

---

### **Copyright Notice:**

No part of this installation guide may be reproduced, transcribed, transmitted, or translated in any language, in any form or by any means, except duplication of documentation by the purchaser for backup purpose, without written consent of ASRock Inc. Products and corporate names appearing in this guide may or may not be registered trademarks or copyrights of their respective companies, and are used only for identification or explanation and to the owners' benefit, without intent to infringe.

### **Disclaimer:**

Specifications and information contained in this guide are furnished for informational use only and subject to change without notice, and should not be constructed as a commitment by ASRock. ASRock assumes no responsibility for any errors or omissions that may appear in this guide.

With respect to the contents of this guide, ASRock does not provide warranty of any kind, either expressed or implied, including but not limited to the implied warranties or conditions of merchantability or fitness for a particular purpose. In no event shall ASRock, its directors, officers, employees, or agents be liable for any indirect, special, incidental, or consequential damages (including damages for loss of profits, loss of business, loss of data, interruption of business and the like), even if ASRock has been advised of the possibility of such damages arising from any defect or error in the guide or product.



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, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### **CALIFORNIA, USA ONLY**

The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.

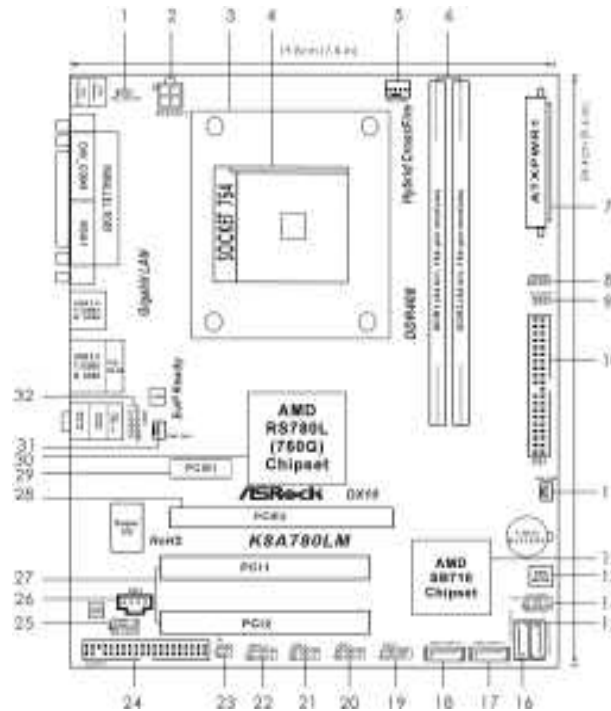
"Perchlorate Material-special handling may apply, see [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)"

**ASRock Website:** <http://www.asrock.com>

Published November 2009  
Copyright©2009 ASRock INC. All rights reserved.

English

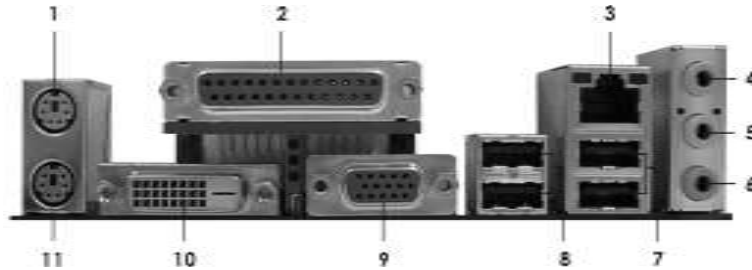
## Motherboard Layout



- |    |   |    |   |
|----|---|----|---|
| 1  | PS2_USB_PW1 Jumper                            | 18 | Primary SATAII Connector (SATAI_1 (PORT 0)) |
| 2  | ATX 12V Power Connector (ATX12V1)             | 19 | USB 2.0 Header (USB4_5, Blue)               |
| 3  | CPU Heatsink Retention Module                 | 20 | USB 2.0 Header (USB6_7, Blue)               |
| 4  | 754-Pin CPU Socket                            | 21 | USB 2.0 Header (USB8_9, Blue)               |
| 5  | CPU Fan Connector (CPU_FAN1)                  | 22 | USB 2.0 Header (USB10_11, Blue)             |
| 6  | 184-pin DDR DIMM Slots (DDR1-2)               | 23 | Infrared Module Header (IR1)                |
| 7  | ATX Power Connector (ATXPWR1)                 | 24 | Floppy Connector (FLOPPY1)                  |
| 8  | Chassis Speaker Header (SPEAKER 1, Purple)    | 25 | Front Panel Audio Header (HD_AUDIO1, Lime)  |
| 9  | Clear CMOS Jumper (CLRCMOS1)                  | 26 | Internal Audio Connector: CD1 (Black)       |
| 10 | Primary IDE Connector (IDE1, Blue)            | 27 | PCI Slots (PCI1-2)                          |
| 11 | Chassis Fan Connector (CHA_FAN1)              | 28 | PCI Express 2.0 x16 Slot (PCIE2; Blue)      |
| 12 | Southbridge Controller                        | 29 | PCI Express 2.0 x1 Slot (PCIE1; White)      |
| 13 | SPI Flash Memory (8Mb)                        | 30 | Northbridge Controller                      |
| 14 | System Panel Header (PANEL1, Orange)          | 31 | Power Fan Connector (PWR_FAN1)              |
| 15 | Fourth SATAII Connector (SATAI_4 (PORT 3))    | 32 | Serial Port Connector (COM1)                |
| 16 | Third SATAII Connector (SATAI_3 (PORT 2))     |    |   |
| 17 | Secondary SATAII Connector (SATAI_2 (PORT 1)) |    |   |

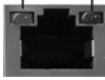
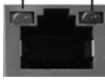
English

## I/O Panel



- |                           |                                |
|---------------------------|--------------------------------|
| 1 PS/2 Mouse Port (Green) | 7 USB 2.0 Ports (USB01)        |
| 2 Parallel Port           | 8 USB 2.0 Ports (USB23)        |
| * 3 RJ-45 Port            | 9 VGA/D-Sub Port               |
| 4 Line In (Light Blue)    | 10 VGA/DVI-D Port              |
| * 5 Front Speaker (Lime)  | 11 PS/2 Keyboard Port (Purple) |
| 6 Microphone (Pink)       |                                |

### LAN Port LED Indications

Activity/Link LED		SPEED LED		ACT/LINK SPEED LED	
Status	Description	Status	Description	LED	LED
Off	No Activity	Off	10Mbps connection		
Blinking	Data Activity	Orange	100Mbps connection		
		Green	1Gbps connection		

To enable Multi-Streaming function, you need to connect a front panel audio cable to the front panel audio header. After restarting your computer, you will find "VIA HD Audio Deck" tool on your system. Please follow below instructions according to the OS you install.

#### For Windows® XP / XP 64-bit OS:

Please click "VIA HD Audio Deck" icon , and click "Speaker". Then you are allowed to

select "2 Channel" or "4 Channel". Click "Power" to save your change.

#### For Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:

Please click "VIA HD Audio Deck" icon , and click "Advanced Options" on the left side

on the bottom. In "Advanced Options" screen, select "Independent Headphone", and click "OK" to save your change.

If you enable Multi-Streaming function, Side Speaker function will be disabled. You can only choose to enable either Multi-Streaming function or Side Speaker function.

English

---

## 1. Introduction

Thank you for purchasing ASRock **K8A780LM** motherboard, a reliable motherboard produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

In this manual, chapter 1 and 2 contain introduction of the motherboard and step-by-step guide to the hardware installation. Chapter 3 and 4 contain the configuration guide to BIOS setup and information of the Support CD.



Because the motherboard specifications and the BIOS software might be updated, the content of this manual will be subject to change without notice. In case any modifications of this manual occur, the updated version will be available on ASRock website without further notice. You may find the latest VGA cards and CPU support lists on ASRock website as well. ASRock website <http://www.asrock.com>  
If you require technical support related to this motherboard, please visit our website for specific information about the model you are using.  
[www.asrock.com/support/index.asp](http://www.asrock.com/support/index.asp)

### 1.1 Package Contents

ASRock **K8A780LM** Motherboard

(Micro ATX Form Factor: 9.6-in x 7.8-in, 24.4 cm x 19.8 cm)

ASRock **K8A780LM** Quick Installation Guide

ASRock **K8A780LM** Support CD

1 x Ultra ATA 66/100/133 IDE Ribbon Cable (80-conductor)

2 x Serial ATA (SATA) Data Cables (Optional)

1 x I/O Shield

## 1.2 Specifications

<b>Platform</b>	- Micro ATX Form Factor: 9.6-in x 7.8-in, 24.4 cm x 19.8 cm
<b>CPU</b>	- Socket 754 for AMD Athlon™ 64 and Sempron Processors - Supports AMD's Cool 'n' Quiet™ Technology - Chipset capable to FSB 1000 MHz (2.0 GT/s) - Supports Untied Overclocking Technology (see <b>CAUTION 1</b> ) - Supports Hyper-Transport Technology
<b>Chipset</b>	- Northbridge: AMD RS780L (760G) - Southbridge: AMD SB710
<b>Memory</b>	- 2 x DDR DIMM slots - Support DDR 400/333/266 non-ECC, un-buffered memory - Max. capacity of system memory: 2GB
<b>Expansion Slot</b>	- 1 x PCI Express 2.0 x16 slot (blue @ x16 mode) - 1 x PCI Express 2.0 x1 slot - 2 x PCI slots - Supports ATI™ Hybrid CrossFireX™
<b>Graphics</b>	- Integrated AMD Radeon 3000 graphics - DX10 class iGPU, Pixel Shader 4.0 - Max. shared memory 512MB (see <b>CAUTION 2</b> ) - Dual VGA Output: support DVI-D and D-Sub ports by independent display controllers - Supports DVI with max. resolution up to 1920x1200 @ 75Hz - Supports D-Sub with max. resolution up to 2048x1536 @ 60Hz - Supports HDCP function with DVI-D port
<b>Audio</b>	- 5.1 CH HD Audio (VIA® VT1705 Audio Codec)
<b>LAN</b>	- PCIe x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - Supports Wake-On-LAN
<b>Rear Panel I/O</b>	I/O Panel - 1 x PS/2 Mouse Port - 1 x PS/2 Keyboard Port - 1 x Parallel Port (ECP/EPP Support) - 1 x VGA/D-Sub Port - 1 x VGA/DVI-D Port - 4 x Ready-to-Use USB 2.0 Ports - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - HD Audio Jack: Line in/Front Speaker/Microphone

<b>Connector</b>	<ul style="list-style-type: none"> <li>- 4 x Serial ATAII 3.0Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 10 and JBOD), NCQ, AHCI and "Hot Plug" functions (see <b>CAUTION 3</b>)</li> <li>- 1 x ATA133 IDE connector (supports 2 x IDE devices)</li> <li>- 1 x Floppy connector</li> <li>- 1 x IR header</li> <li>- 1 x COM port header</li> <li>- CPU/Chassis/Power FAN connector</li> <li>- 24 pin ATX power connector</li> <li>- 4 pin 12V power connector</li> <li>- CD in header</li> <li>- Front panel audio connector</li> <li>- 4 x USB 2.0 headers (support 8 USB 2.0 ports) (see <b>CAUTION 4</b>)</li> </ul>
<b>BIOS Feature</b>	<ul style="list-style-type: none"> <li>- 8Mb AMI BIOS</li> <li>- AMI Legal BIOS</li> <li>- Supports "Plug and Play"</li> <li>- ACPI 1.1 Compliance Wake Up Events</li> <li>- Supports jumperfree</li> <li>- SMBIOS 2.3.1 Support</li> <li>- CPU, VCCM, NB Voltage Multi-adjustment</li> <li>- Supports Smart BIOS</li> </ul>
<b>Support CD</b>	<ul style="list-style-type: none"> <li>- Drivers, Utilities, AntiVirus Software (Trial Version), ASRock Software Suite (CyberLink DVD Suite and Creative Sound Blaster X-Fi MB) (OEM and Trial Version)</li> </ul>
<b>Unique Feature</b>	<ul style="list-style-type: none"> <li>- ASRock OC Tuner (see <b>CAUTION 5</b>)</li> <li>- Intelligent Energy Saver (see <b>CAUTION 6</b>)</li> <li>- Instant Boot</li> <li>- ASRock Instant Flash (see <b>CAUTION 7</b>)</li> <li>- ASRock OC DNA (see <b>CAUTION 8</b>)</li> <li>- Hybrid Booster: <ul style="list-style-type: none"> <li>- CPU Frequency Stepless Control (see <b>CAUTION 9</b>)</li> <li>- ASRock U-COP (see <b>CAUTION 10</b>)</li> <li>- Boot Failure Guard (B.F.G.)</li> </ul> </li> </ul>
<b>Hardware Monitor</b>	<ul style="list-style-type: none"> <li>- CPU Temperature Sensing</li> <li>- Chassis Temperature Sensing</li> <li>- CPU/Chassis/Power Fan Tachometer</li> <li>- CPU Quiet Fan</li> <li>- Voltage Monitoring: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>OS</b>	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit compliant</li> </ul>

<b>Certifications</b>	- FCC, CE, WHQL - EuP Ready (EuP ready power supply is required) (see <b>CAUTION 11</b> )
-----------------------	---

\* For detailed product information, please visit our website: <http://www.asrock.com>

**WARNING**

Please realize that there is a certain risk involved with overclocking, including adjusting the setting in the BIOS, applying Untied Overclocking Technology, or using the third-party overclocking tools. Overclocking may affect your system stability, or even cause damage to the components and devices of your system. It should be done at your own risk and expense. We are not responsible for possible damage caused by overclocking.

**CAUTION!**

1. This motherboard supports Untied Overclocking Technology. Please read "Untied Overclocking Technology" on page 24 for details.
2. The maximum shared memory size is defined by the chipset vendor and is subject to change. Please check AMD website for the latest information.
3. Before installing SATAII hard disk to SATAII connector, please read the "SATAII Hard Disk Setup Guide" on page 26 of "User Manual" in the support CD to adjust your SATAII hard disk drive to SATAII mode. You can also connect SATA hard disk to SATAII connector directly.
4. Power Management for USB 2.0 works fine under Microsoft® Windows® 7 64-bit / 7 / Vista™ 64-bit / Vista™ / XP 64-bit / XP SP1 or SP2.
5. It is a user-friendly ASRock overclocking tool which allows you to surveil your system by hardware monitor function and overclock your hardware devices to get the best system performance under Windows® environment. Please visit our website for the operation procedures of ASRock OC Tuner. ASRock website: <http://www.asrock.com>
6. Featuring an advanced proprietary hardware and software design, Intelligent Energy Saver is a revolutionary technology that delivers unparalleled power savings. The voltage regulator can reduce the number of output phases to improve efficiency when the CPU cores are idle. In other words, it is able to provide exceptional power saving and improve power efficiency without sacrificing computing performance. To use Intelligent Energy Saver function, please enable Cool 'n' Quiet option in the BIOS setup in advance. Please visit our website for the operation procedures of Intelligent Energy Saver.  
ASRock website: <http://www.asrock.com>

English

- 
7. ASRock Instant Flash is a BIOS flash utility embedded in Flash ROM. This convenient BIOS update tool allows you to update system BIOS without entering operating systems first like MS-DOS or Windows®. With this utility, you can press <F6> key during the POST or press <F2> key to BIOS setup menu to access ASRock Instant Flash. Just launch this tool and save the new BIOS file to your USB flash drive, floppy disk or hard drive, then you can update your BIOS only in a few clicks without preparing an additional floppy diskette or other complicated flash utility. Please be noted that the USB flash drive or hard drive must use FAT32/16/12 file system.
  8. The software name itself – OC DNA literally tells you what it is capable of. OC DNA, an exclusive utility developed by ASRock, provides a convenient way for the user to record the OC settings and share with others. It helps you to save your overclocking record under the operating system and simplifies the complicated recording process of overclocking settings. With OC DNA, you can save your OC settings as a profile and share with your friends! Your friends then can load the OC profile to their own system to get the same OC settings as yours! Please be noticed that the OC profile can only be shared and worked on the same motherboard.
  9. Although this motherboard offers stepless control, it is not recommended to perform over-clocking. Frequencies other than the recommended CPU bus frequencies may cause the instability of the system or damage the CPU.
  10. While CPU overheat is detected, the system will automatically shutdown. Before you resume the system, please check if the CPU fan on the motherboard functions properly and unplug the power cord, then plug it back again. To improve heat dissipation, remember to spray thermal grease between the CPU and the heatsink when you install the PC system.
  11. EuP, stands for Energy Using Product, was a provision regulated by European Union to define the power consumption for the completed system. According to EuP, the total AC power of the completed system shall be under 1.00W in off mode condition. To meet EuP standard, an EuP ready motherboard and an EuP ready power supply are required. According to Intel's suggestion, the EuP ready power supply must meet the standard of 5v standby power efficiency is higher than 50% under 100 mA current consumption. For EuP ready power supply selection, we recommend you checking with the power supply manufacturer for more details.



---

## 2. Installation

### Pre-installation Precautions

Take note of the following precautions before you install motherboard components or change any motherboard settings.

1. Unplug the power cord from the wall socket before touching any component. Failure to do so may cause severe damage to the motherboard, peripherals, and/or components.
2. To avoid damaging the motherboard components due to static electricity, NEVER place your motherboard directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before you handle components.
3. Hold components by the edges and do not touch the ICs.
4. Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that comes with the component.
5. When placing screws into the screw holes to secure the motherboard to the chassis, please do not over-tighten the screws! Doing so may damage the motherboard.

### 2.1 CPU Installation

- Step 1. Unlock the socket by lifting the lever up to a 90° angle.
- Step 2. Position the CPU directly above the socket such that the CPU corner with the golden triangle matches the socket corner with a small triangle.
- Step 3. Carefully insert the CPU into the socket until it fits in place.



The CPU fits only in one correct orientation. DO NOT force the CPU into the socket to avoid bending of the pins.

- Step 4. When the CPU is in place, press it firmly on the socket while you push down the socket lever to secure the CPU. The lever clicks on the side tab to indicate that it is locked.
- Step 5. Install CPU fan and heatsink. For proper installation, please kindly refer to the instruction manuals of your CPU fan and heatsink vendors.

English

---

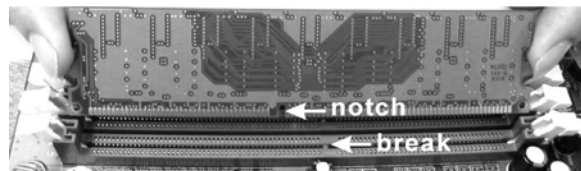
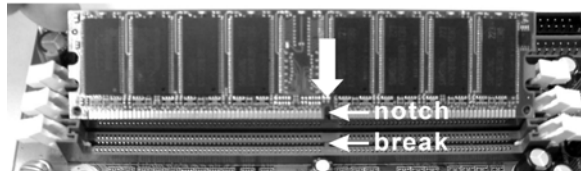
## 2.2 Installation of Memory Modules (DIMM)

This motherboard is equipped with two 184-pin DDR (Double Data Rate) DIMM slots.



Please make sure to disconnect power supply before adding or removing DIMMs or the system components.

- Step 1. Unlock a DIMM slot by pressing the retaining clips outward.
- Step 2. Align a DIMM on the slot such that the notch on the DIMM matches the break on the slot.



The DIMM only fits in one correct orientation. It will cause permanent damage to the motherboard and the DIMM if you force the DIMM into the slot at incorrect orientation.

- Step 3. Firmly insert the DIMM into the slot until the retaining clips at both ends fully snap back in place and the DIMM is properly seated.

---

## 2.3 Expansion Slots (PCI and PCI Express Slots)

There are 2 PCI slots and 2 PCI Express slots on this motherboard.

**PCI slots:** PCI slots are used to install expansion cards that have the 32-bit PCI interface.

**PCIe slots:**

PCIe1 (PCIe x1 slot; White) is used for PCI Express cards with x1 lane width cards, such as Gigabit LAN card, SATA2 card, etc.

PCIe2 (PCIe x16 slot; Blue) is used for PCI Express cards with x16 lane width graphics cards.

### Installing an expansion card

- Step 1. Before installing the expansion card, please make sure that the power supply is switched off or the power cord is unplugged. Please read the documentation of the expansion card and make necessary hardware settings for the card before you start the installation.
- Step 2. Remove the bracket facing the slot that you intend to use. Keep the screws for later use.
- Step 3. Align the card connector with the slot and press firmly until the card is completely seated on the slot.
- Step 4. Fasten the card to the chassis with screws.

## 2.4 Dual Monitor and Surround Display Features

### Dual Monitor Feature

This motherboard supports dual monitor feature. With the internal dual VGA output support (DVI-D and D-Sub), you can easily enjoy the benefits of dual monitor feature without installing any add-on VGA card to this motherboard. This motherboard also provides independent display controllers for DVI-D and D-Sub to support dual VGA output so that DVI-D and D-sub can drive same or different display contents.

To enable dual monitor feature, please follow the below steps:

1. Connect the DVI-D monitor cable to the VGA/DVI-D port on the I/O panel. And connect the D-Sub monitor cable to the VGA/D-Sub port on the I/O panel.



VGA/DVI-D port    VGA/D-Sub port

2. If you have installed onboard VGA driver from our support CD to your system already, you can freely enjoy the benefits of dual monitor function after your system boots. If you haven't installed onboard VGA driver yet, please install onboard VGA driver from our support CD to your system and restart your computer. Then you can start to use dual monitor function on this motherboard.



When you playback HDCP-protected video from Blu-ray (BD) or HD-DVD disc, the content will be displayed only in one of the two monitors instead of both monitors.

### Surround Display Feature

This motherboard supports surround display upgrade. With the internal dual VGA output support (DVI-D and D-Sub) and the external add-on PCI Express VGA card, you can easily enjoy the benefits of surround display feature.

Please refer to the following steps to set up a surround display environment:

1. Install the ATI™ PCI Express VGA card on PCIE2 slot. Please refer to page 11 for proper expansion card installation procedures for details.
2. Connect the DVI-D monitor cable to the VGA/DVI-D port on the I/O panel. And connect the D-Sub monitor cable to the VGA/D-Sub port on the I/O panel. Connect the other DVI-D monitor cable and D-Sub monitor cable to the corresponding connectors of the add-on PCI Express VGA card on PCIE2 slot.

- 
3. Boot your system. Press <F2> to enter BIOS setup. Enter "Share Memory" option to adjust the memory capability to [32MB], [64MB], [128MB] [256MB] or [512MB] to enable the function of VGA/D-sub. Please make sure that the value you select is less than the total capability of the system memory. If you do not adjust the BIOS setup, the default value of "Share Memory", [Auto], will disable VGA/D-Sub function when the add-on VGA card is inserted to this motherboard.
  4. Install the onboard VGA driver and the add-on PCI Express VGA card driver to your system. If you have installed the drivers already, there is no need to install them again.
  5. Set up a multi-monitor display.

**For Windows® XP / XP 64-bit OS:**

Right click the desktop, choose "Properties", and select the "Settings" tab so that you can adjust the parameters of the multi-monitor according to the steps below.

- A. Click the "Identify" button to display a large number on each monitor.
- B. Right-click the display icon in the Display Properties dialog that you wish to be your primary monitor, and then select "Primary". When you use multiple monitors with your card, one monitor will always be Primary, and all additional monitors will be designated as Secondary.
- C. Select the display icon identified by the number 2.
- D. Click "Extend my Windows desktop onto this monitor".
- E. Right-click the display icon and select "Attached", if necessary.
- F. Set the "Screen Resolution" and "Color Quality" as appropriate for the second monitor. Click "Apply" or "OK" to apply these new values.
- G. Repeat steps C through E for the diaplay icon identified by the number one, two, three and four.

**For Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:**

Right click the desktop, choose "Personalize", and select the "Display Settings" tab so that you can adjust the parameters of the multi-monitor according to the steps below.

- A. Click the number "2" icon.
- B. Click the items "This is my main monitor" and "Extend the desktop onto this monitor".
- C. Click "OK" to save your change.
- D. Repeat steps A through C for the display icon identified by the number three and four.

6. Use Surround Display. Click and drag the display icons to positions representing the physical setup of your monitors that you would like to use. The placement of display icons determines how you move items from one monitor to another.



---

### **HDCP Function**

HDCP function is supported on this motherboard. To use HDCP function with this motherboard, you need to adopt the monitor that supports HDCP function as well. Therefore, you can enjoy the superior display quality with high-definition HDCP encryption contents. Please refer to below instruction for more details about HDCP function.

### **What is HDCP?**

HDCP stands for High-Bandwidth Digital Content Protection, a specification developed by Intel® for protecting digital entertainment content that uses the DVI interface. HDCP is a copy protection scheme to eliminate the possibility of intercepting digital data midstream between the video source, or transmitter - such as a computer, DVD player or set-top box - and the digital display, or receiver - such as a monitor, television or projector. In other words, HDCP specification is designed to protect the integrity of content as it is being transmitted.

Products compatible with the HDCP scheme such as DVD players, satellite and cable HDTV set-top-boxes, as well as few entertainment PCs requires a secure connection to a compliant display. Due to the increase in manufacturers employing HDCP in their equipment, it is highly recommended that the HDTV or LCD monitor you purchase is compatible.

## 2.5 ATI™ Hybrid CrossFireX™ Operation Guide

This motherboard supports ATI™ Hybrid CrossFireX™ feature. ATI™ Hybrid CrossFireX™ brings multi-GPU performance capabilities by enabling an AMD RS780L (760G) integrated graphics processor and a discrete graphics processor to operate simultaneously with combined output to a single display for blisteringly-fast frame rates. Currently, ATI™ Hybrid CrossFireX™ Technology is only supported with Windows® Vista™ OS, and is not available with Windows® XP OS. In the future, ATI™ Hybrid CrossFireX™ may be supported with Windows® XP OS. Please visit our website for updated information.



### What does an ATI™ Hybrid CrossFireX™ system include?

An ATI™ Hybrid CrossFireX™ system includes an ATI™ Radeon™ 2400 or ATI™ Radeon™ 3450 series graphics processor and a motherboard based on an AMD RS780L (760G) integrated chipset, all operating in a Windows® Vista™ environment. Please refer to below PCI Express graphics card support list for ATI™ Hybrid CrossFireX™. For the future update of more compatible PCI Express graphics cards, please visit our website for further information.

Vendor	Chipset	Model	Driver
ATI	RADEON X2400PRO	MSI RX2400 PRO-TD256EH	Catalyst 8.631
	RADEON HD2400XT *	POWERCOLOR HD2400 XT 256MB DDR3	Catalyst 8.631
	RADEON HD3450	POWERCOLOR AX3450 256MD2-S	Catalyst 8.631

\* Currently, RADEON HD2400XT series graphics cards are only supported with AMD Phenom CPU. Please visit our website for the future driver update and the latest information.

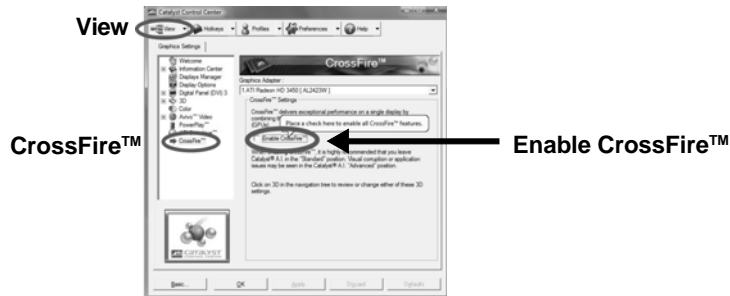
### Enjoy the benefit of ATI™ Hybrid CrossFireX™

- Step 1. Install one compatible PCI Express graphics card to PCIE2 slot (blue). For the proper installation procedures, please refer to section “Expansion Slots”.
- Step 2. Connect the monitor cable to the correspondent connector on the PCI Express graphics card on PCIE2 slot.
- Step 3. Boot your system. Press <F2> to enter BIOS setup. Enter “Advanced” screen, and enter “Chipset Settings”. Then set the option “Surround View” to [Enabled].
- Step 4. Boot into OS. Please remove the ATI™ driver if you have any VGA driver installed in your system.
- Step 5. Install the onboard VGA driver from our support CD to your system for both the onboard VGA and the discrete graphics card.
- Step 6. Restart your computer. Then you will find “ATI Catalyst Control Center” on your Windows® taskbar.



ATI Catalyst Control Center

Step 7. Double-click "ATI Catalyst Control Center". Click "View", click "CrossFire™", and then select the option "Enable CrossFire™".



Step 8. Click "Yes" to continue.



Step 9. Click "OK" to save your change.



Step 10. Reboot your system. Then you can freely enjoy the benefit of Hybrid™ CrossFireX™ feature.

English

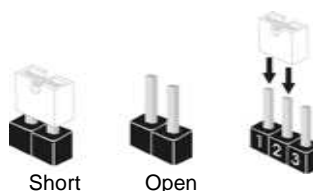
\* Hybrid CrossFireX™ appearing here is a registered trademark of ATI™ Technologies Inc., and is used only for identification or explanation and to the owners' benefit, without intent to infringe.

\* For further information of ATI™ Hybrid CrossFireX™ technology, please check AMD website for up dates and details.



## 2.6 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on pins, the jumper is "Short". If no jumper cap is placed on pins, the jumper is "Open". The illustration shows a 3-pin jumper whose pin1 and pin2 are "Short" when jumper cap is placed on these 2 pins.



Jumper	Setting	
PS2_USB_PW1 (see p.2, No. 1)		Short pin2, pin3 to enable +5VSB (standby) for PS/2 or USB wake up events.
<p>Note: To select +5VSB, it requires 2 Amp and higher standby current provided by power supply.</p>		

Clear CMOS Jumper (CLRCMOS1) (see p.2, No. 9)		Default Clear CMOS
---	--	--------------------

Note: CLRCMOS1 allows you to clear the data in CMOS. The data in CMOS includes system setup information such as system password, date, time, and system setup parameters. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLRCMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action.

## 2.7 Onboard Headers and Connectors



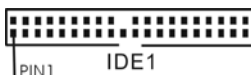
Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage of the motherboard!

**Floppy Connector**  
(33-pin FLOPPY1)  
(see p.2 No. 24)



**Note:** Make sure the red-striped side of the cable is plugged into Pin1 side of the connector.

**Primary IDE connector (Blue)**  
(39-pin IDE1, see p.2 No. 10)



connect the blue end to the motherboard  connect the black end to the IDE devices

80-conductor ATA 66/100/133 cable

**Note:** Please refer to the instruction of your IDE device vendor for the details.

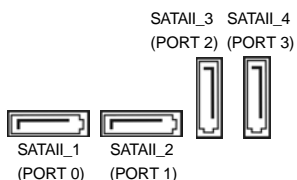
**Serial ATAII Connectors**

(SATAII\_1 (PORT 0):  
see p.2, No. 18)

(SATAII\_2 (PORT 1):  
see p.2, No. 17)

(SATAII\_3 (PORT 2):  
see p.2, No. 16)

(SATAII\_4 (PORT 3):  
see p.2, No. 15)



These four Serial ATAII (SATAII) connectors support SATAII or SATA hard disk for internal storage devices. The current SATAII interface allows up to 3.0 Gb/s data transfer rate.

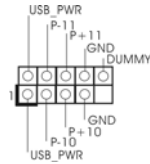
**Serial ATA (SATA) Data Cable**  
(Optional)



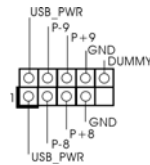
Either end of the SATA data cable can be connected to the SATA / SATAII hard disk or the SATAII connector on the motherboard.

### USB 2.0 Headers

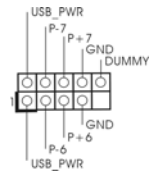
(9-pin USB10\_11)  
(see p.2 No. 22)



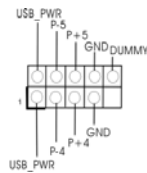
(9-pin USB8\_9)  
(see p.2 No. 21)



(9-pin USB6\_7)  
(see p.2 No. 20)



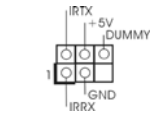
(9-pin USB4\_5)  
(see p.2 No. 19)



Besides four default USB 2.0 ports on the I/O panel, there are four USB 2.0 headers on this motherboard. Each USB 2.0 header can support two USB 2.0 ports.

### Infrared Module Header

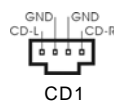
(5-pin IR1)  
(see p.2 No. 23)



This header supports an optional wireless transmitting and receiving infrared module.

### Internal Audio Connectors

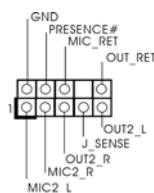
(4-pin CD1)  
(CD1: see p.2 No. 26)



This connector allows you to receive stereo audio input from sound sources such as a CD-ROM, DVD-ROM, TV tuner card, or MPEG card.

### Front Panel Audio Header

(9-pin HD\_AUDIO1)  
(see p.2, No. 25)



This is an interface for the front panel audio cable that allows convenient connection and control of audio devices.

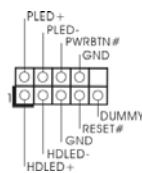
English



1. High Definition Audio supports Jack Sensing, but the panel wire on the chassis must support HDA to function correctly. Please follow the instruction in our manual and chassis manual to install your system.
2. If you use AC'97 audio panel, please install it to the front panel audio header as below:
  - A. Connect Mic\_IN (MIC) to MIC2\_L.
  - B. Connect Audio\_R (RIN) to OUT2\_R and Audio\_L (LIN) to OUT2\_L.
  - C. Connect Ground (GND) to Ground (GND).
  - D. MIC\_RET and OUT\_RET are for HD audio panel only. You don't need to connect them for AC'97 audio panel.
  - E. Enter BIOS Setup Utility. Enter Advanced Settings, and then select Chipset Configuration. Set the Front Panel Control option from [Auto] to [Enabled].

#### System Panel Header

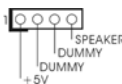
(9-pin PANEL1)  
(see p.2 No. 14)



This header accommodates several system front panel functions.

#### Chassis Speaker Header

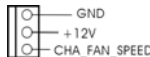
(4-pin SPEAKER 1)  
(see p.2 No. 8)



Please connect the chassis speaker to this header.

#### Chassis and Power Fan Connectors

(3-pin CHA\_FAN1)  
(see p.2 No. 11)



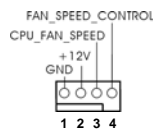
Please connect the fan cables to the fan connectors and match the black wire to the ground pin.

(3-pin PWR\_FAN1)  
(see p.2 No. 31)



#### CPU Fan Connector

(4-pin CPU\_FAN1)  
(see p.2 No. 5)



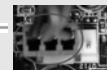
Please connect the CPU fan cable to this connector and match the black wire to the ground pin.

English

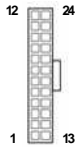


Though this motherboard provides 4-Pin CPU fan (Quiet Fan) support, the 3-Pin CPU fan still can work successfully even without the fan speed control function. If you plan to connect the 3-Pin CPU fan to the CPU fan connector on this motherboard, please connect it to Pin 1-3.

**Pin 1-3 Connected** ←  
3-Pin Fan Installation



**ATX Power Connector**  
 (24-pin ATXPWR1)  
 (see p.2 No. 7)



Please connect an ATX power supply to this connector.



Though this motherboard provides 24-pin ATX power connector, it can still work if you adopt a traditional 20-pin ATX power supply. To use the 20-pin ATX power supply, please plug your power supply along with Pin 1 and Pin 13.

20-Pin ATX Power Supply Installation

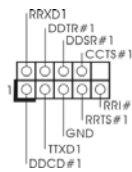


**ATX 12V Power Connector**  
 (4-pin ATX12V1)  
 (see p.2 No. 2)



Please note that it is necessary to connect a power supply with ATX 12V plug to this connector. Failing to do so will cause power up failure.

**Serial port Header**  
 (9-pin COM1)  
 (see p.2 No.32)



This COM1 header supports a serial port module.

---

## 2.8 Driver Installation Guide

To install the drivers to your system, please insert the support CD to your optical drive first. Then, the drivers compatible to your system can be auto-detected and listed on the support CD driver page. Please follow the order from up to bottom side to install those required drivers. Therefore, the drivers you install can work properly.

## 2.9 Installing Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit With RAID Functions

If you want to install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit on your SATA / SATAII HDDs with RAID functions, please refer to the document at the following path in the Support CD for detailed procedures:

..\ RAID Installation Guide

## 2.10 Installing Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit Without RAID Functions

If you want to install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit OS on your SATA / SATAII HDDs without RAID functions, please follow below procedures according to the OS you install.

### 2.10.1 Installing Windows® XP / XP 64-bit Without RAID Functions

If you want to install Windows® XP / XP 64-bit on your SATA / SATAII HDDs without RAID functions, please follow below steps.

#### Using SATA / SATAII HDDs without NCQ and Hot Plug functions

##### STEP 1: Set up BIOS.

- A. Enter BIOS SETUP UTILITY → Advanced screen → Storage Configuration.
- B. Set the "SATA Operation Mode" option to [IDE].

##### STEP 2: Install Windows® XP / XP 64-bit OS on your system.

### 2.10.2 Installing Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit Without RAID Functions

If you want to install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit on your SATA / SATAII HDDs without RAID functions, please follow below steps.

---

### Using SATA / SATAII HDDs without NCQ and Hot Plug functions

#### STEP 1: Set up BIOS.

- A. Enter BIOS SETUP UTILITY → Advanced screen → Storage Configuration.
- B. Set the "SATA Operation Mode" option to [IDE].

#### STEP 2: Install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS on your system.

### Using SATA / SATAII HDDs with NCQ and Hot Plug functions

#### STEP 1: Set Up BIOS.

- A. Enter BIOS SETUP UTILITY → Advanced screen → Storage Configuration.
- B. Set the "SATA Operation Mode" option to [AHCI].

#### STEP 2: Make a SATA / SATAII driver diskette.

- A. Insert the ASRock Support CD into your optical drive to boot your system.
- B. During POST at the beginning of system boot-up, press <F11> key, and then a window for boot devices selection appears. Please select CD-ROM as the boot device.
- C. When you see the message on the screen, "Generate Serial ATA driver diskette [YN]?", press <Y>.
- D. Then you will see these messages,

**Please insert a blank  
formatted diskette into floppy  
drive A:**

**press any key to start**

Please insert a floppy diskette into the floppy drive, and press any key.

- E. The system will start to format the floppy diskette and copy SATA / SATAII drivers into the floppy diskette.

#### STEP 3: Install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS on your system.

Insert the Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit optical disk into the optical drive to boot your system, and follow the instruction to install Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS on your system. When you see "Where do you want to install Windows?" page, please insert the ASRock Support CD into your optical drive, and click the "Load Driver" button on the left on the bottom to load the AMD AHCI drivers. AMD AHCI drivers are in the following path in our Support CD:

.. \I386 (For Windows® 7 / Vista™ OS)

.. \AMD64 (For Windows® 7 64-bit / Vista™ 64-bit OS)

After that, please insert Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit optical disk into the optical drive again to continue the installation.

---

## 2.11 Untied Overclocking Technology

This motherboard supports Untied Overclocking Technology, which means during overclocking, FSB enjoys better margin due to fixed PCI / PCIE buses. Before you enable Untied Overclocking function, please enter "Overclock Mode" option of BIOS setup to set the selection from [Auto] to [CPU, PCIE, Async.]. Therefore, CPU FSB is untied during overclocking, but PCI / PCIE buses are in the fixed mode so that FSB can operate under a more stable overclocking environment.



Please refer to the warning on page 7 for the possible overclocking risk before you apply Untied Overclocking Technology.

## 3. BIOS Information

The Flash Memory on the motherboard stores BIOS Setup Utility. When you start up the computer, please press <F2> during the Power-On-Self-Test (POST) to enter BIOS Setup utility; otherwise, POST continues with its test routines. If you wish to enter BIOS Setup after POST, please restart the system by pressing <Ctl> + <Alt> + <Delete>, or pressing the reset button on the system chassis. The BIOS Setup program is designed to be user-friendly. It is a menu-driven program, which allows you to scroll through its various sub-menus and to select among the predetermined choices. For the detailed information about BIOS Setup, please refer to the User Manual (PDF file) contained in the Support CD.

## 4. Software Support CD information

This motherboard supports various Microsoft® Windows® operating systems: 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit. The Support CD that came with the motherboard contains necessary drivers and useful utilities that will enhance motherboard features. To begin using the Support CD, insert the CD into your CD-ROM drive. It will display the Main Menu automatically if "AUTORUN" is enabled in your computer. If the Main Menu does not appear automatically, locate and double-click on the file "ASSETUP.EXE" from the "BIN" folder in the Support CD to display the menus.



---

## 1. Einführung

Wir danken Ihnen für den Kauf des ASRock **K8A780LM** Motherboard, ein zuverlässiges Produkt, welches unter den ständigen, strengen Qualitätskontrollen von ASRock gefertigt wurde. Es bietet Ihnen exzellente Leistung und robustes Design, gemäß der Verpflichtung von ASRock zu Qualität und Halbarkeit.

Diese Schnellinstallationsanleitung führt in das Motherboard und die schrittweise Installation ein. Details über das Motherboard finden Sie in der Bedienungsanleitung auf der Support-CD.



Da sich Motherboard-Spezifikationen und BIOS-Software verändern können, kann der Inhalt dieses Handbuchs ebenfalls jederzeit geändert werden. Für den Fall, dass sich Änderungen an diesem Handbuch ergeben, wird eine neue Version auf der ASRock-Website, ohne weitere Ankündigung, verfügbar sein. Die neuesten Grafikkarten und unterstützten CPUs sind auch auf der ASRock-Website aufgelistet.

ASRock-Website: <http://www.asrock.com>

Wenn Sie technische Unterstützung zu Ihrem Motherboard oder spezifische Informationen zu Ihrem Modell benötigen, besuchen Sie bitte unsere Webseite:

[www.asrock.com/support/index.asp](http://www.asrock.com/support/index.asp)

### 1.1 Kartoninhalt

ASRock **K8A780LM** Motherboard

(Micro ATX-Formfaktor: 24.4 cm x 19.8 cm; 9.6 Zoll x 7.8 Zoll)

ASRock **K8A780LM** Schnellinstallationsanleitung

ASRock **K8A780LM** Support-CD

Ein 80-adriges Ultra-ATA 66/100/133 IDE-Flachbandkabel

Zwei Seriell-ATA- (SATA) Datenkabel (Option)

Ein I/O Shield

## 1.2 Spezifikationen

<b>Plattform</b>	- Micro ATX-Formfaktor: 24.4 cm x 19.8 cm; 9.6 Zoll x 7.8 Zoll
<b>CPU</b>	- Sockel 754 für AMD Athlon™ 64- und Sempron-Prozessoren - Unterstützt Cool 'n' Quiet™-Technologie von AMD - Chipsatz beherrscht FSB 1000 MHz (2.0 GT/s) - Unterstützt Untied-Übertaktungstechnologie (siehe <b>VORSICHT 1</b> ) - Unterstützt Hyper-Transport- Technologie
<b>Chipsatz</b>	- Northbridge: AMD RS780L (760G) - Southbridge: AMD SB710
<b>Speicher</b>	- 2 x Steckplätze für DDR - Unterstützt DDR 400/333/266 non-ECC, ungepufferter Speicher - Max. Kapazität des Systemspeichers: 2GB
<b>Erweiterungssteckplätze</b>	- 1 x PCI Express 2.0 x16-Steckplatz (blau @ x16 Modus) - 1 x PCI Express 2.0 x1-Steckplatz - 2 x PCI -Steckplätze - Unterstützt ATI™ Hybrid CrossFireX™
<b>Onboard-VGA</b>	- Integrierte AMD Radeon 3000-Grafik - DX10 Klasse iGPU, Pixel Shader 4.0 - Maximal gemeinsam genutzter Speicher 512 MB (siehe <b>VORSICHT 2</b> ) - Doppel-VGA Ausgabe: unterstützt DVI-D und D-Sub Ports durch unabhängige Bildschirmanzeige Kontrolleure - Unterstützt DVI mit einer maximalen Auflösung von 1920 x 1200 bei 75 Hz - Unterstützt D-Sub mit einer maximalen Auflösung von 2048 x 1536 bei 60 Hz - unterstützt HDCP Funktion mit DVI-D Port
<b>Audio</b>	- 5.1 CH HD Audio (VIA® VT1705 Audio Codec)
<b>LAN</b>	- PCIe x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - Unterstützt Wake-On-LAN
<b>E/A-Anschlüsse an der Rückseite</b>	I/O Panel - 1 x PS/2-Mausanschluss - 1 x PS/2-Tastaturanschluss - 1 x Paralleler port: Unterstützung für ECP / EPP - 1 x VGA/D-Sub port - 1 x VGA/DVI-D port - 4 x Standard-USB 2.0-Anschlüsse

	<ul style="list-style-type: none"> <li>- 1 x RJ-45 LAN Port mit LED (ACT/LINK LED und SPEED LED)</li> <li>- HD Audiobuchse: Audioeingang / Lautsprecher vorne / Mikrofon</li> </ul>
<b>Anschlüsse</b>	<ul style="list-style-type: none"> <li>- 4 x SATAII-Anschlüsse, unterstützt bis 3.0 Gb/s Datenübertragungsrate, unterstützt RAID (RAID 0, RAID 1, RAID 10 und JBOD), NCQ, AHCI und "Hot Plug" Funktionen (siehe <b>VORSICHT 3</b>)</li> <li>- 1 x ATA133 IDE-Anschlüsse (Unterstützt bis 2 IDE-Geräte)</li> <li>- 1 x FDD-Anschlüsse</li> <li>- 1 x Infrarot-Modul-Header</li> <li>- 1 x COM-Anschluss-Header</li> <li>- CPU/Gehäuse/Stromlüfter-Anschluss</li> <li>- 24-pin ATX-Netz-Header</li> <li>- 4-pin anschluss für 12V-ATX-Netzteil</li> <li>- Interne Audio-Anschlüsse</li> <li>- Anschluss für Audio auf der Gehäusevorderseite</li> <li>- 4 x USB 2.0-Anschlüsse (Unterstützung 8 zusätzlicher USB 2.0-Anschlüsse) (siehe <b>VORSICHT 4</b>)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 8Mb AMI BIOS</li> <li>- AMI legal BIOS mit Unterstützung für "Plug and Play"</li> <li>- ACPI 1.1-Weckfunktionen</li> <li>- JumperFree-Modus</li> <li>- SMBIOS 2.3.1</li> <li>- Zentraleinheit, VCCM, NB Stromspannung Multianpassung</li> <li>- Unterstützt Smart BIOS</li> </ul>
<b>Support-CD</b>	<ul style="list-style-type: none"> <li>- Treiber, Dienstprogramme, Antivirussoftware (Probeversion), ASRock-Software-Suite (CyberLink DVD Suite und Creative Sound Blaster X-Fi MB) (OEM- und Testversion)</li> </ul>
<b>Einzigartige Eigenschaft</b>	<ul style="list-style-type: none"> <li>- ASRock OC Tuner (siehe <b>VORSICHT 5</b>)</li> <li>- Intelligent Energy Saver (Intelligente Energiesparfunktion) (siehe <b>VORSICHT 6</b>)</li> <li>- Sofortstart</li> <li>- ASRock Instant Flash (siehe <b>VORSICHT 7</b>)</li> <li>- ASRock OC DNA (siehe <b>VORSICHT 8</b>)</li> <li>- Hybrid Booster: <ul style="list-style-type: none"> <li>- Schrittloser CPU-Frequenz-Kontrolle (siehe <b>VORSICHT 9</b>)</li> <li>- ASRock U-COP (siehe <b>VORSICHT 10</b>)</li> <li>- Boot Failure Guard (B.F.G. – Systemstartfehlerschutz)</li> </ul> </li> </ul>

<b>Hardware Monitor</b>	<ul style="list-style-type: none"> <li>- CPU-Temperatursensor</li> <li>- Motherboardtemperatureerkennung</li> <li>- Drehzahlmessung für CPU/Gehäuse/Stromlüfter</li> <li>- CPU-Lüftergeräuschdämpfung</li> <li>- Spannungsüberwachung: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>Betriebssysteme</b>	<ul style="list-style-type: none"> <li>- Unterstützt Microsoft® Windows® 7 / 7 64-Bit / Vista™ / Vista™ 64-Bit / XP / XP 64-Bit</li> </ul>
<b>Zertifizierungen</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Gemäß Ökodesign-Richtlinie (EuP) (Stromversorgung gemäß Ökodesign-Richtlinie (EuP) erforderlich) (siehe <b>VORSICHT 11</b>)</li> </ul>

\* Für die ausführliche Produktinformation, besuchen Sie bitte unsere Website:

<http://www.asrock.com>

#### WARNUNG

Beachten Sie bitte, dass Overclocking, einschließlich der Einstellung im BIOS, Anwenden der Untied Overclocking-Technologie oder Verwenden von Overclocking-Werkzeugen von Dritten, mit einem gewissen Risiko behaftet ist. Overclocking kann sich nachteilig auf die Stabilität Ihres Systems auswirken oder sogar Komponenten und Geräte Ihres Systems beschädigen. Es geschieht dann auf eigene Gefahr und auf Ihre Kosten. Wir übernehmen keine Verantwortung für mögliche Schäden, die aufgrund von Overclocking verursacht wurden.

#### VORSICHT!

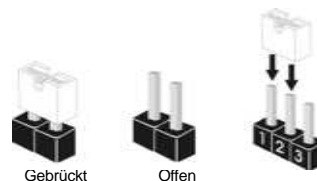
1. Dieses Motherboard unterstützt die Untied-Übertaktungstechnologie. Unter "Entkoppelte Übertaktungstechnologie" auf Seite 24 finden Sie detaillierte Informationen.
2. Die Maximalspeichergröße ist von den Chipshändler definiert und umgetauscht. Bitte überprüfen Sie AMD website für die neuliche Information.
3. Vor Installation der SATAII-Festplatte an den SATAII-Anschluss lesen Sie bitte "Setup-Anleitung für SATAII-Festplatte" auf Seite 26 der "Bedienungsanleitung" auf der Support-CD, um Ihre SATAII-Festplatte dem SATAII-Modus anzugleichen. Sie können die SATA-Festplatte auch direkt mit dem SATAII-Anschluss verbinden.
4. Das Power Management für USB 2.0 arbeitet unter Microsoft® Windows® 7 64-Bit / 7 / Vista™ 64-Bit / Vista™ / XP 64-Bit / XP SP1 oder SP2 einwandfrei.
5. Es ist ein benutzerfreundlicher ASRock Übertaktenswerkzeug, das erlaubt, dass Sie Ihr System durch den Hardware-Monitor Funktion zu überblicken und Ihre Hardware-Geräte übertakten, um die beste Systemleistung unter der Windows® Umgebung zu erreichen. Besuchen Sie bitte unsere Website für die Operationsverfahren von ASRock OC Tuner. ASRock-Website: <http://www.asrock.com>

- 
6. Mit einer eigenen, modernen Hardware und speziellem Softwaredesign, bietet der Intelligent Energy Saver eine revolutionäre Technologie zur bisher unerreichten Energieeinsparung. Ein Spannungsregler kann die Anzahl von Ausgangsphasen zur Effektivitätsverbesserung reduzieren, wenn sich die CPU im Leerlauf befindet. Mit anderen Worten: Sie genießen außergewöhnliche Energieeinsparung und verbesserten Wirkungsgrad ohne Leistungseinschränkungen. Wenn Sie die Intelligent Energy Saver-Funktion nutzen möchten, aktivieren Sie zuvor die „Cool 'n' Quiet“-Option im BIOS. Weitere Bedienungshinweise zum Intelligent Energy Saver finden Sie auf unseren Internetseiten.  
ASRock-Internetseite: <http://www.asrock.com>
  7. ASRock Instant Flash ist ein im Flash-ROM eingebettetes BIOS-Flash-Programm. Mithilfe dieses praktischen BIOS-Aktualisierungswerkzeugs können Sie das System-BIOS aktualisieren, ohne dafür zuerst Betriebssysteme wie MS-DOS oder Windows® aufrufen zu müssen. Mit diesem Programm bekommen Sie durch Drücken der <F6>-Taste während des POST-Vorgangs oder durch Drücken der <F2>-Taste im BIOS-Setup-Menü Zugang zu ASRock Instant Flash. Sie brauchen dieses Werkzeug einfach nur zu starten und die neue BIOS-Datei auf Ihrem USB-Flash-Laufwerk, Diskettenlaufwerk oder der Festplatte zu speichern, und schon können Sie Ihr BIOS mit nur wenigen Klickvorgängen ohne Bereitstellung einer zusätzlichen Diskette oder eines anderen komplizierten Flash-Programms aktualisieren. Achten Sie darauf, dass das USB-Flash-Laufwerk oder die Festplatte das Dateisystem FAT32/16/12 benutzen muss.
  8. Allein der Name – OC DNA\* – beschreibt es wörtlich, was die Software zu leisten vermag. OC DNA ist ein von ASRock exklusiv entwickeltes Dienstprogramm, das Nutzern eine bequeme Möglichkeit bietet, Übertaktungseinstellungen aufzuzeichnen und sie Anderen mitzuteilen. Es hilft Ihnen, Ihre Übertaktungsaufzeichnung im Betriebssystem zu speichern und vereinfacht den komplizierten Aufzeichnungsvorgang von Übertaktungseinstellungen. Mit OC DNA können Sie Ihre Übertaktungseinstellungen als Profil abspeichern und Ihren Freunden zugänglich machen! Ihre Freunde können dann das Übertaktungsprofil auf ihren eigenen Systemen laden, um dieselben Übertaktungseinstellungen. Mit OC DNA können Sie Ihre Übertaktungseinstellungen als Profil abspeichern und Ihren Freunden zugänglich machen! Ihre Freunde können dann das Übertaktungsprofil auf ihren eigenen Systemen laden, um dieselben Übertaktungseinstellungen wie Sie zu erhalten! Beachten Sie bitte, dass das Übertaktungsprofil nur bei einem identischen Motherboard gemeinsam genutzt und funktionsfähig gemacht werden kann. Übertaktungseinstellungen wie Sie zu erhalten! Beachten Sie bitte, dass das Übertaktungsprofil nur bei einem identischen Motherboard gemeinsam genutzt und funktionsfähig gemacht werden kann.

- 
9. Obwohl dieses Motherboard stufenlose Steuerung bietet, wird Overclocking nicht empfohlen. Frequenzen, die von den empfohlenen CPU-Busfrequenzen abweichen, können Instabilität des Systems verursachen oder die CPU beschädigen.
  10. Wird eine Überhitzung der CPU registriert, führt das System einen automatischen Shutdown durch. Bevor Sie das System neu starten, prüfen Sie bitte, ob der CPU-Lüfter am Motherboard richtig funktioniert, und stecken Sie bitte den Stromkabelstecker aus und dann wieder ein. Um die Wärmeableitung zu verbessern, bitte nicht vergessen, etwas Wärmeleitpaste zwischen CPU und Kühlkörper zu sprühen.
  11. EuP steht für Energy Using Product und kennzeichnet die Ökodesign-Richtlinie, die von der Europäischen Gemeinschaft zur Festlegung des Energieverbrauchs von vollständigen Systemen in Kraft gesetzt wurde. Gemäß dieser Ökodesign-Richtlinie (EuP) muss der gesamte Netzstromverbrauch von vollständigen Systemen unter 1,00 Watt liegen, wenn sie ausgeschaltet sind. Um dem EuP-Standard zu entsprechen, sind ein EuP-fähiges Motherboard und eine EuP-fähige Stromversorgung erforderlich. Gemäß einer Empfehlung von Intel muss eine EuP-fähige Stromversorgung dem Standard entsprechen, was bedeutet, dass bei einem Stromverbrauch von 100 mA die 5-Volt-Standby-Energieeffizienz höher als 50% sein sollte. Für die Wahl einer EuP-fähigen Stromversorgung empfehlen wir Ihnen, weitere Details beim Hersteller der Stromversorgung abzufragen.

### 1.3 Einstellung der Jumper

Die Abbildung verdeutlicht, wie Jumper gesetzt werden. Werden Pins durch Jumperkappen verdeckt, ist der Jumper "gebrückt". Werden keine Pins durch Jumperkappen verdeckt, ist der Jumper "offen". Die Abbildung zeigt einen 3-Pin Jumper dessen Pin1 und Pin2 "gebrückt" sind, bzw. es befindet sich eine Jumper-Kappe auf diesen beiden Pins.



Jumper	Einstellung	
PS2_USB_PW1 (siehe S.2, No. 1)		Überbrücken Sie Pin2, Pin3, um +5VSB (Standby) zu setzen und die PS/2 oder USB-Weckfunktionen zu aktivieren.

Hinweis: Um +5VSB nutzen zu können, muss das Netzteil auf dieser Leitung 2A oder mehr leisten können.



CMOS löschen (CLRCMOS1, 3-Pin jumper) (siehe S.2, No. 9)	
--	--

Hinweis: CLRCMOS1 erlaubt Ihnen das Löschen der CMOS-Daten. Diese beinhalten das System-Passwort, Datum, Zeit und die verschiedenen BIOS-Parameter. Um die Systemparameter zu löschen und auf die Werkseinstellung zurückzusetzen, schalten Sie bitte den Computer ab und entfernen das Stromkabel. Benutzen Sie eine Jumperkappe, um die Pin 2 und Pin 3 an CLRCMOS1 für 5 Sekunden kurzzuschließen. Bitte vergessen Sie nicht, den Jumper wieder zu entfernen, nachdem das CMOS gelöscht wurde. Bitte vergessen Sie nicht, den Jumper wieder zu entfernen, nachdem das CMOS gelöscht wurde. Wenn Sie den CMOS-Inhalt gleich nach dem Aktualisieren des BIOS löschen müssen, müssen Sie zuerst das System starten und dann wieder ausschalten, bevor Sie den CMOS-Inhalt löschen.



## 1.4 Anschlüsse



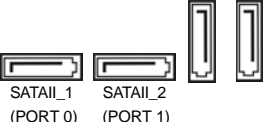
Anschlussleisten sind KEINE Jumper. Setzen Sie KEINE Jumperkappen auf die Pins der Anschlussleisten. Wenn Sie die Jumperkappen auf die Anschlüsse setzen, wird das Motherboard permanent beschädigt!

Anschluss	Beschreibung
Anschluss für das Floppy-Laufwerk (33-Pin FLOPPY1) (siehe S.2, No. 24)	  <p>die rotgestreifte Seite auf Stift 1</p>

Hinweis: Achten Sie darauf, dass die rotgestreifte Seite des Kabel mit der Stift 1-Seite des Anschlusses verbunden wird.

Primärer IDE-Anschluss (blau) (39-pin IDE1, siehe S.2, No. 10)	
Blauer Anschluss zum Motherboard	Schwarzer Anschluss zur Festplatte
 <p>80-adriges ATA 66/100/133 Kabel</p>	

Hinweis: Details entnehmen Sie bitte den Anweisungen Ihres IDE-Gerätehändlers.

<b>Seriell-ATAII-Anschlüsse</b> (SATAII_1 (PORT0): siehe S.2, No. 18) (SATAII_2 (PORT1): siehe S.2, No. 17) (SATAII_3 (PORT2): siehe S.2, No. 16) (SATAII_4 (PORT3): siehe S.2, No. 15)		Diese vier Serial ATA (SATA II) -Anschlüsse unterstützen interne SATA- oder SATA II-Festplatten. Die aktuelle SATAII-Schnittstelle ermöglicht eine Datenübertragungsrate bis 3,0 Gb/s.
---	---	--

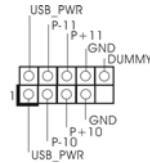
<b>Serial ATA- (SATA-) Datenkabel</b> (Option)		Sie können beide Enden des SATA-Datenkabels entweder mit der SATA / SATAII-Festplatte oder dem SATAII-Anschluss am Mainboard verbinden.
---	---	---



### USB 2.0-Header

(9-pol. USB10\_11)

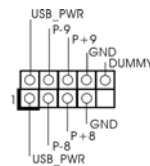
(siehe S.2 - No. 22)



Zusätzlich zu den vier üblichen USB 2.0-Ports an den I/O-Anschlüssen befinden sich vier USB 2.0-Anschlussleisten am Motherboard. Pro USB 2.0-Anschlussleiste werden zwei USB 2.0-Ports unterstützt.

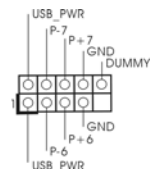
(9-pol. USB8\_9)

(siehe S.2 - No. 21)



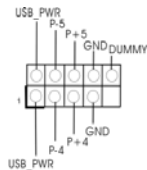
(9-pol. USB6\_7)

(siehe S.2 - No. 20)



(9-pol. USB4\_5)

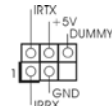
(siehe S.2 - No. 19)



### Infrarot-Modul-Header

(5-pin IR1)

(siehe S.2 - No. 23)

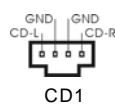


Dieser Header unterstützt ein optionales, drahtloses Sende- und Empfangs-Infrarotmodul.

### Interne Audio-Anschlüsse

(4-Pin CD1)

(CD1: siehe S.2, No. 26)

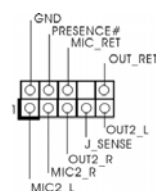


Diese ermöglichen Ihnen Stereo-Signalquellen, wie z. B. CD-ROM, DVD-ROM, TV-Tuner oder MPEG-Karten mit Ihrem System zu verbinden.

### Anschluss für Audio auf der Gehäusevorderseite

(9-Pin HD\_AUDIO1)

(siehe S.2, No. 25)



Dieses Interface zu einem Audio-Panel auf der Vorderseite Ihres Gehäuses, ermöglicht Ihnen eine bequeme Kontrolle über Audio-Geräte.

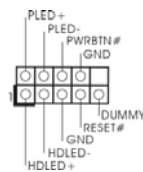
Deutsch



1. High Definition Audio unterstützt Jack Sensing (automatische Erkennung falsch angeschlossener Geräte), wobei jedoch die Bildschirmverdrahtung am Gehäuse HDA unterstützen muss, um richtig zu funktionieren. Beachten Sie bei der Installation im System die Anweisungen in unserem Handbuch und im Gehäusehandbuch.
2. Wenn Sie die AC'97-Audioleiste verwenden, installieren Sie diese wie nachstehend beschrieben an der Front-Audioanschlussleiste:
  - A. Schließen Sie Mic\_IN (MIC) an MIC2\_L an.
  - B. Schließen Sie Audio\_R (RIN) an OUT2\_R und Audio\_L (LIN) an OUT2\_L an.
  - C. Schließen Sie Ground (GND) an Ground (GND) an.
  - D. MIC\_RET und OUT\_RET sind nur für den HD-Audioanschluss gedacht. Diese Anschlüsse müssen nicht an die AC'97-Audioleiste angeschlossen werden.
  - E. Rufen Sie das BIOS-Setup-Dienstprogramm auf. Wechseln Sie zu Erweiterte Einstellungen und wählen Sie Chipset-Konfiguration. Setzen Sie die Option Frontleistenkontrolle von [Automatisch] auf [Aktiviert].

#### System Panel Anschluss

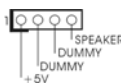
(9-Pin PANEL1)  
(siehe S.2, No. 14)



Dieser Anschluss ist für die verschiedenen Funktionen der Gehäusefront.

#### Gehäuselautsprecher-Header

(4-pin SPEAKER1)  
(siehe S.2, No. 8)



Schließen Sie den Gehäuselautsprecher an diesen Header an.

#### Gehäuse- und Stromlüfteranschlüsse

(3-pin CHA\_FAN1)  
(siehe S.2, No. 11)



(3-pin PWR\_FAN1)  
(siehe S.2, No. 31)

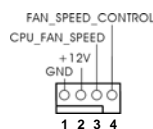


Verbinden Sie die Lüfterkabel mit den Lüfteranschlüssen, wobei der schwarze Draht an den Schutzleiterstift angeschlossen wird.

Deutsch

#### CPU-Lüfteranschluss

(4-pin CPU\_FAN1)  
(siehe S.2, No. 5)



Verbinden Sie das CPU - Lüfterkabel mit diesem Anschluss und passen Sie den schwarzen Draht dem Erdungsstift an.



Obwohl dieses Motherboard einen vierpoligen CPU-Lüfteranschluss (Quiet Fan) bietet, können auch CPU-Lüfter mit dreipoligem Anschluss angeschlossen werden; auch ohne Geschwindigkeitsregulierung. Wenn Sie einen dreipoligen CPU-Lüfter an den CPU-Lüferanschluss dieses Motherboards anschließen möchten, verbinden Sie ihn bitte mit den Pins 1 – 3.

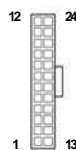
**Pins 1–3 anschließen** ←



Lüfter mit dreipoligem Anschluss installieren

#### ATX-Netz-Header

(24-pin ATXPWR1)  
(siehe S.2, No. 7)



Verbinden Sie die ATX-Stromversorgung mit diesem Header.



Obwohl dieses Motherboard einen 24-pol. ATX-Stromanschluss 12 bietet, kann es auch mit einem modifizierten traditionellen 20-pol. ATX-Netzteil verwendet werden. Um ein 20-pol. ATX-Netzteil zu verwenden, stecken Sie den Stecker mit Pin 1 und Pin 13 ein.



Installation eines 20-pol. ATX-Netzteils 1 13

#### Anschluss für 12V-ATX-Netzteil

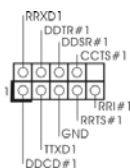
(4-pin ATX12V1)  
(siehe S.2, No. 2)



Beachten Sie bitte, dass Sie eine Stromversorgung mit ATX 12-Volt-Stecker mit diesem Anschluss verbinden müssen, damit ausreichend Strom geliefert werden kann. Andernfalls reicht der Strom nicht aus, das System zu starten.

#### COM-Anschluss-Header

(9-pin COM1)  
(siehe S.2 - No. 32)



Dieser COM-Anschluss-Header wird verwendet, um ein COM-Anschlussmodul zu unterstützen.

---

## **2. BIOS-Information**

Das Flash Memory dieses Motherboards speichert das Setup-Utility. Drücken Sie <F2> während des POST (Power-On-Self-Test) um ins Setup zu gelangen, ansonsten werden die Testroutinen weiter abgearbeitet. Wenn Sie ins Setup gelangen wollen, nachdem der POST durchgeführt wurde, müssen Sie das System über die Tastenkombination <Ctrl> + <Alt> + <Delete> oder den Reset-Knopf auf der Gehäusevorderseite, neu starten. Natürlich können Sie einen Neustart auch durchführen, indem Sie das System kurz ab- und danach wieder anschalten. Das Setup-Programm ist für eine bequeme Bedienung entwickelt worden. Es ist ein menügesteuertes Programm, in dem Sie durch unterschiedliche Untermenüs scrollen und die vorab festgelegten Optionen auswählen können. Für detaillierte Informationen zum BIOS-Setup, siehe bitte das Benutzerhandbuch (PDF Datei) auf der Support CD.

## **3. Software Support CD information**

Dieses Motherboard unterstützt eine Reihe von Microsoft® Windows® Betriebssystemen: 7 / 7 64-Bit / Vista™ / Vista™ 64-Bit / XP / XP 64-Bit. Die Ihrem Motherboard beigelegte Support-CD enthält hilfreiche Software, Treiber und Hilfsprogramme, mit denen Sie die Funktionen Ihres Motherboards verbessern können. Legen Sie die Support-CD zunächst in Ihr CD-ROM-Laufwerk ein. Der Willkommensbildschirm mit den Installationsmenüs der CD wird automatisch aufgerufen, wenn Sie die "Autorun"-Funktion Ihres Systems aktiviert haben. Erscheint der Willkommensbildschirm nicht, so "doppelklicken" Sie bitte auf das File ASSETUP.EXE im BIN-Verzeichnis der Support-CD, um die Menüs aufzurufen. Das Setup-Programm soll es Ihnen so leicht wie möglich machen. Es ist menügesteuert, d.h. Sie können in den verschiedenen Untermenüs Ihre Auswahl treffen und die Programme werden dann automatisch installiert.

---

## 1. Introduction

Merci pour votre achat d'une carte mère ASRock **K8A780LM** une carte mère très fiable produite selon les critères de qualité rigoureux de ASRock. Elle offre des performances excellentes et une conception robuste conformément à l'engagement d'ASRock sur la qualité et la fiabilité au long terme.

Ce Guide d'installation rapide présente la carte mère et constitue un guide d'installation pas à pas. Des informations plus détaillées concernant la carte mère pourront être trouvées dans le manuel l'utilisateur qui se trouve sur le CD d'assistance.



Les spécifications de la carte mère et le BIOS ayant pu être mis à jour, le contenu de ce manuel est sujet à des changements sans notification. Au cas où n'importe quelle modification intervenait sur ce manuel, la version mise à jour serait disponible sur le site web ASRock sans nouvel avis. Vous trouverez les listes de prise en charge des cartes VGA et CPU également sur le site Web ASRock. Site web ASRock, <http://www.asrock.com>  
Si vous avez besoin de support technique en relation avec cette carte mère, veuillez consulter notre site Web pour de plus amples informations particulières au modèle que vous utilisez.  
[www.asrock.com/support/index.asp](http://www.asrock.com/support/index.asp)

### 1.1 Contenu du paquet

Carte mère ASRock **K8A780LM**

(Facteur de forme Micro ATX: 9.6 pouces x 7.8 pouces, 24.4 cm x 19.8 cm)

Guide d'installation rapide ASRock **K8A780LM**

CD de soutien ASRock **K8A780LM**

Un câble ruban IDE Ultra ATA 66/100/133 80 conducteurs

Deux câble de données Serial ATA (SATA) (Optionnelle)

Un écran I/O

## 1.2 Spécifications

<b>Format</b>	<ul style="list-style-type: none"> <li>- Facteur de forme Micro ATX: 9.6 pouces x 7.8 pouces, 24.4 cm x 19.8 cm</li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>- Socket 754 pour processeurs AMD Athlon™ 64 et Sempro</li> <li>- Supporte la technologie Cool 'n' Quiet™ d'AMD</li> <li>- Chipset est capable de fonctionner jusqu'à une vitesse de 1000 MHz (2,0 GT/s)</li> <li>- Prend en charge la technologie Untied Overclocking (voir <b>ATTENTION 1</b>)</li> <li>- Prise en charge de la technologie Hyper Transport</li> </ul>
<b>Chipsets</b>	<ul style="list-style-type: none"> <li>- Northbridge: AMD RS780L (760G)</li> <li>- Southbridge: AMD SB710</li> </ul>
<b>Mémoire</b>	<ul style="list-style-type: none"> <li>- 2 x slots DIMM DDR</li> <li>- Supporter DDR 400/333/266 non-ECC, sans amortissement mémoire</li> <li>- Capacité maxi de mémoire système: 2GB</li> </ul>
<b>Slot d'extension</b>	<ul style="list-style-type: none"> <li>- 1 x slot PCI Express 2.0 x16 (bleu @ mode x16)</li> <li>- 1 x slot PCI Express 2.0 x1</li> <li>- 2 x slots PCI</li> <li>- Prend en charge ATI™ Hybrid CrossFireX™</li> </ul>
<b>VGA sur carte</b>	<ul style="list-style-type: none"> <li>- Graphiques intégrés à l'AMD Radeon 3000</li> <li>- DX10 classe iGPU, nuanceur de pixels 4.0</li> <li>- mémoire partagée max 512MB (voir <b>ATTENTION 2</b>)</li> <li>- Output de VGA Dual: supporter DVI-D et D-Sub ports par les contrôleurs de display indépendents</li> <li>- Prend en charge le DVI avec une résolution maximale jusqu'à 1920x1200 @ 75Hz</li> <li>- Prend en charge le D-Sub avec une résolution maximale jusqu'à 2048x1536 @ 60Hz</li> <li>- Supporter la fonction de HDCP avec le port de DVI-D</li> </ul>
<b>Audio</b>	<ul style="list-style-type: none"> <li>- 5.1 Son haute définition de CH (codec audio VIA® VT1705)</li> </ul>
<b>LAN</b>	<ul style="list-style-type: none"> <li>- PCIe x1 Gigabit LAN 10/100/1000 Mb/s</li> <li>- Realtek RTL8111DL</li> <li>- Support du Wake-On-LAN</li> </ul>
<b>Panneau arrière E/S</b>	<p>I/O Panel</p> <ul style="list-style-type: none"> <li>- 1 x port souris PS/2</li> <li>- 1 x port clavier PS/2</li> <li>- 1 x port parallèle: Support ECP/EPP</li> <li>- 1 x port VGA/D-Sub</li> </ul>

	<ul style="list-style-type: none"> <li>- 1 x port VGA/DVI-D</li> <li>- 4 x ports USB 2.0 par défaut</li> <li>- 1 x port LAN RJ-45 avec LED (ACT/LED CLIGNOTANTE et LED VITESSE)</li> <li>- Prise HD Audio: Entrée Ligne / Haut-parleur frontal / Microphone</li> </ul>
<b>Connecteurs</b>	<ul style="list-style-type: none"> <li>- 4 x connecteurs SATAII, prennent en charge un taux de transfert de données pouvant aller jusqu'à 3.0Go/s, supporte RAID (RAID 0, RAID 1, RAID 10 et JBOD), NCQ, AHCI et "Hot-Plug" (Connexion à chaud) (voir <b>ATTENTION 3</b>)</li> <li>- 1 x ATA133 IDE connecteurs (prend en charge jusqu'à 2 périphériques IDE)</li> <li>- 1 x Port Disquette</li> <li>- 1 x En-tête du module infrarouge</li> <li>- 1 x En-tête de port COM</li> <li>- Connecteur pour ventilateur de CPU/Châssis/Ventilateur</li> <li>- br. 24 connecteur d'alimentation ATX</li> <li>- br. 4 connecteur d'alimentation 12V ATX</li> <li>- Connecteurs audio internes</li> <li>- Connecteur audio panneau avant</li> <li>- 4 x En-tête USB 2.0 (prendre en charge 8 ports USB 2.0 supplémentaires) (voir <b>ATTENTION 4</b>)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 8Mb BIOS AMI</li> <li>- BIOS AMI</li> <li>- Support du "Plug and Play"</li> <li>- Compatible pour événements de réveil ACPI 1.1</li> <li>- Gestion jumperless</li> <li>- Support SMBIOS 2.3.1</li> <li>- CPU, VCCM, NB Tension Multi-ajustement</li> <li>- Prise en charge du Smart BIOS</li> </ul>
<b>CD d'assistance</b>	<ul style="list-style-type: none"> <li>- Pilotes, utilitaires, logiciel anti-virus (Version d'essai), Suite logicielle ASRock (CyberLink DVD Suite et Creative Sound Blaster X-Fi MB) (Version OEM et d'essai)</li> </ul>
<b>Caractéristique unique</b>	<ul style="list-style-type: none"> <li>- Tuner ASRock OC (voir <b>ATTENTION 5</b>)</li> <li>- Économiseur d'énergie intelligent (voir <b>ATTENTION 6</b>)</li> <li>- l'Instant Boot</li> <li>- ASRock Instant Flash (voir <b>ATTENTION 7</b>)</li> <li>- ASRock OC DNA (voir <b>ATTENTION 8</b>)</li> <li>- L'accélérateur hybride: <ul style="list-style-type: none"> <li>- Contrôle direct de la fréquence CPU (voir <b>ATTENTION 9</b>)</li> <li>- ASRock U-COP (voir <b>ATTENTION 10</b>)</li> </ul> </li> </ul>

<b>Surveillance système</b>	<ul style="list-style-type: none"> <li>- Détection de la température de l'UC</li> <li>- Mesure de température de la carte mère</li> <li>- Tachéomètre ventilateur CPU/Châssis/Ventilateur</li> <li>- Ventilateur silencieux d'unité centrale</li> <li>- Monitoring de la tension: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>OS</b>	- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit
<b>Certifications</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Prêt pour EuP (alimentation Prêt pour EuP requise) (voir <b>ATTENTION 11</b>)</li> </ul>

\* Pour de plus amples informations sur les produits, s'il vous plaît visitez notre site web:  
<http://www.asrock.com>

#### ATTENTION

Il est important que vous réalisiez qu'il y a un certain risque à effectuer l'overclocking, y compris ajuster les réglages du BIOS, appliquer la technologie Untied Overclocking, ou utiliser des outils de tiers pour l'overclocking. L'overclocking peut affecter la stabilité de votre système, ou même causer des dommages aux composants et dispositifs de votre système. Si vous le faites, c'est à vos frais et vos propres risques. Nous ne sommes pas responsables des dommages possibles causés par l'overclocking.

### ATTENTION!

1. Cette carte mère prend en charge la technologie Untied Overclocking. Veuillez lire "La technologie de surcadencage à la volée" à la page 24 pour plus d'informations.
2. La dimension maximum du memoire partage est definie par le vendeur de jeu de puces et est sujet de changer. Veuillez verifier la AMD website pour les informations recentes SVP.
3. Avant d'installer le disque dur SATAII au connecteur SATAII, veuillez lire le Guide « Installation du disque dur SATAII » à la page 26 du « Manuel de l'utilisateur » qui se trouve sur le CD de support pour régler votre lecteur de disque dur SATAII au mode SATAII. Vous pouvez aussi directement connecter le disque dur SATA au connecteur SATAII.
4. La gestion de l'alimentation pour l'USB 2.0 fonctionne bien sous Microsoft® Windows® 7 64-bit / 7 / Vista™ 64-bit/ Vista™ / XP 64-bit / XP SP1; SP2.
5. Il s'agit d'un usage facile ASRock overclocking outil qui vous permet de surveiller votre système en fonction de la monitrice de matériel et overclocker vos périphériques de matériels pour obtenir les meilleures performances du système sous environnement Windows®. S'il vous plaît visitez notre site web pour le fonctionnement des procédures de Tuner ASRock OC.

ASRock website: <http://www.asrock.com>

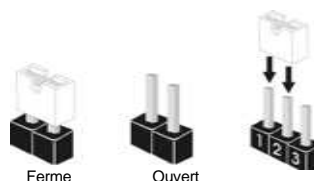


- 
6. Avec une conception matérielle et logicielle propriétaire avancée, Intelligent Energy Saver (L'économiseur d'énergie intelligent) est une technologie révolutionnaire qui apporte des économies d'énergie sans précédent. Le régulateur de tension permet de réduire le nombre de phases de sortie pour améliorer le rendement lorsque les noyaux du CPU sont en veille. En d'autres termes, il peut amener des économies d'énergie exceptionnelles et améliorer le rendement énergétique sans sacrifier aux performances de calcul. Pour utiliser la fonction Intelligent Energy Saver (L'économiseur d'énergie intelligent), veuillez activer l'option Cool 'n' Quiet dans l'outil de configuration du BIOS par avance. Veuillez visiter notre site Web pour connaître les procédures d'utilisation de l' Intelligent Energy Saver (L'économiseur d'énergie intelligent).  
Site Web d'ASRock: <http://www.asrock.com>
  7. O ASRock Instant Flash é um utilitário de flash do BIOS incorporado na memória Flash ROM. Esta prática ferramenta de atualização do BIOS permite-lhe actualizar o BIOS do sistema sem necessitar de entrar nos sistemas operativos, como o MS-DOS ou o Windows®. Com este utilitário, poderá premir a tecla <F6> durante o teste de arranque POST ou premir a tecla <F2> para exibir o menu de configuração do BIOS para aceder ao ASRock Instant Flash. Execute esta ferramenta para guardar o novo ficheiro de BIOS numa unidade flash USB, numa disquete ou num disco rígido, em seguida, poderá actualizar o BIOS com apenas alguns cliques sem ter de utilizar outra disquete ou outro complicado utilitário de flash. Note que a unidade flash USB ou a unidade de disco rígido devem utilizar o sistema de ficheiros FAT32/16/12.
  8. Le nom même du logiciel – OC DNA vous indique littéralement ce dont il est capable. OC DNA, utilitaire exclusif développé par ASRock, offre une façon pratique pour l'utilisateur d'enregistrer les paramètres d'overclockage et de les partager avec d'autres. Il vous aide à enregistrer votre overclockage sous le système d'exploitation et simplifie le processus compliqué d'enregistrement des paramètres d'overclockage. Avec OC DNA, vous pouvez enregistrer vos réglages d'overclockage en tant que profil et les partager avec vos amis ! Vos amis peuvent alors charger le profil d'overclockage sur leur propre système pour obtenir les mêmes réglages d'overclockage que les vôtres ! Veuillez noter que le profil d'overclockage peut être partagé et utilisé uniquement sur la même carte mère.
  9. Même si cette carte mère offre un contrôle sans souci, il n'est pas recommandé d'y appliquer un over clocking. Les fréquences autres que les fréquences de bus d'UC recommandées risquent de déstabiliser le système ou d'endommager l'UC.
  10. Lorsqu'une surchauffe du CPU est détectée, le système s'arrête automatiquement. Avant de redémarrer le système, veuillez vérifier que le ventilateur d'UC sur la carte mère fonctionne correctement et débranchez le cordon d'alimentation, puis rebranchez-le. Pour améliorer la dissipation de la chaleur, n'oubliez pas de mettre de la pâte thermique entre le CPU le dissipateur lors de l'installation du PC.

- 
11. EuP, qui signifie Energy Using Product (Produit Utilisant de l'Energie), est une disposition établie par l'Union Européenne pour définir la consommation de courant pour le système entier. Conformément à la norme EuP, le courant CA total du système entier doit être inférieur à 1 W en mode d'arrêt. Pour être conforme à la norme EuP, une carte mère EuP et une alimentation EuP sont requises. Selon les suggestions d'Intel, l'alimentation électrique EuP doit correspondre à la norme, qui est que l'efficacité électrique de 5v en mode de veille doit être supérieure à 50% pour 100 mA de consommation de courant. Pour choisir une alimentation électrique conforme à la norme EuP, nous vous recommandons de consulter votre fournisseur de courant pour plus de détails.

### 1.3 Réglage des cavaliers

L'illustration explique le réglage des cavaliers. Quand un capuchon est placé sur les broches, le cavalier est « FERME ». Si aucun capuchon ne relie les broches, le cavalier est « OUVERT ». L'illustration montre un cavalier à 3 broches dont les broches 1 et 2 sont « FERMEES » quand le capuchon est placé sur ces 2 broches.



Le cavalier	Description
PS2_USB_PW1 (voir p.2 fig. 1)	 Court-circuitez les broches 2 et 3 pour choisir +5VSB (standby) et permettre aux périphériques PS/2 ou USB de réveiller le système.

Note: Pour sélectionner +5VSB, il faut obligatoirement 2 Amp et un courant standby supérieur fourni par l'alimentation.

Effacer la CMOS (CLR CMOS1) (voir p.2 fig. 9)	
	Paramètres par défaut / Effacer la CMOS

Note: CLR CMOS1 vous permet d'effacer les données qui se trouvent dans la CMOS. Les données dans la CMOS comprennent les informations de configuration du système telles que le mot de passe système, la date, l'heure et les paramètres de configuration du système. Pour effacer et réinitialiser les paramètres du système pour retrouver la configuration par défaut, veuillez mettre l'ordinateur hors tension et débrancher le cordon d'alimentation de l'alimentation électrique. Attendez 15 secondes, puis utilisez un capuchon de cavalier pour court-circuiter la broche 2 et la broche 3 sur CLR CMOS1 pendant 5 secondes. Après avoir court-circuité le cavalier Effacer la CMOS, veuillez enlever le capuchon de cavalier. Toutefois, veuillez ne pas effacer la CMOS tout de suite après avoir mis le BIOS à jour. Si vous avez besoin d'effacer la CMOS lorsque vous avez fini de mettre le BIOS à jour, vous devez d'abord initialiser le système, puis le mettre hors tension avant de procéder à l'opération d'effacement de la CMOS.

## 1.4 Connecteurs



Les connecteurs NE SONT PAS des cavaliers. NE PLACEZ AUCUN capuchon sur ces connecteurs. Poser les bouchons pour cavaliers audessus des connecteurs provoquera des dommages irrémédiables à la carte mère!

### Les connecteurs

### Description

Connecteur du lecteur de disquette

(FLOPPY1 br. 33)  
(voir p.2 fig. 24)



le côté avec fil rouge côté Broche1

Note: Assurez-vous que le côté avec fil rouge du câble est bien branché sur le côté Broche1 du connecteur.

Connecteur IDE primaire (bleu)

(IDE1 br. 39, voir p.2 No. 10)



connecteur bleu  
vers la carte mère



connecteur noir  
vers le disque dur

Câble ATA 66/100/133 80 conducteurs

Note: Veuillez vous reporter aux instructions du fabricant de votre IDE périphérique pour les détails.

Connecteurs Série ATAII

(SATAII\_1 (PORT0):

voir p.2 fig. 18)

(SATAII\_2 (PORT1):

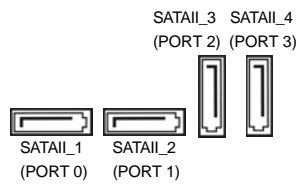
voir p.2 fig. 17)

(SATAII\_3 (PORT2):

voir p.2 fig. 16)

(SATAII\_4 (PORT3):

voir p.2 fig. 15)



Ces quatre connecteurs Serial ATA (SATAII) prennent en charge les disques durs SATA ou SATAII pour les dispositifs de stockage interne. L'interface SATAII actuelle permet des taux transferts de données pouvant aller jusqu'à 3,0 Go/s.

Câble de données Série ATA (SATA)

(en option)

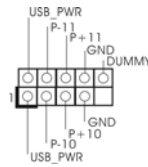


L'une des deux extrémités du câble de données SATA peut être connectée au disque dur SATA / SATAII ou au connecteur SATAII sur la carte mère.

---

### En-tête USB 2.0

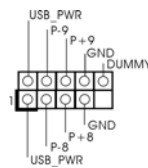
(USB10\_11 br.9)  
(voir p.2 No. 22)



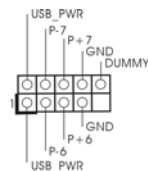
A côté des quatre ports USB 2.0 par défaut sur le panneau E/S, il y a quatre embases USB 2.0 sur cette carte mère.

Chaque embase USB 2.0 peut prendre en charge 2 ports USB 2.0.

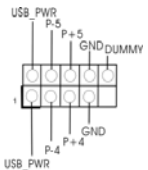
(USB8\_9 br.9)  
(voir p.2 No. 21)



(USB6\_7 br.9)  
(voir p.2 No. 20)



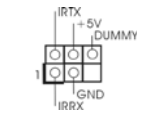
(USB4\_5 br.9)  
(voir p.2 No. 19)



---

### En-tête du module infrarouge

(IR1 br.5)  
(voir p.2 No. 23)

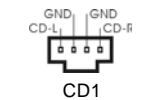


Cet en-tête supporte un module infrarouge optionnel de transfert et de réception sans fil.

---

### Connecteurs audio internes

(CD1 br. 4)  
(CD1: voir p.2 fig. 26)

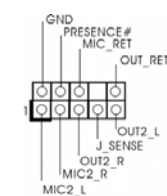


Ils vous permettent de gérer des entrées audio à partir de sources stéréo comme un CD-ROM, DVD-ROM, un tuner TV ou une carte MPEG.

---

### Connecteur audio panneau avant

(HD\_AUDIO1 br. 9)  
(voir p.2 fig. 25)



C'est une interface pour un câble audio en façade qui permet le branchement et le contrôle commodes de périphériques audio.

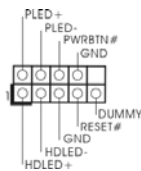
**Français**



1. L'audio à haute définition (HDA) prend en charge la détection de fiche, mais le fil de panneau sur le châssis doit prendre en charge le HDA pour fonctionner correctement. Veuillez suivre les instructions dans notre manuel et le manuel de châssis afin d'installer votre système.
2. Si vous utilisez le panneau audio AC'97, installez-le sur l'adaptateur audio du panneau avant conformément à la procédure ci-dessous :
  - A. Connectez Mic\_IN (MIC) à MIC2\_L.
  - B. Connectez Audio\_R (RIN) à OUT2\_R et Audio\_L (LIN) à OUT2\_L.
  - C. Connectez Ground (GND) à Ground (GND).
  - D. MIC\_RET et OUT\_RET sont réservés au panneau audio HD. Vous n'avez pas besoin de les connecter pour le panneau audio AC'97.
  - E. Entrer dans l'utilitaire de configuration du BIOS. Saisir les Paramètres avancés puis sélectionner Configuration du jeu de puces. Définir l'option panneau de commande de [Auto] à [Activé].

**Connecteur pour panneau**

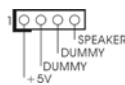
(PANEL1 br. 9)  
(voir p.2 fig. 14)



Ce connecteur offre plusieurs fonctions système en façade.

**Connecteur du haut-parleur du châssis**

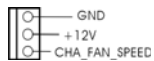
(SPEAKER1 br. 4)  
(voir p.2 fig. 8)



Veuillez connecter le haut-parleur de châssis sur ce connecteur.

**Connecteur pour châssis et ventilateur**

(CHA\_FAN1 br. 3)  
(voir p.2 No. 11)



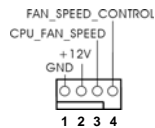
Branchez les câbles du ventilateur aux connecteurs pour ventilateur et faites correspondre le fil noir à la broche de terre.

(PWR\_FAN1 br. 3)  
(voir p.2 No. 31)



**Connecteur pour ventilateur CPU**

(CPU\_FAN1 br. 4)  
(voir p.2 fig. 5)



Veuillez connecter un câble de ventilateur d'UC sur ce connecteur et brancher le fil noir sur la broche de terre.



Bien que cette carte mère offre un support de (Ventilateur silencieux) ventilateur de CPU à 4 broches, le ventilateur de CPU à 3 broches peut bien fonctionner même sans la fonction de commande de vitesse du ventilateur. Si vous prévoyez de connecter le ventilateur de CPU à 3 broches au connecteur du ventilateur de CPU sur cette carte mère, veuillez le connecter aux broches 1-3.

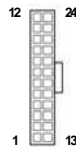
**Installation de ventilateur à 3 broches** ←



Broches 1-3 connectées

**Connecteur d'alimentation ATX**

(ATXPWR1 br. 24)  
(voir p.2 fig. 7)



Veuillez connecter une unité d'alimentation ATX sur ce connecteur.



Bien que cette carte mère fournisse un connecteur de courant ATX 24 broches, elle peut encore fonctionner si vous adopter une alimentation traditionnelle ATX 20 broches. Pour utiliser une alimentation ATX 20 broches, branchez à l'alimentation électrique ainsi qu'aux broches 1 et 13.



20-Installation de l'alimentation électrique ATX

**Connecteur d'alimentation 12VATX**

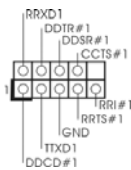
(ATX12V1 br. 4)  
(voir p.2 fig. 2)



Veuillez noter qu'il est nécessaire de connecter une unité d'alimentation électrique avec prise ATX 12V sur ce connecteur afin d'avoir une alimentation suffisante. Faute de quoi, il ne sera pas possible de mettre sous tension.

**En-tête de port COM**

(COM1 br.9)  
(voir p.2 No. 32)



Cette en-tête de port COM est utilisée pour prendre en charge un module de port COM.

ables du  
connecteurs pour  
ites correspondre  
boche de terre.

Français

---

## **2. Informations sur le BIOS**

La puce Flash Memory sur la carte mère stocke le Setup du BIOS. Lorsque vous démarrez l'ordinateur, veuillez presser <F2> pendant le POST (Power-On-Self-Test) pour entrer dans le BIOS; sinon, le POST continue ses tests de routine. Si vous désirez entrer dans le BIOS après le POST, veuillez redémarrer le système en pressant <Ctl> + <Alt> + <Suppr>, ou en pressant le bouton de reset sur le boîtier du système. Vous pouvez également redémarrer en éteignant le système et en le rallumant. L'utilitaire d'installation du BIOS est conçu pour être convivial. C'est un programme piloté par menu, qui vous permet de faire défiler par ses divers sous-menus et de choisir parmi les choix prédéterminés. Pour des informations détaillées sur le BIOS, veuillez consulter le Guide de l'utilisateur (fichier PDF) dans le CD technique.

## **3. Informations sur le CD de support**

Cette carte mère supporte divers systèmes d'exploitation Microsoft® Windows®: 7 / 7 64 bits / Vista™ / Vista™ 64 bits / XP / XP 64 bits. Le CD technique livré avec cette carte mère contient les pilotes et les utilitaires nécessaires pour améliorer les fonctions de la carte mère. Pour utiliser le CD technique, insérez-le dans le lecteur de CD-ROM. Le Menu principal s'affiche automatiquement si "AUTORUN" est activé dans votre ordinateur. Si le Menu principal n'apparaît pas automatiquement, localisez dans le CD technique le fichier "ASSETUP.EXE" dans le dossier BIN et double-cliquez dessus pour afficher les menus.



---

## 1. Introduzione

Grazie per aver scelto una scheda madre ASRock **K8A780LM**, una scheda madre affidabile prodotta secondo i severi criteri di qualità ASRock. Le prestazioni eccellenti e il design robusto si conformano all'impegno di ASRock nella ricerca della qualità e della resistenza. Questa Guida Rapida all'Installazione contiene l'introduzione alla motherboard e la guida passo-passo all'installazione. Informazioni più dettagliate sulla motherboard si possono trovare nel manuale per l'utente presente nel CD di supporto.



Le specifiche della scheda madre e il software del BIOS possono essere aggiornati, pertanto il contenuto di questo manuale può subire variazioni senza preavviso. Nel caso in cui questo manuale sia modificato, la versione aggiornata sarà disponibile sul sito di ASRock senza altro avviso. Sul sito ASRock si possono anche trovare le più recenti schede VGA e gli elenchi di CPU supportate.

ASRock website <http://www.asrock.com>

Se si necessita dell'assistenza tecnica per questa scheda madre, visitare il nostro sito per informazioni specifiche sul modello che si sta usando.

[www.asrock.com/support/index.asp](http://www.asrock.com/support/index.asp)

### 1.1 Contenuto della confezione

Scheda madre ASRock **K8A780LM**

(Micro ATX Form Factor: 9.6-in x 7.8-in, 24.4 cm x 19.8 cm)

Guida di installazione rapida ASRock **K8A780LM**

CD di supporto ASRock **K8A780LM**

Un cavo IDE 80-pin Ultra ATA 66/100/133

Due cavo dati Serial ATA (SATA) (Opzionale)

Un I/OShield

## 1.2 Specifiche

<b>Piattaforma</b>	- Micro ATX Form Factor: 9.6-in x 7.8-in, 24.4 cm x 19.8 cm
<b>Processore</b>	- Connettore 754 per processori AMD Athlon™ 64 e Sempron - Supporto tecnologia AMD Cool 'n' Quiet™ - Chipset con capacità FSB di 1000 MHz (2.0 GT/s) - Supporta la tecnologia overclocking "slegata" (vedi <b>ATTENZIONE 1</b> ) - Supporta la tecnologia Hyper-Transport
<b>Chipset</b>	- Northbridge: AMD RS780L (760G) - Southbridge: AMD SB710
<b>Memoria</b>	- 2 x slot DDR DIMM - Supporto DDR 400/333/266 non-ECC, memoria senza buffer - Capacità massima della memoria di sistema: 2GB
<b>Slot di espansione</b>	- 1 x slot PCI Express 2.0 x16 (blu a modalità x16) - 1 x slot PCI Express 2.0 x1 - 2 x slot PCI - Supporto di ATI™ Hybrid CrossFireX™
<b>VGA su scheda</b>	- Grafica AMD Radeon 3000 integrata - iGPU classe DX10, Pixel Shader 4.0 - Memoria massima condivisa 512MB (vedi <b>ATTENZIONE 2</b> ) - Uscita VGA Doppia: supporto porte DVI-D e D-Sub tramite verificatore display indipendente - Supporta DVI con risoluzione massima fino a 1920x1200 @ 75Hz - Supporta D-Sub con risoluzione massima fino a 2048x1536 @ 60Hz - Supporto per funzione HDCP con porta DVI-D port
<b>Audio</b>	- 5.1 Audio HD CH (VIA® VT1705 Audio Codec)
<b>LAN</b>	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - Supporta Wake-On-LAN
<b>Pannello posteriore I/O</b>	I/O Panel - 1 x Porta PS/2 per mouse - 1 x Porta PS/2 per tastiera - 1 x Porta parallela: supporto ECP/EPP - 1 x Porta VGA/D-Sub - 1 x Porta VGA/DVI-D - 4 x Porte USB 2.0 già integrate

	<ul style="list-style-type: none"> <li>- 1 x porte LAN RJ-45 con LED (LED azione/collegamento e LED velocità)</li> <li>- Connettore HD Audio: ingresso linea / cassa frontale / microfono</li> </ul>
<b>Connettori</b>	<ul style="list-style-type: none"> <li>- 4 x connettori SATAII 3.0Go/s, sopporta RAID (RAID 0, RAID 1, RAID 10 e JBOD), NCQ, AHCI e "Collegamento a caldo" (vedi <b>ATTENZIONE 3</b>)</li> <li>- 1 x connettori ATA133 IDE (sopporta fino a 2 dispositivi IDE)</li> <li>- 1 x porta Floppy</li> <li>- 1 x Collettore modulo infrarossi</li> <li>- 1 x collettore porta COM</li> <li>- Connettore CPU/Chassis/Alimentazione ventola</li> <li>- 24-pin collettore alimentazione ATX</li> <li>- 4-pin connettore ATX 12V</li> <li>- Connettori audio interni</li> <li>- Connettore audio sul pannello frontale</li> <li>- 4 x Collettore USB 2.0 (sopporta 8 porte USB 2.0) (vedi <b>ATTENZIONE 4</b>)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 8Mb AMI BIOS</li> <li>- Suppor AMI legal BIOS</li> <li>- Supporta "Plug and Play"</li> <li>- Compatibile con ACPI 1.1 wake up events</li> <li>- Supporta jumperfree</li> <li>- Supporta SMBIOS 2.3.1</li> <li>- Regolazione multi-voltaggio CPU, VCCM, NB</li> <li>- Smart BIOS supportato</li> </ul>
<b>CD di supporto</b>	<ul style="list-style-type: none"> <li>- Driver, utilità, software antivirus (Versione dimostrativa), Suite software ASRock (Suite CyberLink DVD e Creative Sound Blaster X-Fi MB) (OEM e Versione demo)</li> </ul>
<b>Caratteristica speciale</b>	<ul style="list-style-type: none"> <li>- Sintonizzatore ASRock OC (vedi <b>ATTENZIONE 5</b>)</li> <li>- Intelligent Energy Saver (Risparmio intelligente dell'energia) (vedi <b>ATTENZIONE 6</b>)</li> <li>- Instant Boot</li> <li>- ASRock Instant Flash (vedi <b>ATTENZIONE 7</b>)</li> <li>- ASRock OC DNA (vedi <b>ATTENZIONE 8</b>)</li> <li>- Booster ibrido: <ul style="list-style-type: none"> <li>- Stepless control per frequenza del processore (vedi <b>ATTENZIONE 9</b>)</li> <li>- ASRock U-COP (vedi <b>ATTENZIONE 10</b>)</li> <li>- Boot Failure Guard (B.F.G.)</li> </ul> </li> </ul>

<b>Monitoraggio Hardware</b>	<ul style="list-style-type: none"> <li>- Sensore per la temperatura del processore</li> <li>- Sensore temperatura scheda madre</li> <li>- Indicatore di velocità per la ventola del CPU/Chassis/Alimentazione</li> <li>- Ventola CPU silenziosa</li> <li>- Voltaggio: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>Compatibilità SO</b>	- Microsoft® Windows® 7 / 7 64 bit / Vista™ / Vista™ 64 bit / XP / XP 64 bit
<b>Certificazioni</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Predisposto EuP (è necessaria l'alimentazione predisposta per il sistema EuP) (vedi <b>ATTENZIONE 11</b>)</li> </ul>

\* Per ulteriori informazioni, prego visitare il nostro sito internet: <http://www.asrock.com>

#### AVVISO

Si prega di prendere atto che la procedura di overclocking implica dei rischi, come anche la regolazione delle impostazioni del BIOS, l'applicazione della tecnologia Untied Overclocking Technology, oppure l'uso di strumenti di overclocking forniti da terzi. L'overclocking può influenzare la stabilità del sistema, ed anche provocare danni ai componenti ed alle periferiche del sistema. La procedura è eseguita a proprio rischio ed a proprie spese. Noi non possiamo essere ritenuti responsabili per possibili danni provocati dall'overclocking.

### ATTENZIONE!

1. Questa scheda madre supporta la tecnologia overclocking "slegata". Per i dettagli leggere "Tecnologia di Untied Overclocking" a pagina 24.
2. La dimensione massima della memoria condivisa viene stabilita dal venditore del chipset ed è soggetta a modificazioni. Prego fare riferimento al sito internet AMD per le ultime informazioni.
3. Prima di installare il disco rigido SATAII con il connettore SATAII, leggere la "Guida per la configurazione del disco rigido SATAII" a pagina 26 del "Manuale utente" nel CD in dotazione in modo da poter predisporre il disco rigido SATAII per la modalità SATAII. È anche possibile connettere il disco rigido SATA direttamente al connettore SATAII.
4. La Gestione Risorse per USB 2.0 funziona perfettamente con Microsoft® Windows® 7 64-bit / 7 / Vista™ 64-bit / Vista™ / XP 64 bit / XP SP1; SP2.
5. Si tratta di uno strumento di sincronizzazione ASRock di facile uso in grado di implementare il controllo del sistema tramite la funzione di hardware monitor e sincronizzare le Vostre unità hardware per ottenere la migliore prestazione in Windows®. Prego visitare il nostro sito Internet per ulteriori dettagli circa l'uso del Sintonizzatore ASRock OC.  
ASRock website: <http://www.asrock.com>

- 
6. Grazie ad un innovative hardware proprietario ed alla progettazione specifica del software, Intelligent Energy Saver (Risparmio intelligente dell'energia), è una tecnologia rivoluzionaria che consente di realizzare risparmi energetici senza pari. Il regolatore di tensione è in grado di ridurre il numero di fasi in uscita in modo da migliorare l'efficienza quando i nuclei della CPU sono inattivi. In altre parole, permette di realizzare risparmi energetica senza pari e di migliorare l'efficienza energetica senza ridurre le prestazioni del computer. Per usare la funzione Intelligent Energy Saver (Risparmio intelligente dell'energia), attivare l'opzione Cool 'n' Quiet nella configurazione avanzata del BIOS. Si prega di visitare il nostro sito Internet per le procedure di funzionamento dell'Intelligent Energy Saver (Risparmio intelligente dell'energia).  
Sito Internet di ASRock: <http://www.asrock.com>
  7. ASRock Instant Flash è una utilità Flash BIOS integrata nella Flash ROM. Questo comodo strumento d'aggiornamento del BIOS permette di aggiornare il sistema BIOS senza accedere a sistemi operativi come MS-DOS or Windows®. Con questa utilità, si può premere il tasto <F6> durante il POST, oppure il tasto <F2> nel menu BIOS per accedere ad ASRock Instant Flash. Avviare questo strumento e salvare il nuovo file BIOS nell'unità Flash USB, dischetto (disco floppy) o disco rigido; poi si può aggiornare il BIOS con pochi clic, senza preparare altri dischetti (dischi floppy) o altre complicate utilità Flash. Si prega di notare che l'unità Flash USB o il disco rigido devono usare il File System FAT32/16/12.
  8. Il nome stesso del software – OC DNA – dice di cosa è capace. OC DNA, una utilità esclusiva sviluppata da ASRock, fornisce un modo comodo per registrare le impostazioni OC e condividerle con gli altri. Aiuta a salvare le registrazioni di overclocking nel sistema operativo e semplifica la complicata procedura di registrazione delle impostazioni di overclocking. Con OC DNA, puoi salvare le impostazioni OC come un profilo da condividere con gli amici! I tuoi amici possono scaricare il profilo OC sul loro sistema operativo per ottenere le tue stesse impostazioni OC! Si prega di notare che il profilo OC può essere condiviso e modificato solo sulla stessa scheda madre.
  9. Anche se questa motherboard offre il controllo stepless, non si consiglia di effettuare l'overclocking. L'uso di frequenze diverse da quelle raccomandate per il bus CPU possono provocare l'instabilità del sistema o danneggiare la CPU.
  10. Se il processore si surriscalda, il sistema si chiude automaticamente. Prima di riavviare il sistema, assicurarsi che la ventolina CPU della scheda madre funzioni correttamente; scollegare e ricollegare il cavo d'alimentazione. Per migliorare la dissipazione del calore, ricordare di applicare l'apposita pasta siliconica tra il processore e il dissipatore quando si installa il sistema.

- 
11. EuP, che sta per Energy Using Product (Prodotto che consuma energia) , era una normativa emanata dall'Unione Europea che definiva il consumo energetico del sistema completo. In base all'EuP, l'alimentazione totale del sistema completo deve essere inferiore a 1,00 W quando è spento. Per soddisfare la norma EuP sono necessari un alimentatore e una scheda elettrica predisposti EuP. In base ai suggerimenti Intel l'alimentatore predisposto EuP deve soddisfare lo standard secondo cui l'efficienza energetica in standby di 5 v è più alta del 50% con un consumo di corrente di 100 mA. Per la scelta di un'alimentatore predisposto EuP consigliamo di verificare ulteriori dettagli con il produttore.

---

### 1.3 Setup dei Jumpers

L'illustrazione mostra come sono settati i jumper. Quando il ponticello è posizionato sui pin, il jumper è "CORTOCIRCUITATO". Se sui pin non ci sono ponticelli, il jumper è "APERTO". L'illustrazione mostra un jumper a 3 pin in cui il pin1 e il pin2 sono "CORTOCIRCUITATI" quando il ponticello è posizionato su questi pin.



#### Jumper                      Settaggio del Jumper

PS2\_USB\_PW1  
(vedi p.2 item 1)



Cortocircuitare pin2, pin3 per settare a +5VSB (standby) e abilitare PS/2 o USB wake up events.

Nota: Per selezionare +5VSB, si richiedono almeno 2 Ampere e il consumo di corrente in standby sarà maggiore.

Resettare la CMOS  
(CLR\_CMOS1)  
(vedi p.2 item 9)



Nota: CLR\_CMOS1 permette di cancellare i dati presenti nel CMOS. I dati del CMOS comprendono le informazioni di configurazione quali la password di sistema, data, ora, e i parametri di configurazione del sistema. Per cancellare e ripristinare i parametri del sistema, spegnere il computer e togliere il cavo di alimentazione dalla presa di corrente. Dopo aver lasciato trascorrere 15 secondi, utilizzare un cappuccio jumper per cortocircuitare i pin 2 e 3 su CLR\_CMOS1 per 5 secondi. Dopo aver cortocircuitato il jumper Clear CMOS jumper, togliere il terminatore jumper. Non cancellare la CMOS subito dopo aver aggiornato il BIOS. Se è necessario cancellare la CMOS una volta completato l'aggiornamento del BIOS, è necessario riavviare prima il sistema, e poi spegnerlo prima di procedere alla cancellazione della CMOS.

## 1.4 Connettori



I connettori NON sono jumpers. NON COLLOCARE i ponticelli sui connettori. Installando dei cappucci a ponticello sui connettori si causeranno danni permanenti alla scheda madre!

### Connettori

### Descrizione dei connettori

Connettore del Floppy disk (33-pin FLOPPY1) (vedi p.2 item 24)



Lato del Pin1 con la striscia rossa

Nota: Assicurarsi che il lato del cavo con la striscia rossa sia inserito nel lato Pin1 del connettore.

Connettore IDE primario (blu)

(39-pin IDE1, vedi p.2 Nr. 10)



Connettore blu alla schedamadre



Connettore nero all'hard disk drive

Cavo ATA 66/100/133 a 80 Pin

Nota: Fate riferimento alle istruzioni del produttore del dispositivo IDE per maggiori dettagli.

Connettori Serial ATAII

(SATAII\_1 (PORT0):

vedi p.2 Nr. 18)

(SATAII\_2 (PORT1):

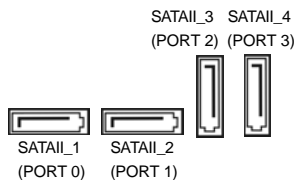
vedi p.2 Nr. 17)

(SATAII\_3 (PORT2):

vedi p.2 Nr. 16)

(SATAII\_4 (PORT3):

vedi p.2 Nr. 15)



Questi quattro connettori Serial ATA (SATAII) supportano le periferiche di archiviazione HD SATA o SATAII per le funzioni di archiviazione interna. SATAII (SATAII) supportano cavi SATAII per dispositivi di memoria interni. L'interfaccia SATAII attuale permette velocità di trasferimento dati fino a 3.0 Gb/s.

Cavi dati Serial ATA (SATA)

(Opzionale)

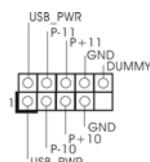


Entrambe le estremità del cavo dati SATA possono collegarsi all'hard disk SATA / SATAII o al connettore SATAII sulla scheda madre.

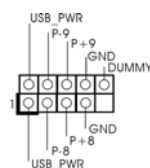


### Collettore USB 2.0

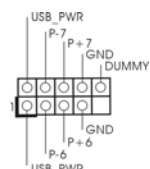
(9-pin USB10\_11)  
(vedi p.2 No. 22)



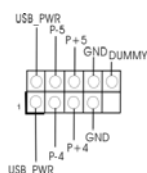
(9-pin USB8\_9)  
(vedi p.2 No. 21)



(9-pin USB6\_7)  
(vedi p.2 No. 20)



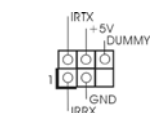
(9-pin USB4\_5)  
(vedi p.2 No. 19)



Oltre alle quattro porte USB 2.0 predefinite nel pannello I/O, la scheda madre dispone di quattro intestazioni USB 2.0. Ciascuna intestazione USB 2.0 supporta due porte USB 2.0.

### Collettore modulo infrarossi

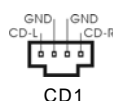
(5-pin IR1)  
(vedi p.2 Nr. 23)



Questo collettore supporta moduli ad infrarossi optional per la trasmissione e la ricezione senza fili.

### Connettori audio interni

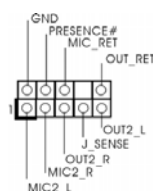
(4-pin CD1)  
(CD1: vedi p.2 item 26)



Permettono di ricevere input stereo audio da fonti di suono come CD-ROM, DVD-ROM, TV tuner, o schede MPEG.

### Connettore audio sul pannello frontale

(9-pin HD\_AUDIO1)  
(vedi p.2 item 25)



È un'interfaccia per il cavo del pannello audio. Che consente connessione facile e controllo dei dispositivi audio.

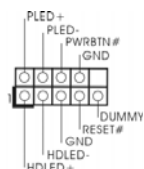
Italiano



1. La caratteristica HDA (High Definition Audio) supporta il rilevamento dei connettori, però il pannello dei cavi sul telaio deve supportare la funzione HDA (High Definition Audio) per far sì che questa operi in modo corretto. Attenersi alle istruzioni del nostro manuale e del manuale del telaio per installare il sistema.
2. Se si utilizza un pannello audio AC'97, installarlo nell'installazione audio del pannello anteriore, come indicato di seguito:
  - A. Collegare Mic\_IN (MIC) a MIC2\_L.
  - B. Collegare Audio\_R (RIN) a OUT2\_R e Audio\_L (LIN) ad OUT2\_L.
  - C. Collegare Ground (GND) a Ground (GND).
  - D. MIC\_RET e OUT\_RET sono solo per il pannello audio HD. Non è necessario collegarli per il pannello audio AC'97.
  - E. Entrare nel programma di impostazione BIOS. Entrare su Impostazioni avanzate, quindi selezionare Configurazione chipset. Impostare l'opzione Comando pannello anteriore da [Auto] a [Attivato].

#### Connettore del pannello frontale

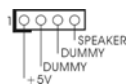
(9-pin PANEL1)  
(vedi p.2 item 14)



Questo connettore accoglie diverse funzioni del pannello frontale.

#### Collettore casse telaio

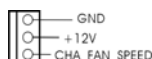
(4-pin SPEAKER1)  
(vedi p.2 item 8)



Collegare le casse del telaio a questo collettore.

#### Collettori Chassis ed alimentazione ventola

(3-pin CHA\_FAN1)  
(vedi p.2 Nr. 11)



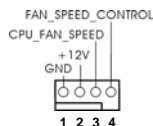
Collegare i cavi della ventola ai corrispondenti connettori facendo combaciare il cavo nero col pin di terra.

(3-pin PWR\_FAN1)  
(vedi p.2 Nr. 31)



#### Connettore ventolina CPU

(4-pin CPU\_FAN1)  
(vedi p.2 item 5)



Collegare il cavo della ventolina CPU a questo connettore e far combaciare il filo nero al pin terra.



Sebbene la presente scheda madre disponga di un supporto per ventola CPU a 4 piedini (ventola silenziosa), la ventola CPU a 3 piedini è in grado di funzionare anche senza la funzione di controllo della velocità della ventola. Se si intende collegare la ventola CPU a 3 piedini al connettore della ventola CPU su questa scheda madre, collegarla ai piedini 1-3.

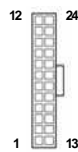
**Piedini 1-3 collegati** ←

Installazione della ventola a 3 piedini



#### Collettore alimentazione ATX

(24-pin ATXPWR1)  
(vedi p.2 item 7)

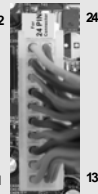


Collegare la sorgente d'alimentazione ATX a questo collettore.



Con questa scheda madre, c'è in dotazione un connettore elettrico ATX a 24 pin, ma può funzionare lo stesso se si adotta un alimentatore ATX a 20 pin. Per usare l'alimentatore ATX a 20 pin, collegare l'alimentatore con il Pin 1 e il Pin 13.

Installazione dell'alimentatore ATX a 20 pin



#### Connettore ATX 12V

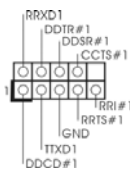
(4-pin ATX12V1)  
(vedi p.2 item 2)



È necessario collegare una alimentazione con spinotto da 12V ATX a questo connettore in modo che possa fornire energia sufficiente. In caso contrario l'unità non si avvia.

#### Collettore porta COM

(9-pin COM1)  
(voir p.2 Nr. 32)



Questo collettore porta COM è utilizzato per supportare il modulo porta COM.

---

## **2. Informazioni sul BIOS**

La Flash Memory sulla scheda madre contiene le Setup Utility. Quando si avvia il computer, premi <F2> durante il Power-On-Self-Test (POST) della Setup utility del BIOS; altrimenti, POST continua con i suoi test di routine. Per entrare il BIOS Setup dopo il POST, riavvia il sistema premendo <Ctl> + <Alt> + <Delete>, o premi il tasto di reset sullo chassis del sistema. El BIOS Setup Utility es diseñado "user-friendly". Es un programa guido al menu, es decir, puede enrollarse a sus varios su-menues y elegir las opciones predeterminadas. Per informazioni più dettagliate circa il Setup del BIOS, fare riferimento al Manuale dell'Utente (PDF file) contenuto nel cd di supporto.

## **3. Software di supporto e informazioni su CD**

Questa scheda madre supporta vari sistemi operativi Microsoft® Windows®: 7 / 7 64 bit / Vista™ / Vista™ 64 bit / XP / XP 64 bit. Il CD di supporto a corredo della scheda madre contiene i driver e utilità necessari a potenziare le caratteristiche della scheda. Inserire il CD di supporto nel lettore CD-ROM. Se la funzione "AUTORUN" è attivata nel computer, apparirà automaticamente il Menù principale. Se il Menù principale non appare automaticamente, posizionarsi sul file ASSETUP.EXE nel CESTINO del CD di supporto e cliccare due volte per visualizzare i menù.

---

## 1. Introducción

Gracias por su compra de ASRock **K8A780LM** placa madre, una placa de confianza producida bajo el control de calidad estricto y persistente. La placa madre provee realización excelente con un diseño robusto conforme al compromiso de calidad y resistencia de ASRock.

Esta Guía rápida de instalación contiene una introducción a la placa base y una guía de instalación paso a paso. Puede encontrar una información más detallada sobre la placa base en el manual de usuario incluido en el CD de soporte.



Porque las especificaciones de la placa madre y el software de BIOS podrían ser actualizados, el contenido de este manual puede ser cambiado sin aviso. En caso de cualquier modificación de este manual, la versión actualizada estará disponible en el website de ASRock sin previo aviso. También encontrará las listas de las últimas tarjetas VGA y CPU soportadas en la página web de ASRock.

Website de ASRock <http://www.asrock.com>

Si necesita asistencia técnica en relación con esta placa base, visite nuestra página web con el número de modelo específico de su placa. [www.asrock.com/support/index.asp](http://www.asrock.com/support/index.asp)

### 1.1 Contenido de la caja

Placa base ASRock **K8A780LM**

(Factor forma Micro ATX: 24,4 cm x 17,8 cm, 9,6" x 7,8")

Guía de instalación rápida de ASRock **K8A780LM**

CD de soporte de ASRock **K8A780LM**

Una cinta de datos IDE de conducción 80 Ultra ATA 66/100/133

Dos Cable de Datos Serial ATA (SATA) (Opcional)

Una protección I/O

## 1.2 Especificación

<b>Plataforma</b>	- Factor forma Micro ATX: 24,4 cm x 17,8 cm, 9,6" x 7,8"
<b>Procesador</b>	- Zocalo 754 para procesadores AMD Athlon™ 64 y Sempron - Con soporte para tecnología Cool 'n' Quiet™ de AMD - Juego de chips con capacidad de hasta 1000 MHz de FSB (2.0 GT/s) - Admite tecnología de aumento de velocidad liberada (vea <b>ATENCIÓN 1</b> ) - Soporta Tecnología de Hiper-Transporte
<b>Chipset</b>	- North Bridge: AMD RS780L (760G) - South Bridge: AMD SB710
<b>Memoria</b>	- 2 x DDR DIMM slots - Apoya DDR 400/333/266 non-ECC, memoria de un-buffered - Máxima capacidad de la memoria del sistema: 2GB
<b>Ranuras de Expansión</b>	- 1 x ranura PCI Express 2.0 x16 (azul en modo x16) - 1 x ranuras PCI Express 2.0 x1 - 2 x ranuras PCI - Soporta ATI™ Hybrid CrossFireX™
<b>VGA OnBoard</b>	- Tarjeta gráfica integrada AMD Radeon 3000 - iGPU de clase DX10, Pixel Shader 4.0 - 512MB de Memoria máxima compartida (vea <b>ATENCIÓN 2</b> ) - Salida de VGA dual: apoya los puertos de DVI-D y de D-Sub por los reguladores independientes de la exhibición - Admite DVI con una resolución máxima de 1920x1200 a 75 Hz - Admite D-Sub con una resolución máxima de 2048x1536 a 60 Hz - Apoya la función de HDCP con el puerto de DVI-D
<b>Audio</b>	- Sonido HD de 5.1 Canales (Códec de sonido VIA® VT1705)
<b>LAN</b>	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - Soporta Wake-On-LAN
<b>Entrada/Salida de Panel Trasero</b>	I/O Panel - 1 x puerto de ratón PS/2 - 1 x puerto de teclado PS/2 - 1 x puerto paralelo: soporta ECP/EPP - 1 x puerto VGA/D-Sub - 1 x puerto VGA/DVI-D - 4 x puertos USB 2.0 predeterminados - 1 x Puerto LAN RJ-45 con LED (LED de ACCIÓN/ENLACE y LED de VELOCIDAD)

	- Conexión de HD audio: Entrada de línea / Altavoz frontal / Micrófono
<b>Conectores</b>	<ul style="list-style-type: none"> <li>- 4 x conexiones SATAII, admiten una velocidad de transferencia de datos de hasta 3,0Gb/s, soporta RAID (RAID 0, RAID 1, RAID 10 y JBOD), NCQ, AHCI y "Conexión en caliente" (vea <b>ATENCIÓN 3</b>)</li> <li>- 1 x ATA133 conexiones IDE (admite hasta 2 dispositivos IDE)</li> <li>- 1 x puerto Floppy</li> <li>- 1 x Cabezal de Módulo Infrarrojos</li> <li>- 1x En-tête de port COM</li> <li>- Conector de ventilador de CPU / chasis / alimentacion</li> <li>- 24-pin cabezal de alimentación ATX</li> <li>- 4-pin conector de ATX 12V power</li> <li>- Conector de Audio Interno</li> <li>- Conector de audio de panel frontal</li> <li>- 4 x Cabezal USB 2.0 (admite 8 puertos USB 2.0 adicionales) (vea <b>ATENCIÓN 4</b>)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 8Mb AMI BIOS</li> <li>- AMI legal BIOS</li> <li>- Soporta "Plug and Play"</li> <li>- ACPI 1.1 compliance wake up events</li> <li>- Soporta "jumper free setup"</li> <li>- Soporta SMBIOS 2.3.1</li> <li>- Múltiple ajuste de CPU, VCCM, NB Voltage</li> <li>- Compatible con Smart BIOS</li> </ul>
<b>CD de soport</b>	- Controladores, Utilerías, Software de Anti Virus (Versión de prueba), conjunto de aplicaciones ASRock (CyberLink DVD Suite y Creative Sound Blaster X-Fi MB) (OEM y versión de prueba)
<b>Característica Única</b>	<ul style="list-style-type: none"> <li>- Sintonizador de ASRock OC (vea <b>ATENCIÓN 5</b>)</li> <li>- Administrador de energía inteligente (vea <b>ATENCIÓN 6</b>)</li> <li>- Instant Boot</li> <li>- ASRock Instant Flash (vea <b>ATENCIÓN 7</b>)</li> <li>- ASRock OC DNA (vea <b>ATENCIÓN 8</b>)</li> <li>- Amplificador Híbrido: <ul style="list-style-type: none"> <li>- Stepless control de frecuencia de CPU (vea <b>ATENCIÓN 9</b>)</li> <li>- ASRock U-COP (vea <b>ATENCIÓN 10</b>)</li> </ul> </li> <li>- Protección de Falla de Inicio (B.F.G..)</li> </ul>
<b>Monitor Hardware</b>	<ul style="list-style-type: none"> <li>- Sensibilidad a la temperatura del procesador</li> <li>- Sensibilidad a la temperatura de la placa madre</li> </ul>

Español

	<ul style="list-style-type: none"> <li>- Taquímetros de los ventiladores del procesador y del CPU / chasis / alimentación</li> <li>- Ventilador silencioso para procesador</li> <li>- Monitor de Voltaje: +12V, +5V, +3.3V, Vcore</li> </ul>
<b>OS</b>	- En conformidad con Microsoft® Windows® 7 / 7 64 bits / Vista™ / Vista™ 64 bits / XP / XP 64 bits
<b>Certificaciones</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- Cumple con la directiva EuP (se requiere una fuente de alimentación que cumpla con la directiva EuP) (vea <b>ATENCIÓN 11</b>)</li> </ul>

\* Para más información sobre los productos, por favor visite nuestro sitio web:  
<http://www.asrock.com>

#### ADVERTENCIA

Tenga en cuenta que hay un cierto riesgo implícito en las operaciones de aumento de la velocidad del reloj, incluido el ajuste del BIOS, aplicando la tecnología de aumento de velocidad liberada o utilizando las herramientas de aumento de velocidad de otros fabricantes. El aumento de la velocidad puede afectar a la estabilidad del sistema e, incluso, dañar los componentes y dispositivos del sistema. Esta operación se debe realizar bajo su propia responsabilidad y Ud. debe asumir los costos. No asumimos ninguna responsabilidad por los posibles daños causados por el aumento de la velocidad del reloj.

### ATENCIÓN!

1. Esta placa base admite la tecnología de aumento de velocidad liberada. Por favor lea "Tecnología de Forzado de Reloj (Overclocking) no relacionado" en la página 24 para obtener detalles.
2. El tamaño de la memoria compartido máximo es definido por el vendedor del chipset y está conforme al cambio. Por favor compruebe el Web site de AMD para la información más última.
3. Antes de instalar un disco duro SATAII en el conector SATAII, consulte la sección "Guía de instalación de discos duros SATAII" en la página 26 del "Manual de usuario" que se incluye en el CD de soporte para configurar su disco duro SATAII en modo SATAII. También puede conectar un disco duro SATA directamente al conector SATAII.
4. Power Management para USB 2.0 funciona bien bajo Microsoft® Windows® 7 64 bits / 7 / Vista™ 64 bits / Vista™ / XP 64 bits / XP SP1; SP2.
5. Es una herramienta de overclocking de ASRock de usuario-fácil que le permite a supervisar su sistema por la función de monitor de hardware y overclock sus dispositivos de hardware para obtener el mejor funcionamiento del sistema bajo el entorno de Windows®. Por favor visite nuestro sitio web para los procedimientos de operación de Sintonizador de ASRock OC.  
 Sitio web de ASRock: <http://www.asrock.com>

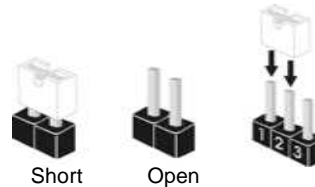


- 
6. Gracias a su avanzado hardware de propietario y diseño de software, Intelligent Energy Saver (Economizador de energía inteligente) es una revolucionaria tecnología que ofrece un ahorro de energía sin igual. El regulador de voltaje permite reducir el número de fases de salida para mejorar la eficiencia cuando los núcleos de la CPU están inactivos. En otras palabras, permite ofrecer un ahorro excepcional de energía y mejorar la eficiencia energética sin sacrificar el rendimiento del equipo. Para utilizar la función Intelligent Energy Saver (Economizador de energía inteligente) , active la opción Cool 'n' Quiet en la configuración de BIOS. Visite nuestro sitio web para conocer los procedimientos de uso de Intelligent Energy Saver (Economizador de energía inteligente).  
Sitio web de ASRock: <http://www.asrock.com>
  7. ASRock Instant Flash es una utilidad de programación del BIOS que se encuentra almacenada en la memoria Flash ROM. Esta sencilla herramienta de actualización de BIOS le permitirá actualizar el BIOS del sistema sin necesidad de acceder a ningún sistema operativo, como MS-DOS o Windows®. Gracias a esta utilidad, sólo necesitará pulsar <F6> durante la fase POST o pulsar <F2> para acceder al menú de configuración del BIOS y a la utilidad ASRock Instant Flash. Ejecute esta herramienta y guarde el archivo correspondiente al sistema BIOS nuevo en su unidad flash USB, unidad de disco flexible o disco duro para poder actualizar el BIOS con sólo pulsar un par de botones, sin necesidad de preparar un disco flexible adicional ni utilizar complicadas utilidades de programación. Recuerde que la unidad flash USB o disco duro utilizado debe disponer del sistema de archivos FAT32/16/12.
  8. El nombre del propio software, OC DNA, indica con claridad aquello de lo que es capaz. OC DNA, una exclusiva utilidad desarrollada por ASRock, representa para el usuario una forma cómoda de grabar su configuración de OC y compartirla con otras personas. Esta utilidad le permitirá guardar sus registros de aceleración en el sistema operativo y simplificar el complicado proceso de grabación de la configuración de aceleración. ¡Gracias a OC DNA podrá guardar su configuración de OC como perfil y compartirlo con sus amigos! ¡Sus amigos podrán cargar entonces el perfil de OC en su propio sistema y disfrutar de la configuración de OC creada por usted! Recuerde que el perfil de OC creado sólo funcionará en placas base similares, por lo que sólo podrá compartirlo con usuarios que cuenten con la misma placa base que usted.
  9. Aunque esta placa base ofrece un control complete, no es recomendable forzar la velocidad. Las frecuencias de bus de la CPU distintas a las recomendadas pueden causar inestabilidad en el sistema o dañar la CPU.
  10. Cuando la temperatura de CPU está sobre-elevada, el sistema va a apagarse automáticamente. Antes de reanudar el sistema, compruebe si el ventilador de la CPU de la placa base funciona apropiadamente y desconecte el cable de alimentación, a continuación, vuelva a conectarlo. Para mejorar la disipación de calor, acuérdesese de aplicar thermal grease entre el procesador y el disipador de calor cuando usted instala el sistema de PC.

- 
11. EuP, siglas de Energy Using Product (Producto que Utiliza Energía), es una disposición regulada por la Unión Europea para establecer el consumo total de energía de un sistema. Según la disposición EuP, la alimentación de CA total para el sistema completo ha de ser inferior a 1,00W en modo apagado. Para cumplir con el estándar EuP, se requieren una placa base y una fuente de alimentación que cumplan con la directiva EuP. Según las directrices de Intel, una fuente de alimentación que cumpla con la directiva EuP debe satisfacer el estándar, es decir, la eficiencia de energía de 5v en modo de espera debería ser mayor del 50% con un consumo de corriente de 100mA. Para seleccionar una fuente de alimentación que cumpla la directiva EuP, le recomendamos que consulte con el fabricante de la fuente de alimentación para obtener más detalles.

### 1.3 Setup de Jumpers

La ilustración muestra como los jumpers son configurados. Cuando haya un jumper-cap sobre los pins, se dice que el jumper está "Short". No habiendo jumper cap sobre los pins, el jumper está "Open". La ilustración muestra un jumper de 3 pins cuyo pin 1 y pin 2 están "Short".



Jumper	Setting	
PS2_USB_PW1 (vea p.2, No. 1)		Ponga en cortocircuito pin 2, pin 3 para habilitar +5VSB (standby) para PS/2 o USB wake up events.

Atención: Para elegir +5VSB, se necesita corriente mas que 2 Amp proveida por la fuente de electricidad.



Limpiar CMOS (CLRCMOS1, jumper de 3 pins) (ver p.2, No.9)		
---	--	--

Atención: CLRCMOS1 permite que Usted limpie los datos en CMOS. Los datos en CMOS incluyen informaciones de la configuración del sistema, tales como la contraseña del sistema, fecha, tiempo, y parámetros de la configuración del sistema. Para limpiar y reconfigurar los parametros del sistema a la configuración de la fábrica, por favor apague el computador y desconecte el cable de la fuente de electricidad, utilice una cubierta de jumper para aislar las agujas pin2 y pin3 en CLRCMOS1 durante 5 segundos. Por favor acuérdate de quitar el jumper cap después de limpiar el COMS. Por favor acuérdate de quitar el jumper cap después de limpiar el COMS. Si necesita borrar la CMOS cuando acabe de finalizar la actualización de la BIOS, debe arrancar primero el sistema y, a continuación, apagarlo antes de realizar la acción de borrado de CMOS.

## 1.4 Conectores



Los conectores no son jumpers. Por favor no ponga jumper caps sobre los conectores. El colocar cubiertas de puentes sobre los conectores provocará un daño permanente en la placa base.

Conector	Figure	Descripción
Conector de disquetera (33-pin FLOPPY1) (vea p.2, No. 24)		 la banda roja debe quedar en el mismo lado que el contacto 1

Atención: Asegúrese que la banda roja del cable queda situado en el mismo lado que el contacto 1 de la conexión.

### IDE conector primario (azul)

(39-pin IDE1, vea p.2, No. 10)



Conector azul a placa madre



Conector negro a aparato IDE

Cable ATA 66/100/133 de conducción 80

Atención: Consulte las instrucciones del distribuidor del dispositivo IDE para conocer los detalles.

### Conexiones de serie ATAII

(SATAII\_1 (PORT0):

vea p.2, No. 18)

(SATAII\_2 (PORT1):

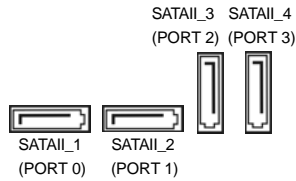
vea p.2, No. 17)

(SATAII\_3 (PORT2):

vea p.2, No. 16)

(SATAII\_4 (PORT3):

vea p.2, No. 15)



Estos cuatro conectores de la Serie ATA (SATAII) soportan HDDs SATA o SATAII para dispositivos de almacenamiento interno. La interfaz SATAII actual permite una velocidad de transferencia de 3.0 Gb/s.

### Cable de datos de serie ATA (SATA)

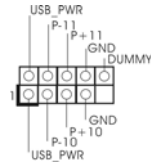
(Opcional)



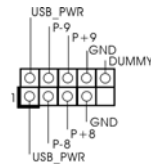
Ambos extremos del cable pueden conectarse al disco duro SATA / SATAII o a la conexión de la placa base.

### Cabezal USB 2.0

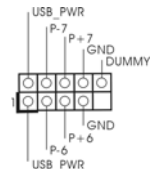
(9-pin USB10\_11)  
(ver p.2, No. 22)



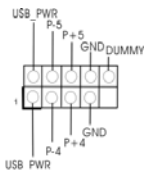
(9-pin USB8\_9)  
(ver p.2, No. 21)



(9-pin USB6\_7)  
(ver p.2, No. 20)



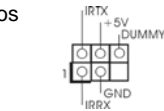
(9-pin USB4\_5)  
(ver p.2, No. 19)



Además de cuatro puertos USB 2.0 predeterminados en el panel de E/S, hay cuatro bases de conexiones USB 2.0 en esta placa base. Cada una de estas bases de conexiones admite dos puertos USB 2.0.

### Cabezal de Módulo Infrarrojos

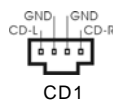
(5-pin IR1)  
(vea p.2, N. 23)



Este cabezal soporta un módulo infrarrojos de transmisión y recepción wireless opcional.

### Conector de Audio Interno

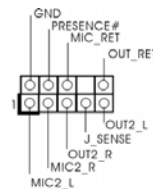
(4-pin CD1)  
(CD1: vea p.2, No. 26)



Permite recepción de input audio de fuente sónica como CD-ROM, DVD-ROM, TV tuner, o tarjeta MPEG.

### Conector de audio de panel frontal

(9-pin HD\_AUDIO1)  
(vea p.2, No. 25)



Este es una interface para cable de audio de panel frontal que permite conexión y control conveniente de aparatos de Audio.

Conectores de la SATAII) soportan SATAII para almacenamiento actual capacidad de 3.0 Gb/s.

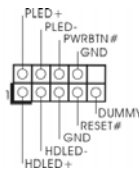
Español



1. El Audio de Alta Definición soporta la detección de conector, pero el cable de panel en el chasis debe soportar HDA para operar correctamente. Por favor, siga las instrucciones en nuestro manual y en el manual de chasis para instalar su sistema.
2. Si utiliza el panel de sonido AC'97, instálelo en la cabecera de sonido del panel frontal de la siguiente manera:
  - A. Conecte Mic\_IN (MIC) a MIC2\_L.
  - B. Conecte Audio\_R (RIN) a OUT2\_R y Audio\_L (LIN) en OUT2\_L.
  - C. Conecte Ground (GND) a Ground (GND).
  - D. MIC\_RET y OUT\_RET son sólo para el panel de sonido HD. No necesitará conectarlos al panel de sonido AC'97.
  - E. Entre en la Utilidad de configuración del BIOS Entre en Configuración avanzada y, a continuación, seleccione Configuración del conjunto de chips. En el panel de control frontal cambie la opción [Automático] a [Habilitado].

#### Conector del Panel del sistema

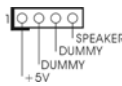
(9-pin PANEL1)  
(vea p.2, No. 14)



Este conector acomoda varias funciones de panel frontal del sistema.

#### Cabezal del altavoz del chasis

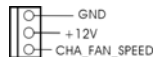
(4-pin SPEAKER1)  
(vea p.2, No. 8)



Conecte el altavoz del chasis a su cabezal.

#### Conectores de ventilador de chasis y alimentación

(3-pin CHA\_FAN1)  
(vea p.2, N. 11)



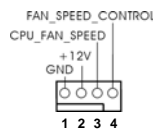
(3-pin PWR\_FAN1)  
(vea p.2, N. 31)



Por favor, conecte los cables del ventilador a los conectores de ventilador, haciendo coincidir el cable negro con la patilla de masa.

#### Conector del ventilador de la CPU

(4-pin CPU\_FAN1)  
(vea p.2, No. 5)



Conecte el cable del ventilador de la CPU a este conector y haga coincidir el cable negro con el conector de tierra.



Aunque esta placa base proporciona compatibilidad para un ventilador (silencioso) de procesador de 4 contactos, el ventilador de procesador de 3 contactos seguirá funcionando correctamente incluso sin la función de control de velocidad del ventilador. Si pretende enchufar el ventilador de procesador de 3 contactos en el conector del ventilador de procesador de esta placa base, conéctelo al contacto 1-3.

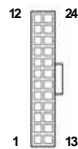
**Contacto 1-3 conectado** ←



Instalación del ventilador de 3 contactos

#### Cabezal de alimentación ATX

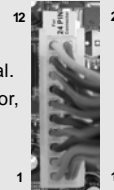
(24-pin ATXPWR1)  
(vea p.2, No. 7)



Conecte la fuente de alimentación ATX a su cabezal.



A pesar de que esta placa base incluye un conector de alimentación ATX de 24 pins, ésta puede funcionar incluso si utiliza una fuente de alimentación ATX de 20 pins tradicional. Para usar una fuente de alimentación ATX de 20 pins, por favor, conecte su fuente de alimentación usando los Pins 1 y 13.



Instalación de una Fuente de Alimentación ATX de 20 Pins

#### Conector de ATX 12V power

(4-pin ATX12V1)  
(vea p.2, No. 2)

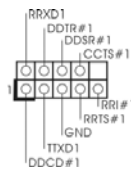


Tenga en cuenta que es necesario conectar este conector a una toma de corriente con el enchufe ATX 12V, de modo que proporcione suficiente electricidad. De lo contrario no se podrá encender.

Conecte los cables del  
conectores de  
de modo que coincidir el  
con la patilla de

#### Cabezal del puerto COM

(9-pin COM1)  
(vea p.2, No. 32)



Este cabezal del puerto COM se utiliza para admitir un módulo de puerto COM.

---

## **2. BIOS Información**

El Flash Memory de la placa madre deposita SETUP Utility. Durante el Power-Up (POST) apriete <F2> para entrar en la BIOS. Si usted no oprime ninguna tecla, el POST continúa con sus rutinas de prueba. Si usted desea entrar en la BIOS después del POST, por favor reinicie el sistema apretando <Ctl> + <Alt> + <Borrar>, o apretando el botón Reset en el panel del ordenador. El programa SETUP esta diseñado a ser lo mas fácil posible. Es un programa guiado al menu, es decir, puede enrollarse a sus varios sub-menues y elegir las opciones predeterminadas. Para información detallada sobre como configurar la BIOS, por favor refiérase al Manual del Usuario (archivo PDF) contenido en el CD.

## **3. Información de Software Support CD**

Esta placa-base soporta diversos tipos de sistema operativo Windows®: 7 / 7 64 bits / Vista™ / Vista™ 64 bits / XP / XP 64 bits El CD de instalación que acompaña la placa-base trae todos los drivers y programas utilitarios para instalar y configurar la placa-base. Para iniciar la instalación, ponga el CD en el lector de CD y se desplegará el Menú Principal automáticamente si «AUTORUN» está habilitado en su computadora. Si el Menú Principal no aparece automáticamente, localice y doble-pulse en el archivo ASSETUP.EXE para iniciar la instalación.



---

## 1. Introdução

Gratos por comprar nossa placa-mãe **K8A780LM**, um produto confiável feito com ASRock um estrito controle de qualidade consistente. Com um excelente desempenho, essa placa é dotada de um projeto robusto que atende a ASRock de compromisso com a qualidade e durabilidade.

Este Guia de Instalação Rápida apresenta a placa-mãe e o guia de instalação passo a passo. Mais informações detalhadas sobre a placa-mãe podem ser encontradas no manual do usuário do CD de suporte.



Porque as especificações da placa mãe e o software de BIOS poderiam ser atualizados, o conteúdo deste manual pode ser cambiado sem aviso. Em caso de qualquer modificação deste manual, a versão atualizada estará disponível no website de ASRock sem prévio aviso. Pode também encontrar as listas das mais recentes placas VGA e das CPUs suportadas no site da web da ASRock.

Website de ASRock <http://www.asrock.com>

Se precisar de apoio técnico em relação a este placa-mãe, por favor visite o nosso sítio da internet para informação específica acerca do modelo que está a utilizar.  
[www.asrock.com/support/index.asp](http://www.asrock.com/support/index.asp)

### 1.1 Este pacote contém

Placa-mãe ASRock **K8A780LM**

(Formato Micro ATX: 9,6 pol. x 7,8 pol., 24,4 cm x 19,8 cm)

Guia de instalação rápida da ASRock **K8A780LM**

CD de suporte da placa ASRock **K8A780LM**

Um cabo-fita IDE Ultra ATA 66/100/133 de 80 condutores (Opcional)

Duas cabo de dados ATA Serial (SATA) (Opcional)

Uma proteção I/O

## 1.2 Especificações

<b>Plataforma</b>	- Formato Micro ATX: 9,6 pol. x 7,8 pol., 24,4 cm x 19,8 cm
<b>CPU</b>	- Tomada 754 para AMD Athlon™ 64 e Processadores Sempron - Suporta a tecnologia AMD Cool 'n' Quiet™ - Chipset com um FSB de 1000 MHz (2,0 GT/s) - Suporta a tecnologia Untied Overclocking (veja o <b>AVISO 1</b> ) - Suporta a tecnologia Hyper-Transport
<b>Chipsets</b>	- North Bridge: AMD RS780L (760G) - South Bridge: AMD SB710
<b>Memória</b>	- 2 x slots de DDR DIMM - Suporte para memória não intermédia DDR 400/333/266, não ECC - Capacidade máxima de memória do sistema: 2GB
<b>Slots de Expansão</b>	- 1 x slot de PCI Express 2.0 x16 (modo azul @ x16) - 1 x slot de PCI Express 2.0 x1 - 2 x slots de PCI - Suporta ATI™ Hybrid CrossFireX™
<b>VGA integrado</b>	- Placa gráfica AMD Radeon 3000 integrada - DX10 class iGPU, Pixel Shader 4.0 - Memória partilhada máxima 512MB (veja o <b>AVISO 2</b> ) - Duplo VGA Saída: suportar DVI-D e D-Sub portas pelos controladores independentes de display - Suporta DVI com resolução máxima até 1920x1200 @ 75Hz - Suporta D-Sub com resolução máxima até 2048x1536 @ 60Hz - Suportar HDCP função com DVI-D porta
<b>Áudio</b>	- Áudio de alta definição de canal 5.1 (Codec de áudio VIA® VT1705) - Chipset engravado HDMI Audição
<b>LAN</b>	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - Suporta Wake-On-LAN
<b>Entrada/Saída pelo painel traseiro</b>	I/O Panel - 1 x porta para mouse PS/2 - 1 x porta para teclado PS/2 - 1 x porta paralela (com suporte ECP/EPP)

	<ul style="list-style-type: none"> <li>- 1 x porta VGA/D-Sub</li> <li>- 1 x porta VGA/DVI-D</li> <li>- 4 x portas USB 2.0 padrão</li> <li>- 1 x porta LAN RJ-45 com LED (LED ACT/LIG e LED VELOCIDADE)</li> <li>- HD Áudio Jack: Entrada de linha / Altifalante frontal / Microfone</li> </ul>
<b>Conectores</b>	<ul style="list-style-type: none"> <li>- 4 x conectores SATAII, suporte a taxa de transferência de dados de até 3,0 Gb/s, suporte RAID (RAID 0, RAID 1, RAID 10, JBOD), NCQ, AHCI e “conexão a quente” (veja o <b>AVISO 3</b>)</li> <li>- 1 x conectores ATA133 IDE (suporta até 2 dispositivos IDE)</li> <li>- 1 x porta para disquete</li> <li>- 1 x Conector do módulo de infravermelho</li> <li>- 1 x conector da porta COM</li> <li>- Conector do ventilador da CPU/chassis/energia</li> <li>- Conector de força do ATX de 24 pinos</li> <li>- Conector ATX 12 V de 4 pinos</li> <li>- Conectores internos de áudio</li> <li>- Conector Áudio do painel frontal</li> <li>- 4 x cabezal USB 2.0 (suportar 8 portas USB 2.0 adicionais) (veja o <b>AVISO 4</b>)</li> </ul>
<b>BIOS</b>	<ul style="list-style-type: none"> <li>- 8Mb BIOS AMI</li> <li>- BIOS AMI</li> <li>- Suporta dispositivos “Plug and Play”</li> <li>- ACPI 1.1 atendendo a eventos de “wake up”</li> <li>- Suporta dispositivos sem jumper</li> <li>- Suporte para SMBIOS 2.3.1</li> <li>- CPU, VCCM, NB Voltage Multi-adjustment</li> <li>- Suporte para Smart BIOS</li> </ul>
<b>CD de suporte</b>	<ul style="list-style-type: none"> <li>- Controladores, utilitários, software antivírus (Experimentacao Versao), conjunto de programas da ASRock (CyberLink DVD Suite e Creative Sound Blaster X-Fi MB) (OEM e versão de demonstração)</li> </ul>
<b>Funcionalidade Única</b>	<ul style="list-style-type: none"> <li>- Sintonizador ASRock OC (veja o <b>AVISO 5</b>)</li> <li>- Intelligent Energy Saver (veja o <b>AVISO 6</b>)</li> <li>- Instant Boot</li> <li>- ASRock Instant Flash (veja o <b>AVISO 7</b>)</li> <li>- ASRock OC DNA (veja o <b>AVISO 8</b>)</li> <li>- Booster híbrido:</li> </ul>

	<ul style="list-style-type: none"> <li>- Frequência da CPU com controle contínuo (veja o <b>AVISO 9</b>)</li> <li>- ASRock U-COP (veja o <b>AVISO 10</b>)</li> <li>- B.F.G. (Boot Failure Guard)</li> </ul>
<b>Monitor do HW</b>	<ul style="list-style-type: none"> <li>- Sensores de temperatura do procesador</li> <li>- Medição de temperatura da placa-mãe</li> <li>- Tacômetros de ventilador do CPU/chassis/energia</li> <li>- Ventoinha silenciosa para a CPU</li> <li>- Monitoramento de voltagem: +12 V, +5 V, +3.3 V, Vcore</li> </ul>
<b>Sistema Operacional</b>	<ul style="list-style-type: none"> <li>- Microsoft® Windows® 7 / 7 de 64 bits / Vista™ / Vista™ de 64 bits / XP / XP de 64 bits</li> </ul>
<b>Certificações</b>	<ul style="list-style-type: none"> <li>- FCC, CE, WHQL</li> <li>- "EuP Ready" (é necessária alimentação eléctrica "EuP Ready") (veja o <b>AVISO 11</b>)</li> </ul>

\* Para informações mais detalhadas por favor visite o nosso sítio Web:

<http://www.asrock.com>

#### **AVISO**

Tenha em atenção que a operação de overlocking envolve alguns riscos, nomeadamente no que diz respeito ao ajuste das definições do BIOS, à aplicação da tecnologia Untied Overlocking ou à utilização de ferramentas de overlocking de terceiros. O overlocking pode afectar a estabilidade do seu sistema ou até mesmo causar danos ao nível dos componentes e dispositivos que integram o sistema. Esta operação é da total responsabilidade do utilizador. Não nos responsabilizamos pelos possíveis danos resultantes do overlocking.

#### **AVISO!**

1. Esta placa principal suporta a tecnologia Untied Overlocking. Consulte a secção "Tecnologia Untied Overlocking" na página 24 para mais informações.
2. O máximo tamanho de memória partilhada é definido por vendedor de chipset e é sujeito a mudar. Verifique o AMD website para a última informação.
3. Antes de instalar o disco duro SATAII no conector SATAII, por favor leia o "Guia de Instalação do Disco duro SATAII" na página 26 do Manual do Usuário no CD de suporte, para definir a sua unidade de disco duro SATAII com o modo SATAII. Também pode ligar directamente o disco duro SATA ao conector SATAII.
4. Power Management para USB 2.0 funciona bem embaixo de Microsoft® Windows® 7 de 64 bits / 7 / Vista™ de 64 bits / Vista™ / XP de 64 bits / XP SP1; SP2.

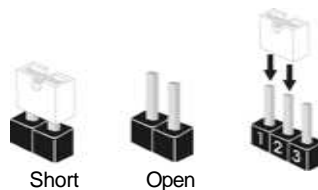
**Português**

5. É uma ferramenta de overlocking da ASRock fácil de utilizar que lhe permite vigiar i seu sistema via a função de monitorização de hardware e proceder ao overclock dos dispositivos de hardware para obter o melhor desempenho em ambiente Windows®. Por favor visite o nosso sítio Web para conhecer os procedimentos de funcionamento do Sintonizador ASRock OC.  
Sítio Web da ASRock: <http://www.asrock.com>
6. Com uma concepção de hardware e de software avançada, a Poupança de Energia Inteligente é uma das opções no Sintonizador ASRock OC. O regulador de voltagem pode reduzir o número de fases de saída para melhorar a eficiência quando os núcleos do CPU estão inactivos. Por outras palavras, pode providenciar uma excepcional poupança de energia e melhorar a eficiência energética sem sacrificar o desempenho. Para utilizar a função Poupança de Energia, por favor active a opção Cool 'n' Quiet na configuração da BIOS primeiro. Por favor visite o nosso sítio Web para conhecer os procedimentos de funcionamento da Poupança de Energia Inteligente. Sítio Web da ASRock: <http://www.asrock.com>
7. ASRock Instant Flash est un utilitaire de flash du BIOS flash intégré dans la ROM Flash. Cet outil pratique de mise à jour du BIOS vous permet de mettre à jour le BIOS du système sans entrer d'abord dans un système d'exploitation tel que MS-DOS ou Windows®. Avec cet utilitaire, vous pouvez appuyer sur la touche <F6> pendant le POST ou sur la touche <F2> durant le menu de configuration du BIOS pour accéder à ASRock Instant Flash. Lancez simplement cet outil et enregistrez le nouveau fichier BIOS sur votre lecteur flash USB, sur une disquette ou un disque, avant de pouvoir mettre à jour votre BIOS en quelques clics seulement, sans préparer de disquette supplémentaire ni d'autre utilitaire flash compliqué. Veuillez noter que le lecteur flash USB ou le disque dur doit utiliser le système de fichiers FAT32/16/12.
8. O próprio nome do software – OC DNA diz-lhe literalmente aquilo de que é capaz. OC DNA, um utilitário exclusivo desenvolvido pela ASRock, proporciona uma forma conveniente para o utilizador gravar as definições OC e partilhar com outros. Ajuda-o a guardar o seu registo de "overclocking" (aumento da frequência do processador) no sistema operativo e simplifica o complexo processo de gravação das definições de "overclocking". Com OC DNA, pode guardar as suas definições OC como perfil e partilhá-las com os seus amigos! Depois, os seus amigos podem carregar o perfil OC no seu próprio sistema para obter as mesmas definições OC que você tem! Por favor, tenha em conta que o perfil OC só pode ser partilhado e trabalhado na mesma placa-mãe.
9. Apesar de esta placa-mãe oferecer controle continuamente variável, não se recomenda efetuar over-clock. Frequências de barramento diferentes das recomendadas para a CPU podem provocar instabilidade do sistema ou danos à CPU.

- 
10. Assim que se detecta um superaquecimento na CPU, o sistema se desliga automaticamente e o botão de energia do chassis fica inativo. Cheque o ventilador da CPU na placa-mãe, para verificar se está funcionando corretamente antes de religar o sistema. Para melhorar a dissipação de calor, lembre-se de aplicar o material de interface térmica entre o processador e o dissipador de calor.
  11. EuP, que significa Energy Using Product (Produto que Utiliza Energia), foi uma provisão regulada pela União Europeia para definir o consumo de energia para o sistema concluído. De acordo com a EuP, a corrente AC total do sistema concluído deverá ser inferior a 1.00W no estado de modo desligado. Para satisfazer a norma EuP, é necessário uma placa-mãe e uma fonte de alimentação eléctrica que estejam em conformidade com a norma EuP. De acordo com a sugestão da Intel, a fonte de alimentação em conformidade com a norma EuP deve satisfazer o padrão, isto é, a eficiência energética de reserva de 5v deve ser superior a 50% com um consumo de corrente de 100 mA. Para selecção da fonte de alimentação em conformidade com a norma EuP, recomendamos que confirme com o fabricante da fonte de alimentação para mais detalhes.

### 1.3 Configuração dos Jumpers

A ilustração mostra como os jumpers são configurados. Quando há uma capa de jumpers sobre os pinos, diz-se que o jumper está “curto”. Não havendo capa sobre os pinos, o jumper está “aberto”. A ilustração mostra um jumper de 3 pinos em que os pinos 1 e 2 estão “curtos” quando a capa de jumper estiver colocada sobre esses 2 pinos.



Jumper	Configuração	
PS2_USB_PW1 (veja a folha 2, No. 1)		Pin2, Pin3 curtos para habilitar +5VSB (stand by) para PS/2 ou eventos de wake up na USB.

Nota: Para escolher +5VSB, é preciso uma corrente de stand by de 2 A ou mais.



Restaurar CMOS (CLRCMOS1, jumper de 3 pinos) (veja a folha 2, No. 9)		
	Configuração-padrão	Limpar o CMOS

Nota: CLRCMOS1 permite você limpar os dados em CMOS. Os dados em CMOS incluem informações da configuração do sistema como: por exemplo a senha do sistema, data, tempo, e os parâmetros da configuração do sistema. Para limpar e reconfigurar os parâmetros do sistema a configuração inicial da fábrica, por favor desligue o cabo de força, ponha em curto-circuito os pin 2 e pin 3 de CLRCMOS1 por mais de 5 segundos para limpar o CMOS usando um jumper. Por favor lembrese de remover o jumper depois de limpar o CMOS. Se precisar limpar o CMOS ao concluir a atualização do BIOS, deverá reiniciar o sistema primeiro e, em seguida, desligá-lo antes de executar a ação de limpeza o CMOS.



## 1.4 Conectores



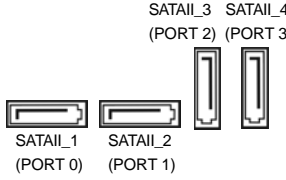
Os conectores NÃO SÃO jumpers. NÃO coloque capas de jumper sobre estes conectores. A colocação de pontos de jumper sobre os conectores causará danos irreversíveis à placa-mãe.

Conector	Figura	Descrição
Conector FDD (FLOPPY 1, 33 pinos) (veja a folha 2, No. 24)		 o lado com listras vermelhas para o Pino 1

Nota: Certifique-se de que o lado com listras vermelhas no cabo seja conectado ao lado Pino 1 do conector.

Conector primário (Azul) (IDE1 de 39 pinos, veja a folha 2, No. 10)		
Ligue esta ponta (azul) à placa-mãe		Ligue esta ponta (preta) aos dispositivos IDE
Cabo ATA 66/100/133 de 80 condutores		

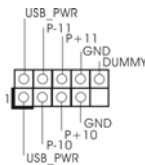
Nota: Para detalhes, consulte as instruções do fornecedor do seu dispositivo IDE.

Conectores Serial ATAII		Estes quatro conectores Serial ATA (SATAII) suportam unidades de disco rígido SATA ou SATAII como dispositivos de armazenamento internos. A atual interface SATAII permite uma taxa de transferência de dados de até 3.0 Gb/s.
(SATAII_1 (PORT 0): veja a folha 2, No. 18)		
(SATAII_2 (PORT 1): veja a folha 2, No. 17)		
(SATAII_3 (PORT 2): veja a folha 2, No. 16)		
(SATAII_4 (PORT 3): veja a folha 2, No. 15)		

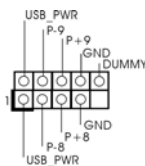
Cabo de dados ATA (SATA) (opcional)		Tanto a saída do cabo de Serial dados SATA pode ser conectado ao disco rígido SATA / SATAII quanto o conector SATAII na placa mãe.
-------------------------------------	---	--



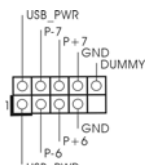
**Cabezal USB 2.0**  
(USB10\_11 de 9 pinos)  
(veja a folha 2, No. 22)



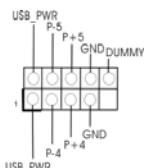
(USB8\_9 de 9 pinos)  
(veja a folha 2, No. 21)



(USB6\_7 de 9 pinos)  
(veja a folha 2, No. 20)



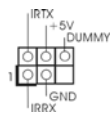
(USB4\_5 de 9 pinos)  
(veja a folha 2, No. 19)



Além das quatro portas USB 2.0 por defeito no painel de entrada/saída, há quatro ligações USB 2.0 nesta placa-mãe. Cada ligação USB 2.0 pode suportar duas portas USB 2.0.

**Conector do módulo de infravermelho**

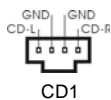
(IR1 de 5 pinos)  
(veja a folha 2, No. 23)



Este conector suporta um módulo opcional de transmissão sem fio e recepção em infravermelho.

**Conectores internos de áudio**

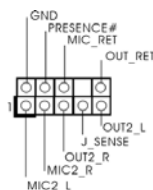
(CD1 de 4 pinos)  
(CD1: veja a folha 2, No. 26)



Estes conectores permitem que se receba entrada de áudio em estéreo de fontes de áudio como CD-ROM, DVD-ROM, placa sintonizadora de TV ou placa MPEG.

**Conector Áudio do painel frontal**

(HD\_AUDIO1 de 9 pinos)  
(veja a folha 2, No. 25)



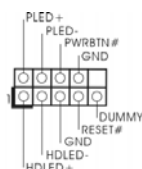
Esta é uma interface para o cabo de áudio no painel frontal, que permite uma conexão e controle convenientes dos dispositivos de áudio.



1. Áudio de elevada definição que suporta a sensibilidade da tomada, mas o fio do painel existente no chassis tem de suportar HDA para funcionar correctamente. Siga as instruções que aparecem no manual e no manual do chassis para instalar o sistema.
2. Se utilizar o painel de áudio AC'97, instale-o no cabeçalho de áudio do painel frontal, como a figura abaixo mostra:
  - A. Ligue o Mic\_IN (MIC) ao MIC2\_L.
  - B. Ligue o Audio\_R (RIN) ao OUT2\_R e o Audio\_L (LIN) ao OUT2\_L.
  - C. Ligue o Ground (GND) ao Ground (GND).
  - D. MIC\_RET e OUT\_RET são apenas para o painel de áudio HD. Não necessita de os ligar para o painel de áudio AC'97.
  - E. Entre no utilitário de configuração do BIOS. Vá até à opção Definições avançadas e escolha Configuração do chipset. Defina a opção Controlo do painel frontal de [Automático] para [Activado].

#### Conector do sistema no painel

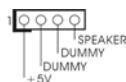
(PANEL1 de 9 pinos)  
(veja a folha 2, No. 14)



Este conector acomoda diversas funções de sistema no painel frontal.

#### Conector do alto-falante do chassis

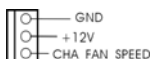
(SPEAKER1 de 4 pinos)  
(veja a folha 2, No. 8)



Ligue o alto-falante do chassis neste conector.

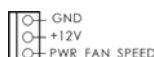
#### Conector do ventilador do chassis e energia

(CHA\_FAN1 de 3 pinos)  
(veja a folha 2, No. 11)



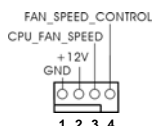
Ligue o cabo do ventilador neste conector, coincidindo o fio preto com o pino de aterramento.

(PWR\_FAN1 de 3 pinos)  
(veja a folha 2, No. 31)



#### Conector do ventilador da CPU

(CPU\_FAN1 de 4 pinos)  
(veja a folha 2, No. 5)



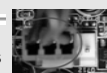
Ligue o cabo do ventilador da CPU, coincidindo o fio preto com o pino de aterramento.



Apesar de esta placa-mãe possuir 4 apoios para uma ventoinha de CPU (Ventoinha silenciosa), uma ventoinha de 3 pinos para CPU poderá funcionar mesmo sem a função de controlo de velocidade da ventoinha. Se pretender ligar uma ventoinha de 3 pinos para CPU ao conector de ventoinha do CPU nesta placa-mãe, por favor, ligue-a aos pinos 1-3.

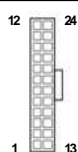
**Pinos 1-3 ligados** ←

Instalação de Ventoinha de 3 pinos



#### Conector de força do ATX

(ATXPWR1 de 24 pinos)  
(veja a folha 2, No. 7)



Ligue a fonte de alimentação ATX neste conector.



Embora esta placa-mãe providencie um conector de energia ATX de 24 pinos, pode apesar disso funcionar com a adaptação de uma fonte de energia tradicional de 20 pinos. Para usar a fonte de alimentação de 29 pinos, por favor ligue a sua fonte de alimentação com o Pino 1 e o Pino 13.

Instalação da Fonte de alimentação ATX de 20 Pinos



#### Conector ATX 12 V

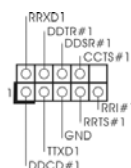
(ATX12V1 de 4 pinos )  
(veja a folha 2, No. 2)



Note que é necessário ligar uma fonte de alimentação com conector ATX 12V neste conector para fornecer alimentação suficiente. Do contrário, haverá falhas de funcionamento.

#### Conector da porta COM

(COM1 de 9 pinos)  
(veja a folha 2, No. 32)



Este conector é usado para suportar um módulo de porta COM.

---

## 2. Informações da BIOS

A Memória Flash da placa-mãe armazena o utilitário de configuração da BIOS. Quando você ligar o computador, pressione < F2 > durante a inicialização (POST) para entrar nas configurações da BIOS; caso contrário o POST continua com suas rotinas de teste. Caso você queira entrar nas configurações da BIOS após o POST, reinicie o sistema pressionando <Ctrl> + <Alt> +<Del>, ou pressionando a tecla de reset no gabinete. Também se pode reinicializar desligando a máquina e ligando-a novamente. Para informações mais detalhadas sobre a configuração da BIOS, consulte o manual do usuário (em pdf) contido no CD de instalação.

## 3. Informações do CD de Suporte

Esta placa Mãe suporta vários sistemas operacionais: Microsoft® Windows®: 7 / 7 de 64 bits / Vista™ / Vista™ de 64 bits / XP / XP de 64 bits. O CD de instalação que acompanha a placa Mãe contém: drivers e utilitários necessários para um melhor desempenho da placa Mãe. Para começar a usar o CD de instalação, introduza o CD na leitora de CD-ROM do computador. Automaticamente iniciará o menu principal, caso o "AUTORUN" esteja ativado. Se o menu principal não aparecer automaticamente, explore o CD e execute o "ASSETUP.EXE" localizado na pasta "BIN".