User Manual

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Orion Performance



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Safety

IMPORTANT SAFETY INSTRUCTIONS

- 1. To disconnect the machine from the electrical Power Supply, turn off the power switch and remove the power cord plug from the wall socket. The wall socket must be easily accessible and in close proximity to the machine.
- 2. Read these instructions carefully. Save these instructions for future reference.
- 3. Follow all warnings and instructions marked on the product.
- 4. Do not use this product near water.
- 5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- 6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
- 7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- 8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
- 9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

CE MARK

CE

This device complies with the requirements of the EEC directive 2004/108/EC with regard to "Electromagnetic compatibility" and 2006/95/EC "Low Voltage Directive"

FCC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation

CAUTION ON LITHIUM BATTERIES

There is a danger of explosion if the battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.



Battery Caution

Risk of explosion if battery is replaced by an incorrectly type. Dispose of used battery according to the local disposal instructions.



Safety Caution

Note: To comply with IEC60950-1 Clause 2.5 (limited power sources, L.P.S) related legislation, peripherals shall be 4.7.3.2 "Materials for fire enclosure" compliant.

4.7.3.2 Materials for fire enclosures

For MOVABLE EQUIPMENT having a total mass not exceeding 18kg.the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of V-1 CLASS MATERIAL or shall pass the test of Clause A.2.

For MOVABLE EQUIPMENT having a total mass exceeding 18kg and for all STATIONARY EQUIPMENT, the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of 5VB CLASS MATERIAL or shall pass the test of Clause A.1

LEGISLATION AND WEEE SYMBOL

2002/96/EC Waste Electrical and Electronic Equipment Directive on the treatment, collection, recycling and disposal of electric and electronic devices and their components.



The crossed dustbin symbol on the device means that it should not be disposed of with other household wastes at the end of its working life. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal.

Revision History

Revision	Date	Description
V 1.0	February, 2012	Initial release
V 1.1	August, 2013	Minor adjustments

Changes to the original user manual are listed below:

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1 Item Checklist

Take the unit out of the carton. Remove the unit from the carton by holding it by the foam inserts. The following contents should be found in the carton:

1-1 Standard Items





a. System



c. Driver CD

b. Power cable



d. Two keys

System View

2-1 Front View



2-2 Rear View



Note: The maximum current that can be drawn from each COM port is 500 mA.



DC output 24V Pin Assignment

4

3 System Assembly & Disassembly

3-1 Removing the Front Cover



a. Use the key to unlock the front cover.



b. Lift the front cover as shown in the picture.



c. Remove the front cover.

3-2 Removing the Top Cover

To remove the top cover, please open the front cover first as described in chapter 3-1.



 Loosen the thumb screws (4) (two from each side) to release the top cover from the system.

3-3 Replacing the HDD

To replace the HDD, please open the front cover first as described in chapter 3-1 and 3-2.



a. Loosen the thumb screw (1) to pull down the locking bar.



b. Pull the HDD holder out and replace the HDD.

3-4 Replacing the DVD-ROM

To replace the DVD-ROM, please open the front cover first as described in chapter 3-1.



a. Loosen the thumb screw (1).



b. Disconnect the cable from the DVD-RW (1).



c. .Pull the DVD-ROM holder out.

3-5 Replacing the Power Supply

To replace the power supply, please open the front and top cover fist as described in chapter 3-1 and 3-2.



a. Remove the screw (1) from the power supply



b. Remove the screw (2) and then remove the extension module by gently pulling it upwards.



c. Remove the screw to separate the HDD module as shown in the picture.





d. Disconnect the cable (2) of the power supply.



e. Remove the screws (3) to separate the power supply from the holder and replace the PSU

3-6 Replacing the I/O & PCI Extension Module

To replace the I/O and PCI extension module, please open the front and top cover first as described in chapter 3-1 and 3-2.



a. Remove the screw (1) and then remove the extension module by gently pulling it upwards.

3-7 Replacing the Memory

To replace the memory, please open the front and top cover first (see chapter 3-1 and 3-2). Then remove the power supply cable and I/O & PCI extension module (see chapter 3-5 steps a, b and c)



a. Remove the RAM by pulling 2 white levers down to release the RAM stick

4 Peripheral Installation

4-1 Wireless LAN Installation

To Install the wireless LAN, please open the front and top cover first (see chapter 3-1 and 3-2). Then remove the power supply cable and I/O & PCI extension module (see chapter 3-5 steps a, b and c)





a. Assemble the coaxial cable, nut, washer and the external cable as above picture instructs.



Insert the WLAN card into the mPCI-e slot on the motherboard and secure it with the screw.
 Connect the other end of the antenna coaxial cable to the "Main" (or 1) connector on the WLAN card.

4-2 mSata SSD Card Installation

To Install the mSata SSD card, please open the front and top cover first (see chapter 3-1 and 3-2).



a. Find the mSata SSD card slot at the back side of the HDD docking board.



b. Slide the mSata SSd card into the slot until it snaps in place and then fasten the screw (1).

4-3 Cash Drawer Installation

You can install a cash drawer through the cash drawer port. Please verify the pin assignment before installation.

Cash Drawer Pin Assignment



Cash Drawer Controller Register

The Cash Drawer Controller use one I/O addresses to control the Cash Drawer.

Register Location: 48Ch

Attribute: Read / Write

Size: 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute	Reserved	Read	Reserved		Wr	ite	Rese	erved



Bit 7: Reserved

Bit 6: Cash Drawer "DIN bit0" pin input status.

- = 1: the Cash Drawer closed or no Cash Drawer
- = 0: the Cash Drawer opened

- Bit 5: Reserved
- Bit 4: Reserved
- Bit 3: Cash Drawer "DOUT bit1" pin output control.
 - = 1: Opening the Cash Drawer
 - = 0: Allow close the Cash Drawer
- Bit 2: Cash Drawer "DOUT bit0" pin output control.
 - = 1: Opening the Cash Drawer
 - = 0: Allow close the Cash Drawer
- Bit 1: Reserved
- Bit 0: Reserved

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

Cash Drawer Control Command Example

Use Debug.EXE program under DOS or Windows98

Cor	nmand	Cash Drawer			
04	8C 04	Opening			
04	8C 00	Allow to close			
Set the I/O address 48Ch bit2 =1 for opening Cash Drawer by "DOUT I		8Ch bit2 =1 for opening Cash Drawer by "DOUT bit0"			
pin control.					
\triangleright	Set the I/O address 48Ch bit2 = 0 for allow close Cash Drawer.				

Co	mmand	Cash Drawer
14	8C	Check status
\triangleright	The I/O address 48Ch	bit6 =1 mean the Cash Drawer is opened or not exist.
\triangleright	The I/O address 48Ch	bit6 =0 mean the Cash Drawer is closed.

Specification

Model Name	POS 5000	
Motherboard	C69	
	Intel Sandy Bridge CPU	
	i7-2600 3.4G, L2 8M, TDP 95W	
	i5-2400 3.1G, L2 6M, TDP 95W	
CPU	i3-2120 3.3G, L2 3M, TDP 65W	
	Pentium G850 2.9G, L2 3M, TDP 65W	
	Celeron G540 2.5G, L2 2M, TDP 65W	
Chipset	Q67	
System memory	2 x DIMM slot up to 16GB DDR3 1066/1333MHz	
Crenkie menery	Intel HD Graphics 2000/3000, Integrated in CPU, frequency	
Graphic memory	850MHz, (dynamic frequency up to 1.1GHz)	
Storage		
HDD	2 x 3.5" SATA HDD bays	
SSD	2x 2.5" SATA SSD with the adapter	
Expansion		
Riser Card Expansion	PCI, PCI-express x16, PCI-express x4 for the powered USB Hub	
External I/O Ports		
Front I/O		
USB 2.0	2 (one is hidden behind the front cover)	
Rear I/0		
USB 2.0	4	
PS/2	1	
	5 x DB-9/M	
Carial (OOM	(COM1/COM2/COM3/COM4/COM5 standard RS-232 without	
Serial / COM	power by default or with power enable / disable 5V/12V by BIOS	
	selecting)	
Parallel	1	
GigaLAN(10/100/1000)	2 x RJ-45	
VGA	1 (with power option +12V by BIOS setting)	
Cash drawer port	1 x RJ-11(12V/24V, default setting 24V)	
Display port	1	
Line-out	1	

Mic-in	1	
24V power output	1	
Kensington Lock	1	
DC-12V out	1	
Power		
Power	Internal ATX 330W power supply	
Control / Indicator		
Power switch	1	
PWR indicator LED (Blue)	1	
HDD indicator LED (Blue)	1	
Communication		
	half-size miniCARD type (PCI-E), 802.11 a/b/g/n wireless LAN card	
WITCHESS LAIN	& antenna (option)	
Option		
Serial RS232/ 422 / 485	1 (PCI bracket for COM6 with Ring)	
mSATA SSD	Standard mSATA SSD (full-size miniCARD type)	
Powered USB module	Powered USB (1 x 24, 2 x 12V, 1 x 5V) & 4 x standard USB	
SATA ODD	DVD RW +/-	
Raid	RAID 0, RAID 1(Hot swappable HDDs)	
Environment		
EMC & safety	FCC Class A, CE, LVD	
Operating temperature	0°C ~ 35°C (32°F ~ +95°F)	
Storage temperature	-20°C ~ 60°C (-4°F ~ 140°F)	
Operating humidity	20% ~ 85% RH non-condensing	
Storage humidity	20% ~ 85% RH non condensing	
Dimension (W x D x H)	270 x 300 x 120 mm (10.6" x 11.8" x 4.7")	
Weight (N.W./G.W.)	8Kg / 9Kg	
	Windows® XP Professional, POSReady 2009, Windows 7	
US Support	Professional, POSReady 7, Linux	

6 Jumper Settings

6-1 C69 Motherboard Layout



6-2 Connectors & Functions

Connector	Function
CN1	Power Button Connector
CN2	Power LED
CN3	HDD LED
CN4	SPI Flash
CN5	IrDA
CN6	CD-IN & LINE-IN
CN7	СОМ6
CN8	DVI
CN9	LAN LED
CN10	System Diagnostic
CN11/12	HDD Power
CN13	Audio Board
CN14	LAN LED
CN15	DC 12V out
DDR3_A1/DDR3_B1	DDR3 240pin DIMM
DP1	display port
PRN1	printer port
PCIE_SLOT1	Riser Card
MINI_PCIE1	MINI_PCI1
PWR1	+12V Input Connector
PWR2	ATX Power Connector
PWR3	+24V Output Connector
PWR4	+12V Input Connector
RJ11_1	cash drawer
RJ45_1/RJ45_2	USB+LAN
USB1/USB2	USB port
VGA1	VGA port
JP1/3	RS232/485/422 Setting
JP2	System Indicator
JP4	H/W Reset
JP5	RTS Reset
JP6	ME update
JP13	Cash Drawer Power Setting
JP14	Auto Button
JP15	COM1 Power Setting
JP16	COM2 Power Setting
JP17	COM3 Power Setting
JP18	COM4 Power Setting
JP19	COM5 Power Setting

6-3 Jumper Settings

COM6 RS232/485/422 Setting

Function	JP1	JP3
▲ RS232	1 3 5 7 9 • • • • • • • • • • • • • • 2 4 6 8 10	1 3 5 7 9 11 0 0 0 0 0 2 4 6 8 1012
RS485	1 3 5 7 9 0 0 0 0 0 2 4 6 8 10	1 3 5 7 9 11 0 0 0 0 2 4 6 8 1012
RS422	1 3 5 7 9 0 0 0 0 2 4 6 8 10	1 3 5 7 9 11 0 0 0 0 0 0 0 2 4 6 8 1012



COM1 Power Setting

Pin	Function	JP15
1	▲ +5V	1 3 5 7 □ □ □ □ □ □ 2 4 6 8
	+12V	1 3 5 7 0 0 0 2 4 6 8
9	+5V	1 3 5 7 0 0 0 0 2 4 6 8
	+12V	1 3 5 7 0 0 0 0 2 4 6 8



COM2 Power Setting

Pin	Function	JP16
1	▲ +5V	1 3 5 7 □ □ □ □ □ □ 2 4 6 8
	+12V	1 3 5 7 0 0 0 2 4 6 8
9	+5V	1 3 5 7 0 0 0 0 2 4 6 8
	+12V	1 3 5 7 0 0 0 0 2 4 6 8



COM3 Power Setting

Pin	Function	JP17
1	▲ +5V	1 3 5 7 □ □ □ □ □ □ 2 4 6 8
	+12V	1 3 5 7 0 0 0 2 4 6 8
9	+5V	1 3 5 7 0 0 0 0 2 4 6 8
	+12V	1 3 5 7 0 0 0 0 2 4 6 8



COM4 Power Setting

Pin	Function	JP18
1	▲ +5V	1 3 5 7 □ □ □ □ □ □ 2 4 6 8
Ĩ	+12V	1 3 5 7 0 0 0 2 4 6 8
0	+5V	1 3 5 7 0 0 0 0 2 4 6 8
9	+12V	1 3 5 7 0 0 0 0 2 4 6 8



COM5 Power Setting

Pin	Function	JP19
1	▲ +5V	1 3 5 7 □ □ □ □ □ □ 2 4 6 8
Ĩ	+12V	1 3 5 7 0 0 0 2 4 6 8
0	+5V	1 3 5 7 0 0 0 0 2 4 6 8
9	+12V	1 3 5 7 0 0 0 0 2 4 6 8



System Indicator

Function	JP2
▲ Disable	1 3 5 7 • • • • • 2 4 6 8
Enable	1 3 5 7 0 0 0 0 2 4 6 8

ME Update

Function	JP6
▲ Lock	1 0 2
Unlock	1 • 2

Cash Drawer Power Setting

Function	JP13
▲ +24V	1 3 • • • • 2 4
+12V	1 3 0 1 2 4

▲ = Manufacturer Default Setting





7 BIOS Settings

You can check or modify your BIOS settings in the BIOS Setup utility.

To access the BIOS Setup utility, power on the system, and press the key a few times.

Note: The BIOS setup menus shown in this section are for reference only and may not exactly match the items of your BIOS version.

BIOS Main menu

When the BIOS Main Screen shows basic information, such as BIOS version, system memory, time and date.

			BIOS SE	TUP UTILITY		
Main	Advanced	PCIPnP	Boot	Security	Chi	ipset Exit
System	Overview					Use [ENTER], [TAB] or [SHIFT_TAB] to
AMIBIOS Version Build I	5 n :C486-084 Date:01/05/11					select a field. Use [+] or [-] to configure system Time.
Process	50r					
Speed Count	:255MHz :255					
System	Memory					
Size	:1014MB					← Select Screen
System System	Time Date		[15:4 [Thu	6:03] 01/06/2011]		T4 Select Item +- Change Field Tab Select Field F1 General Help F10 Save and Exit ESC Exit
	u02.68 (C) Comurciada	f 1985-2	009. Americar	n Mer	ratrends. Inc.

Advanced menu

Use this menu to set the Advanced Features available on the system.

			BIOS SE	TUP UTILITY			
Main	Advanced	PCIPnP	Boot	Security	Chi	ipset	Exit
Main Advanced WARNING > CPU Co > IDE Co > Super] > Hardwa > ACPI Co > AHCI CO > APM Co > POwer > MPS Co > PCI Ep > USB Co	Advanced i Settings : Setting way may cause onfiguration configuration Configuration Configuration Configuration configuration kpress Configuration onfiguration	PCIPnP rong value system to n ation Configurat on on ion COM/VG n iguration n	Boot s in bel malfunc ion A Ports	Security ow sections tion.	Chi	¢ Confi ↑↓ Enter F1 F10 ESC	Exit gure CPU. Select Screen Select Item Go to Sub Screen General Help Save and Exit Exit
	uA2.68_0	C) Comuriad	+ 1985-2	AA9. America	n Mer	ESC	Exit
	v02.68 ((C) Copyr igh	t 1985-2	009, America	n Meg	fatrend	s, Inc.

PCIPnP menu

Use this menu to check or change the values of advanced PCI/PnP settings.

	BIOS SETUP UTILITY					
Main Advanced PCIPnP	Boot Security	Chipset Exit				
Advanced PCI/PnP Settings		Clear NVRAM during				
WARNING: Setting wrong value may cause system to	WARNING: Setting wrong values in below sections may cause system to malfunction.					
Clear NURAM Plug & Play O/S PCI Latency Timer Allocate IRQ to PCI VGA Palette Snooping PCI IDE BusMaster OffBoard PCI/ISA IDE Card IRQ3 IRQ4 IRQ5 IRQ6 IRQ7 IRQ9 IRQ10	[No] [No] [64] [Yes] [Disabled] [Enabled] [Auto] [Auto] [Auailable] [Auailable] [Auailable] [Auailable] [Auailable] [Auailable] [Auailable]	 ← Select Screen ↑↓ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit 				
v02.68 (C)Copyrigh	t 1985-2009, America	an Megatrends, Inc.				

Boot menu

Use this menu to check or change your boot preferences.

			BIOS SE	TUP UTILITY			
Main	Advanced	PCIPnP	Boot	Security	Ch	ipset	Exit
Boot S	ettings						Options
Lan	Boot ROM		[Disa	bled]		Enable Disabl	d ed
► Boot	Settings Co	nfiguratio	m				
► Boot ► Alwa	Device Prio ys First Boo	rity t Device P	riority				
						← S †↓ +- F1 F10 ESC	elect Screen Select Item Change Option General Help Save and Exit Exit
	v02.68 (C) Copyr igh	t 1985-2	009, America	ın Meç	gatrends	, Inc.

Security menu

Use this menu to set security passwords.

			BIOS SE	TUP UTILITY		
Main	Advanced	PCIPnP	Boot	Security	Ch	ipset Exit
Secur i Superv User P Change Clear	ty Settings isor Password assword Supervisor I User Password User Password	PCIPHP d :Not Ins :Not Ins Password rd d	stalled stalled			★ Select Screen ↑↓ Select Item Enter Change F1 General Help F10 Save and Exit ESC Exit
	v02.68 (C) Copyr igł	nt 1985-2	009, American	n Me	gatrends, Inc.

Chipset menu

Use this menu to check or modify chipset parameters.



Exit menu

Use this menu to save or discard any changes you have made.

Select **Load Optimal Defaults** to return the BIOS settings to the original factory settings.

			BIOS SE	TUP UTILITY		
Main A	Idvanced	PCIPnP	Boot	Security	Chipset	Exit
Exit Opti Save Chan Discard C Discard C Load Opti Load Fail	oms Iges and E Changes an Changes mal Defau safe Defa	xit d Exit lts ults			Chipset Exit afte chan F10 for for f1 f10 for F10 for Exc	Select Screen Select Item r Go to Sub Screen General Help Save and Exit Exit
	A2 60-6	01.0	(4005-0	000 A 1		1
	002.68 (Clopyrigh	t 1985-2	009, America	n Megatren	ds, Inc.

Appendix

Drivers Installation:

The shipping package includes a Driver CD. You can find every individual driver and utility that enables you to install the drivers in the Driver CD.

Please insert the Driver CD into the drive and double click on the "index.htm" to pick up the models. You can refer to the drivers installation guide for each driver in the "Driver/Manual List".