	NS	Signal of the near end sensor
3	GND	GND of the near end sensor

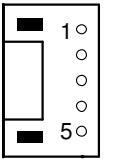


CN2

2-3-2-6. USB Interface Connector

USB_CN1: USB Interface Connector

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	Vbus	4	GND
2	D-	5	GND
3	D+		

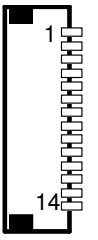


USB_CN1

2-3-2-7. Terminal Assignment Connector

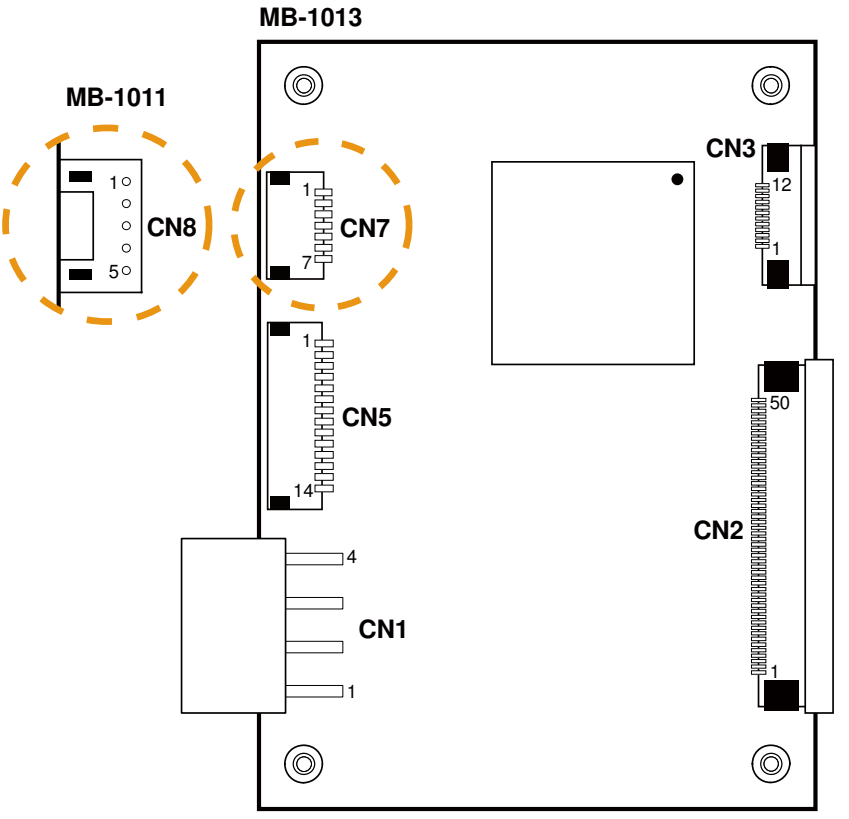
CN1: Terminal Assignment Connector

PIN	ASSIGNMENT	FUNCTION
1	FEED	Feed signal
2	RESET	Reset signal
3	GND	GND
4	ST1	Status signal
5	ST2	Status signal
6	ST3	Status signal
7	ST4	Status signal
8	GND	GND
9	DRS	Drawer sensor signal
10	DSW	Drawer switch signal
11	Vdu	Drive terminal for the drawer (Vp side)
12	GNDdu	Drive terminal for the drawer (GND side)
13	GND	GND
14	NC	Unused



CN1

2-3-3. Printer Board: MB-1011 & MB1013

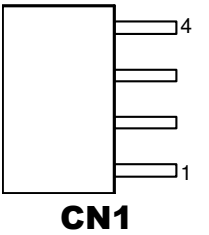


POS-6630 Printer Board Component Locations

2-3-3-1. Power Supply Connector

CN1: Power Supply Wafer

PIN	ASSIGNMENT
1	GND
2	GND
3	+24V
4	+24V

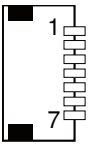


CN1

2-3-3-2. RS-232 Interface Connector

CN7: RS-232 Interface Connector

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	TXD	5	DTR
2	RXD	6	DSR
3	RTS	7	GND
4	CTS		

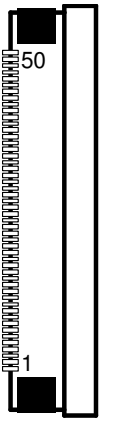


CN7

2-3-3-3. Thermal Head/Motor/Sensor Connector

CN2: Thermal Head/Motor/Sensor Connector

PIN	ASSIGNMENT	FUNCTION
1	24V	Head drive power
2	24V	Head drive power
3	24V	Head drive power
4	24V	Head drive power
5	24V	Head drive power
6	24V	Head drive power
7	DAT	Print data output
8	CLK	Synchronizing signal for print data transfer
9	GND	Head GND
10	GND	Head GND
11	GND	Head GND
12	GND	Head GND
13	GND	Head GND
14	GND	Head GND
15	NC	Unused
16	DST4	Head strobe signal
17	DST3	Head strobe signal
18	3.3V	Logic Power
19	GND	Thermistor GND
20	GND	Thermistor GND
21	TH	Thermistor signal
22	NC	Unused
23	DST2	Head strobe signal
24	DST1	Head strobe signal
25	GND	Head GND
26	GND	Head GND

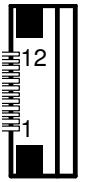


PIN	ASSIGNMENT	FUNCTION
27	GND	Head GND
28	GND	Head GND
29	GND	Head GND
30	GND	Head GND
31	!LATCH	Print data latch
32	24V	Head drive power
33	24V	Head drive power
34	24V	Head drive power
35	24V	Head drive power
36	24V	Head drive power
37	24V	Head drive power
38	NC	Unused
39	PS	Signal of the out-of-paper sensor
40	Vps	Power supply of the out-of-paper sensor
41	GND	GND of the platen position/ out-of-paper sensor
42	HS	Signal of the platen position sensor
43	NC	Unused
44	FG	Frame GND
45	FG	Frame GND
46	NC	Unused
47	2A	Motor drive signal
48	1B	Motor drive signal
49	1A	Motor drive signal
50	2B	Motor drive signal

2-3-3-4. Auto-Cutter Connector

CN3: Auto-cutter Connector

PIN	ASSIGNMENT	FUNCTION
1	NC	Unused
2	Vcs	Power supply of the home position sensor
3	GND	GND of the home position sensor
4	CUTS	Signal of the hom position sensor
5	2B-1	Autocutter motor drive signal
6	2B-2	Autocutter motor drive signal
7	2A-1	Autocutter motor drive signal
8	2A-2	Autocutter motor drive signal
9	1B-1	Autocutter motor drive signal
10	1B-2	Autocutter motor drive signal
11	1A-1	Autocutter motor drive signal
12	1A-2	Autocutter motor drive signal

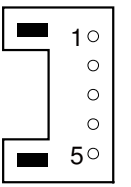


CN3

2-3-3-5. USB Interface Connector

CN8: USB Interface Connector

PIN	ASSIGNMENT
1	Vbus
2	D-
3	D+
4	GND
5	GND

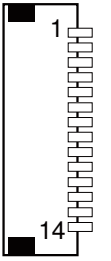


CN8

2-3-3-6. Terminal Assignment Connector

CN5: Terminal Assignment Connector

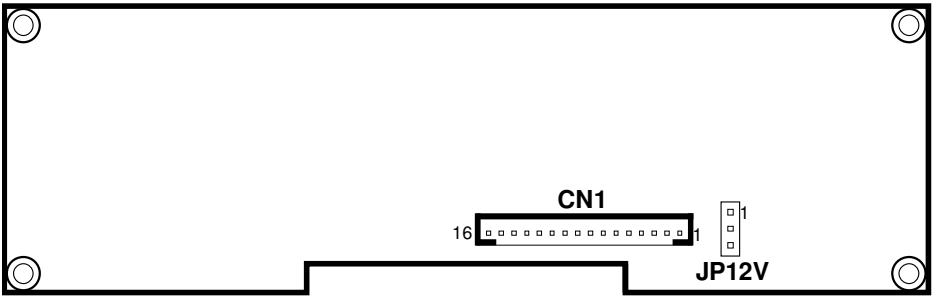
PIN	ASSIGNMENT	FUNCTION
1	FEED	Feed signal
2	RESET	Reset signal
3	GND	GND
4	ST1	Status signal
5	ST2	Status signal
6	ST3	Status signal
7	ST4	Status signal
8	GND	GND
9	DRS	Drawer sensor signal
10	DSW	Drawer switch signal
11	Vdu	Drive terminal for the drawer (Vp side)
12	GNDdu	Drive terminal for the drawer (GND side)
13	GND	GND
14	NC	Unused



CN5

2-4. VFD BOARD COMPONENT LOCATIONS & PIN ASSIGNMENT

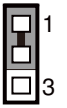
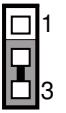
2-4-1. VFD Board: MB-4103, LD720



POS-6630 VFD Board Component Locations

2-4-1-1. Power Switch Selection

JP12V: Power Switch Selection

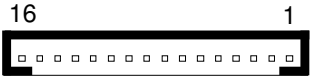
SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
OFF	1-2	 **JP12V**
ON	2-3	 **JP12V**

Note: Manufacturing Default is ON.

2-4-1-2. RS-232 Serial Interface

CN1: RS-232 Serial Interface wafer

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	GND	9	NC
2	TXD	10	NC
3	RXD	11	NC
4	DTR	12	NC
5	DSR	13	NC
6	RTS	14	NC
7	CTS	15	NC
8	+12V/+5V	16	NC



CN1

2-5. MSR BOARD COMPONENT LOCATIONS & PIN ASSIGNMENT

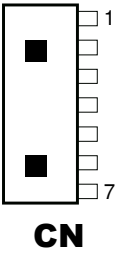
2-5-1. ID TECH Type

POS-6630 MSR Board Component Locations

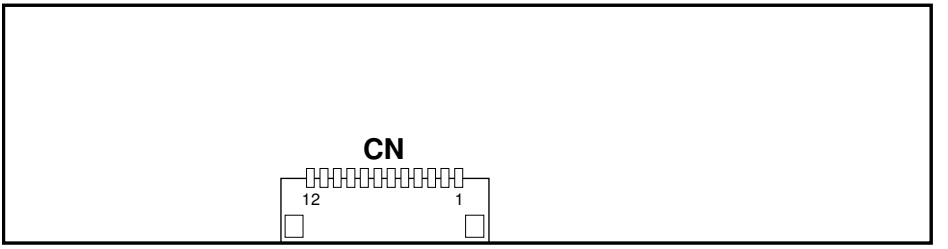
2-5-1-1. Main Connector

CN:

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	Chassis Ground	5	K-CLK (Computer connections)
2	P-CLK (Keyboard connections)	6	K-DATA (Computer connections)
3	P-DATA (Keyboard connections)	7	GND
4	+5V Vcc		



2-5-2. SYSKING Type

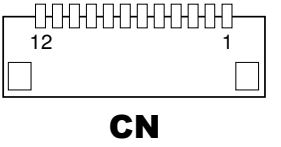


POS-6630 MSR Board Component Locations

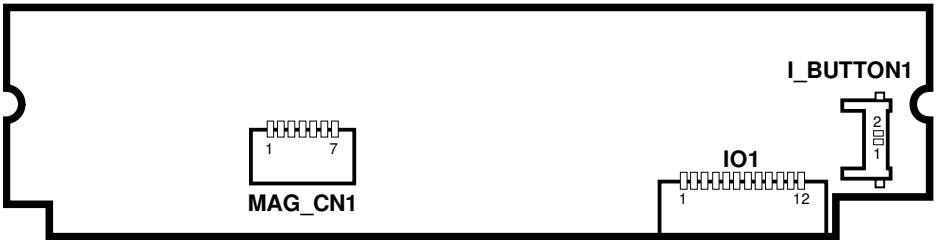
2-5-2-1. Main Connector

CN:

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	+5V Vcc	7	NC
2	K-DATA (Host to MSR)	8	NC
3	K-CLK Host to MSR	9	NC
4	P-DATA (MSR to Keyboard)	10	NC
5	P-CLK (MSR to Keyboard)	11	Signal Ground
6	NC	12	Signal Ground



2-5-3. MB-3012

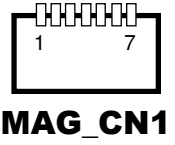


POS-6630 MSR Board Component Locations

2-5-3-1. Decoder Connector

MAG_CN1: Decoder Wafer

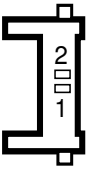
PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	HDC2	5	GND
2	HDC1	6	HDA2
3	HDB2	7	HDA1
4	HDB1		



2-5-3-2. Key Connector

I_BUTTON1: Key Wafer

PIN	ASSIGNMENT
1	I_B1
2	GND

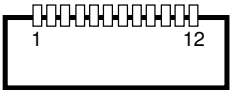


I-BUTTON1

2-5-3-3. Output Connector

IO1: Output Wafer

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	CLK_KB	7	RX_MSR
2	CLK_PC	8	TX_MSR
3	DATA_KB	9	GND
4	DATA_PC	10	USB_D+_R
5	+5V	11	USB_D-_R
6	CHASSIS GND	12	GND



IO1

SOFTWARE UTILITIES

CHAPTER

3

This chapter provides the detailed information users need to install driver utilities for the system.

Sections included:

- Intel® Chipset Software Installation Utility
- Intel® Management Engine Installation Utility
- VGA Driver Utility
- LAN Driver Utility
- Sound Driver Utility
- Device Driver Utility

3-1. INTRODUCTION

Enclosed with the POS-6630 Series package is our driver utilities, which comes in a CD ROM format. Refer to the following table for driver locations.

FILENAME **(Assume that CD ROM drive is D:)**	**PURPOSE**
▪ D:\Driver\Plaform\XP,POSReady2009(32-bit)\Main Chip ▪ D:\Driver\Plaform\Win7,POSReady7(32-bit)\Main Chip ▪ D:\Driver\Platform\Win7,POSReady7(64-bit)\Main Chip	Intel® Chipset Software Installation Utility
▪ D:\Driver\Plaform\XP,POSReady2009(32-bit)\ ME ▪ D:\Driver\Platform\Win7,POSReady7(32-bit)\ME ▪ D:\Driver\Platform\Win7,POSReady7(64-bit)\ME	Intel® Management Engine driver installation
▪ D:\Driver\Plaform\XP,POSReady2009(32-bit)\VGA ▪ D:\Driver\Plaform\Win7,POSReady7(32-bit)\VGA ▪ D:\Driver\Platform\Win7,POSReady7(64-bit)\VGA	Intel® HD Graphics for VGA driver installation
▪ D:\Driver\Plaform\XP,POSReady2009(32-bit)\LAN ▪ D:\Driver\Plaform\Win7,POSReady7(32-bit)\LAN ▪ D:\Driver\Platform\Win7,POSReady7(64-bit)\LAN	Realtek RTL8111F for LAN driver installation
▪ D:\Driver\Plaform\XP,POSReady2009(32-bit)\Sound ▪ D:\Driver\Plaform\Win7,POSReady7(32-bit)\Sound ▪ D:\Driver\Platform\Win7,POSReady7(64-bit)\Sound	Realtek ALC888S for sound driver installation
D:\Driver\Device	Driver installation for touchscreen, embedded printer, wireless, MSR, etc.
D:\Driver\FLASH	AMI BIOS Update Utility

Note: Be sure to install the driver utilities right after the OS is fully installed.

3-2. INTEL® CHIPSET SOFTWARE INSTALLATION UTILITY

3-2-1. Introduction

The Intel® Chipset Software Installation Utility installs to the target system the Windows* INF files that outline to the operating system how the chipset components will be configured. This is needed for the proper functioning of the following features.

- Core PCI and ISAPNP Services
- AGP Support
- SATA Storage Support
- USB Support
- Identification of Intel® Chipset Components in Device Manager

3-2-2. Installation of Intel® Chipset Driver

The utility pack is to be installed only for Windows XP/7 & POSReady 2009/7 series, and it should be installed right after the OS installation. Please follow the steps below:

1. Connect the USB-CD ROM device to POS-6630 and insert the driver disk.
2. Enter the "Main Chip" folder where the Chipset driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart POS-6630 for the changes to take effect.

3-3. INTEL® MANAGEMENT ENGINE COMPONENTS UTILITY

3-3-1. Introduction

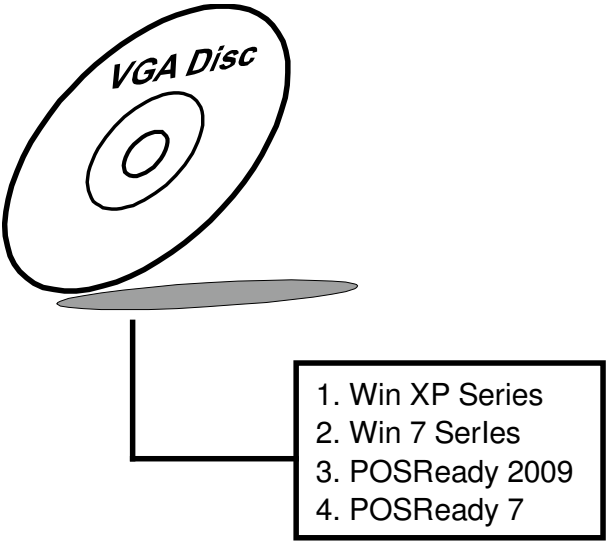
The Intel® ME software components that need to be installed depend on the system's specific hardware and firmware features. The installer, compatible with Windows XP/7 & POSReady 2009/7, detects the system's capabilities and installs the relevant drivers and applications.

3-3-2. Installation Instructions

1. Insert the driver disk into a CD ROM device.
2. Under Windows system, go to the directory where the driver is located.
3. Run the application with administrative privileges.

3-4. VGA DRIVER UTILITY

The VGA interface embedded with POS-6630 series can support a wide range of display types. You can have dual displays via CRT and LVDS interfaces work simultaneously.



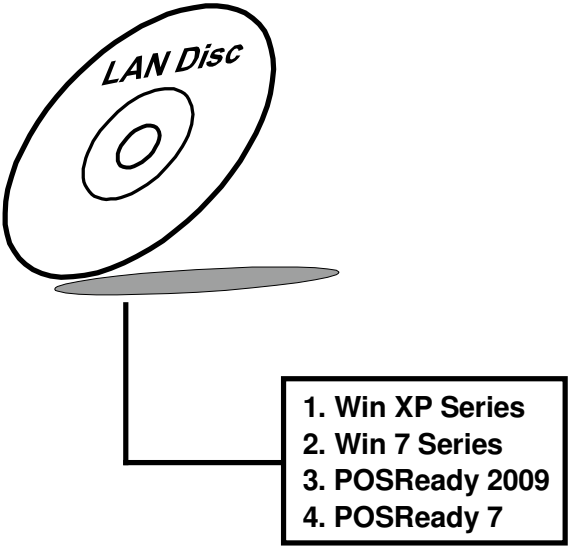
3-4-1. Installation of VGA Driver

To install the VGA Driver, follow the steps below:

1. Connect the USB-CD ROM device to POS-6630 and insert the driver disk.
2. Enter the "VGA" folder where the VGA driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart POS-6630 for the changes to take effect.

3-5. LAN DRIVER UTILITY

POS-6630 Series is enhanced with LAN function that can support various network adapters. Installation platform for the LAN driver is listed as follows:



For more details on the Installation procedure, refer to the file Readme.txt on LAN Driver Utility.

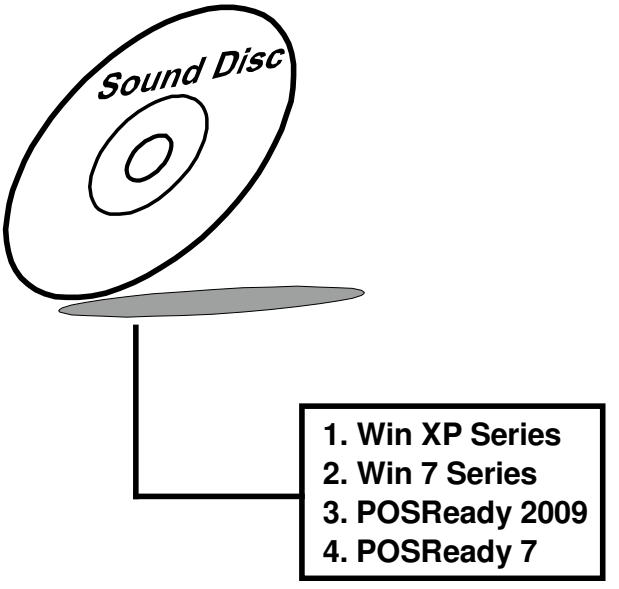
3-5-1. Installation of LAN Driver

To install the LAN Driver, follow the steps below:

1. Connect the USB-CD ROM device to POS-6630 and insert the driver disk.
2. Enter the "LAN" folder where the LAN driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart POS-6630 for the changes to take effect.

3-6. SOUND DRIVER UTILITY

The sound function enhanced in this system is fully compatible with Windows XP/7 series. Below, you will find the content of the Sound driver.



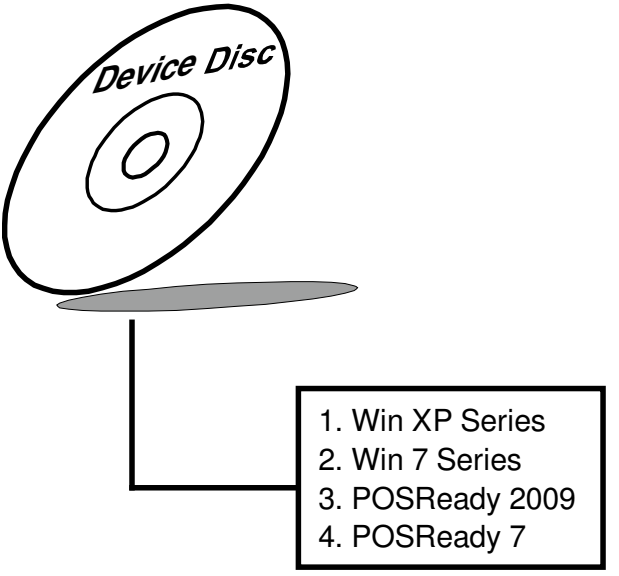
3-6-1. Installation of Sound Driver

To install the Sound Driver, refer to the readme.txt file on the driver disc (:\Sound\Realtek\Readme.txt).

1. Connect the USB-CD ROM device to POS-6630 and insert the driver disk.
2. Enter the "Sound" folder where the Sound driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart POS-6630 for the changes to take effect.

3-7. DEVICE DRIVER UTILITY

The device driver utility, made for touchscreen, embedded printer, wireless, MSR, can only be installed on a Windows platform (XP/7 & POSReady 2009/7 series), and it should be installed right after the OS installation.



3-7-1. Installation of Device Driver

To install the Device Driver, follow the steps below:

1. Connect the USB-CD ROM device to POS-6630 and insert the driver disk.
2. Enter the "Device" folder where the drivers are located.
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart POS-6630 for the changes to take effect.

CHAPTER

4

AMI BIOS SETUP

This chapter shows how to set up the AMI BIOS.

Sections included:

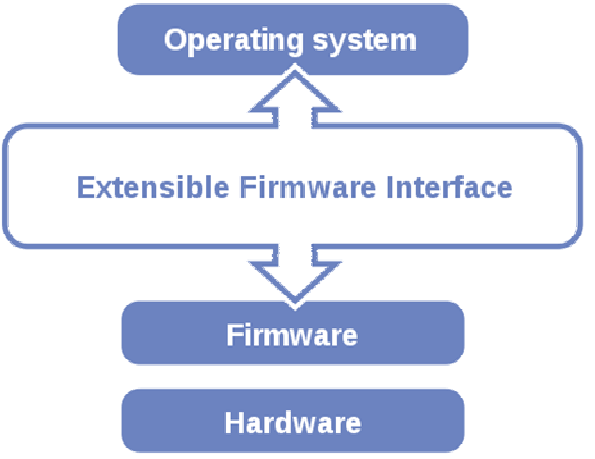
- Introduction
- Entering Setup
- Main
- Advanced
- Chipset
- Boot
- Security
- Save & Exit

4-1. INTRODUCTION

The board PA-3251 uses an AMI Aptio BIOS that is stored in the Serial Peripheral Interface Flash Memory (SPI Flash) and can be updated. The SPI Flash contains the BIOS Setup program, Power-on Self-Test (POST), the PCI auto-configuration utility, LAN EEPROM information, and Plug and Play support.

Aptio is AMI's BIOS firmware based on the UEFI (Unified Extensible Firmware Interface) Specifications and the Intel Platform Innovation Framework for EFI. The UEFI specification defines an interface between an operating system and platform firmware. The interface consists of data tables that contain platform-related information, boot service calls, and runtime service calls that are available to the operating system and its loader. These provide standard environment for booting an operating system and running pre-boot applications.

Following illustration shows Extensible Firmware Interface's position in the software stack.



EFI BIOS provides an user interface allow users the ability to modify hardware configuration, e.g. change system date and time, enable or disable a system component, decide bootable device priorities, setup personal password, etc., which is convenient for modifications and customization of the computer system and allows technicians another method for finding solutions if hardware has any problems.

The BIOS Setup program can be used to view and change the BIOS settings for the computer. The BIOS Setup program is accessed by pressing the <Del> or <ESC> key after the POST memory test begins and before the operating system boot begins. The settings are shown below.

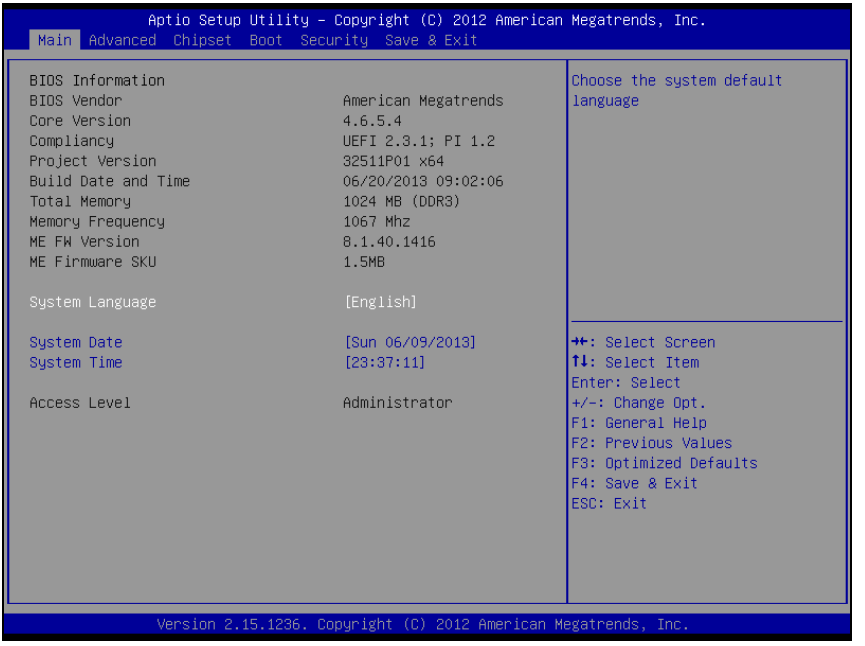
4-2. ENTERING SETUP

When the system is powered on, the BIOS will enter the Power-On Self Test (POST) routines and the following message will appear on the lower screen:

POST Screen

As long as this message is present on the screen you may press the <Del> or <ESC> key to access the Setup program.

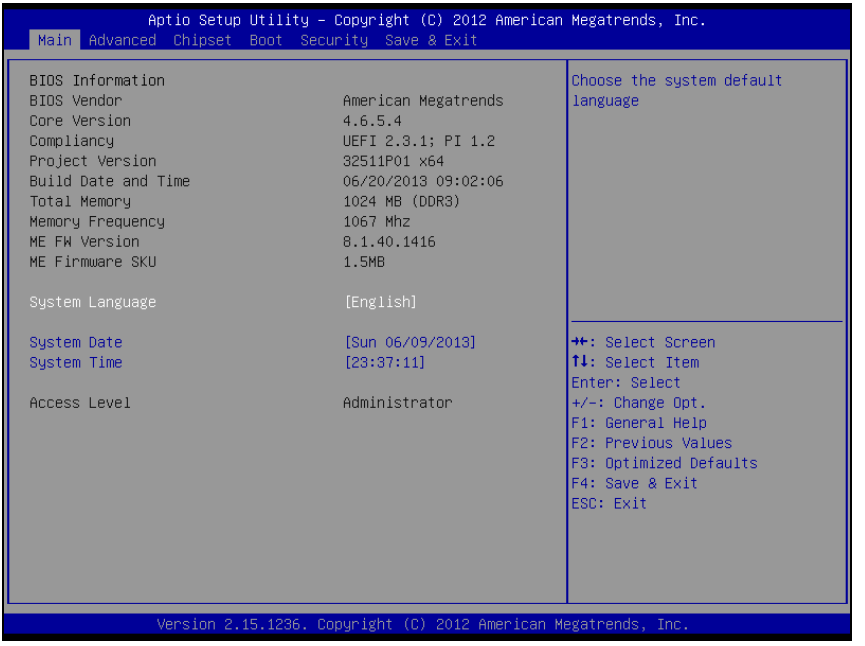
In a moment, the main menu of the Aptio Setup Utility will appear on the screen:



Setup program initial screen

You may move the cursor by up/down keys to highlight the individual menu items. As you highlight each item, a brief description of the highlighted selection will appear at the bottom of the screen.

4-3. MAIN

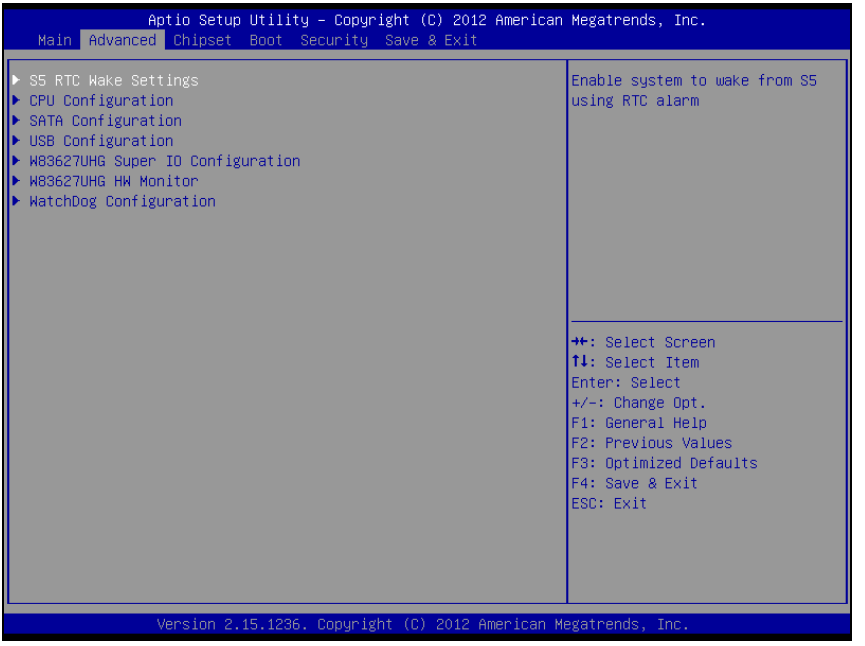


Main screen

BIOS Setting	Options	Description/Purpose
BIOS Vendor	No changeable options	Displays the BIOS vendor.
Core Version	No changeable options	Displays the current BIOS core version.
Compliancy	No changeable options	Displays the current UEFI version.
Project Version	No changeable options	Displays the version of the BIOS currently installed on the platform.
Build Date and Time	No changeable options	Displays the date of current BIOS version.
ME FW Version	No changeable options	Displays the current ME version.
ME Firmware SKU	No changeable options	Displays the current ME SKU.

BIOS Setting	Options	Description/Purpose
System Language	English	BIOS Setup language.
System Date	Month, day, year	Specifies the current date.
System Time	Hour, minute, second	Specifies the current time.
Access Level	No changeable options	Displays the current user level.

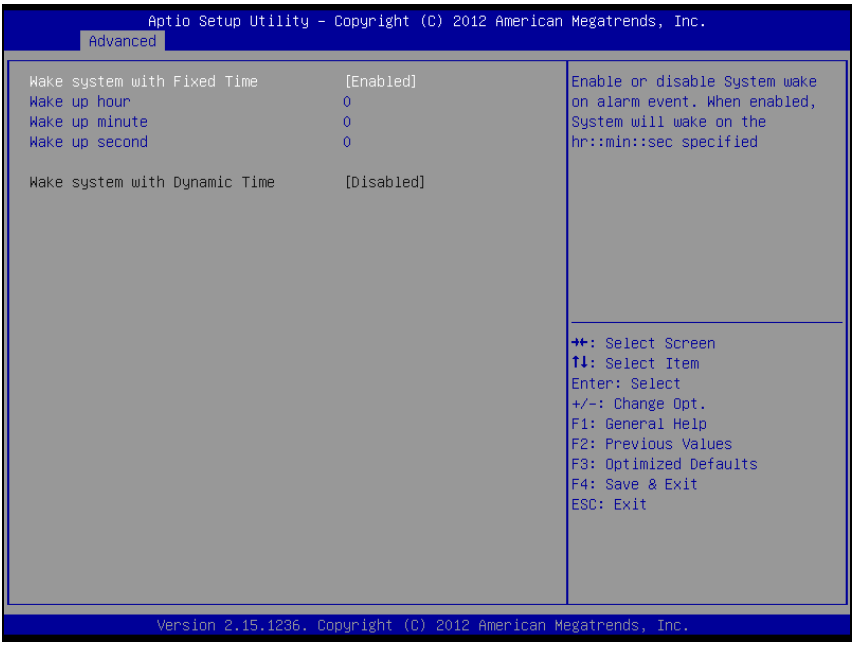
4-4. ADVANCED



Advanced screen

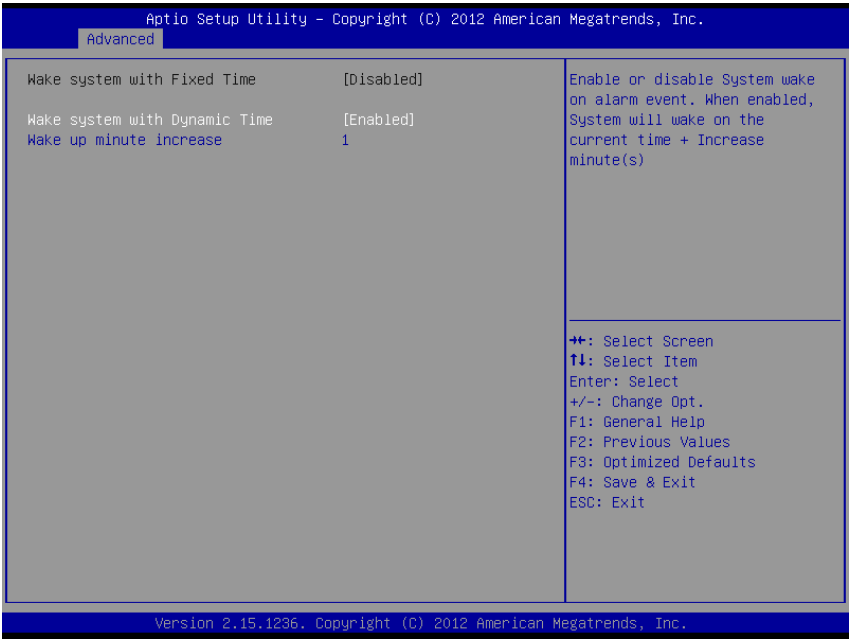
BIOS Setting	Options	Description/Purpose
S5 RTC Wake Settings	Sub-Menu	Enable system to wake from S5 using RTC alarm.
CPU Configuration	Sub-Menu	CPU configuration parameters.
SATA Configuration	Sub-Menu	SATA device options settings.
USB Configuration	Sub-Menu	USB configuration parameters.
W83627UHG Super IO Configuration	Sub-Menu	System super IO chip configuration.
W83627UHG H/W Monitor	Sub-Menu	Monitor hardware status.
WatchDog Configuration	Sub-Menu	Watchdog timer for system reset.

4-4-1. Advanced - S5 RTC Wake Settings



5S RTC Wake settings screen

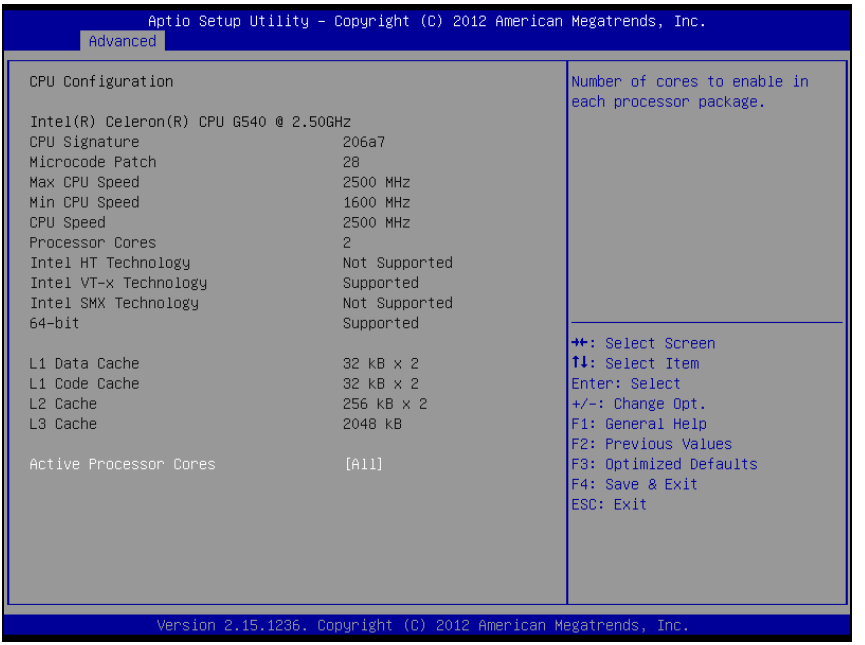
BIOS Setting	Options	Description/Purpose
Wake up with fixed time	- Disabled - Enabled	Enable wake up feature with fixed time.
Wake up hour	Multiple options ranging from 0 to 23	Sets the hour for wake up.
Wake up minute	Multiple options ranging from 0 to 59	Sets the minute for wake up.
Wake up second	Multiple options ranging from 0 to 59	Sets the second for wake up.



5S RTC Wake settings screen

BIOS Setting	Options	Description/Purpose
Wake system with dynamic time	- Disabled - Enabled	Enable wake up feature with dynamic time.
Wake up minute increase	Multiple options ranging from 1 to 5	Sets the minute for wake up.

4-4-2. Advanced - CPU Configuration

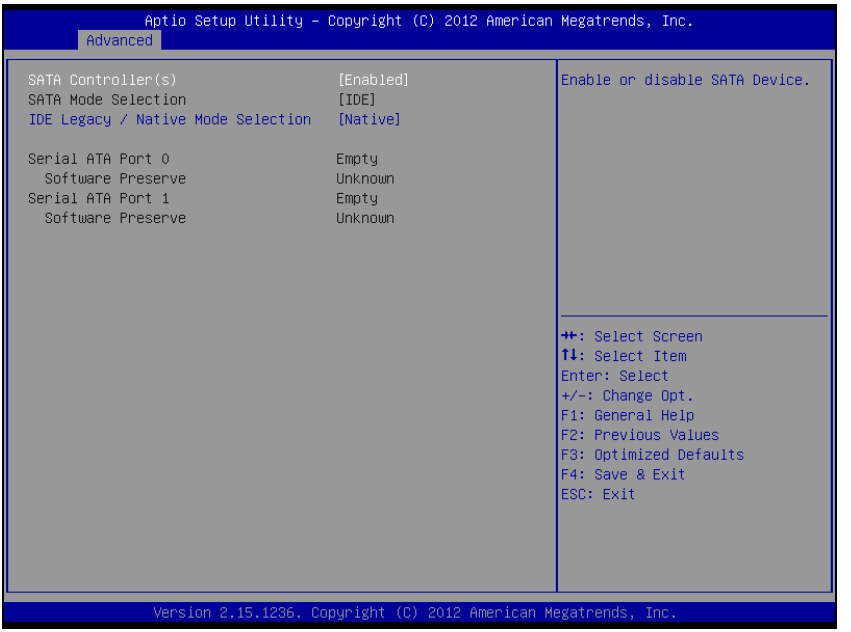


CPU Configuration screen

BIOS Setting	Options	Description/Purpose
CPU Signature	No changeable options	Reports the CPU Signature
Microcode Patch	No changeable options	Reports the CPU Microcode Patch Version.
Max CPU Speed	No changeable options	Reports the maximum CPU Speed.
Min CPU Speed	No changeable options	Reports the minimum CPU Speed
CPU Speed	No changeable options	Reports the current CPU Speed
Processor Cores	No changeable options	Displays number of physical cores in processor.
Intel HT Technology	No changeable options	Reports if Intel Hyper-Threading Technology is supported by processor

BIOS Setting	Options	Description/Purpose
Intel VT-x Technology	No changeable options	Reports if Intel VT-x Technology is supported by processor.
Intel SMX Technology	No changeable options	Reports if Intel SMX Technology is supported by processor.
64-bit	No changeable options	Reports if 64-bit is supported by processor.
L1 Data Cache	No changeable options	Displays size of L1 Data Cache
L1 Code Cache	No changeable options	Displays size of L1 Code Cache
L2 Cache	No changeable options	Displays size of L2 Cache.
L3 Cache	No changeable options	Displays size of L3 Cache.
Active Processor Cores	- All - 1/2/3…	Choose the number of cores to be enabled in current processor.

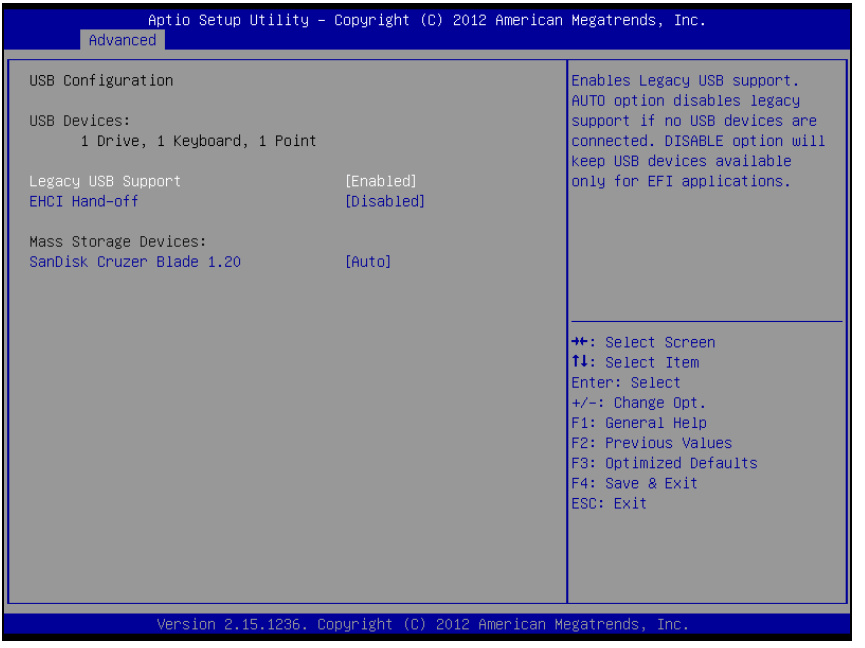
4-4-3. Advanced - SATA Configuration



SATA Configuration screen

BIOS Setting	Options	Description/Purpose
SATA Controller(s)	- Disabled - Enabled	Enable or disable SATA Device.
SATA Mode Selection	No changeable options	Configures SATA as following: IDE: Set SATA operation mode to IDE mode.
IDE Legacy / Native Mode Selection	- Native - Legacy	Select IDE operation mode as Naïve mode or Legacy mode.
SATA0	[drive]	Displays the drive installed on this SATA port 0. Shows [Empty] if no drive is installed.
SATA1	[drive]	Displays the drive installed on this SATA port 1. Shows [Empty] if no drive is installed.

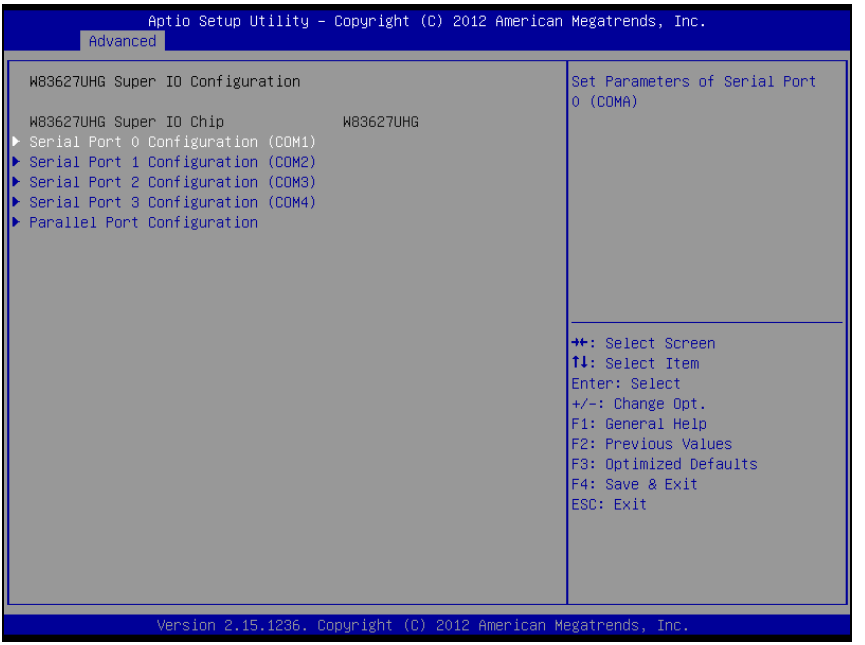
4-4-4. Advanced - USB Configuration



USB configuration screen

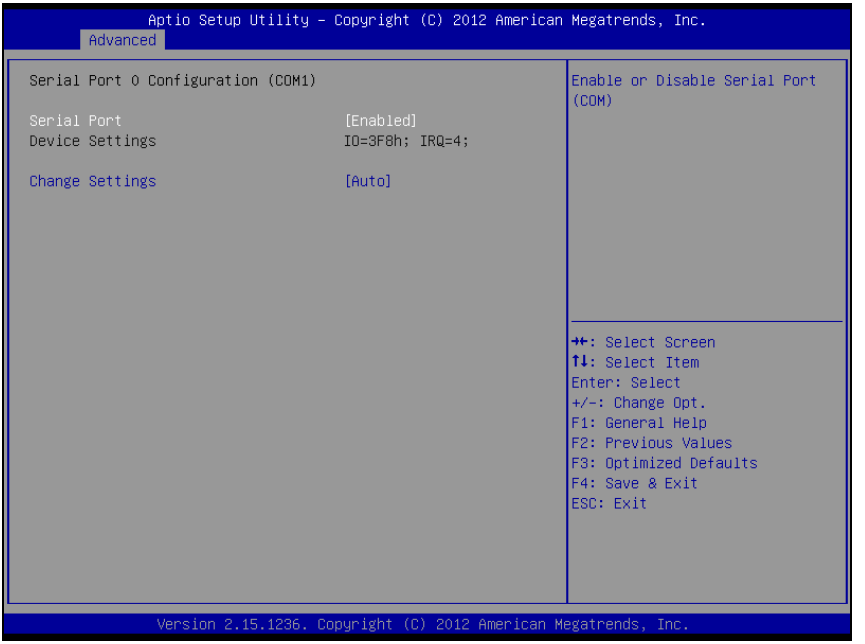
BIOS Setting	Options	Description/Purpose
USB Devices	No changeable options	Displays number of available USB devices.
Legacy USB Support	- Disabled - Enabled - Auto	Enables support for legacy USB.
EHCI Hand-off	- Disabled - Enabled	This is a workaround for OSes w/o EHCI hand-off support.

4-4-5. Advanced - W83627UHG Super IO Configuration



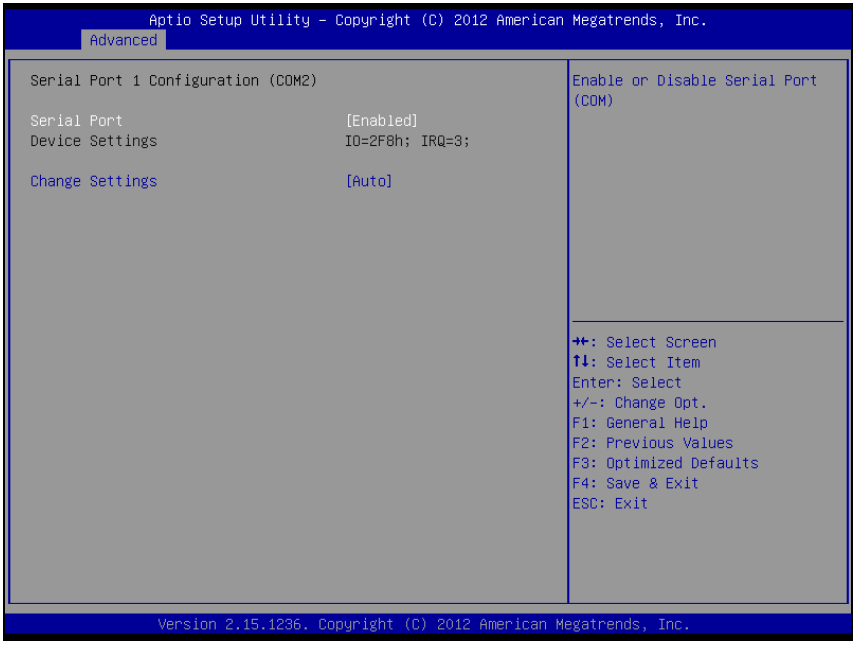
W83627UHG Super IO configuration screen

BIOS Setting	Options	Description/Purpose
Super IO Chip	No changeable options	Displays the super IO chip model and its manufacturer.
Serial Port 0 Configuration (COM1)	Sub-menu	Set Parameters of Serial Port 0 (COM1)
Serial Port 1 Configuration (COM2)	Sub-menu	Set Parameters of Serial Port 1 (COM2)
Serial Port 2 Configuration (COM3)	Sub-menu	Set Parameters of Serial Port 2 (COM3)
Serial Port 3 Configuration (COM4)	Sub-menu	Set Parameters of Serial Port 3 (COM4)
Parallel Port Configuration	Sub-menu	Set Parameters for LPT port.



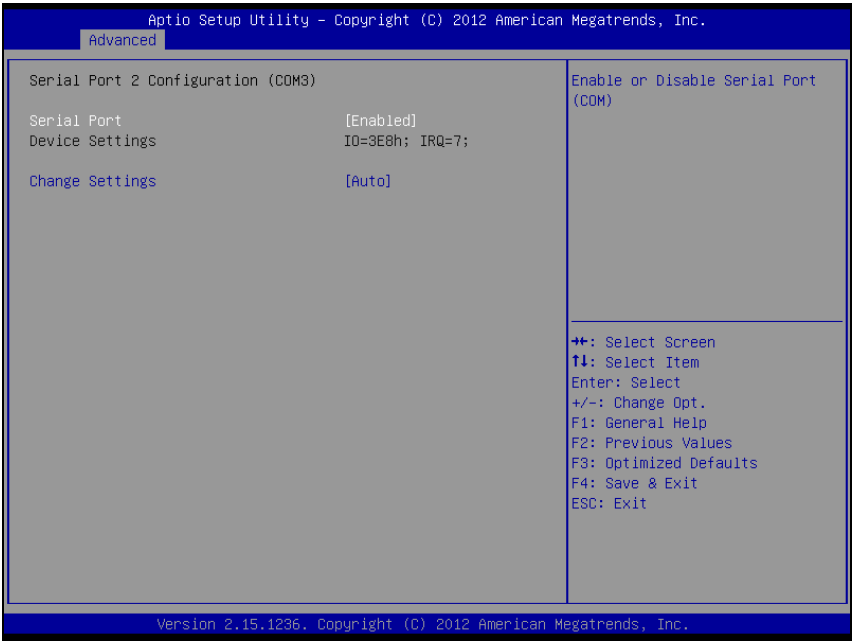
Serial Port 0 Configuration screen

BIOS Setting	Options	Description/Purpose
Serial Port	- Disabled - Enabled	Enable or disable COM 1.
Device Settings	No changeable options	Displays current settings of COM 1.
Change Settings	- Auto - IO=3F8h; IRQ=4 - IO=3F8h; IRQ=3,4,5,6,7,10,11,12 - IO=2F8h; IRQ=3,4,5,6,7,10,11,12 - IO=3E8h; IRQ=3,4,5,6,7,10,11,12 - IO=2E8h; IRQ=3,4,5,6,7,10,11,12	Select IRQ and I/O resource for the COM 1.



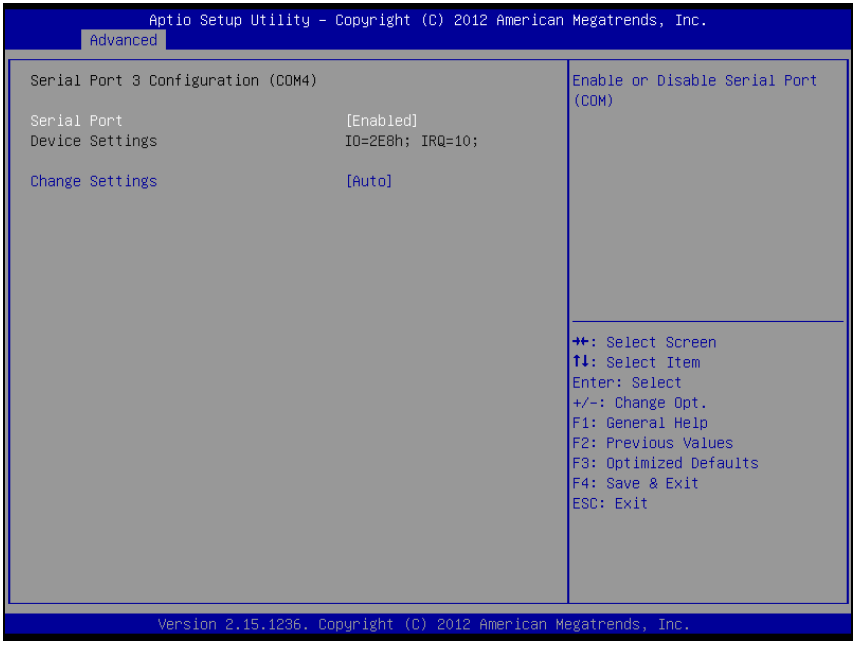
Serial Port 1 Configuration screen

BIOS Setting	Options	Description/Purpose
Serial Port	- Disabled - Enabled	Enable or disable COM 2.
Device Settings	No changeable options	Displays current settings of COM 2.
Change Settings	- Auto - IO=2F8h; IRQ=3 - IO=3F8h; IRQ=3,4,5,6,7,10,11,12 - IO=2F8h; IRQ=3,4,5,6,7,10,11,12 - IO=3E8h; IRQ=3,4,5,6,7,10,11,12 - IO=2E8h; IRQ=3,4,5,6,7,10,11,12	Select IRQ and I/O resource for the COM 2.



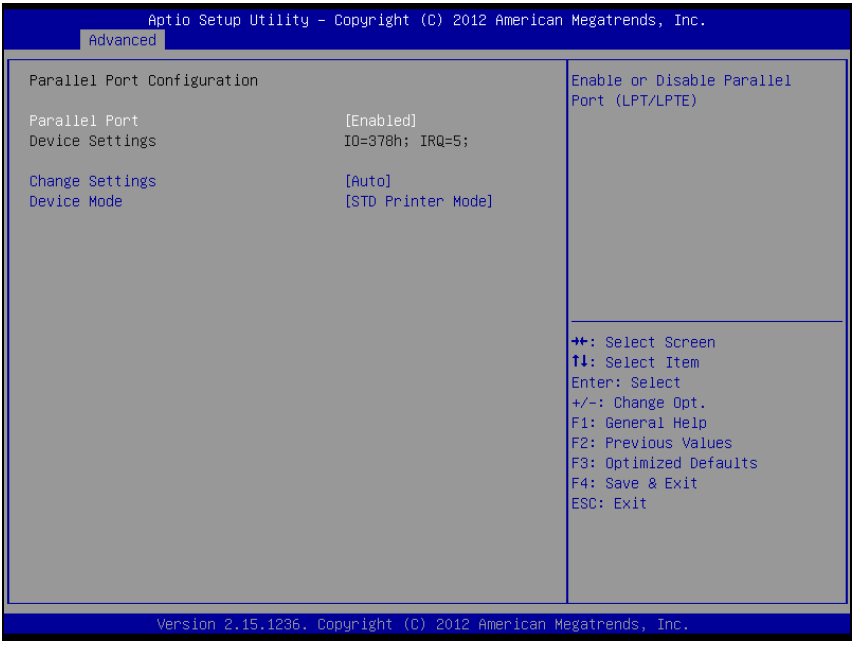
Serial Port 2 Configuration screen

BIOS Setting	Options	Description/Purpose
Serial Port	- Disabled - Enabled	Enable or disable COM 3.
Device Settings	No changeable options	Displays current settings of COM 3.
Change Settings	- Auto - IO=3E8h; IRQ=3 - IO=3F8h; IRQ=3,4,5,6,7,10,11,12 - IO=2F8h; IRQ=3,4,5,6,7,10,11,12 - IO=3E8h; IRQ=3,4,5,6,7,10,11,12 - IO=2E8h; IRQ=3,4,5,6,7,10,11,12	Select IRQ and I/O resource for the COM 3.



Serial Port 3 Configuration screen

BIOS Setting	Options	Description/Purpose
Serial Port	- Disabled - Enabled	Enable or disable COM 4.
Device Settings	No changeable options	Displays current settings of COM 4.
Change Settings	- Auto - IO=2E8h; IRQ=3 - IO=3F8h; IRQ=3,4,5,6,7,10,11,12 - IO=2F8h; IRQ=3,4,5,6,7,10,11,12 - IO=3E8h; IRQ=3,4,5,6,7,10,11,12 - IO=2E8h; IRQ=3,4,5,6,7,10,11,12	Select IRQ and I/O resource for the COM 4.

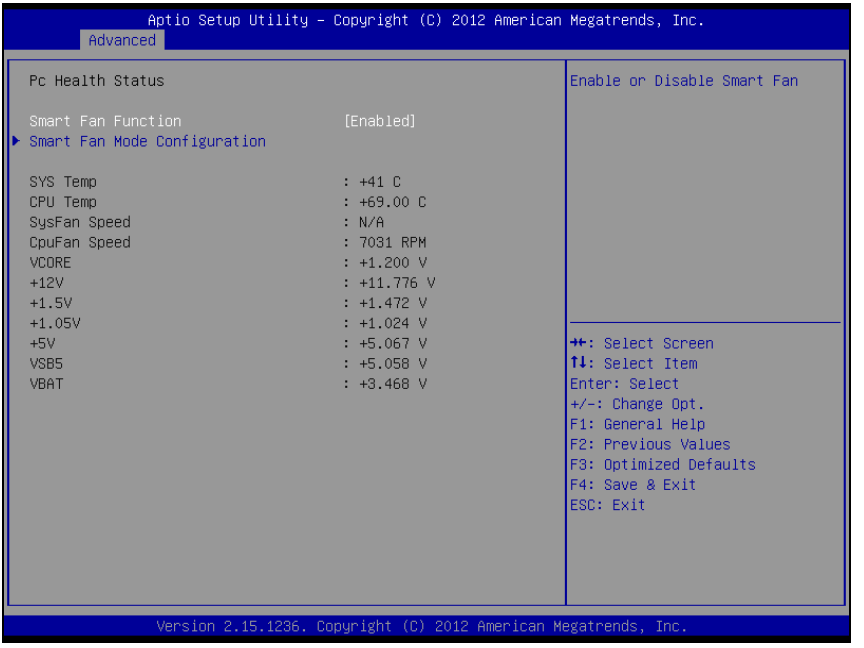


Parallel Port Configuration screen

BIOS Setting	Options	Description/Purpose
Parallel Port	- Disabled - Enabled	Enable or disable the printer port.
Device Settings	No changeable options	Displays current settings of the printer port.
Change Settings	- Auto - IO=378h; IRQ=5 - IO=378h; IRQ=5,6,7,10,11,12 - IO=278h; IRQ=5,6,7,10,11,12 - IO=3BCh; IRQ=5,6,7,10,11,12	Select IRQ and I/O resource for the printer port..

BIOS Setting	Options	Description/Purpose
Device Mode	- STD Printer Mode - SPP Mode - EPP-1.9 and SPP Mode - EPP-1.7 and SPP Mode - ECP Mode - ECP and EPP 1.9 Mode - ECP and EPP 1.7 Mode	Selects the mode for the parallel port. Not available if the parallel port is disabled. ▪ **SPP** is Standard Parallel Port mode, a bi-directional mode for printers. ▪ **EPP** is Enhanced Parallel Port mode, a high-speed bi-directional mode for non-printer peripherals. ▪ **ECP** is Enhanced Capability Port mode, a high-speed bi-directional mode for printers and scanners.

4-4-6. Advanced - W83627UHG H/W Monitor



W83627UHG H/W Monitor screen

BIOS Setting	Options	Description/Purpose
Smart Fan Function	- Disabled - Enabled	Enable smart fan feature.
SYS Temp	No changeable options	Displays system's temperature.
CPU Temp	No changeable options	Displays processor's temperature.
SysFan Speed	No changeable options	Displays fan speed of the System fan.
CpuFan Speed	No changeable options	Displays fan speed of the CPU fan.
VCORE	No changeable options	Displays voltage level of the +VCORE in supply.
+12V	No changeable options	Displays voltage level of the +12V in supply.
+1.5V	No changeable options	Displays voltage level of the +1.5V in supply.

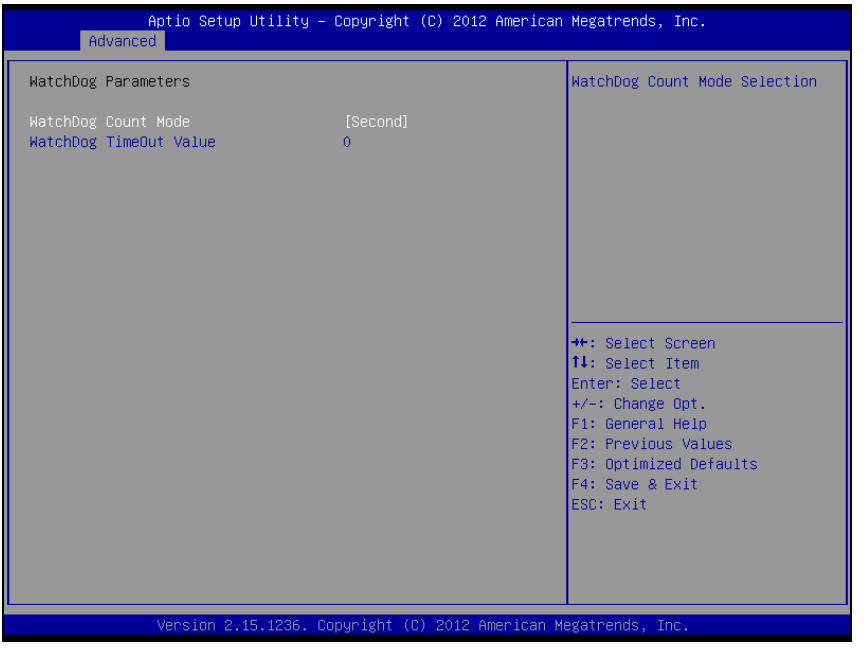
BIOS Setting	Options	Description/Purpose
+1.05V	No changeable options	Displays voltage level of the +1.05V in supply.
+5V	No changeable options	Displays voltage level of the +5V in supply.
VSB5	No changeable options	Displays voltage level of the +5VSB in supply.
VBAT	No changeable options	Displays voltage level of the backup CMOS battery.

4-4-6-1. W83627UHG H/W Monitor – Smart Fan Mode Configuration

Smart Fan Mode Configuration screen

BIOS Setting	Options	Description/Purpose
System fan mode	- Manual Mode - Thermal CruiseTM Mode	Configures the smart fan.
System fan PWM output duty	Multiple options ranging from 0 to 255	CPU Fan PWM output duty
CPU fan mode	- Manual Mode - Thermal CruiseTM Mode	Configures the smart fan.
CPU fan PWM output duty	Multiple options ranging from 0 to 255	CPU Fan PWM output duty

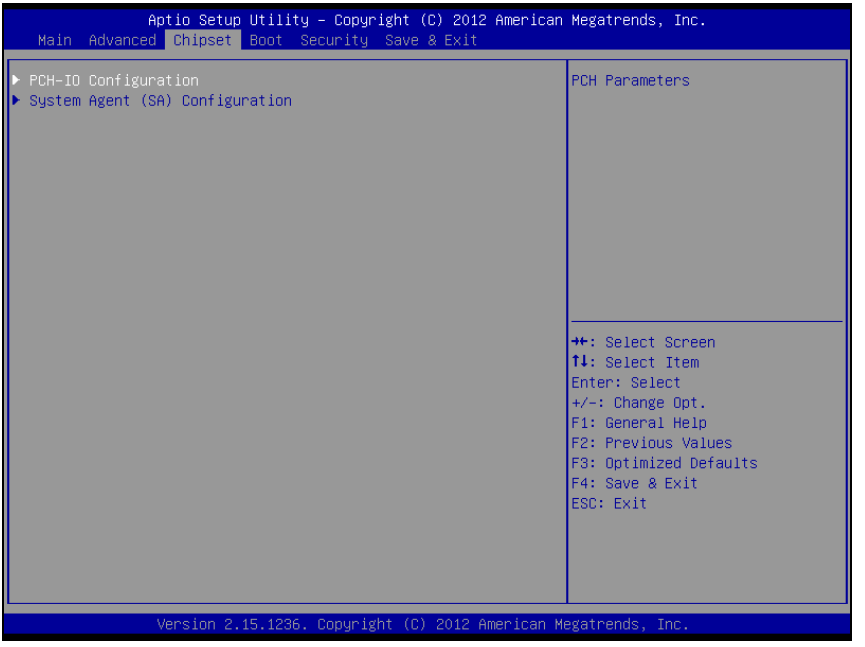
4-4-7. Advanced - Watchdog Configuration



Watchdog configuration screen

BIOS Setting	Options	Description/Purpose
Watchdog count mode	- Second - Minute	Selects unit for watchdog timer.
Watchdog timeout value	Multiple options ranging from 0 to 255	Sets the desired value for watchdog timer. 0 means disabled.

4-5. CHIPSET



Chipset screen

BIOS Setting	Options	Description/Purpose
PCH-IO Configuration	Sub-menu	PCH Parameters.
System Agent (SA) Configuration	Sub-menu	System Agent (SA) Parameters.

4-5-1. Chipset – PCH IO Configuration

PCH IO Configuration screen

BIOS Setting	Options	Description/Purpose
Intel PCH RC Version	No changeable option	Displays the PCH source code module version
Intel PCH SKU Name	No changeable option	Displays PCH product SKU name.
Intel PCH Rev ID	No changeable option	Displays onboard PCH chip revision.
Restore AC Power Loss	- Power Off - Power On	Select AC power state when power is re-applied after a power failure. ▪ **Power Off** keeps the power off till the power button is pressed. ▪ **Power On** makes system power on after restores AC power to the board.

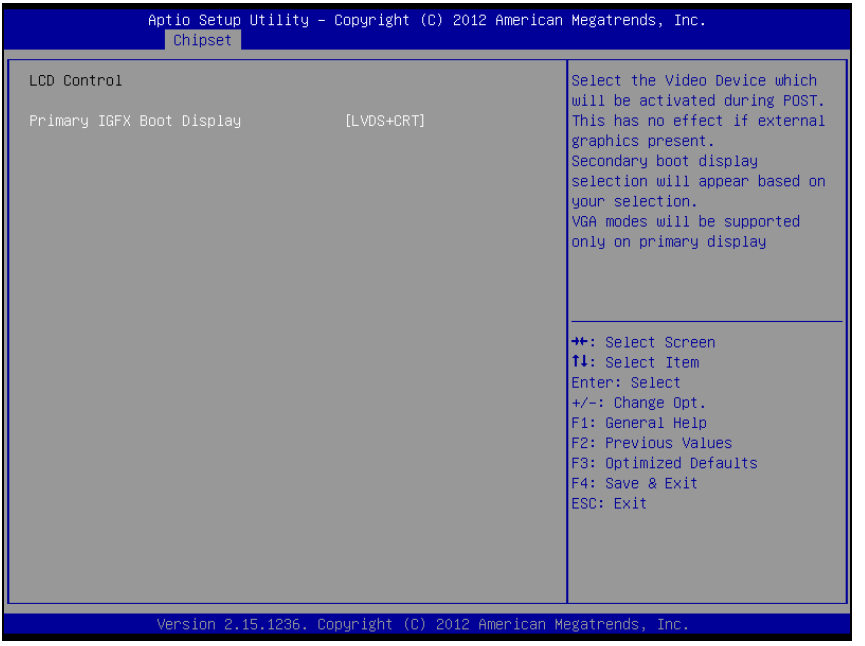
4-5-2. Chipset – System Agent (SA) Configuration

System Agent (SA) Configuration screen

BIOS Setting	Options	Description/Purpose
System Agent Bridge Name	No changeable options	Displays the CPU/NB bridge name
System Agent RC Version	No changeable options	Displays the IVB source code module version
VT-d Capability	No changeable options	Display this chipset support VT-d or not.
Graphics Configuration	Sub-menu	Configure Graphic Settings.
Memory Configuration	Sub-menu	Memory Configuration Parameters

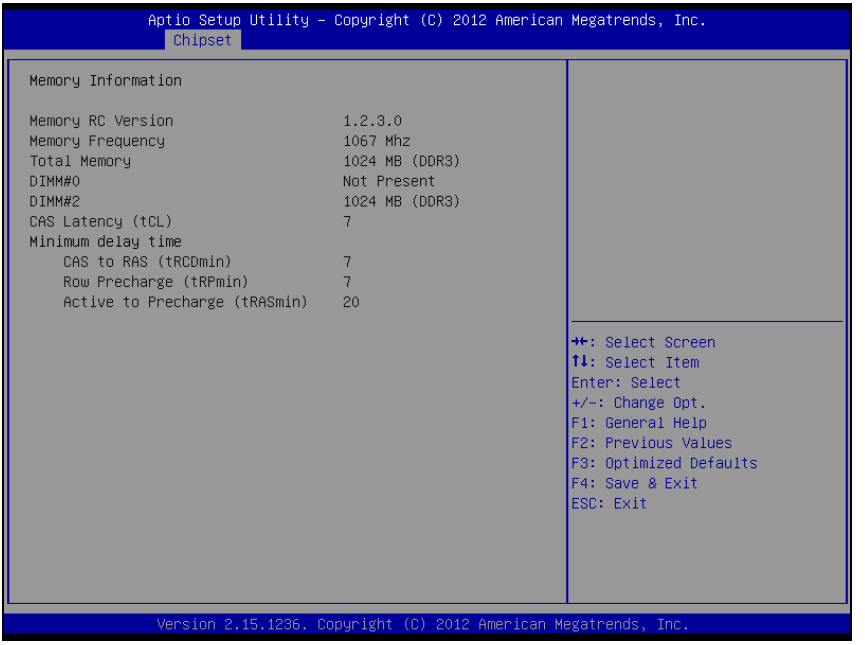
Graphics Configuration screen

BIOS Setting	Options	Description/Purpose
IGFX VBIOS Version	No changeable options	Displays the VBIOS version of integrated graphic controller.
IGfx Frequency	No changeable options	Displays the frequency of integrated graphic controller.
LCD Control	Sub-menu	LCD Control Parameters.



LCD Control screen

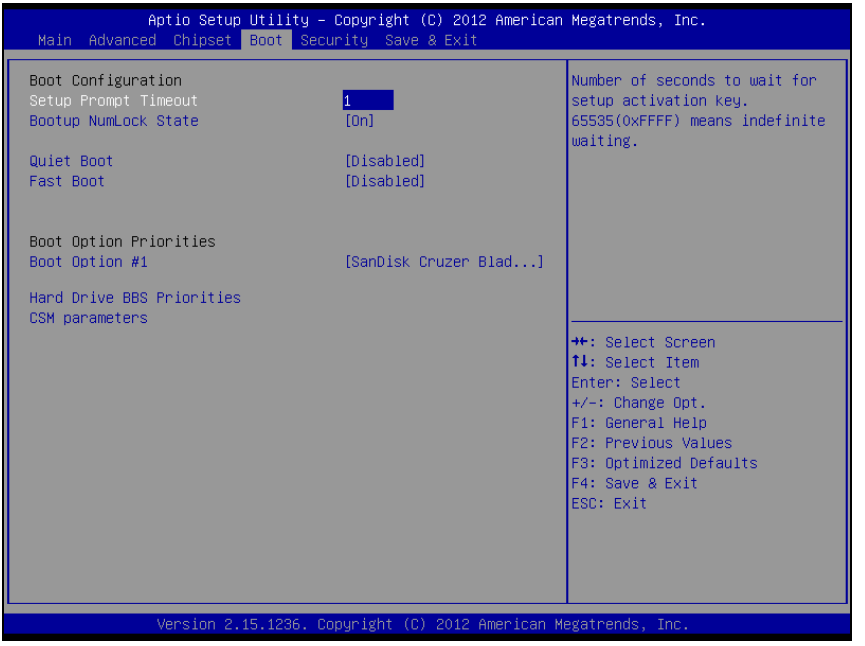
BIOS Setting	Options	Description/Purpose
Primary IGFX Boot Display	- LVDS + CRT - CRT - LVDS	Select primary display device



Memory Configuration screen

BIOS Setting	Options	Description/Purpose
Memory Information	No changeable option lists.	Displays the detail DRAM information on platform.

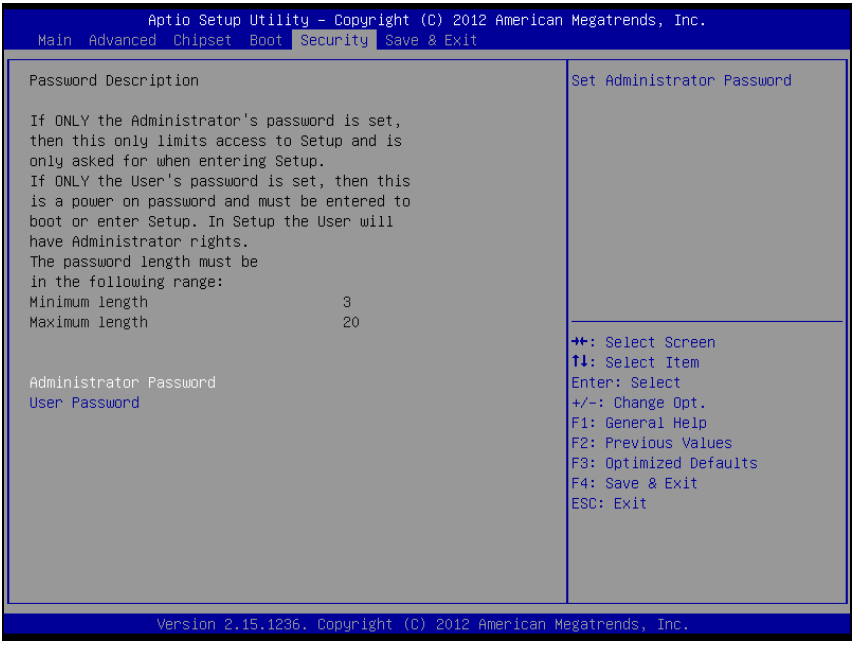
4-6. BOOT



Boot screen

BIOS Setting	Options	Description/Purpose
Setup Prompt Timeout	Numeric	Number of seconds to wait for setup activation key.
Bootup NumLock State	- On - Off	Specifies the power-on state of the NumLock Key.
Quiet Boot	- Disabled - Enabled	Enable/Disable Quiet Boot Options
Boot Option #1~#n	- [Drive(s)] - Disabled	Allows setting boot option listed in Hard Drive BBS Priorities.
Hard Drive BBS Priorities	Sub-Menu	Allow user to select boot order of available drive(s)
CSM parameters	Sub-Menu	Configure Option ROM execution, boot options filters, etc.

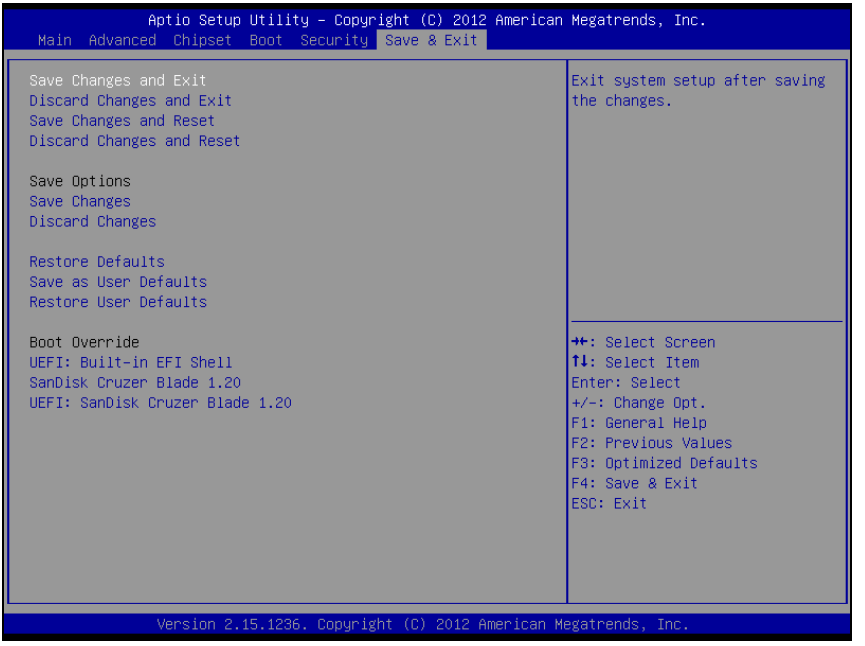
4-7. SECURITY



Security screen

BIOS Setting	Options	Description/Purpose
Administrator Password	Password can be 3-20 alphanumeric characters.	Specifies the administrator password.
User Password	Password can be 3-20 alphanumeric characters.	Specifies the user password.

4-8. SAVE & EXIT



Save & Exit screen

BIOS Setting	Options	Description/Purpose
Save Changes and Exit	No changeable options	Exits and saves the changes in CMOS SRAM.
Discard Changes and Exit	No changeable options	Exits without saving any changes made in BIOS settings.
Save Changes and Reset	No changeable options	Saves the changes in CMOS SRAM and resets.
Discard Changes and Reset	No changeable options	Resets without saving any changes made in BIOS settings.
Save Changes	No changeable options	Saves the changes done in BIOS settings so far.

BIOS Setting	Options	Description/Purpose
Discard Changes	No changeable options	Discards the changes done in BIOS settings so far.
Restore Defaults	No changeable options	Loads the optimized defaults for BIOS settings.
Save as User Defaults	No changeable options	Saves the current values as user defaults.
Restore User Defaults	No changeable options	Loads the user defaults for BIOS settings.
Boot Override	- [drive(s)]	Forces to boot from selected [drive(s)].

SYSTEM ASSEMBLY

APPENDIX

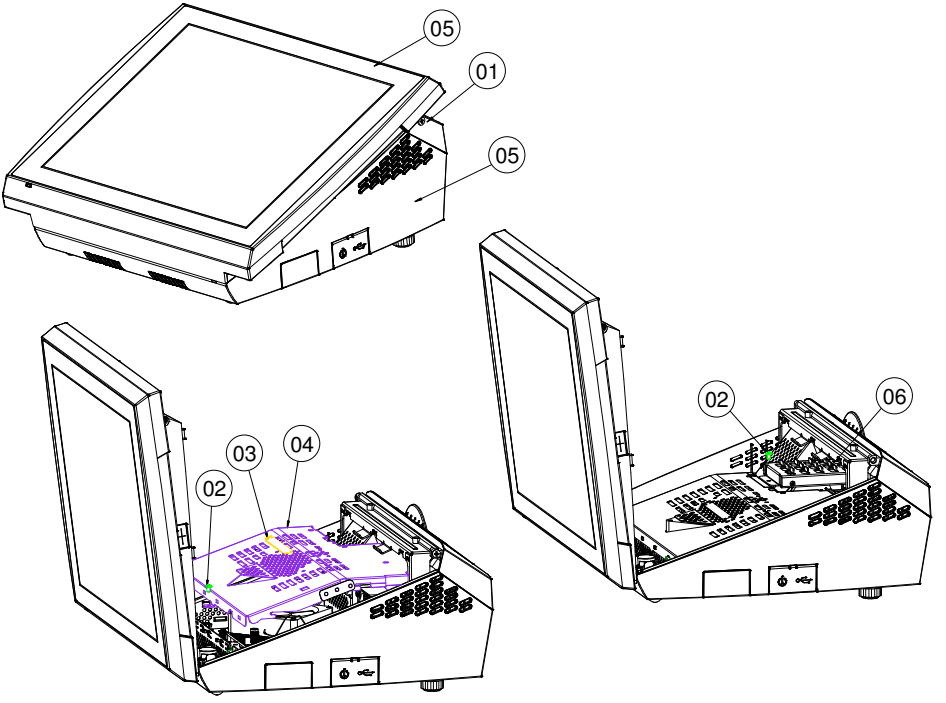
A

This appendix contains exploded diagrams and part numbers of the POS-6630 system.

Sections included:

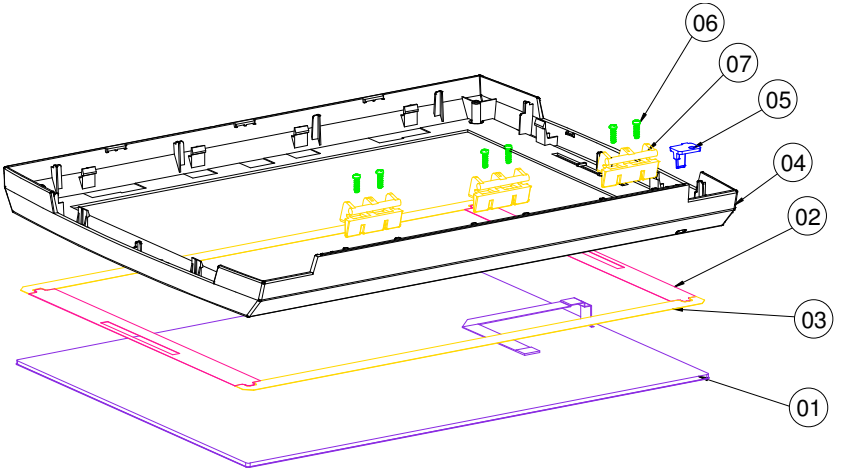
- Exploded Diagram for Touchscreen & LCD Module
- Exploded Diagram for Resistive Touchscreen & LCD Panel
- Exploded Diagram for Projected Capacitive Touchscreen & LCD Panel
- Exploded Diagram for Bottom Case
- Exploded Diagram for Inside Box
- Exploded Diagram for VFD
- Exploded Diagram for System Assembly
- Exploded Diagram for Printer

EXPLODED DIAGRAM FOR TOUCHSCREEN & LCD PANEL

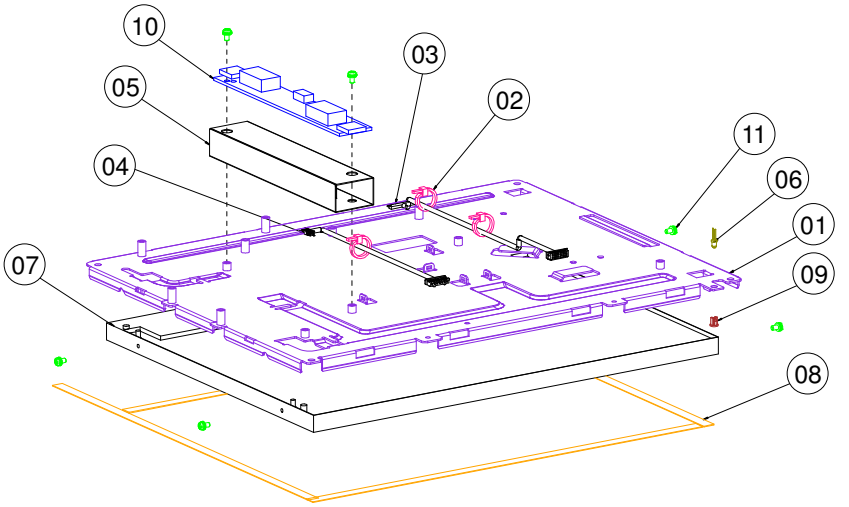


NO.	COMPONENT NAME	PART NO.	Q'TY
1	SCREW	22-272-40004311	2
2	SCREW	22-242-30005311	2
3	PULLER	30-080-04100000	1
4	INSIDE BOX TOP COVER	20-004-03001220	1
5	T CASE-B CASE ASSY	**-***-********	1
6	HDD ASSY	**-***-********	1

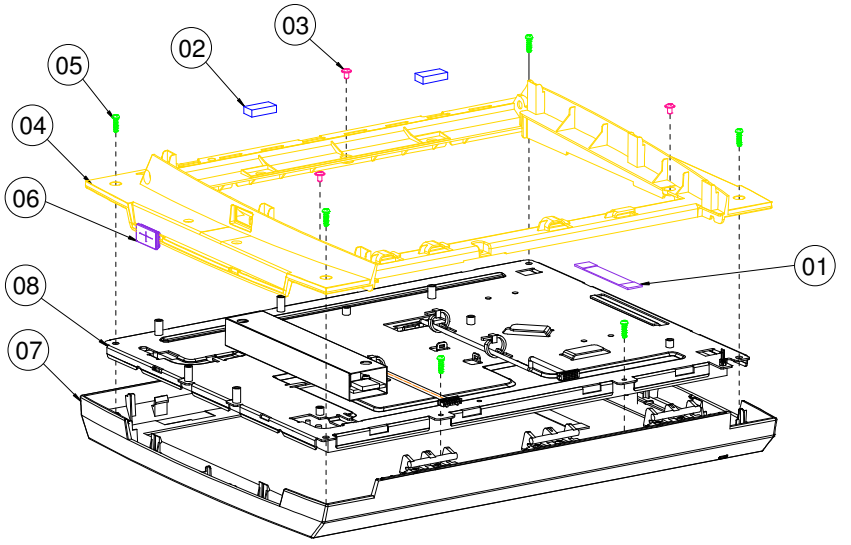
EXPLODED DIAGRAM FOR RESISTIVE TOUCHSCREEN & LCD PANEL



NO.	COMPONENT NAME	PART NO.	Q'TY
1	FLAT RESISTIVE TOUCH PANEL	52-380-00114701	1
2	DOUDLE COATED TAPE-B	94-026-04902220	2
3	DOUDLE COATED TAPE-A	94-026-04901220	2
4	FRONT COVER	30-003-28110220	1
5	LED LENS	30-021-02130220	1
6	SCREW	22-125-30012061	6
7	TOP COVER HINHE	30-002-09130220	3

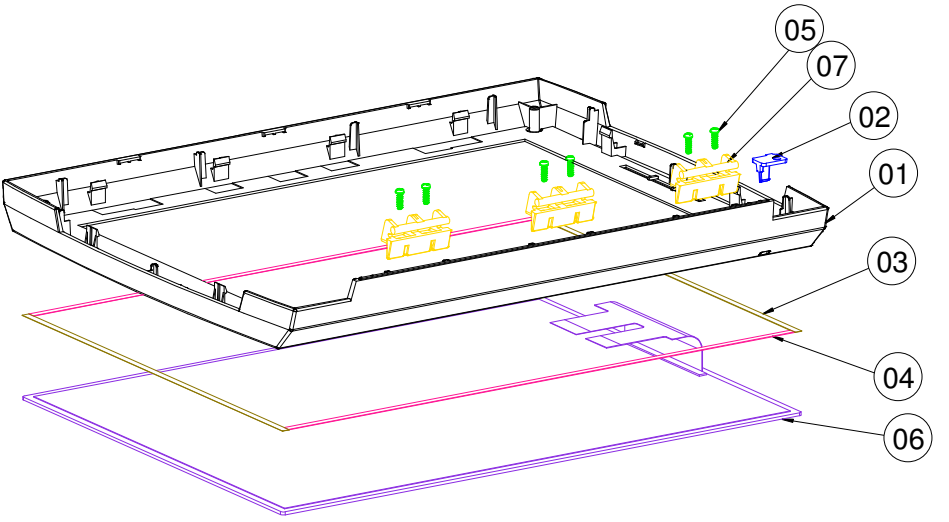


NO.	COMPONENT NAME	PART NO.	Q'TY
1	PANEL HOLDER	20-029-03001220	1
2	CABLE TIE	30-015-04200000	3
3	LVDS CABLE	27-020-21007111	1
4	INVERTER CABLE	27-015-21006111	1
5	INVERTER MYLAR	90-056-35100210	1
6	LED CABLE	27-018-21003071	1
7	15" LCD PANEL	**-***-********	1
8	PORON	30-013-24100000	4
9	LED HOUSING	30-014-04100165	1
10	LCD INVERTER	52-101-15020503	1
11	SCREW	22-232-30060211	6

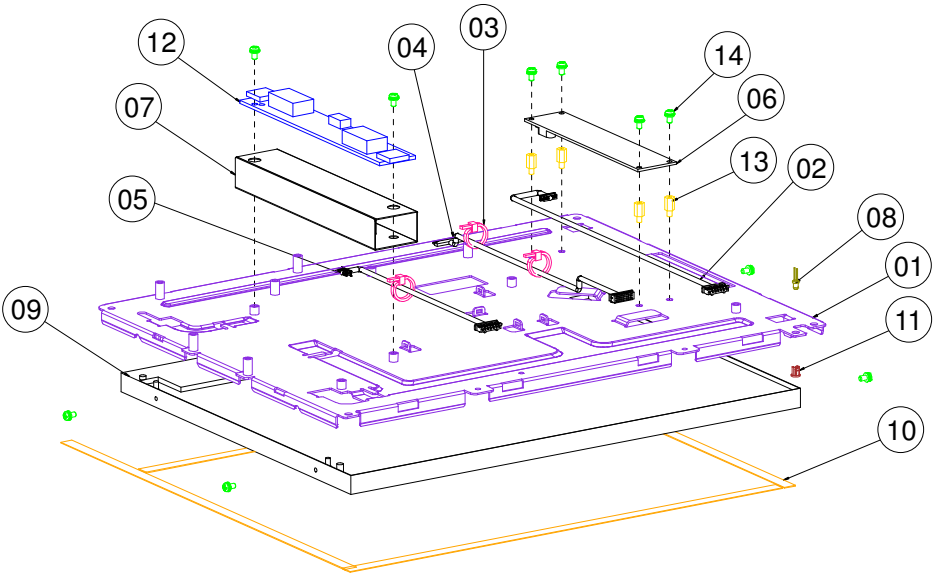


NO.	COMPONENT NAME	PART NO.	Q'TY
1	TOUCHSCREEN EXTENDING CABLE	27-043-22003071	1
2	EMI SPONGE	90-050-31100000	2
3	SCREW	22-242-30005311	3
4	BACK COVER	30-003-28210220	1
5	SCREW	22-125-30012061	6
6	LCD BACK COVER RUBBER	30-013-06100124	1
7	TOUCH ASSY FOR ELO	--	1
8	PANEL HOLDER ASSY FOR ABON	--	1

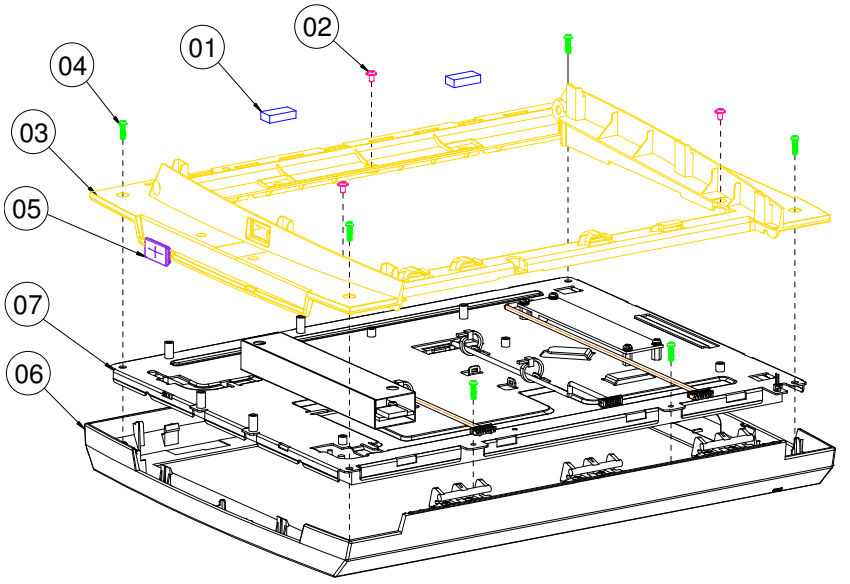
EXPLODED DIAGRAM FOR PROJECTED CAPACITIVE TOUCHSCREEN & LCD PANEL



NO.	COMPONENT NAME	PART NO.	Q'TY
1	FRONT COVER	30-003-28110220	1
2	LED LENS	30-021-02130220	1
3	DOUDLE TAPE V	94-026-05002220	2
4	DOUDLE TAPE H	94-026-05001220	2
5	SCREW	22-125-30012061	6
6	TOUCH PANEL	52-380-00075014	1
7	TOP COVER HINHE	30-002-09130220	3

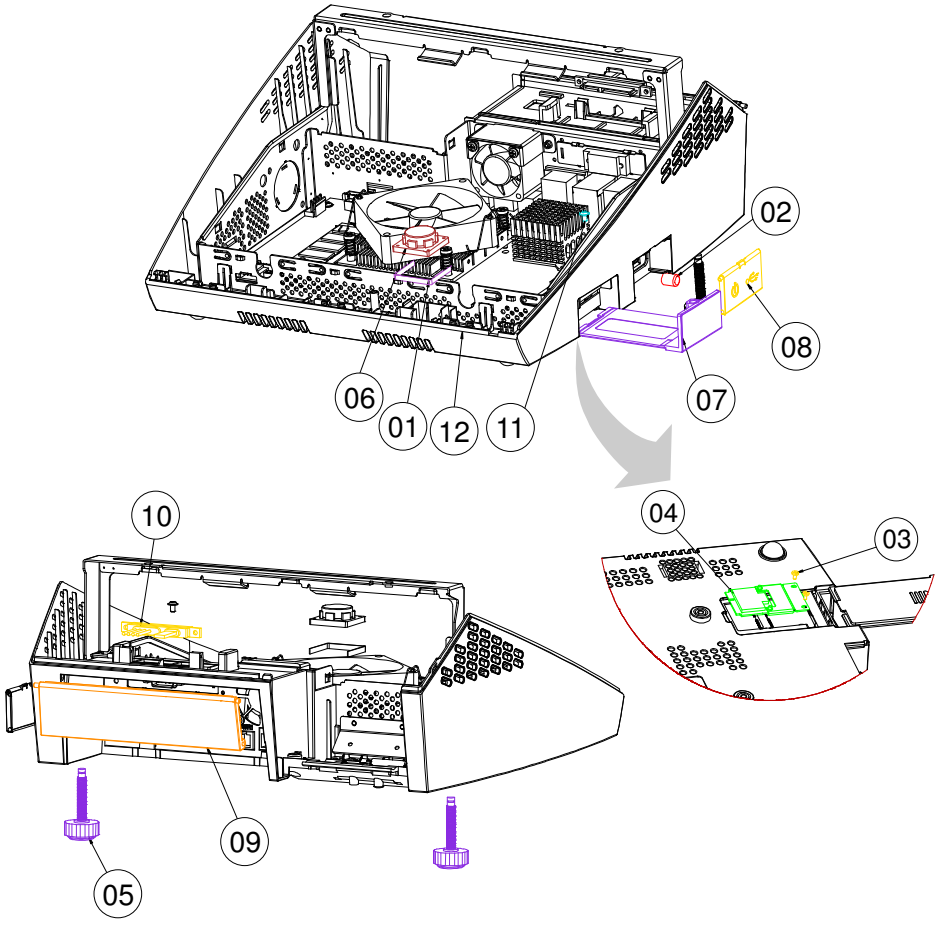


NO.	COMPONENT NAME	PART NO.	Q'TY
1	PANEL HOLDER	20-029-03001220	1
2	TOUCH CONTROL CABLE	27-006-22009111	1
3	CABLE TIE	30-015-04200000	3
4	LVDS CABLE	27-020-21007111	1
5	INVERTER CABLE	27-015-21006111	1
6	TOUCH CONTROLLER BOARD	52-370-01720007	1
7	INVERTER MYLAR	90-056-35100210	1
8	LED CABLE	27-018-21003071	1
9	15" LCD PANEL	**-***-*********	1
10	PORON	30-013-24100000	4
11	LED HOUSING	30-014-04100165	1
12	LCD INVERTER	52-101-15020503	1
13	HEX CU BOSS	22-298-30008005	4
14	SCREW	22-232-30060211	10



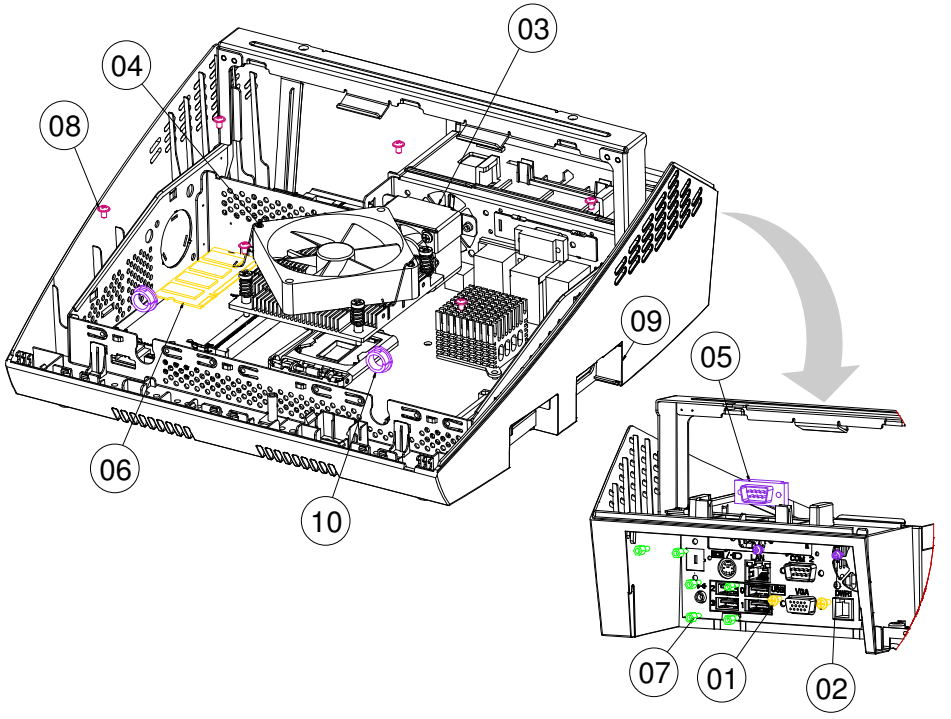
NO.	COMPONENT NAME	PART NO.	Q'TY
1	EMI SPONGE	90-050-31100000	2
2	SCREW	22-242-30005311	3
3	BACK COVER	30-003-28210220	1
4	SCREW	22-125-30012061	6
5	LCD BACK COVER RUBBER	30-013-06100124	1
6	TOUCH ASSY FOR ABON	--	1
7	PANEL HOLDER ASSY FOR ABON	--	1

EXPLODED DIAGRAM FOR BOTTOM CASE

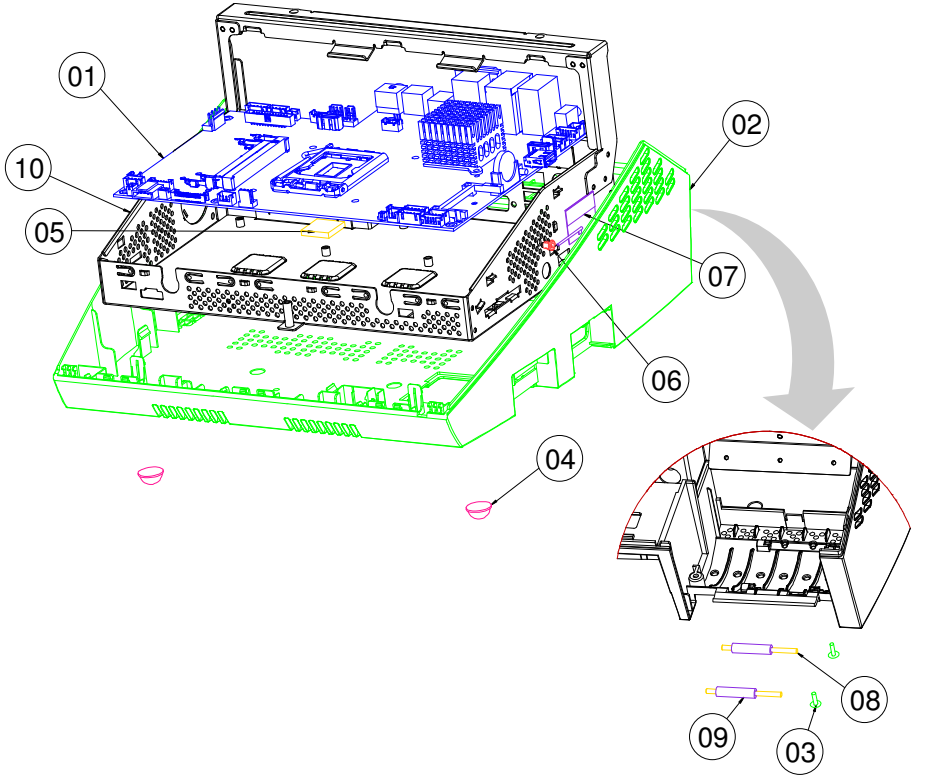


NO.	COMPONENT NAME	PART NO.	Q'TY
1	PORON	90-013-15200181	1
2	SWITCH CAP	30-001-28100099	1
3	SCREW	22-272-20004011	2
4	WIRELESS CARD ASSY	**-***-********	1
5	FOOT	22-289-60035007	2
6	SPEAKER	13-500-08280018	1
7	MINI PCI DOOR	30-007-28110199	1
8	POWER COVER	30-002-28210199	1
9	IO COVER	30-002-28110199	1
10	SATA HDD CABLE	27-012-16504081	1
11	SCREW	22-242-30005311	1
12	INSIDE BOX ASSY 1	**-***-********	1

EXPLODED DIAGRAM FOR INSIDE BOX



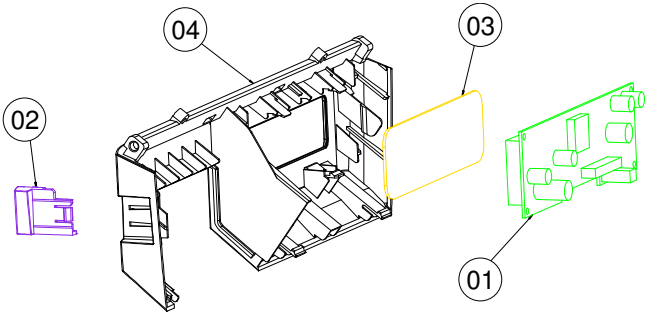
NO.	COMPONENT NAME	PART NO.	Q'TY
1	SCREW	22-122-40080011	2
2	SCREW	22-232-30060211	2
3	SYSTEM FAN ASSY	**-***-********	1
4	CPU COOLER	**-***-********	1
5	COM CABLE	27-024-16502031	1
6	RAM	**-***-********	1
7	No.4 Boss	22-692-40048051	6
8	SCREW	22-242-30005311	6
9	INSIDE BOX ASSY 2	**-***-********	1
10	OPEN CLOSED BUSHING	30-026-04300000	2



NO.	COMPONENT NAME	PART NO.	Q'TY
1	PCBA	PB-3251	1
2	BOTTOM CASE	30-001-28110220	1
3	CANOE CLIP	30-076-04200000	2
4	RUBBER FOOT	30-004-01500000	2
5	THERMAL PAD	21-006-82020002	1
6	SNAP BUSHING	30-026-04100008	1
7	WIRELESS ANTENA	27-029-00003072	1
8	ROLLER PIN	20-045-19012199	2
9	ROLLER	30-041-04100165	2
10	INSIDE BOX ASSY	20-040-03001220	1

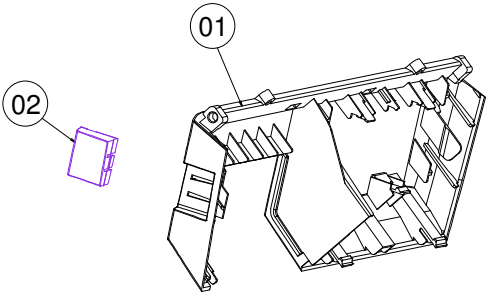
EXPLODED DIAGRAM FOR VFD

With VFD Module



NO.	COMPONENT NAME	PART NO.	Q'TY
1	VFD MOUDULE	52-901-17001703	1
2	PRINTER EJECTOR WITH PRINTER	30-002-28410199	1
3	VFD LENS	30-021-02130199	1
4	VFD COVER	30-002-28910199	1

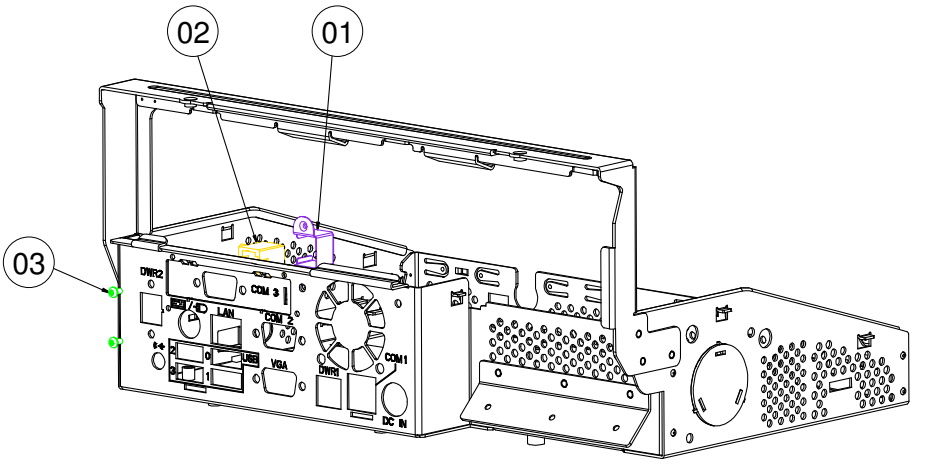
Withou VFD Module



NO.	COMPONENT NAME	PART NO.	Q'TY
1	VFD COVER	30-002-28910199	1
2	PRINTER EJECTOR WO PRINTER	30-002-28510199	1

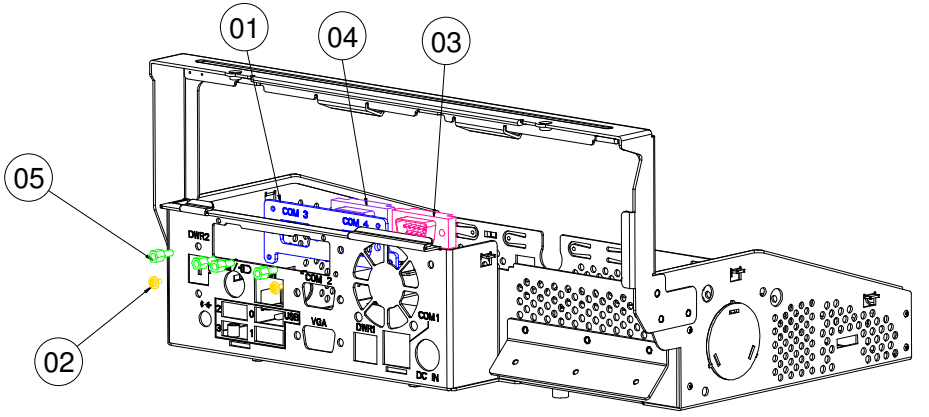
EXPLODED DIAGRAM FOR SYSTEM ASSEMBLY

Cash Drawer Port



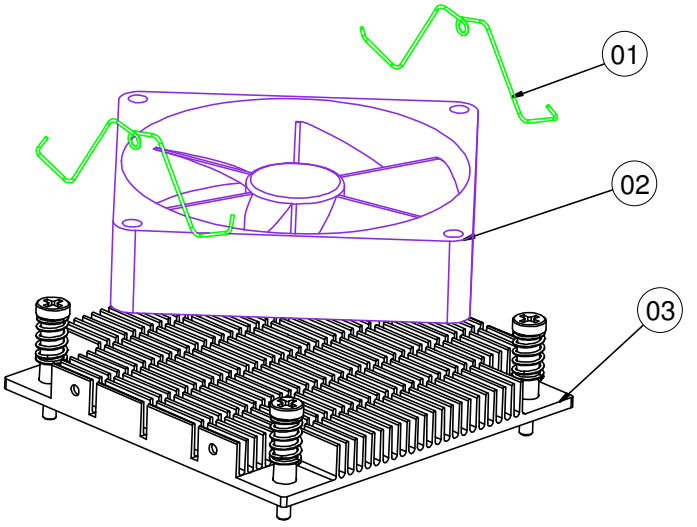
NO.	COMPONENT NAME	PART NO.	Q'TY
1	RJ-11 HOLDER	80-029-03002165	1
2	CASH DRAWER CABLE	27-026-16505111	1
3	SCREW	22-232-25004011	2

COM Port



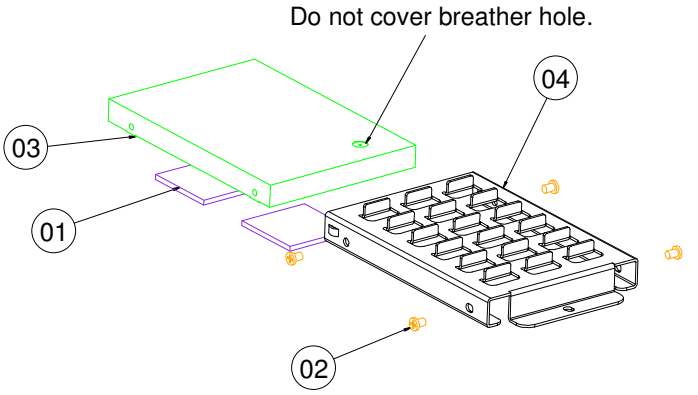
NO.	COMPONENT NAME	PART NO.	Q'TY
1	COM PORT PLATE	20-005-03001220	1
2	SCREW	22-272-20004011	2
3	COM CABLE-B	27-024-16502031	1
4	COM CABLE-A	27-024-20804031	1
5	No.4 Boss	22-692-40048051	4

CPU Cooler



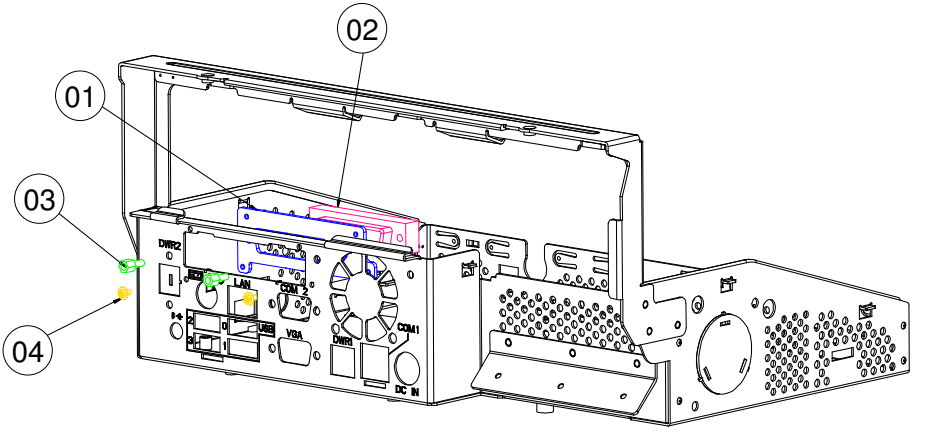
NO.	COMPONENT NAME	PART NO.	Q'TY
1	FAN SPRING CLIP	21-001-60000002	2
2	DC FAN	21-004-08080131	1
3	CPU HEATSINK	21-002-69090001	1

Hard Disk Drive



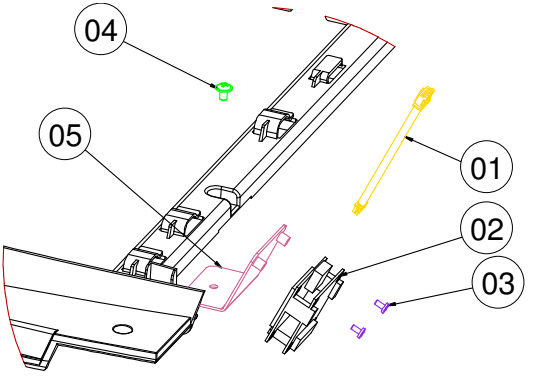
NO.	COMPONENT NAME	PART NO.	Q'TY
1	THERMAL PAD	81-006-83030004	2
2	SCREW	22-272-30004318	4
3	HDD	--	1
4	HDD HOLDER	20-029-01001165	1

LPT Port



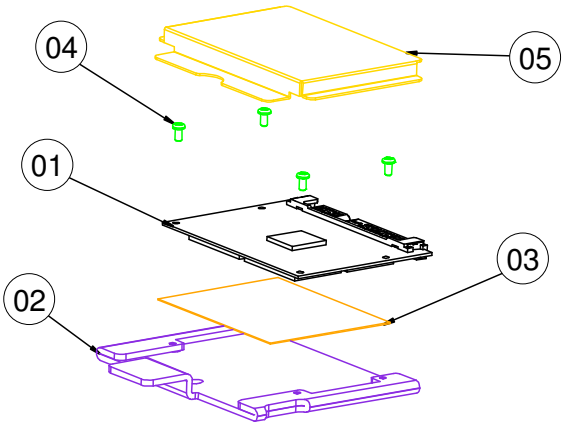
NO.	COMPONENT NAME	PART NO.	Q'TY
1	LPT PORT PLATE	20-005-03002220	1
2	LPT CABLE	27-004-22005111	1
3	No.4 Boss	22-692-40048051	2
4	SCREW	22-232-20004311	2

RFID



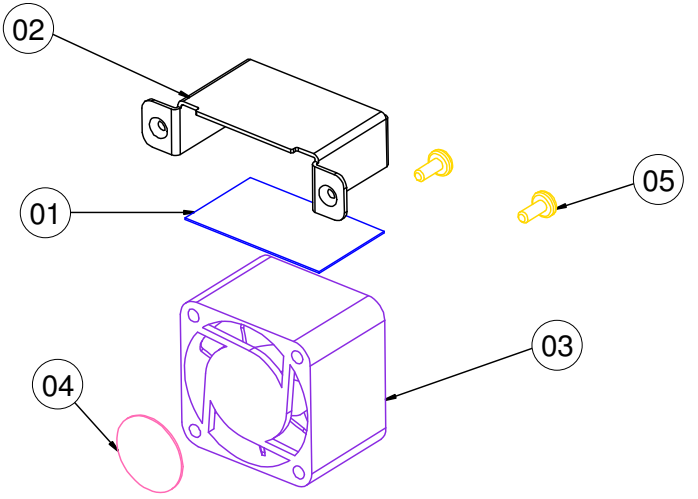
NO.	COMPONENT NAME	PART NO.	Q'TY
1	RFID CABLE	27-068-19907111	1
2	RFID MODULE	52-151-08321015	1
3	SCREW	22-272-20004011	2
4	SCREW	22-242-30005311	1
5	RFID BRACKET	20-006-03002220	1

SSD



NO.	COMPONENT NAME	PART NO.	Q'TY
1	SSD MODULE	**-***-*********	1
2	SSD BRACKET	80-006-03001199	1
3	SSD BRACKET MYLAR	90-056-05200181	1
4	SCREW	22-222-16003015	4
5	SSD COVER MYLAR	90-056-25100000	1

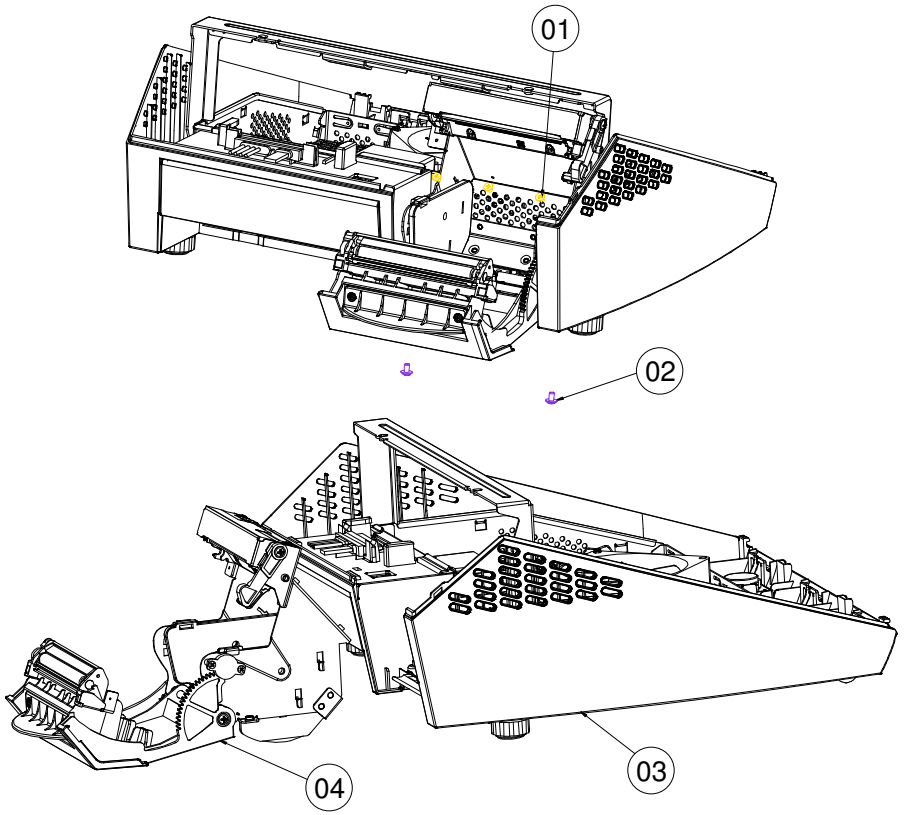
System Fan



NO.	COMPONENT NAME	PART NO.	Q'TY
1	PORON FOR FAN-B	90-013-24200220	1
2	FAN BRACKET	20-006-03001220	1
3	DC FAN	21-004-04040161	1
4	PORON FOR FAN-A	90-013-24100220	1
5	SCREW	22-122-40080011	2

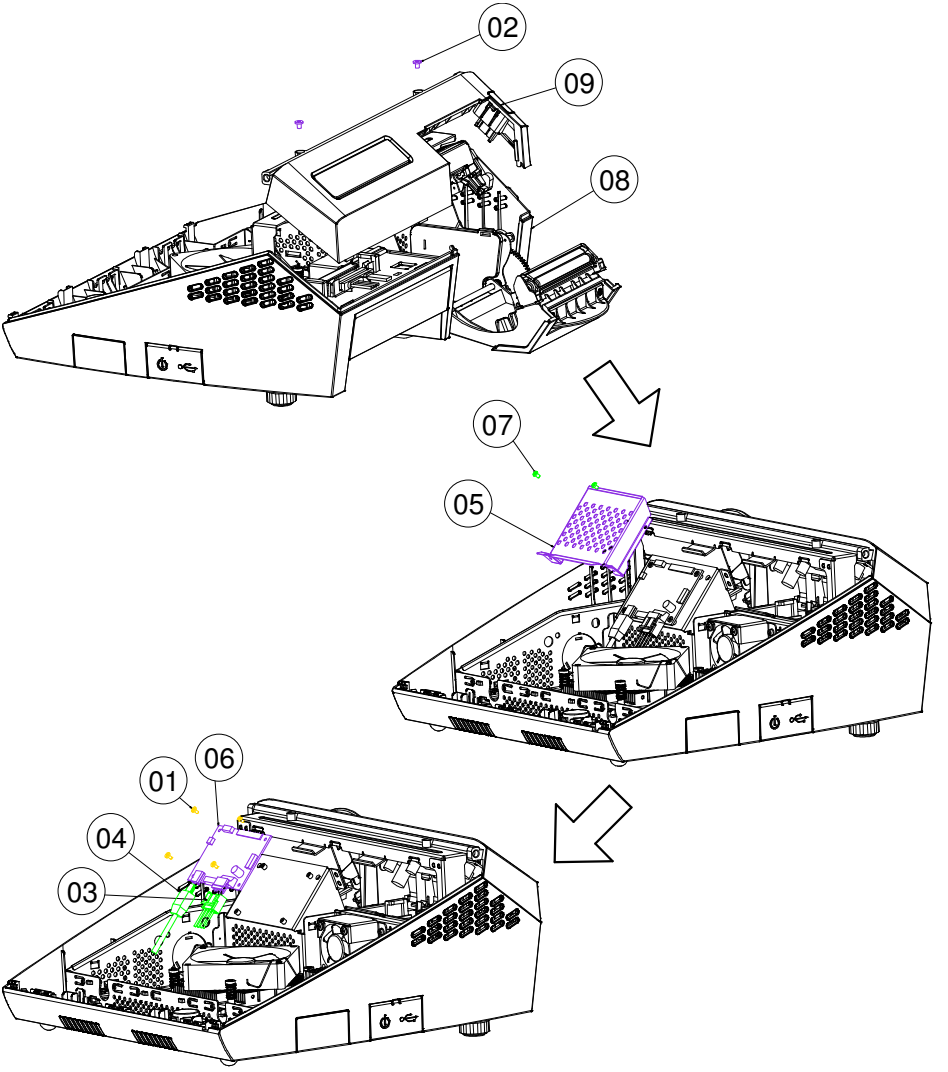
EXPLODED DIAGRAM FOR PRINTER

Printer Box



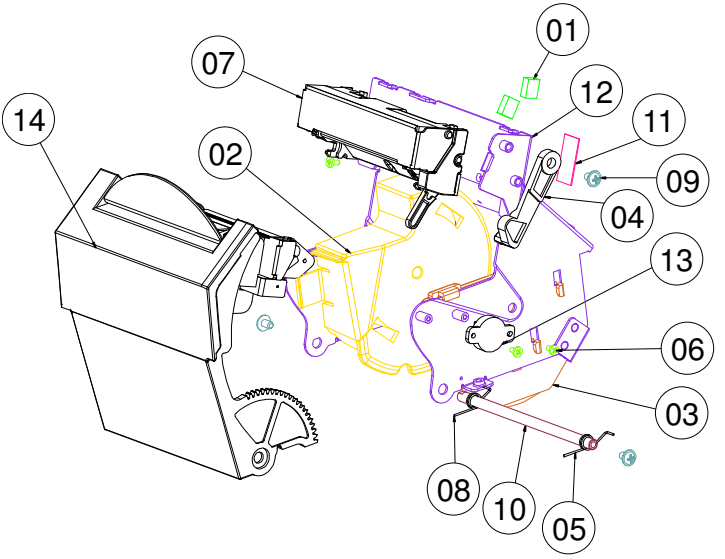
NO.	COMPONENT NAME	PART NO.	Q'TY
1	SCREW	22-222-30004011	3
2	SCREW	22-242-30005311	3
3	BOTTOM CASE ASSY 2	**-***-********	1
4	PRINTER_ASSY	**-***-********	1

Control Board



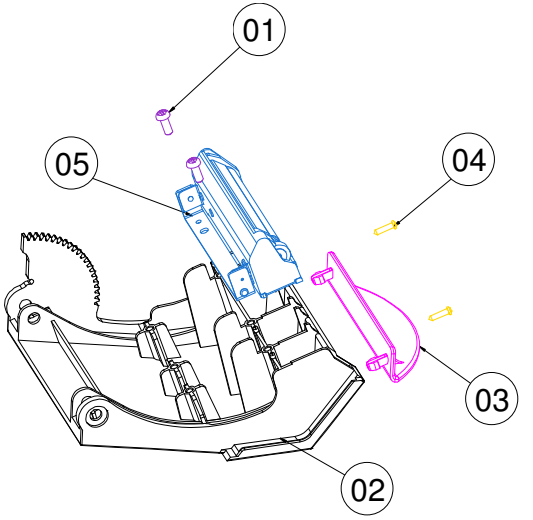
NO.	COMPONENT NAME	PART NO.	Q'TY
1	SCREW	22-272-20004011	4
2	SCREW	22-272-30004318	2
3	PRINTER POWER CABLE	27-012-16502071	1
4	PRINTER USB CABLE	27-006-16503111	1
5	PRINTER PCB COVER	20-004-03001165	1
6	PRINTER PCB	52-701-00237003	1
7	SCREW	22-232-25004011	2
8	BOTTOM CASE ASSY 1	**-***-*********	1
9	VFD COVER ASSY	**-***-*********	1

2 inch Printer



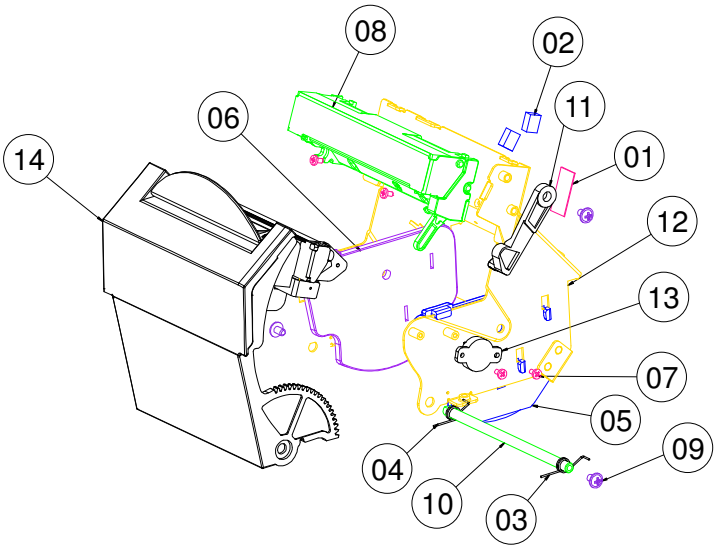
NO.	COMPONENT NAME	PART NO.	Q'TY
1	EMI SHIELDING GASKET	90-050-31100000	2
2	PRINTER 2IN PAPER WALL	30-002-28310199	1
3	3IN SIDE WALL R	30-002-28610199	1
4	PRINTER ADD ARM	30-002-09110199	1
5	PRINTER COVER SPRING R	23-000-00000502	1
6	SCREW	22-272-20004011	3
7	2IN PRINTER MOUDULE A	52-701-00020003	1
8	PRINTER COVER SPRING L	23-000-01000502	1
9	SCREW	22-242-30005311	3
10	PAPER COVER PIN	20-045-19011199	1
11	PC SHEET	90-056-02100199	1
12	PRINTER BOX3 ASSY	20-040-03002199	1
13	ROTARY DAMPER	30-002-09110000	1
14	2IN PRINTER COVER ASSY	***-***-********	1

2 inch Printer Cover



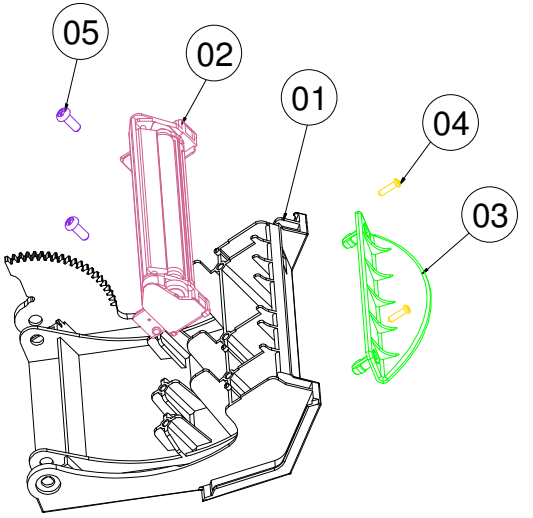
NO.	COMPONENT NAME	PART NO.	Q'TY
1	SCREW	22-122-30080011	2
2	PRINTER DOOR	30-007-28210199	1
3	PAPER HOLDER	30-012-02110165	1
4	SCREW	22-125-20008011	2
5	2IN PRINTER MOUDULE B	52-701-00020003	1

3 inch Printer



NO.	COMPONENT NAME	PART NO.	Q'TY
1	PC SHEET	90-056-02100199	1
2	EMI SHIELDING GASKET	90-050-31100000	2
3	PRINTER COVER SPRING R	23-000-00000502	1
4	PRINTER COVER SPRING L	23-000-01000502	1
5	3IN SIDE WALL R	30-002-28610199	1
6	3IN SIDE WALL L	30-002-28710199	1
7	SCREW	22-272-20004011	4
8	3IN PRINTER MOUDULE A	52-701-00017003	1
9	SCREW	22-242-30005311	3
10	PAPER COVER PIN	20-045-19011199	1
11	PRINTER ADD ARM	30-002-09110199	1
12	PRINTER BOX3 ASSY	20-040-03002199	1
13	ROTARY DAMPER	30-002-09110000	1
14	3IN PRINTER COVER ASSY	***-***-********	1

3 inch Printer Cover



NO.	COMPONENT NAME	PART NO.	Q'TY
1	PRINTER DOOR	30-007-28210199	1
2	3IN PRINTER MOUDULE B	52-701-00017003	1
3	PAPER HOLDER	30-012-02110165	1
4	SCREW	22-125-20008011	2
5	SCREW	22-122-30080011	2

TECHNICAL SUMMARY

APPENDIX

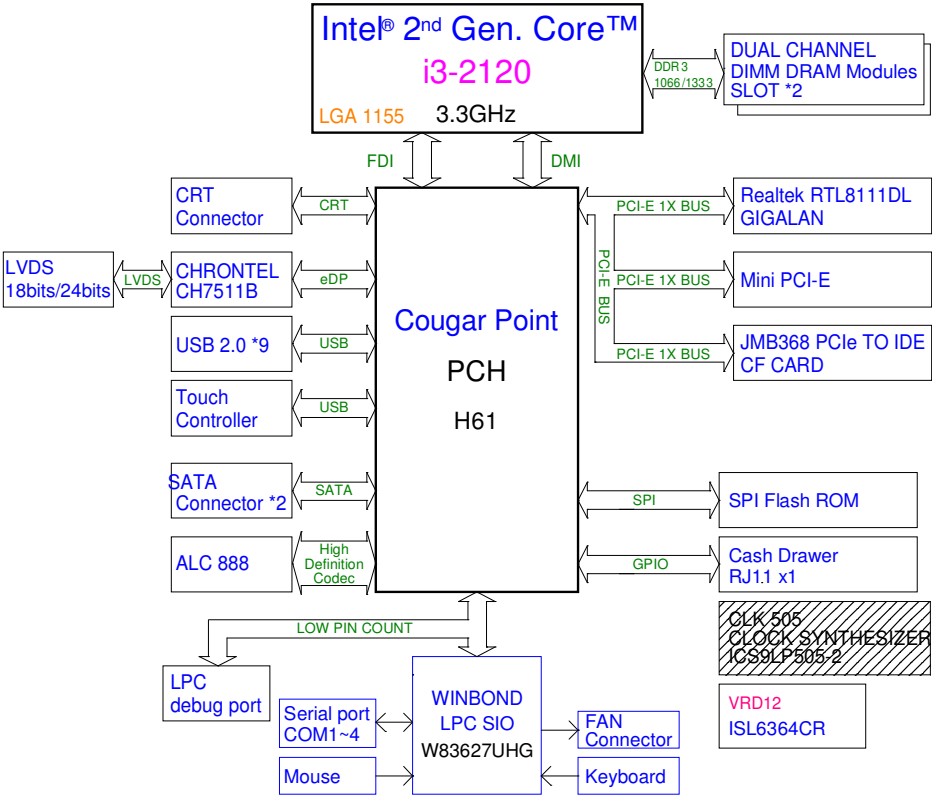
B

This appendix will give you a brief introduction of the allocation maps for the system resources.

Sections included:

- Block Diagram
- Interrupt Map
- DMA Channels Map
- I/O Map
- Watchdog Timer Configuration
- Flash BIOS Update

BLOCK DIAGRAM



INTERRUPT MAP

IRQ	ASSIGNMENT
0	System timer
3	Communications Port (COM2)
4	Communications Port (COM1)
7	Communications Port (COM3)
8	System CMOS/real time clock
10	Communications Port (COM4)
11	Intel® 6 Series/C200 Series Chipset Family SMBus Controller - 1C22
13	Numeric data processor
16	Intel® 6 Series/C200 Series Chipset Family PCI Express Root Port 1 - 1C10
16	Intel® 6 Series/C200 Series Chipset Family USB Enhanced Host Controller - 1C2D
16	Intel® Management Engine Interface
17	Intel® 6 Series/C200 Series Chipset Family PCI Express Root Port 2 - 1C12
19	Intel® 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
19	Intel® 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
22	High Definition Audio Controller
23	Intel® 6 Series/C200 Series Chipset Family USB Enhanced Host Controller - 1C26
81	Microsoft ACPI-Compliant System
82	Microsoft ACPI-Compliant System
83	Microsoft ACPI-Compliant System
84	Microsoft ACPI-Compliant System
85	Microsoft ACPI-Compliant System
86	Microsoft ACPI-Compliant System
87	Microsoft ACPI-Compliant System
88	Microsoft ACPI-Compliant System

IRQ	ASSIGNMENT
89	Microsoft ACPI-Compliant System
90	Microsoft ACPI-Compliant System
91	Microsoft ACPI-Compliant System
92	Microsoft ACPI-Compliant System
93	Microsoft ACPI-Compliant System
94	Microsoft ACPI-Compliant System
95	Microsoft ACPI-Compliant System
96	Microsoft ACPI-Compliant System
97	Microsoft ACPI-Compliant System
98	Microsoft ACPI-Compliant System
99	Microsoft ACPI-Compliant System
100	Microsoft ACPI-Compliant System
101	Microsoft ACPI-Compliant System
102	Microsoft ACPI-Compliant System
103	Microsoft ACPI-Compliant System
104	Microsoft ACPI-Compliant System
105	Microsoft ACPI-Compliant System
106	Microsoft ACPI-Compliant System
107	Microsoft ACPI-Compliant System
108	Microsoft ACPI-Compliant System
109	Microsoft ACPI-Compliant System
110	Microsoft ACPI-Compliant System
111	Microsoft ACPI-Compliant System
112	Microsoft ACPI-Compliant System
113	Microsoft ACPI-Compliant System
114	Microsoft ACPI-Compliant System
115	Microsoft ACPI-Compliant System
116	Microsoft ACPI-Compliant System
117	Microsoft ACPI-Compliant System
118	Microsoft ACPI-Compliant System
119	Microsoft ACPI-Compliant System
120	Microsoft ACPI-Compliant System

IRQ	ASSIGNMENT
121	Microsoft ACPI-Compliant System
122	Microsoft ACPI-Compliant System
123	Microsoft ACPI-Compliant System
124	Microsoft ACPI-Compliant System
125	Microsoft ACPI-Compliant System
126	Microsoft ACPI-Compliant System
127	Microsoft ACPI-Compliant System
128	Microsoft ACPI-Compliant System
129	Microsoft ACPI-Compliant System
130	Microsoft ACPI-Compliant System
131	Microsoft ACPI-Compliant System
132	Microsoft ACPI-Compliant System
133	Microsoft ACPI-Compliant System
134	Microsoft ACPI-Compliant System
135	Microsoft ACPI-Compliant System
136	Microsoft ACPI-Compliant System
137	Microsoft ACPI-Compliant System
138	Microsoft ACPI-Compliant System
139	Microsoft ACPI-Compliant System
140	Microsoft ACPI-Compliant System
141	Microsoft ACPI-Compliant System
142	Microsoft ACPI-Compliant System
143	Microsoft ACPI-Compliant System
144	Microsoft ACPI-Compliant System
145	Microsoft ACPI-Compliant System
146	Microsoft ACPI-Compliant System
147	Microsoft ACPI-Compliant System
148	Microsoft ACPI-Compliant System
149	Microsoft ACPI-Compliant System
150	Microsoft ACPI-Compliant System
151	Microsoft ACPI-Compliant System
152	Microsoft ACPI-Compliant System

IRQ	ASSIGNMENT
153	Microsoft ACPI-Compliant System
154	Microsoft ACPI-Compliant System
155	Microsoft ACPI-Compliant System
156	Microsoft ACPI-Compliant System
157	Microsoft ACPI-Compliant System
158	Microsoft ACPI-Compliant System
159	Microsoft ACPI-Compliant System
160	Microsoft ACPI-Compliant System
161	Microsoft ACPI-Compliant System
162	Microsoft ACPI-Compliant System
163	Microsoft ACPI-Compliant System
164	Microsoft ACPI-Compliant System
165	Microsoft ACPI-Compliant System
166	Microsoft ACPI-Compliant System
167	Microsoft ACPI-Compliant System
168	Microsoft ACPI-Compliant System
169	Microsoft ACPI-Compliant System
170	Microsoft ACPI-Compliant System
171	Microsoft ACPI-Compliant System
172	Microsoft ACPI-Compliant System
173	Microsoft ACPI-Compliant System
174	Microsoft ACPI-Compliant System
175	Microsoft ACPI-Compliant System
176	Microsoft ACPI-Compliant System
177	Microsoft ACPI-Compliant System
178	Microsoft ACPI-Compliant System
179	Microsoft ACPI-Compliant System
180	Microsoft ACPI-Compliant System
181	Microsoft ACPI-Compliant System
182	Microsoft ACPI-Compliant System
183	Microsoft ACPI-Compliant System
184	Microsoft ACPI-Compliant System

IRQ	ASSIGNMENT
185	Microsoft ACPI-Compliant System
186	Microsoft ACPI-Compliant System
187	Microsoft ACPI-Compliant System
188	Microsoft ACPI-Compliant System
189	Microsoft ACPI-Compliant System
190	Microsoft ACPI-Compliant System
4294967293	Realtek PCIe GBE Family Controller
4294967294	Intel® HD Graphics

Note: The resource information is gathered on Windows 7 (the IRQ may be assigned differently depending on your OS).

DMA CHANNELS MAP

DMA CHANNEL	ASSIGNMENT
4	Direct memory access controller

I/O MAP

I/O MAP	ASSIGNMENT
0x00000000-0x00000CF7	PCI bus
0x00000000-0x00000CF7	Direct memory access controller
0x00000010-0x0000001F	Motherboard resources
0x00000020-0x00000021	Programmable interrupt controller
0x00000022-0x0000003F	Motherboard resources
0x00000024-0x00000025	Programmable interrupt controller
0x00000028-0x00000029	Programmable interrupt controller
0x0000002C-0x0000002D	Programmable interrupt controller
0x0000002E-0x0000002F	Motherboard resources
0x00000030-0x00000031	Programmable interrupt controller
0x00000034-0x00000035	Programmable interrupt controller
0x00000038-0x00000039	Programmable interrupt controller
0x0000003C-0x0000003D	Programmable interrupt controller
0x00000040-0x00000043	System timer
0x00000044-0x0000005F	Motherboard resources
0x0000004E-0x0000004F	Motherboard resources
0x00000050-0x00000053	System timer
0x00000061-0x00000061	Motherboard resources
0x00000062-0x00000063	Motherboard resources
0x00000063-0x00000063	Motherboard resources
0x00000065-0x0000006F	Motherboard resources
0x00000065-0x0000006F	Motherboard resources
0x00000067-0x00000067	Motherboard resources
0x00000070-0x00000077	System CMOS/real time clock
0x00000070-0x00000077	Motherboard resources
0x00000072-0x0000007F	Motherboard resources
0x00000080-0x00000080	Motherboard resources
0x00000080-0x00000080	Motherboard resources
0x00000081-0x00000091	Direct memory access controller

I/O MAP	ASSIGNMENT
0x00000084-0x00000086	Motherboard resources
0x00000088-0x00000088	Motherboard resources
0x0000008C-0x0000008E	Motherboard resources
0x00000090-0x0000009F	Motherboard resources
0x00000092-0x00000092	Motherboard resources
0x00000093-0x0000009F	Direct memory access controller
0x000000A0-0x000000A1	Programmable interrupt controller
0x000000A2-0x000000BF	Motherboard resources
0x000000A4-0x000000A5	Programmable interrupt controller
0x000000A8-0x000000A9	Programmable interrupt controller
0x000000AC-0x000000AD	Programmable interrupt controller
0x000000B0-0x000000B1	Programmable interrupt controller
0x000000B2-0x000000B3	Motherboard resources
0x000000B4-0x000000B5	Programmable interrupt controller
0x000000B8-0x000000B9	Programmable interrupt controller
0x000000BC-0x000000BD	Programmable interrupt controller
0x000000C0-0x000000DF	Direct memory access controller
0x000000E0-0x000000EF	Motherboard resources
0x000000F0-0x000000FF	Numeric data processor
0x00000290-0x00000297	Motherboard resources
0x000002E8-0x000002EF	Communications Port (COM4)
0x000002F8-0x000002FF	Communications Port (COM2)
0x00000378-0x0000037F	Printer Port (LPT1)
0x000003B0-0x000003BB	Intel® HD Graphics
0x000003C0-0x000003DF	Intel® HD Graphics
0x000003E8-0x000003EF	Communications Port (COM3)
0x000003F8-0x000003FF	Communications Port (COM1)
0x00000400-0x00000453	Motherboard resources
0x00000454-0x00000457	Motherboard resources
0x00000458-0x0000047F	Motherboard resources
0x000004D0-0x000004D1	Motherboard resources

I/O MAP	ASSIGNMENT
0x000004D0-0x000004D1	Programmable interrupt controller
0x00000500-0x0000057F	Motherboard resources
0x00000680-0x0000069F	Motherboard resources
0x00000D00-0x0000FFFF	PCI bus
0x00001000-0x0000100F	Motherboard resources
0x0000164E-0x0000164F	Motherboard resources
0x0000E000-0x0000EFFF	Intel® 6 Series/C200 Series Chipset Family PCI Express Root Port 2 - 1C12
0x0000E000-0x0000EFFF	Realtek PCIe GBE Family Controller
0x0000F000-0x0000F03F	Intel® HD Graphics
0x0000F040-0x0000F05F	Intel® 6 Series/C200 Series Chipset Family SMBus Controller - 1C22
0x0000F060-0x0000F06F	Intel® 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
0x0000F070-0x0000F07F	Intel® 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
0x0000F080-0x0000F083	Intel® 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
0x0000F090-0x0000F097	Intel® 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
0x0000F0A0-0x0000F0A3	Intel® 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
0x0000F0B0-0x0000F0B7	Intel® 6 Series/C200 Series Chipset Family 2 port Serial ATA Storage Controller - 1C08
0x0000F0C0-0x0000F0CF	Intel® 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
0x0000F0D0-0x0000F0DF	Intel® 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
0x0000F0E0-0x0000F0E3	Intel® 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
0x0000F0F0-0x0000F0F7	Intel® 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
0x0000F100-0x0000F103	Intel® 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00

I/O MAP	ASSIGNMENT
0x0000F110-0x0000F117	Intel® 6 Series/C200 Series Chipset Family 4 port Serial ATA Storage Controller - 1C00
0x0000FFFF-0x0000FFFF	Motherboard resources
0x0000FFFF-0x0000FFFF	Motherboard resources

MEMORY MAP

MEMORY MAP	ASSIGNMENT
0xF0000000-0xF00FFFFF	Intel® 6 Series/C200 Series Chipset Family PCI Express Root Port 2 - 1C12
0xF0000000-0xF00FFFFF	Realtek PCIe GBE Family Controller
0xFED40000-0xFED44FFF	System board
0xF7C00000-0xF7C03FFF	High Definition Audio Controller
0xFED1C000-0xFED1FFFF	Motherboard resources
0xFED10000-0xFED17FFF	Motherboard resources
0xFED18000-0xFED18FFF	Motherboard resources
0xFED19000-0xFED19FFF	Motherboard resources
0xF8000000-0xFBFFFFFF	Motherboard resources
0xFED20000-0xFED3FFFF	Motherboard resources
0xFED90000-0xFED93FFF	Motherboard resources
0xFED45000-0xFED8FFFF	Motherboard resources
0xFF000000-0xFFFFFFFF	Motherboard resources
0xFF000000-0xFFFFFFFF	Intel® 82802 Firmware Hub Device
0xFEE00000-0xFEEFFFFF	Motherboard resources
0xF0004000-0xF0004FFF	Realtek PCIe GBE Family Controller
0xF7C05000-0xF7C050FF	Intel® 6 Series/C200 Series Chipset Family SMBus Controller - 1C22
0xF7C06000-0xF7C063FF	Intel® 6 Series/C200 Series Chipset Family USB Enhanced Host Controller - 1C26
0xF7800000-0xF7BFFFFF	Intel® HD Graphics
0xE0000000-0xEFFFFFFF	Intel® HD Graphics
0xF7C07000-0xF7C073FF	Intel® 6 Series/C200 Series Chipset Family USB Enhanced Host Controller - 1C2D
0xF7C09000-0xF7C0900F	Intel® Management Engine Interface
0xFED00000-0xFED003FF	High precision event timer
0xA0000-0xBFFFF	PCI bus
0xA0000-0xBFFFF	Intel® HD Graphics
0xD0000-0xD3FFF	PCI bus

MEMORY MAP	ASSIGNMENT
0xD4000-0xD7FFF	PCI bus
0xD8000-0xDBFFF	PCI bus
0xDC000-0xDFFFF	PCI bus
0xE0000-0xE3FFF	PCI bus
0xE4000-0xE7FFF	PCI bus
0x20000000-0x201FFFFF	System board
0x3EA00000-0xFEAFFFFF	PCI bus
0x3EA00000-0xFEAFFFFF	Motherboard resources
0x40000000-0x401FFFFF	System board

WATCHDOG TIMER CONFIGURATION

The I/O port address of the watchdog timer is 2E (hex) and 2F (hex). 2E (hex) is the address port. 2F (hex) is the data port. User must first assign the address of register by writing address value into address port 2E (hex), then write/read data to/from the assigned register through data port 2F (hex).

Configuration Sequence

To program W83627UHG configuration registers, the following configuration sequence must be followed:

(1) Enter the extended function mode.

(2) Configure the configuration registers.

(3) Exit the extended function mode.

(1) Enter the extended function mode

To place the chip into the Extended Function Mode, two successive writes of 0x87 must be applied to Extended Function Enable Registers (EFERs, i.e. 2Eh or 4Eh).

(2) Configure the configuration registers

The chip selects the Logical Device and activates the desired Logical Devices through Extended Function Index Register (EFIR) and Extended Function Data Register (EFDR). The EFIR is located at the same address as the EFER, and the EFDR is located at address (EFIR+1). First, write the Logical Device Number (i.e. 0x07) to the EFIR and then write the number of the desired Logical Device to the EFDR. If accessing the Chip (Global) Control Registers, this step is not required. Secondly, write the address of the desired configuration register within the Logical Device to the EFIR and then write (or read) the desired configuration register through the EFDR.

(3) Exit the extended function mode

To exit the Extended Function Mode, writing 0xAA to the EFER is required. Once the chip exits the Extended Function Mode, it is in the normal running mode and is ready to enter the configuration mode.

Code example for watchdog timer

Enable watchdog timer and set 30 sec. as timeout interval.

```
;------ Enter to extended function mode ------------------------------------------------------
Mov     dx,     2eh
Mov     al,     87h
Out     dx,     al
Out     dx,     al
;------ Select Logical Device 8 of watchdog timer ----------------------------------------------
Mov     al,     07h
Out     dx,     al
Inc     dx
Mov     al,     08h
Out     dx,     al
;------ Set second as counting unit ------------------------------------------------------------
Dec     dx
Mov     al,     0f5h
Out     dx,     al
Inc     dx
In      al,     dx
And     al,     not 08h
Out     dx,     al
;------ Set timeout interval as 30seconds and start counting ----------------------------------
Dec     dx
Mov     al,     0f6h
Out     dx,     al
Inc     dx
Mov     al,     30
Out     dx,     al
;------ Exit the extended function mode --------------------------------------------------------
Dec     dx
Mov     al,     0aah
Out     dx,     al
```

Flash BIOS Update

I. Before System BIOS Update

1. Prepare a bootable media (ex. USB storage device) which can boot system to DOS prompt.
2. Download and save the BIOS file (ex. 32511P01.bin) to the bootable device.
3. Copy AMI flash utility – AFUDOS.exe (v3.04) into bootable device.

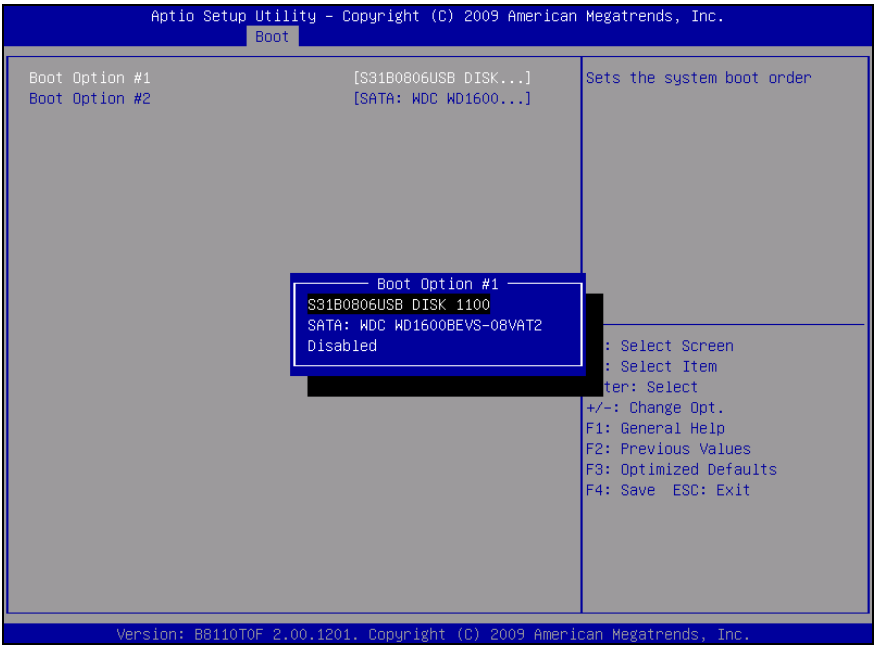
```
C:\AFUDOS>dir

 Volume in drive C has no label
 Volume serial Number is 0846-7844
 Directory of C:\AFUDOS

.              <DIR>         03-01-13  2:56p
..             <DIR>         03-01-13  2:56p
AFUDOS   EXE       167,152  11-12-12  3:12p
AFUDOS   TXT        11,357  11-16-12  1:49p
README   TXT         4,338  10-09-12  2:17p
AMI_AP~1 PDF       244,262  11-15-12  1:49p
32511P01 BIN     8,388,608  06-20-13  9:12a
         5 file(s)      8,815,717 bytes
         2 dir(s)        5,242.82 MB free

C:\AFUDOS>
```

4. Make sure the target system can first boot to the bootable device.
   a. Connect the bootable USB device.
   b. Turn on the computer and press <ESC> or <Del> key during boot to enter BIOS Setup.
   c. System will go into the BIOS setup menu.
   d. Select [Boot] menu.
   e. Select [Hard Drive BBS Priorities], set the USB bootable device to be the 1st boot device.
   f. Press <F4> key to save configuration and exit the BIOS setup menu.


Aptio Setup Utility – Copyright (C) 2009 American Megatrends, Inc.
Boot
Boot Option #1
Boot Option #2
[S31B0806USB DISK...]
[SATA: WDC WD1600...]
Sets the system boot order
Boot Option #1
S31B0806USB DISK 1100
SATA: WDC WD1600BEVS-08VAT2
Disabled
: Select Screen
: Select Item
ter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save ESC: Exit
Version: B8110T0F 2.00.1201. Copyright (C) 2009 American Megatrends, Inc.

II. AFUDOS Command for System BIOS Update

AFUDOS.exe is the AMI firmware update utility; the command line is shown as below:

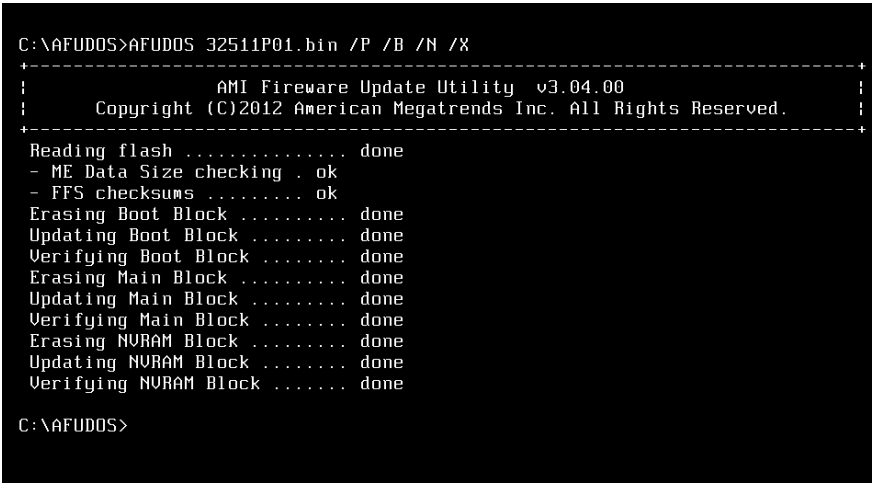
AFUDOS <BIN File Name> [option1] [option2]….

You can type "AFUDOS/ ?" to see all the definition of each control options. The recommended options for BIOS ROM update include following parameters:

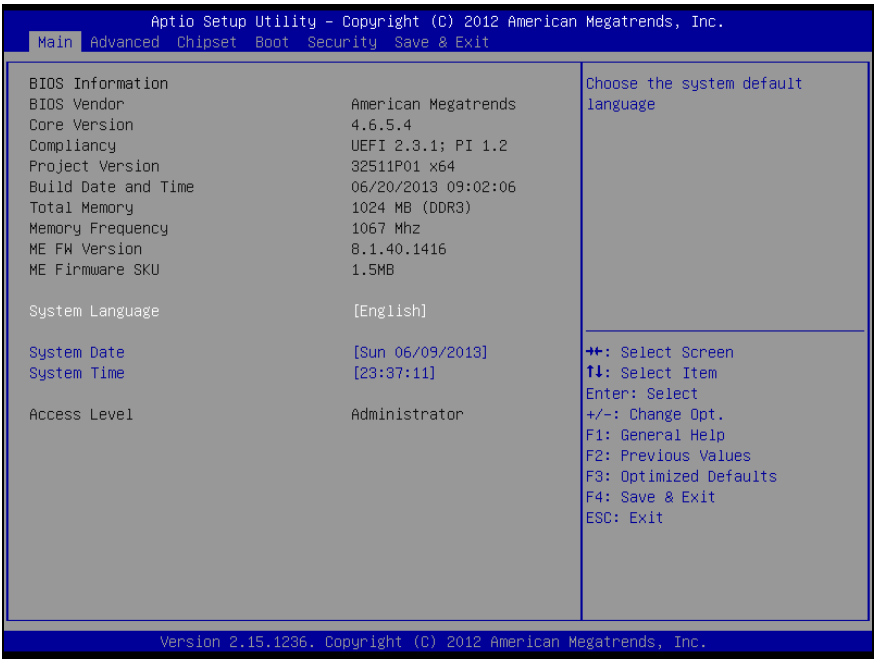
/P: Program main BIOS image
/B: Program Boot Block
/N: Program NVRAM
/X: Do not check ROM ID

III. BIOS Update Procedure

1. Use the bootable USB storage to boot up system into the DOS command prompt.
2. Type "**AFUDOS 3251xxxx.bin /p /b /n /x"** and press enter to start the flash procedure.
   (Note that xxxx means the BIOS revision part, ex. 0P01…)
3. During the update procedure, you will see the BIOS update process status and its percentage. Beware! Do not turn off system power or reset your computer if the whole procedure are not complete yet, or it may crash the BIOS ROM and make system unable to boot up next time.
4. After BIOS update procedures is complete, the messages should be like the figure shown below.



5. You can restart the system and boot up with new BIOS now.
6. Update is complete after restart.
7. Verify during following boot that the BIOS version displayed at initialization screen has changed.
   a. Turn on the computer and press <Esc> or <Del> key during boot to enter BIOS Setup.
   b. System will go into the BIOS setup menu.
   c. Select [Main] menu.
   d. Check Project Version


Aptio Setup Utility – Copyright (C) 2012 American Megatrends, Inc.
Main Advanced Chipset Boot Security Save & Exit
BIOS Information
BIOS Vendor American Megatrends
Core Version 4.6.5.4
Compliancy UEFI 2.3.1; PI 1.2
Project Version 32511P01 x64
Build Date and Time 06/20/2013 09:02:06
Total Memory 1024 MB (DDR3)
Memory Frequency 1067 Mhz
ME FW Version 8.1.40.1416
ME Firmware SKU 1.5MB
System Language [English]
System Date [Sun 06/09/2013]
System Time [23:37:11]
Access Level Administrator
Choose the system default language
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit
Version 2.15.1236. Copyright (C) 2012 American Megatrends, Inc.

QUICK MANUAL

APPENDIX

C

This appendix illustrates the installation and setting of the 2nd display.

Sections included:

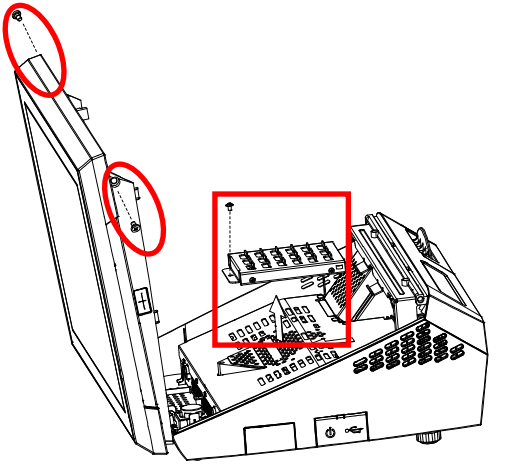
- Installation of 8" / 10.4" 2nd Display
- Display Settings

Installation of 8" / 10.4" 2nd Display

Packing Checklist:

Items	Quantity
8" / 10.4 LCD (2nd Display)	1
LCD Bracket	1
VGA Cable	1
LCD Bracket Fixed Screw (M4)	4
LCD Fixed Screw (M3)	3

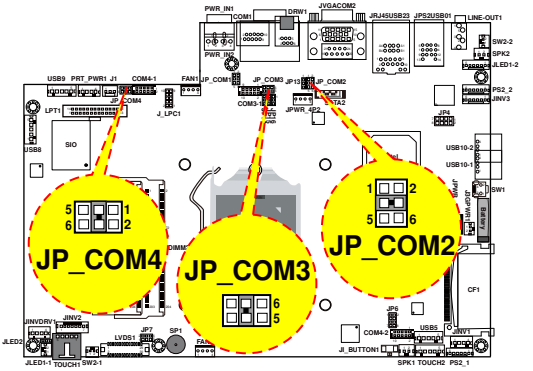
Step1.
Open the front cover and remove the HDD with care.



Step 2.
Take off the metal shield.

Step 3.

Set JP_COM2, JP_COM3 or JP_COM4 jumpers as VCC12 (12V DC) by referring to the section *2-5. COM PORT RI & VOLTAGE SELECTION* of Chapter 2.

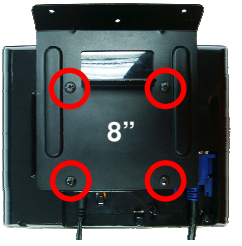


Step 4.

Secure back the metal shield, HDD and the front cover in place with scews.

Step 5.

Mount the 8" / 10.4" LCD on the bracket with four M4 screws (longer ones).



Step 6.

Plug the VGA & power cables to the system I/O ports by referring to the section *1-2. POS SYSTEM ILLUSTRATION* of Chapter 1. Then connect the other ends to VGA & COM ports of the 8" / 10.4" LCD 2nd display

Step 7.
Secure the LCD bracket onto the rear side of the front cover to with M3 screws (shorter ones).

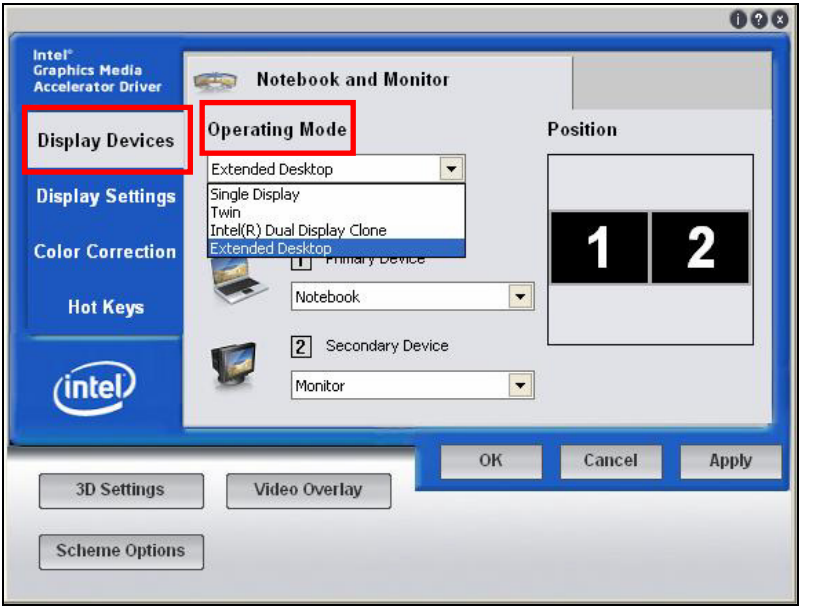
Step 8.
Put back the POS-6630 front cover and gather the cables with cable ties if necessary.

Finished view

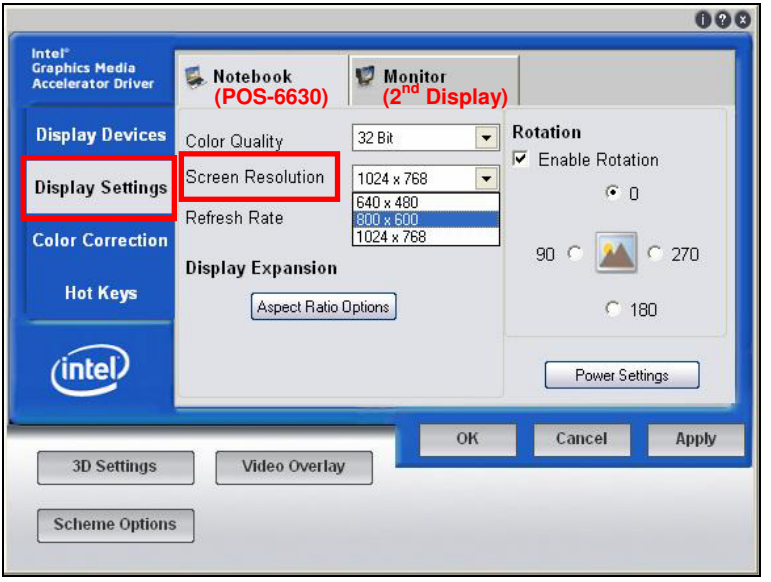
Display settings

1. Power on your POS-6630, tap the icon of the VGA driver utility on the taskbar and select “Graphic Properties” to start the utility.

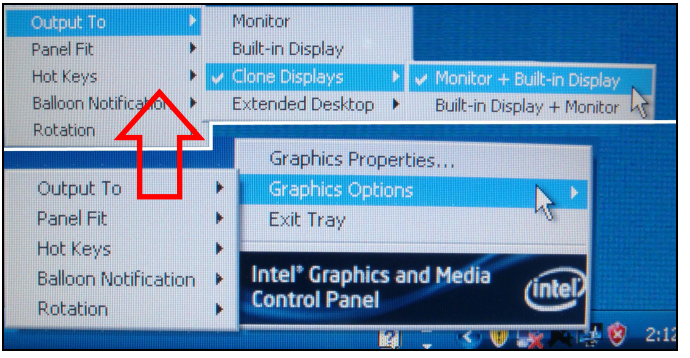
2. Tap “Display Devices” on the left. Select “Extended Desktop” for the operating mode and set the primary device as “Notebook” and the secondary device as “Monitor.”



3. Tap "Display Settings" on the left. Select the screen resolution "1024 x 768"for Notebook and 800 x 600" for Monitor.



Caution: The screen image will be transmitted by VGA port (on rear I/O, D-sub 15 pin) after VGA driver is installed in Windows XP series platform for POS-6630 adopts an Intel® Desktop solution. Follow the screenshot below to link the display device to revise the screen setup.



Note: If a clone mode is desired, tap "Display Devices", select "Intel(R) Dual Display Clone" for the operating mode, and make the screen resolution of both POS-6630 (Notebook) and the 2nd display (Monitor) at "800 x 600" for the best performance.