MODT

Cool Stuff is Hot Stuff, MoDT is the Right Stuff

AOpen

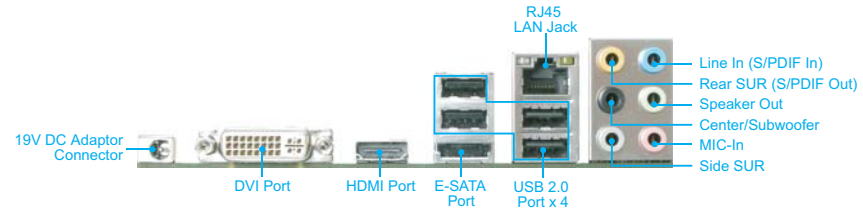
mini ITX i45GMt series

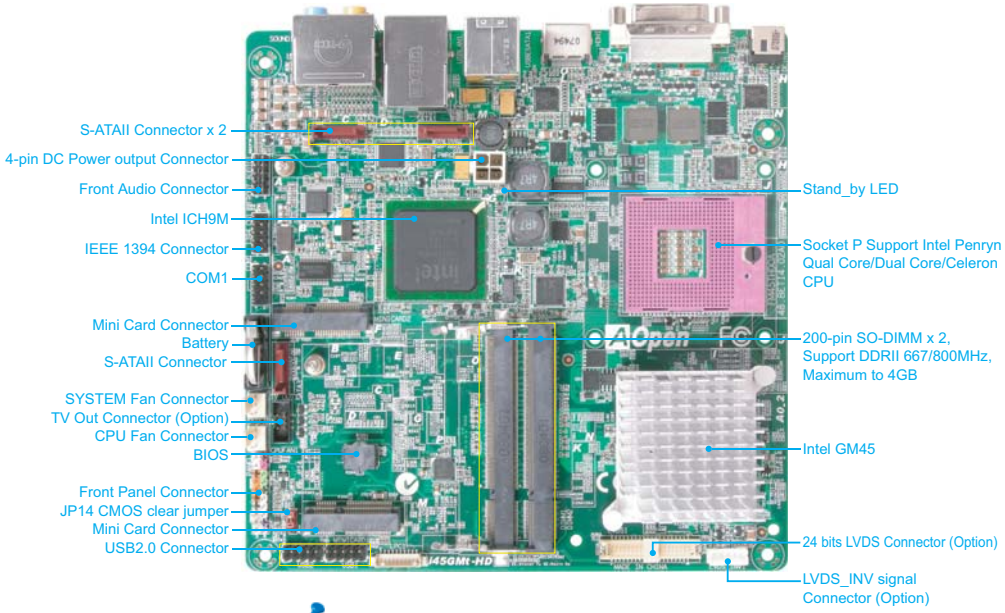
Enable the Power of mini ITX Form Factor

Energy Saving | Silent | AV | Thermal

Easy Installation Guide

MoDT is initiated by AOpen since 2004





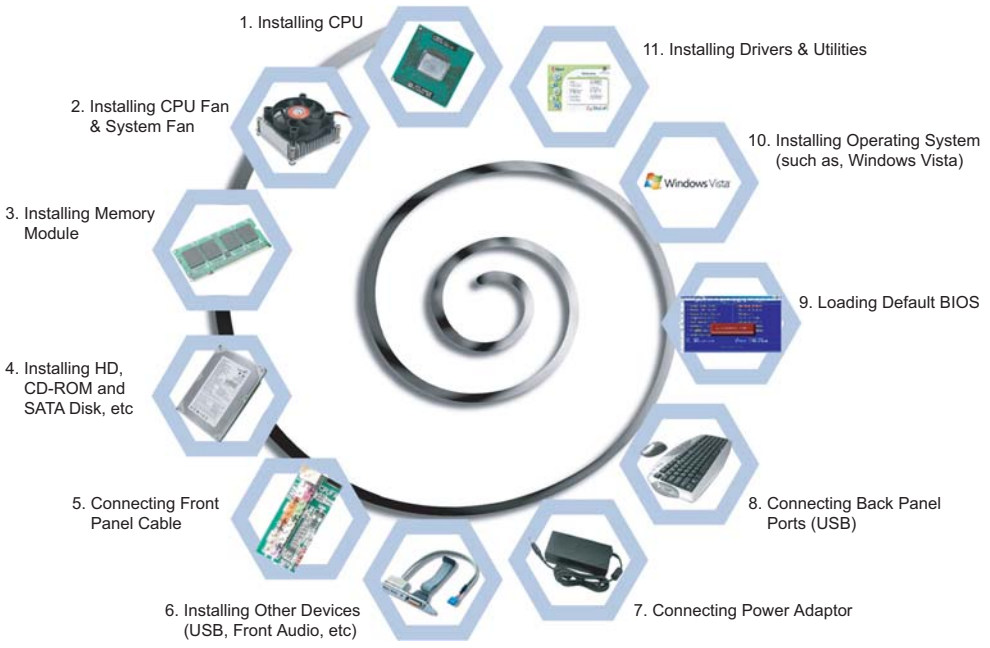
Note：The pictures above may look slightly different from the product you purchased due to our constant product improvement effort.

AOpen reserves the right to revise all the specifications and information contained in this document, which are subject to change without notice.

AOpen

Accessories List

Installing By Yourself

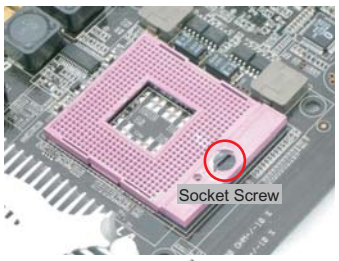


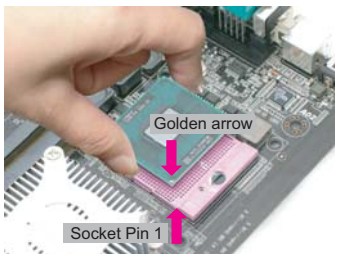
Part No.: 49.8ET09.EE20 Doc. No.: I45GMT-EG-E0809B

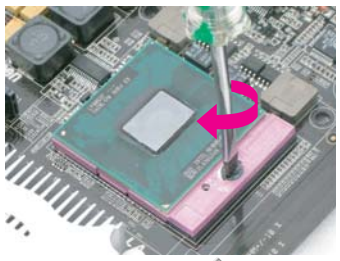
1. Installing CPU

This socket supports uFCPGA package CPU, which is the latest CPU package developed by Intel. Other forms of CPU package are impossible to be fitted in.

1. Unscrew socket screw counter- clockwise.
2. 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.
3. Lock the socket screw clockwise to fasten CPU.







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

CPU Frequency Table

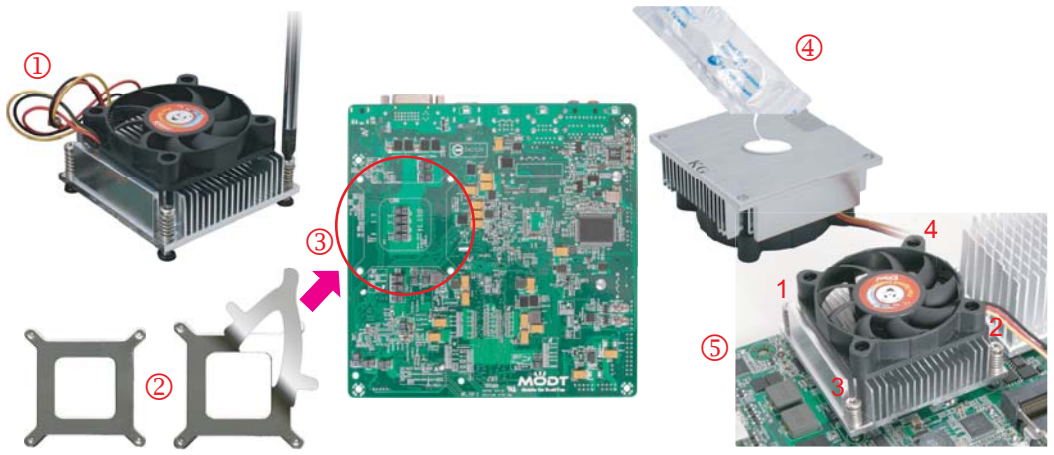
Processor Number	Architecture	Clock Speed	Front Side Bus	L2 Cache	Support BIOS Version
Intel Core 2 Duo (Penryn) CPU					
Core 2 Duo T9600	45nm	2.80 GHz	1066 MHz	6MB	From R1.00
Core 2 Duo T9400	45nm	2.53 GHz	1066 MHz	6MB	From R1.00
Core 2 Duo P9500	45nm	2.53 GHz	1066 MHz	6MB	From R1.00
Core 2 Duo P8600	45nm	2.4 GHz	1066 MHz	3MB	From R1.00

* GM45 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.

2. Installing CPU Cooler

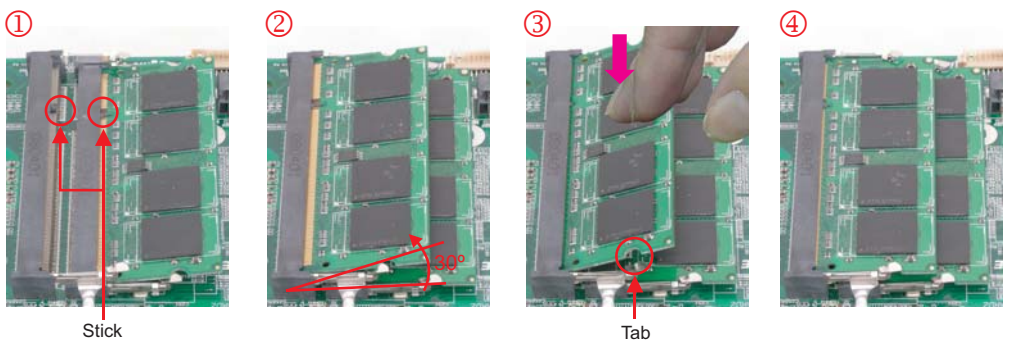
1. Remove the four screws of the CPU heatsink and take the bracket from heatsink.
2. Tear off the label from bracket for easily pasted on the bottom of main board.
3. Place bracket properly on the back side as picture.
4. Smear over the thermal compound under the center of heatsink smoothly and let it be well mixed.
5. Please follow concave of direction on bottom of heatsink, Put the CPU Fan & heatsink on the processor and lock the four screws of the heatsink with bracket (on the MB back side). Please make sure the screws are well tied between the motherboard and heatsink.



3. Installing Memory Module

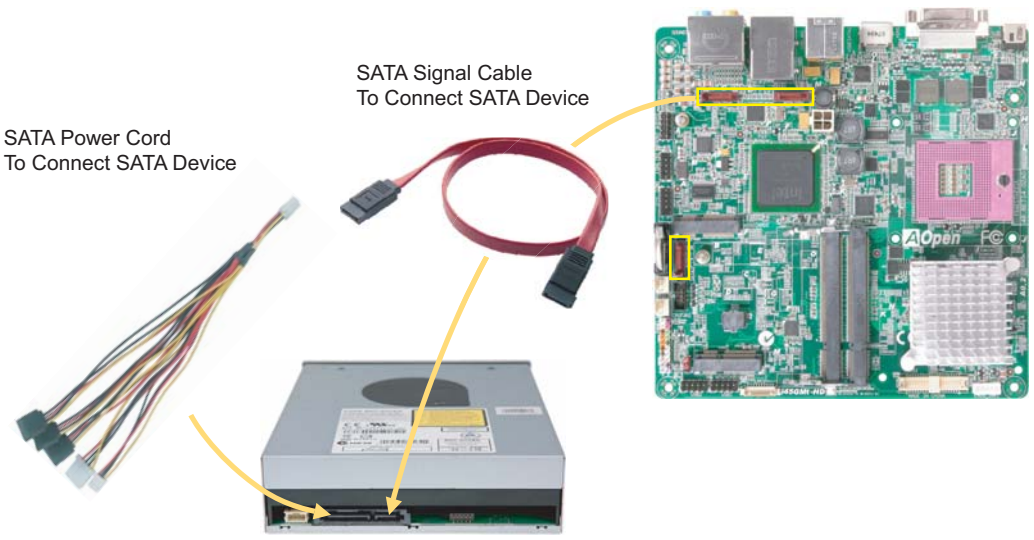
The motherboard provide SODIMM type memory support. There're two SODIMM memory slots which motherboard provided. The installation of memory module as below.

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 SODIMM slot with angle 20~30º. Make sure memory moule plug into slot completely.
3. There're tabs which located in the side of SODIMM 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.



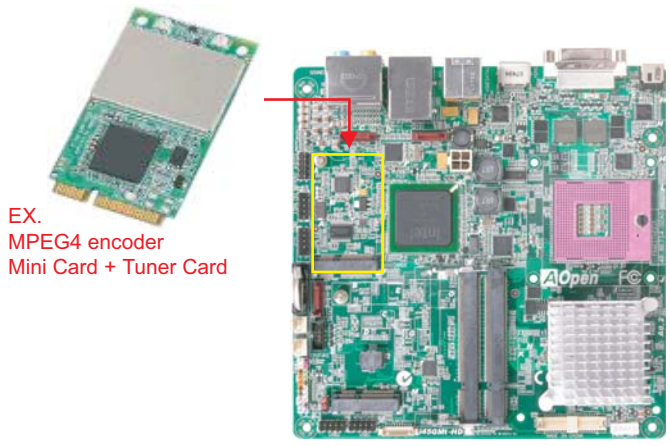
4. Installing ODD Device

The mother board 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.



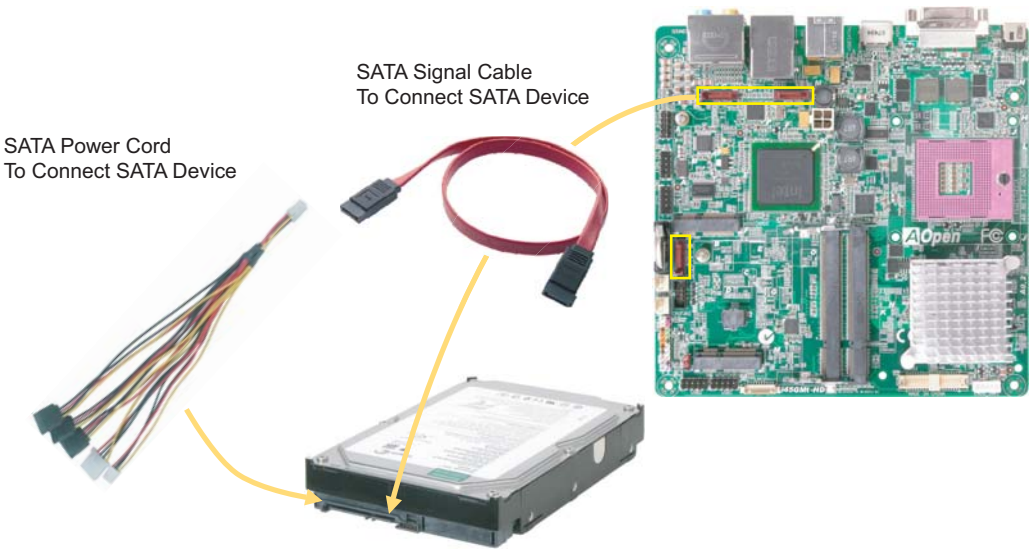
6. Mini Card Installation

The motherboard provides two Mini Card slot for users to upgrade his PC functions.
Now, the Mini Card can have digital TV tuner and Video MPEG4 decoder card ...etc.
for expansion. The PCI cards have SATA II and Firewire and USB cards … etc. for expansion.



5. Installing HDD Device

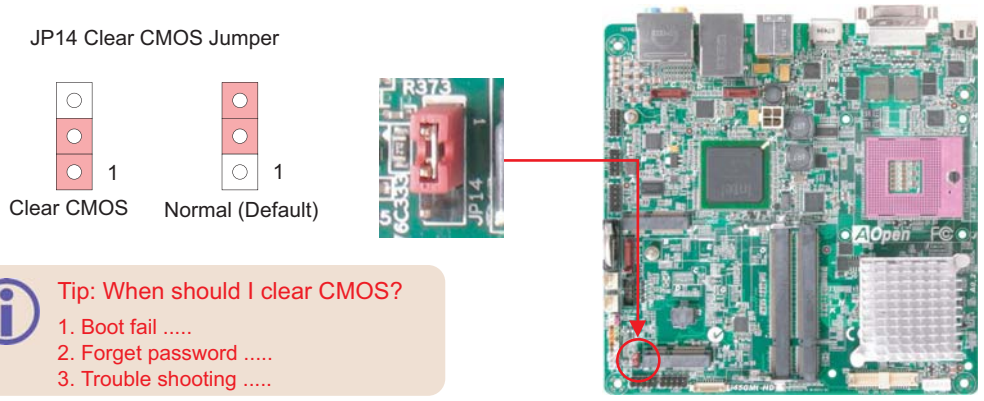
The mother board provides three SATA connectors.
Connect SATA cable to the on board SATA connector. You can find SATA cable in our package. (this is SATA signal cable) And please also connect 5V power connector with SATA power cable.



7. JP14 Clear CMOS

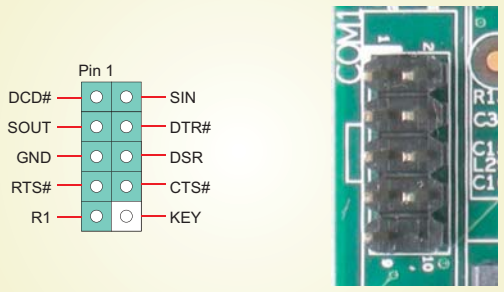
You can clear CMOS to restore system default settings.
To clear the CMOS, follow the procedure below.

1. Turn off the system and unplug the DC Adaptor from Connector.
2. Locate JP14 and short pins 2-3 for a few seconds.
3. Return JP14 to its normal setting by connecting it to Pin 1-2 again.
4. Connect DC Adaptorn back to connector.

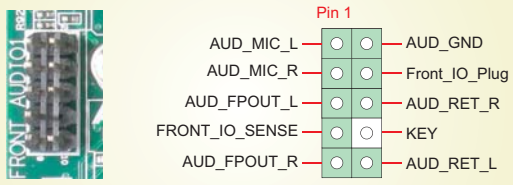


Tip: When should I clear CMOS?
1. Boot fail .....
2. Forget password .....
3. Trouble shooting .....

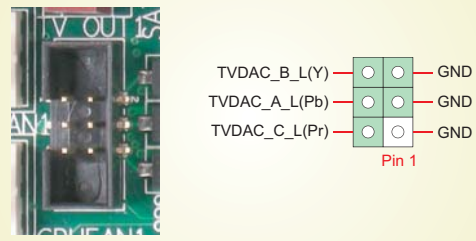
Connectors & PINs Definitions



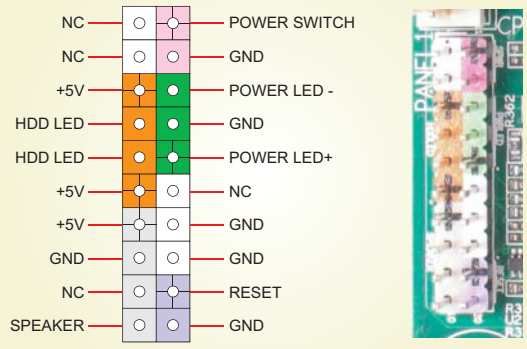
COM1 connector

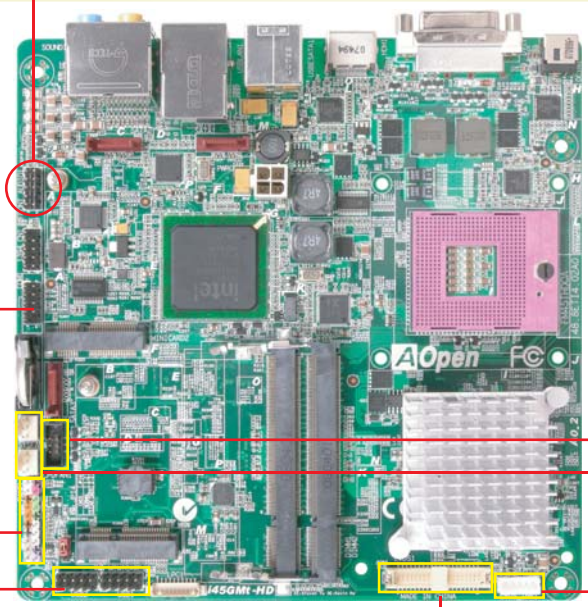


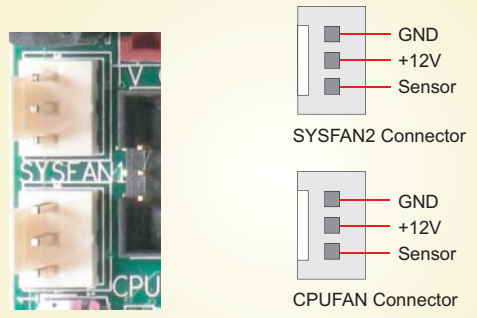
Front Audio Connector



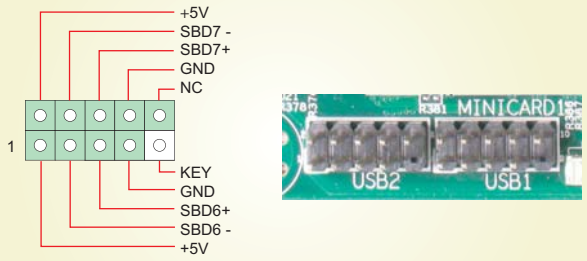
TV Out Connector (Option)



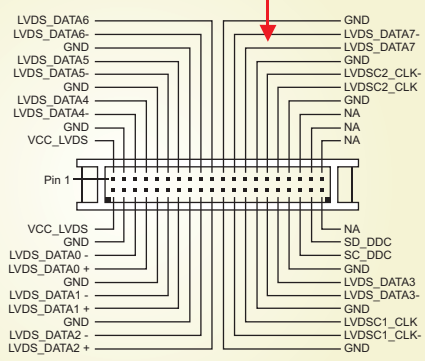




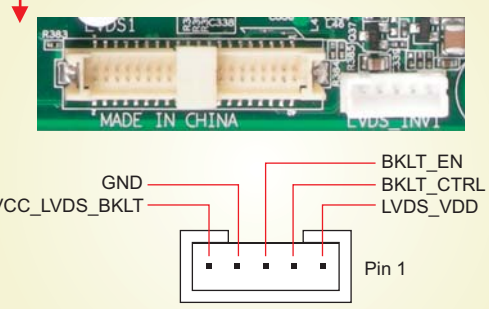
CPUFAN / SYSFAN Connector



USB 2.0 Connector

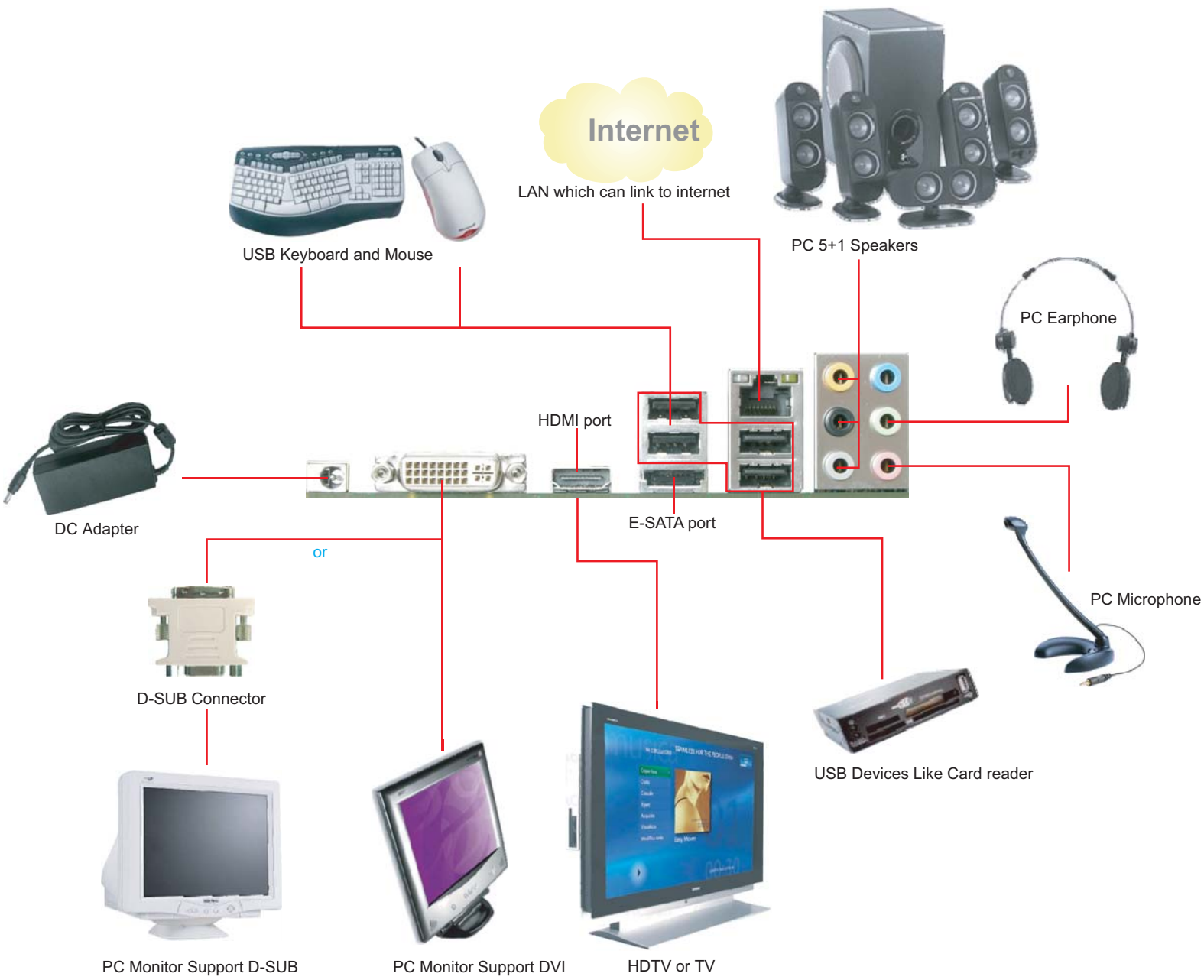


24 bits LVDS Connector



LVDS_INV Connector

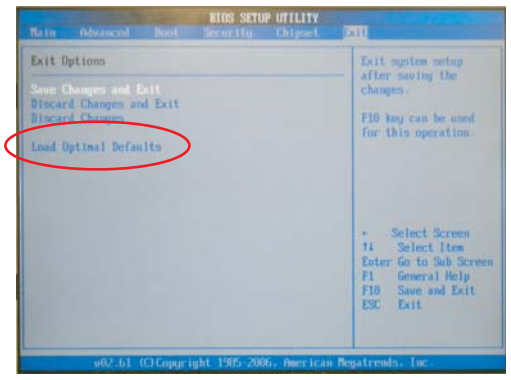
Back Panel Connections



Power - on and Loading BIOS Setup

Del

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.



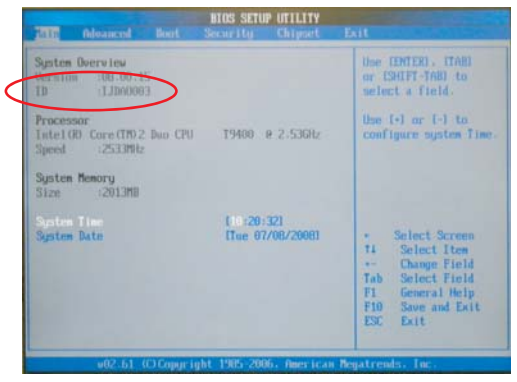
Warning:
Please avoid of using “Load Optimized Defaults”, unless you are certain your system components (CPU, SDRAM, HDD, etc.) have been proven acceptable for use.

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.

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:

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

Power Consumption

The power consumption — 135W provides basic system configuration as below.

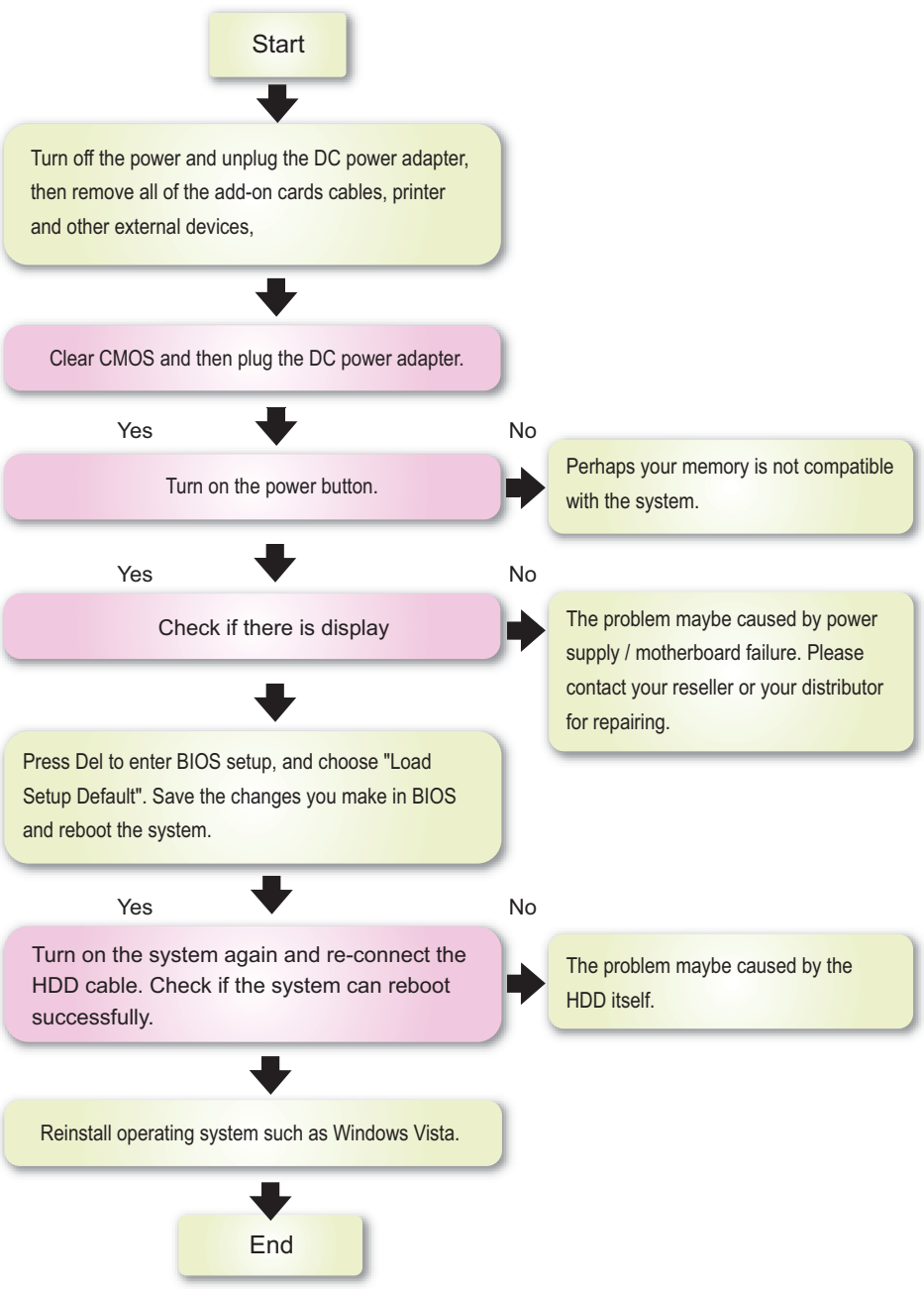
- i45GMt mini iTX Motherboard
- Intel® Core 2 Duo T9600 x 1
- 1GB SODIMM memory module x 1
- SATA 3.5” hard disk x 1
- USB keyboard x 1
- USB Mouse x 1
- CPU Cooler x 1

Note:
Please notice on the power, AOpen mother board provided, 135W AC-DC adaptor. And the board can offer 145W to connect different peripherals. But it needs to be careful while connecting many peripherals and cause power over 135W. It will causes the system cannot boot-up or cannot work smoothly base on the loading your system has. If your system over 90W please change it to larger power supply: 19V AC-DC adaptor.

The motherboard had bundle one 135W AC to DC power adaptor, it’s specification as
- INPUT AC100-240V ~ 1.5A
- OUTPUT DC 19V ~ 7.1A

Trouble Shooting

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

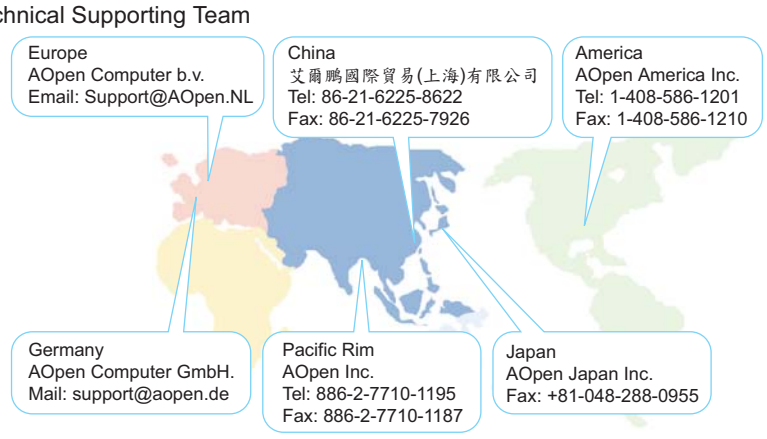


Technical Support

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



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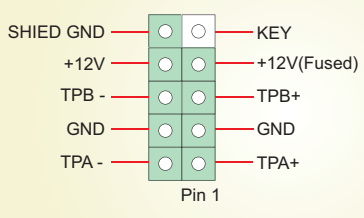
Online Manual: To download manual, please log on and then select your preferred language. Under "Type" directory, choose "Manuals" to go to our manual database. You can also find the manual and EIG in AOpen Bonus Pack.
http://www.aopen.com > Chose Territory > Download

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

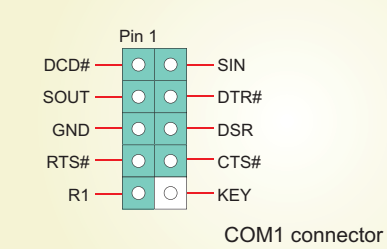
FAQ: Here we list problems that users often encounter and FAQ (Frequently Asked Questions). You may select your preferred language after log on, and may be able to find a solution to your problem.
http://www.aopen.com > Chose Territory > Tech.FAQ

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

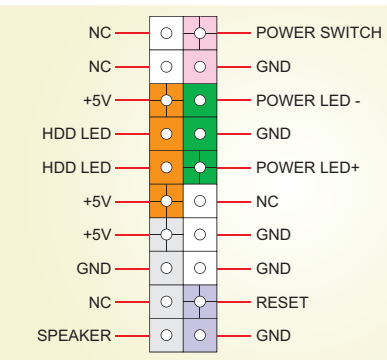
Connectors & PINs Definitions

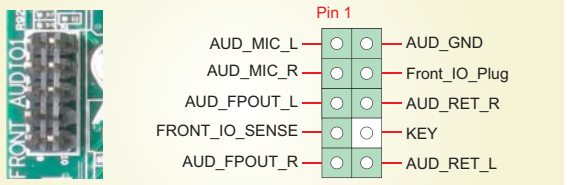


1394 Connector

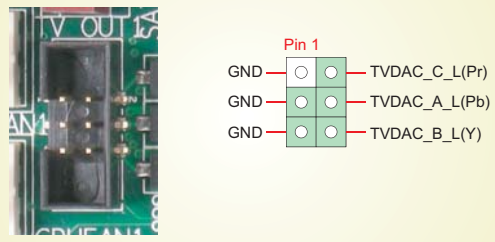


COM1 connector

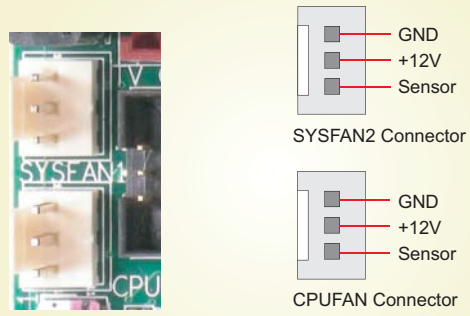




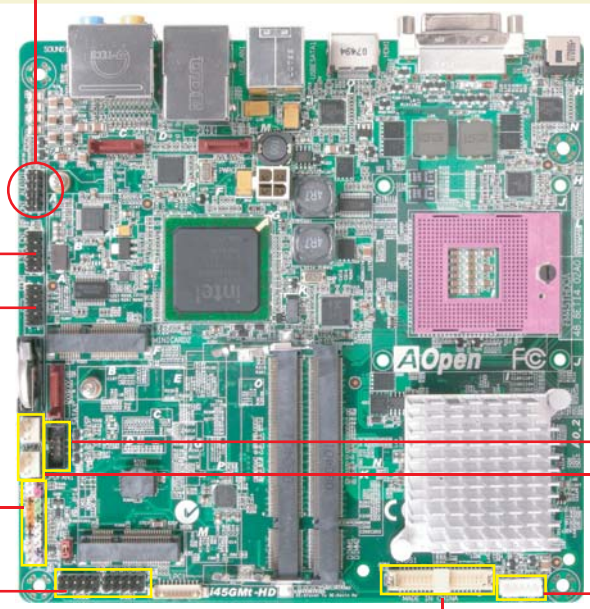
Front Audio Connector

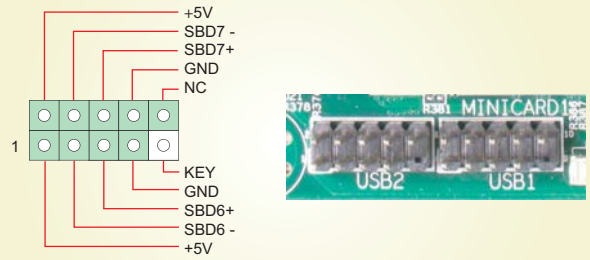


TV Out Connector (Option)

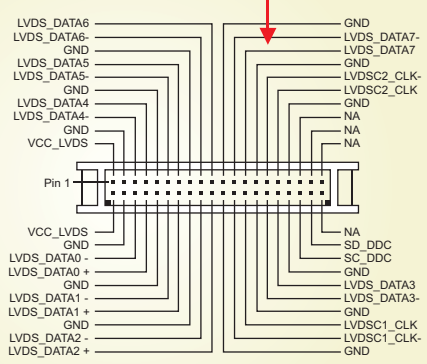


CPUFAN / SYSFAN Connector

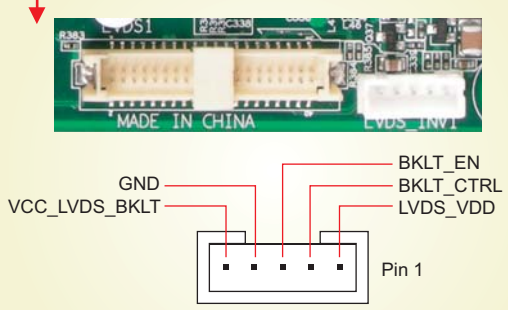




USB 2.0 Connector



24 bits LVDS Connector



LVDS_INV Connector

Back Panel Connections

USB Keyboard and Mouse

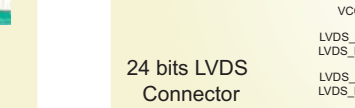
Internet

LAN which can link to internet

PC 5+1 Speakers

Line In (S/PDIF In)

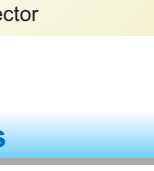
DC Adapter



HDMI port

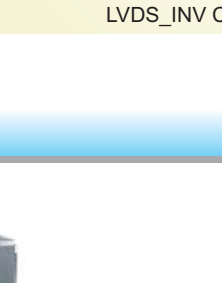
E-SATA port

PC Earphone



D-SUB Connector

or

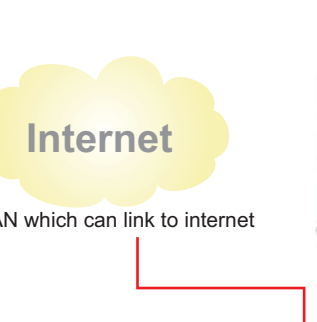


PC Microphone

PC Monitor Support D-SUB

PC Monitor Support DVI

HDTV or TV



USB Devices Like Card reader