MÖDT

Cool Stuff is Hot Stuff, MoDT is the Right Stuff

AOpen

mini ITX nMCP7AUt-V series

Enable the Power of mini ITX Form Factor

Easy Installation Guide

- Energy Saving
- Silent
- AV
- Thermal

MoDT is initiated by AOpen since 2004

RJ45 LAN Jack

Mouse Connector
Keyboard Connector

DVI Port
HDMI Port
USB 2.0 Port x 6

Line In (S/PDIF In)
Rear SUR (S/PDIF Out)
Speaker Out
Center/Subwoofer
MIC-In
Side SUR

Front Audio Pin header
Realtekcodec ALC889
Power connector (Input)
SYS FAN
USB 2.0 pin header
PCI Express x 16 Slot
MCP7A-S/NB Fan H-sink

Serial ATA Connector

So-Dimm DDR2 800

4Pin ATX Power connector

Socket 775 Intel®Core™ 2 Quad/ Core™ 2 Duo/Celeron

24 Pins ATX power connector

Battery
4Pin CPU Fan
AMI BIOS_8M SPI ROM
COM Port Pin Header
NB FAN
JP14 Clear CMOS
Front Panel pin header

Note: The pictures above may look slightly different from the product you purchased due to our constant product improvement effort.

AOpen

Accessories List

- IO Bracket
- mini ITX nMCP7A EIG
- S-ATA Cable x 2
- DVI to D-Sub Converter
- AOpen Bonus CD
- Power Cable x 2

Installing By Yourself

1. Installing CPU
2. Installing CPU Fan & System Fan
3. Installing Memory Module
4. Installing HD, CD-ROM and SATA Disk, etc
5. Connecting Front Panel Cable
6. Connecting Back Panel Ports
7. Loading Default BIOS
8. Installing Operating System (such as, Windows Vista)
9. Installing Drivers & Utilities

Windows Vista

---

1. Installing CPU

This socket supports LGA-775 CPU, which is the CPU package developed by intel.
Other forms of CPU package are impossible to fitted in.
1. Pull CPU socket lever and plate up .
2. Remove plastic cap from CPU socket plate .
3. Locate Pin 1 in the socket and look for a golden arrow on the CPU upper interface .
   Match Pin 1 and golden arrow . Then insert the CPU into the socket .
4. Press down CPU socket plate and lever to finish CPU installation .

CPU socket lever   CPU socket plate   Golden arrow

Plastic cap   Socket pin 1
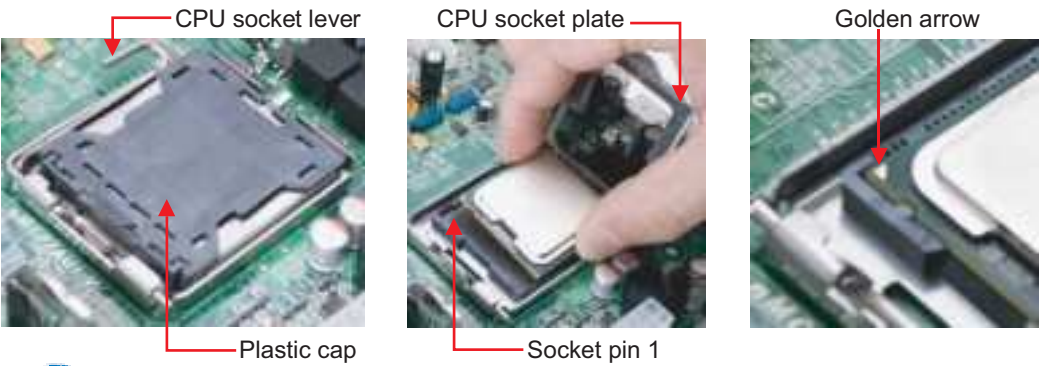
Note:
If you do not match the CPU socket Pin 1 and CPU golden arrow well, you may damage the CPU.

CPU Frequency Table

| Processor	L2 Cache	FSB	Speed	Ratio	Support BIOS Version
Core 2 Duo E8400	6M	1333	3.0G	9	R1.00
Core 2 Duo E6550	4M	1333	2.33G	7	R1.00
Core 2 Duo E6850	4M	1333	3.0G	9	R1.00
Core 2 Duo E7400	3M	1066	2.8G	10.5	R1.00
Core 2 Duo E7200	3M	1066	2.53G	9.5	R1.00
Core 2 Quad Q6700	4M*2	1066	2.66G	10	R1.00
Pentium Dual-Core E5400	2M	800	2.7G	13.5	R1.00

* MCP7A support front side BUS 667/800/1066MHz.

Note:
With CPU speed changing rapidly, there might be faster CPU on the market by the time you
received this installation guide. This table is kindly for your references only.
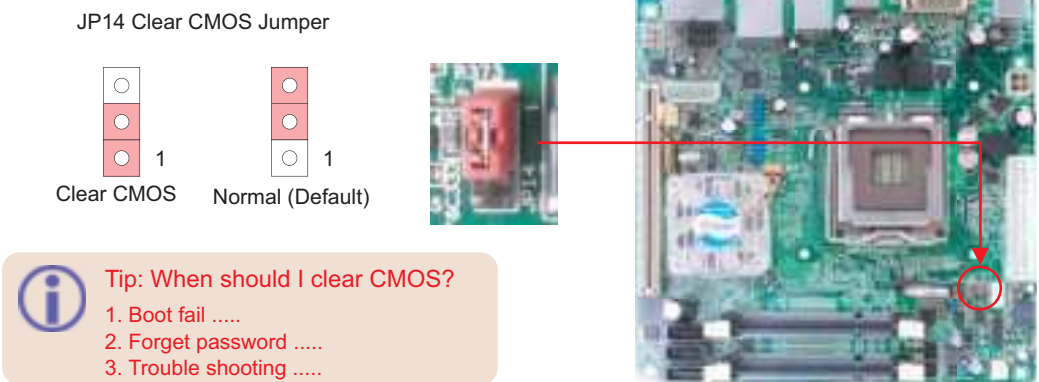
4. Installing HDD Device

The motherboard provides three SATA connectors.
Connect SATA cable to the on board SATA connector. You can find SATA cable in our package.
(this is SATA signal cable) And please also connect 5V power connector with SATA power cable.

SATA Signal Cable
To Connect SATA Device

SATA Power Cord
To Connect SATA Device
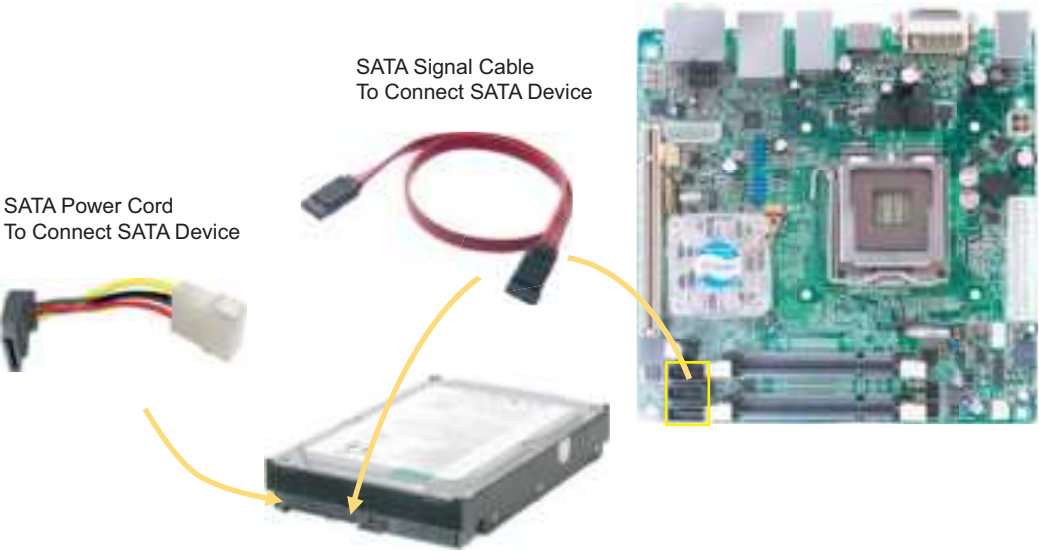
5. JP14 Clear CMOS

You can clear CMOS to restore system default settings.
To clear the CMOS, follow the procedure below.

1. Turn off the system and unplug the AC power.
2. Remove ATX power cable from connector PWR24.
3. Locate JP14 and short pins 2-3 for a few seconds.
4. Return JP14 to its normal setting by shorting pin 1 & pin 2.
5. Connect ATX power cable back to connector PWR24.

JP14 Clear CMOS Jumper

Clear CMOS   Normal (Default)

Tip: When should I clear CMOS?
1. Boot fail .....
2. Forget password .....
3. Trouble shooting .....

2. Installing Memory Module

The motherboard provide SO-DIMM type memory support. There're two SO-DIMM memory slots
which motherboard provided. The installation of memory module as below.

1. Put the memory module with correct direction. Notice there's one stick to make sure direction is
   correct.
2. Plug in memory module into SO-DIMM slot with vertical 90º. Make sure memory module plug
   into slot completely.
3. There're tabs which located in the side of SO-DIMM holder. Use finger to push memory module
   vertically until the tabs lock memory module tightly.
4. Now, the memory modules have been plugged properly with horizontal flat.
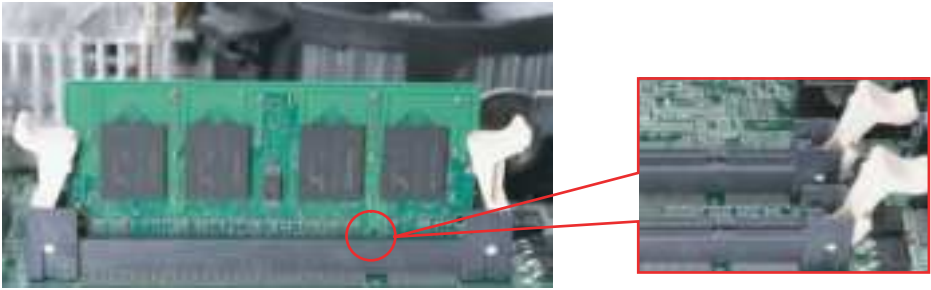
3. Installing ODD Device

The motherboard provides three SATA connectors.
Connect SATA cable to the on board SATA connector. You can find SATA cable in our package.
(this is SATA signal cable) And please also connect 5V power connector with SATA power cable.

SATA Power Cord
To Connect SATA Device

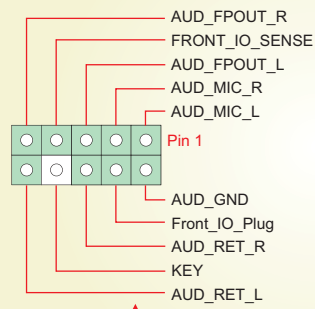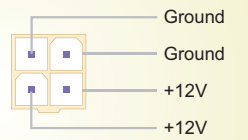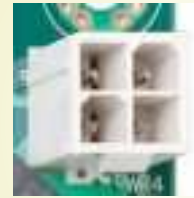SATA Signal Cable
To Connect SATA Device
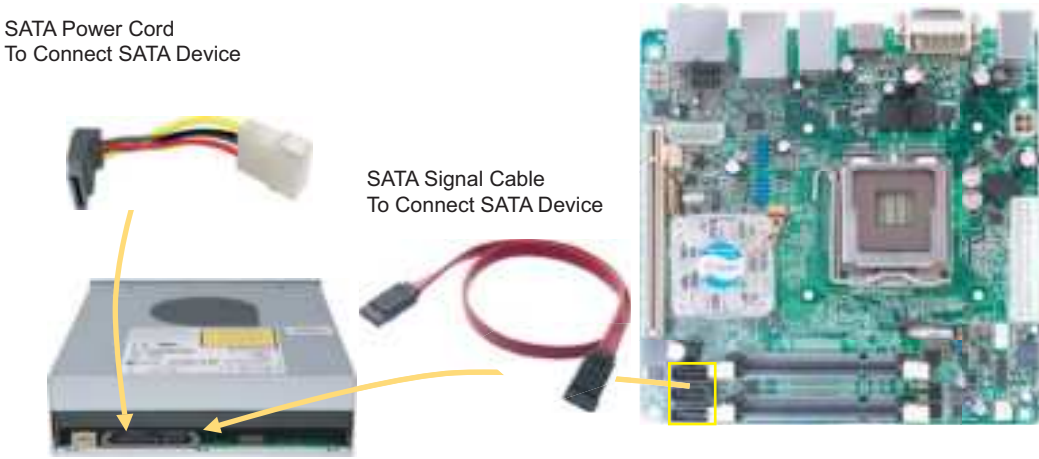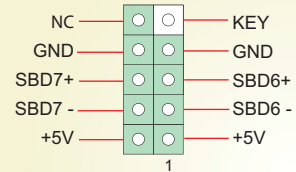
Connectors & PINs Definitions

Note:
Connect to the system power supply. Please connect a hard disk power connect to PWR3 connector. The PWR3 power connector supplies power to the PCIEx 16 slots.
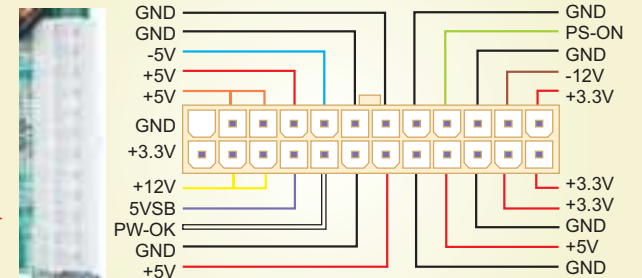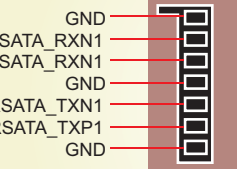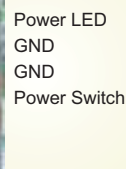
Front Audio Connector

- AUD_FPOUT_R
- FRONT_IO_SENSE
- AUD_FPOUT_L
- AUD_MIC_R
- AUD_MIC_L
- Pin 1
- AUD_GND
- Front_IO_Plug
- AUD_RET_R
- KEY
- AUD_RET_L

4-pin DC Power output Connector

- Ground
- Ground
- +12V
- +12V

USB 2.0 Connector

NC	KEY
GND	GND
SBD7+	SBD6+
SBD7 -	SBD6 -
+5V	+5V

1

+5V	+5V
SBD6 -	SBD7 -
SBD6+	SBD7+
GND	GND
KEY	NC

Power Connector

GND		GND
GND		PS-ON
-5V		GND
+5V		-12V
+5V		+3.3V
GND		
+3.3V		
+12V		+3.3V
5VSB		+3.3V
PW-OK		GND
GND		+5V
+5V		GND

SATA II Connector

- GND
- RSATA_RXN1
- RSATA_RXN1
- GND
- RSATA_TXN1
- RSATA_TXP1
- GND

- SATA1
- SATA2
- SATA3

Front Panel Cable

- HDD LED — Power LED
- GND — GND
- GND — GND
- Reset — Power Switch
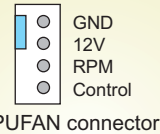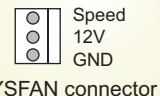
CPUFAN / SYSFAN Connector

CPUFAN connector
- GND
- 12V
- RPM
- Control

SYSFAN connector
- Speed
- 12V
- GND

COM1 connector

Pin 1

DCD#	SIN
SOUT	DTR#
GND	DSR
RTS#	CTS#
R1	KEY
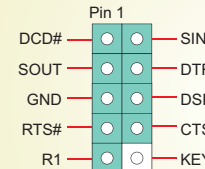
Back Panel Connections

Internet

LAN which can link to internet

Keyboard and Mouse

PC 7+1 Speakers

PC Earphone

or

HDMI port

PC Microphone

USB Devices Like Card reader

D-SUB Connector

PC Monitor Support D-SUB

PC Monitor Support DVI

HDTV or TV

Power - on and Loading BIOS Setup

After finish the setting of jumpers and connect correct cables. Power on and enter the BIOS Setup, then press <Del> during POST (Power On Self Test). Choose "Load Optimized Defaults" for recommended optimal performance.

> ⚠ Warning:
> Please avoid of using "Load Optimized Defaults", unless you are certain your system components (CPU, SDRAM, HDD, etc.) have been proven acceptable for use.

Aopen EzInstall and Bonus Pack CD

You can use the autorun menu of Bonus CD disc. Choose the utility and driver from the icons at left side, and then click on the "GO" button to complete installation automatically.
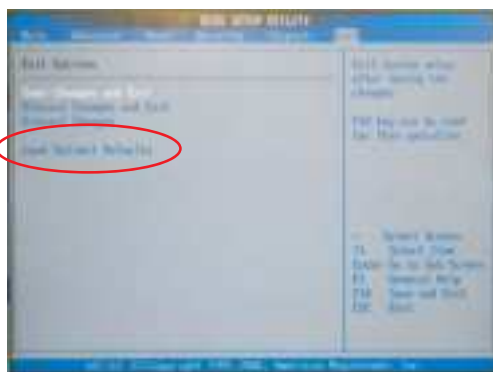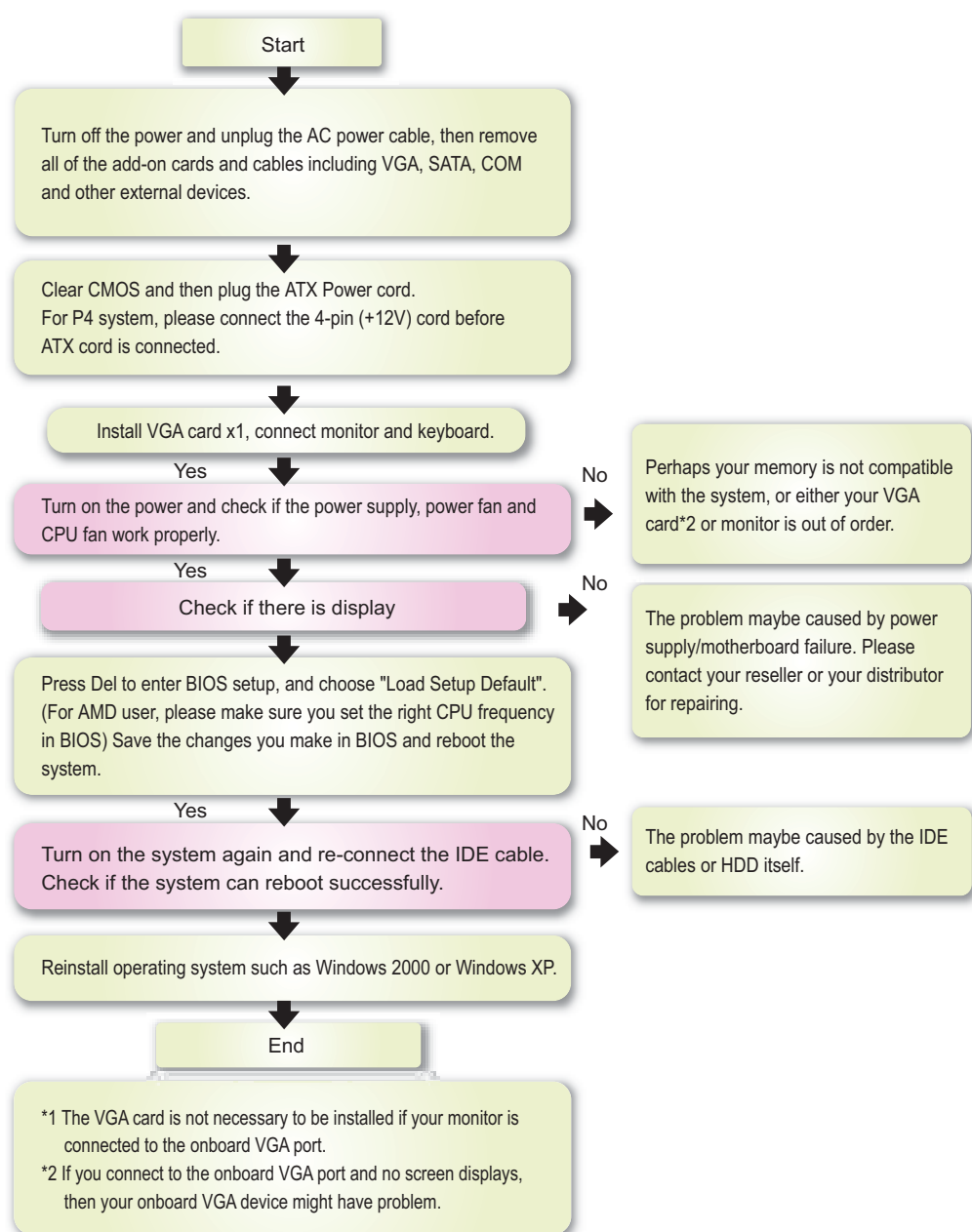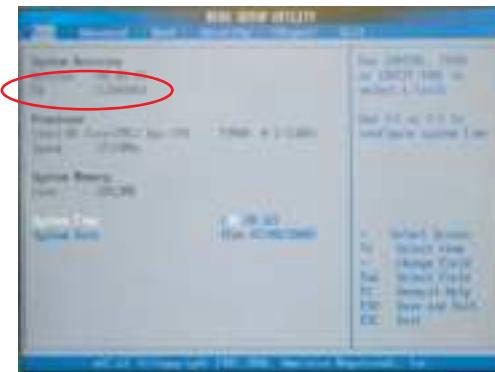
Install Driver
Install Utility
Browse CD Contents
Readme
Exit CD

BIOS Version

BIOS version can be found when you enter BIOS setting pattern.
For example, 003 is BIOS version.

Register Your Motherboard

You can find this bar code label on the outside packing or on component side of PCB.
For example:

Part No.   Serial No.

P/N: 918ET10I500 is part number.
S/N: 91949378KN73 is serial number.

Trouble Shooting

If you encounter any trouble to boot you system, follow the procedures accordingly to resolve the problem.

Start

Turn off the power and unplug the AC power cable, then remove all of the add-on cards and cables including VGA, SATA, COM and other external devices.

Clear CMOS and then plug the ATX Power cord.
For P4 system, please connect the 4-pin (+12V) cord before ATX cord is connected.

Install VGA card x1, connect monitor and keyboard.

Yes ↓ / No →
Turn on the power and check if the power supply, power fan and CPU fan work properly.

> Perhaps your memory is not compatible with the system, or either your VGA card*2 or monitor is out of order.

Yes ↓ / No →
Check if there is display

> The problem maybe caused by power supply/motherboard failure. Please contact your reseller or your distributor for repairing.

Press Del to enter BIOS setup, and choose "Load Setup Default". (For AMD user, please make sure you set the right CPU frequency in BIOS) Save the changes you make in BIOS and reboot the system.

Yes ↓ / No →
Turn on the system again and re-connect the IDE cable. Check if the system can reboot successfully.

> The problem maybe caused by the IDE cables or HDD itself.

Reinstall operating system such as Windows 2000 or Windows XP.

End

*1 The VGA card is not necessary to be installed if your monitor is connected to the onboard VGA port.
*2 If you connect to the onboard VGA port and no screen displays, then your onboard VGA device might have problem.

Technical Support

Dear Customer,

Thanks for choosing AOpen products. In order to maintain the best service to every customer of us, we recommend you to follow the procedures below and seek help from our branches according to the region you buy the product. With your help, we can then continue to provide efficient and the best quality service to every customer. Thanks very much for your understanding!

AOpen Technical Supporting Team

Europe
AOpen Computer b.v.
Email: Support@AOpen.NL

China
艾爾鵬國際貿易(上海)有限公司
Tel: 86-21-6225-8622
Fax: 86-21-6225-7926

America
AOpen America Inc.
Tel: 1-408-586-1201
Fax: 1-408-586-1210

Germany
AOpen Computer GmbH.
Mail: support@aopen.de

Pacific Rim
AOpen Inc.
Tel: 886-2-7710-1195
Fax: 886-2-7710-1187

Japan
AOpen Japan Inc.
Fax: +81-048-288-0955

Europe	Email: Support@AOpen.NL
Pacific Rim	http://www.aopen.com.tw
China	http://www.aopen.com.cn
Germany	http://www.aopen.de
America	http://usa.aopen.com
Japan	http://aopen.jp

Online Manual: To download manual, please log on and then select your preferred language. Under "Type" directory, choose "Manuals" to go to our manual database. You can also find the manual and EIG in AOpen Bonus Pack.
http://www.aopen.com > Chose Territory > Download

RCL: We recommend you to choose board/card/device from the compatibility recommand component list for assembling your PC. It may prevent incompatibility problems.
http://www.aopen.com > Chose Territory > RCL

FAQ: Here we list problems that users often encounter and FAQ (Frequently Asked Questions). You may select your preferred language after log on, and may be able to find a solution to your problem.
http://www.aopen.com > Chose Territory > Tech.FAQ

Download Software: After log on and having language selected, you may get the latest updated BIOS/utility and drivers you need under "Type" directory. In most case, newer versions of drivers and BIOS have solved earlier bugs or compatibility problems.
http://www.aopen.com > Chose Territory > Download