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FC

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.
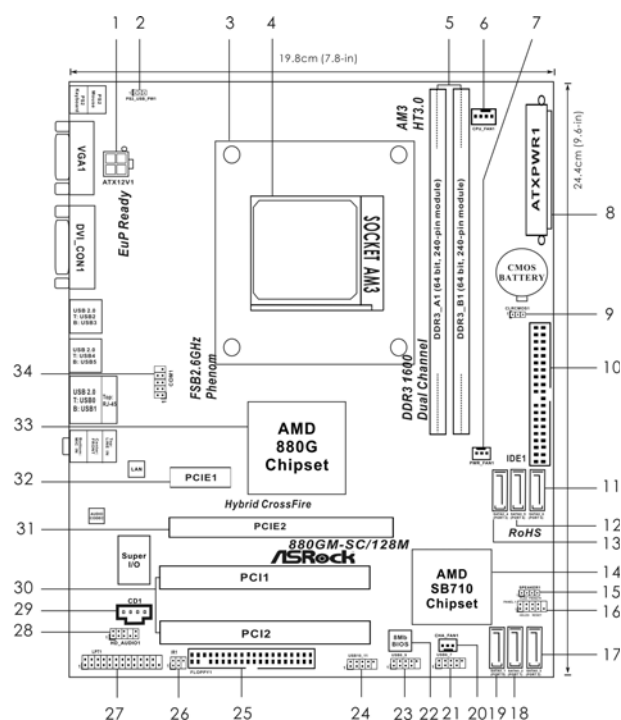"Perchlorate Material-special handling may apply, see www.dtsc.ca.gov/hazardouswaste/perchlorate"

ASRock Website: http://www.asrock.com

English

Motherboard Layout

1	ATX 12V Power Connector (ATX12V1)
2	PS2_USB_PW1 Jumper
3	CPU Heatsink Retention Module
4	AM3 CPU Socket
5	2 x 240-pin DDR3 DIMM Slots (Dual Channel: DDR3_A1, DDR3_B1; Blue)
6	CPU Fan Connector (CPU_FAN1)
7	Power Fan Connector (PWR_FAN1)
8	ATX Power Connector (ATXPWR1)
9	Clear CMOS Jumper (CLRCMOS1)
10	Primary IDE Connector (IDE1, Blue)
11	Sixth SATAII Connector (SATAII_6 (PORT 5))
12	Fifth SATAII Connector (SATAII_5 (PORT 4))
13	Fourth SATAII Connector (SATAII_4 (PORT 3))
14	Southbridge Controller
15	Chassis Speaker Header (SPEAKER 1, White)
16	System Panel Header (PANEL1, White)
17	Third SATAII Connector (SATAII_3 (PORT 2))
18	Secondary SATAII Connector (SATAII_2 (PORT 1))
19	Primary SATAII Connector (SATAII_1 (PORT 0))
20	Chassis Fan Connector (CHA_FAN1)
21	USB 2.0 Header (USB6_7, Blue)
22	SPI Flash Memory (8Mb)
23	USB 2.0 Header (USB8_9, Blue)
24	USB 2.0 Header (USB10_11, Blue)
25	Floppy Connector (FLOPPY1)
26	Infrared Module Header (IR1)
27	Print Port Header (LPT1, White)
28	Front Panel Audio Header (HD_AUDIO1, White)
29	Internal Audio Connector: CD1 (Black)
30	PCI Slots (PCI1- 2)
31	PCI Express 2.0 x16 Slot (PCIE2; Blue)
32	PCI Express 2.0 x1 Slot (PCIE1; White)
33	Northbridge Controller
34	Serial Port Connector (COM1)

ASRock 880GM-SC/128M Motherboard

I/O Panel

1	**PS/2 Mouse Port (Green)**	**7**	**Microphone (Pink)**
2	**VGA/D-Sub Port**	**8**	**USB 2.0 Ports (USB01)**
3	**VGA/DVI-D Port**	**9**	**USB 2.0 Ports (USB45)**
* 4	**RJ-45 Port**	**10**	**USB 2.0 Ports (USB23)**
5	**Line In (Light Blue)**	**11**	**PS/2 Keyboard Port (Purple)**
6	**Front Speaker (Lime)**		

* There are two LED next to the LAN port. Please refer to the table below for the LAN port LED indications.

LAN Port LED Indications

Activity/Link LED

Status	Description
Off	No Link
Blinking	Data Activity
On	Link

SPEED LED

Status	Description
Off	10Mbps connection
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. Please refer to below steps for the software setting of Multi-Streaming.

For Windows® XP:

After restarting your computer, you will find "Mixer" tool on your system. Please select "Mixer ToolBox"   , click "Enable playback multi-streaming", and click "ok". Choose "2CH" or

"4CH" and then you are allowed to select "Realtek HDA Primary output" to use Rear Speaker and Front Speaker, or select "Realtek HDA Audio 2nd output" to use front panel audio. Then reboot your system.

For Windows® 7 / Vista™:

After restarting your computer, please double-click "Realtek HD Audio Manager" on the system tray. Set "Speaker Configuration" to "Quadraphonic" or "Stereo". Click "Device advanced settings", choose "Make front and rear output devices playbacks two different audio streams simultaneously", and click "ok". Then reboot your system.

English

1. Introduction

Thank you for purchasing ASRock **880GM-SC/128M** 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

1.1 Package Contents

1 x ASRock **880GM-SC/128M** Motherboard
   (Micro ATX Form Factor: 9.6-in x 7.8-in, 24.4 cm x 19.8 cm)
1 x ASRock **880GM-SC/128M** Quick Installation Guide
1 x ASRock **880GM-SC/128M** Support CD
2 x Serial ATA (SATA) Data Cables (Optional)
1 x I/O Shield

English

1.2 Specifications

Platform	- Micro ATX Form Factor: 9.6-in x 7.8-in, 24.4 cm x 19.8 cm - All Solid Capacitor design

CPU	- Support for Socket AM3 processors: AMD Phenom™ II X6 /
	  X4 / X3 / X2 (except 920 / 940) / Athlon II X4 / X3 / X2 /
	  Sempron processors
	- Six-Core CPU Ready
	- Supports AMD OverDrive™ with ACC feature (Advanced
	  Clock Calibration)
	- Supports AMD's Cool 'n' Quiet™ Technology
	- FSB 2600 MHz (5.2 GT/s)
	- Supports Untied Overclocking Technology (see **CAUTION 1**)
	- Supports Hyper-Transport 3.0 (HT 3.0) Technology

Chipset	- Northbridge: AMD 880G - Southbridge: AMD SB710
Memory	- Dual Channel DDR3 Memory Technology (see **CAUTION 2**) - 2 x DDR3 DIMM slots - Support DDR3 1800(OC)/1600(OC)/1333/1066/800 non-ECC, un-buffered memory (see **CAUTION 3**) - Max. capacity of system memory: 8GB (see **CAUTION 4**)
Expansion Slot	- 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™

Graphics	- Integrated AMD Radeon HD 4250 graphics
	- DX10.1 class iGPU, Shader Modle 4.1
	- Max. shared memory 512MB (see **CAUTION 5**)
	- Integrated 128MB side port memory for iGPU
	- Dual VGA Output: support DVI-D and D-Sub ports by
	  independent display controllers
	- Supports Dual-link DVI with max. resolution up to 2560x1600
	  @ 75Hz
	- Supports D-Sub with max. resolution up to 2048x1536
	  @ 85Hz
	- Supports HDCP function with DVI-D port
	- Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback
	  with DVI-D port

Audio	- 5.1 CH HD Audio (ALC662 Audio Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - Supports Wake-On-LAN

English

Rear Panel I/O	I/O Panel - 1 x PS/2 Mouse Port - 1 x PS/2 Keyboard Port - 1 x VGA/D-Sub Port - 1 x VGA/DVI-D Port - 6 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
Connector	- 6 x Serial ATAII 3.0Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 10 and JBOD), NCQ, AHCI and "Hot Plug" functions (see **CAUTION 6**) - 1 x ATA133 IDE connector (supports 2 x IDE devices) - 1 x Floppy connector - 1 x IR header - 1 x Print port header - 1 x COM port header - CPU/Chassis/Power FAN connector - 24 pin ATX power connector - 4 pin 12V power connector - CD in header - Front panel audio connector - 3 x USB 2.0 headers (support 6 USB 2.0 ports) (see **CAUTION 7**)
BIOS Feature	- 8Mb AMI BIOS - AMI Legal BIOS - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - VCCM, NB Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), AMD OverDrive™ Utility, AMD Live! Explorer, AMD Fusion, ASRock Software Suite (CyberLink DVD Suite and Creative Sound Blaster X-Fi MB) (OEM and Trial Version)

Unique Feature	- ASRock OC Tuner (see **CAUTION 8**)
	- Intelligent Energy Saver (see **CAUTION 9**)
	- Instant Boot
	- ASRock Instant Flash (see **CAUTION 10**)
	- ASRock OC DNA (see **CAUTION 11**)
	- Hybrid Booster:
	  - CPU Frequency Stepless Control (see **CAUTION 12**)
	  - ASRock U-COP (see **CAUTION 13**)

English

	- Boot Failure Guard (B.F.G.)
Hardware Monitor	- CPU Temperature Sensing
	- Chassis Temperature Sensing
	- CPU/Chassis/Power Fan Tachometer
	- CPU Quiet Fan
	- Voltage Monitoring: +12V, +5V, +3.3V, Vcore
OS	- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP Media Center / XP 64-bit compliant
Certifications	- FCC, CE, WHQL
	- ErP/EuP Ready (ErP/EuP ready power supply is required) (see **CAUTION 14**)

* 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. This motherboard supports Dual Channel Memory Technology. Before you implement Dual Channel Memory Technology, make sure to read the installation guide of memory modules on page 11 for proper installation.
3. Whether 1800/1600MHz memory speed is supported depends on the AM3 CPU you adopt. If you want to adopt DDR3 1800/1600 memory module on this motherboard, please refer to the memory support list on our website for the compatible memory modules.
   ASRock website   http://www.asrock.com
4. Due to the operating system limitation, the actual memory size may be less than 4GB for the reservation for system usage under Windows® 7 / Vista™ / XP. For Windows® OS with 64-bit CPU, there is no such limitation.
5. The maximum shared memory size is defined by the chipset vendor and is subject to change. Please check AMD website for the latest information.
6. Before installing SATAII hard disk to SATAII connector, please read the "SATAII Hard Disk Setup Guide" on page 27 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.
7. 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.

8. 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

9. 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

10. 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.

11. 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.

12. 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.

13. 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.

English

14. 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

This is a Micro ATX form factor (9.6-in x 7.8-in, 24.4 cm x 19.8 cm) motherboard. Before you install the motherboard, study the configuration of your chassis to ensure that the motherboard fits into it.

Pre-installation Precautions

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

Before you install or remove any component, ensure that the power is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, and/or components.

1. Unplug the power cord from the wall socket before touching any component.
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 anti-static 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.

English

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.
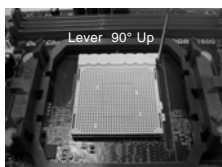
STEP 1:
Lift Up The Socket Lever

STEP 2 / STEP 3:
Match The CPU Golden Triangle To The Socket Corner Small Triangle

STEP 4:
Push Down And Lock The Socket Lever

2.2 Installation of CPU Fan and Heatsink

After you install the CPU into this motherboard, it is necessary to install a larger heatsink and cooling fan to dissipate heat. You also need to spray thermal grease between the CPU and the heatsink to improve heat dissipation. Make sure that the CPU and the heatsink are securely fastened and in good contact with each other. Then connect the CPU fan to the CPU FAN connector (CPU_FAN1, see Page 2, No. 6). For proper installation, please kindly refer to the instruction manuals of the CPU fan and the heatsink.

2.3 Installation of Memory Modules (DIMM)

880GM-SC/128M motherboard provides two 240-pin DDR3 (Double Data Rate 3) DIMM slots, and supports Dual Channel Memory Technology. For dual channel configuration, you always need to install two **identical** (the same brand, speed, size and chip-type) memory modules in the DDR3 DIMM slots to activate Dual Channel Memory Technology. Otherwise, it will operate at single channel mode.

> 1. It is not allowed to install a DDR or DDR2 memory module into DDR3 slot;otherwise, this motherboard and DIMM may be damaged.
> 2. If you install only one memory module or two non-identical memory modules, it is unable to activate the Dual Channel Memory Technology.

Installing a DIMM

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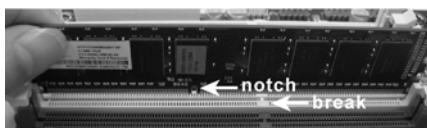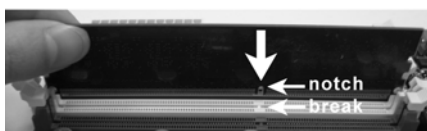
> The DIMM only fits in one correct orientation. It will cause permanent damage to the motherboard and the DIMM if you force the DIMM into the slot at incorrect orientation.

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.

2.4 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.

English

ASRock *880GM-SC/128M* Motherboard

2.5 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/D-Sub port   **VGA/DVI-D 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 12 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.

English

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.

14

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.

English

2.6 ATI™ Hybrid CrossFireX™ Operation Guide

This motherboard supports ATI™ Hybrid CrossFireX™ feature. ATI™ Hybrid CrossFireX™ brings multi-GPU performance capabilities by enabling an AMD 880G 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™ / 7 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 880G integrated chipset, all operating in a Windows® Vista™ / 7 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 HD2400XT	POWERCOLOR HD2400 XT 256MB DDR3	Support CD 8.71
	RADEON HD3450	POWERCOLOR AX3450 256MD2-S	Support CD 8.71

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.

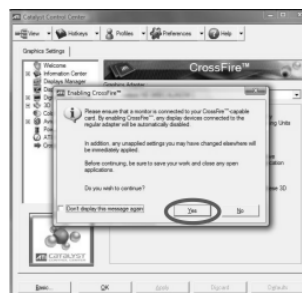Step 6.   Restart your computer. Then you will find "ATI Catalyst Control Center" on your Windows® taskbar.
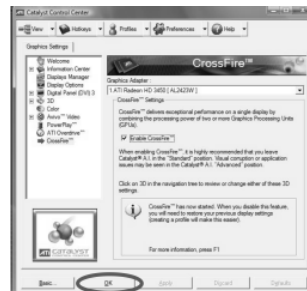

ATI Catalyst Control Center

Step 7.   Double-click "ATI Catalyst Control Center". Click "View", click "CrossFire™", and then select the option "Enable CrossFire™".
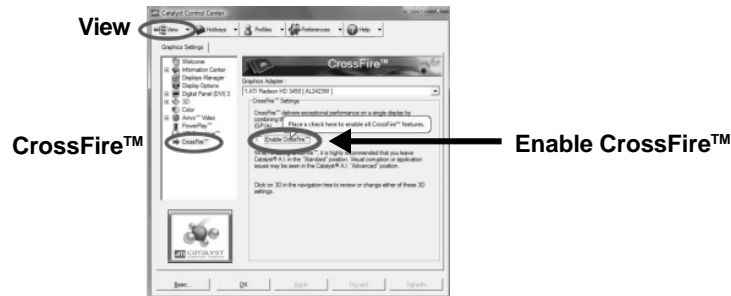
Step 8.   Click "Yes" to continue.
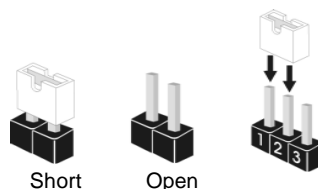

Step 9.   Click "OK" to save your change.

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

 * 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.

English

2.7 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.

Short   Open

Jumper	Setting	
PS2_USB_PW1 (see p.2, No. 2)	1_2 +5V 2_3 +5VSB	Short pin2, pin3 to enable +5VSB (standby) for PS/2 or USB wake up events.

Note: To select +5VSB, it requires 2 Amp and higher standby current provided by power supply.

Clear CMOS Jumper (CLRCMOS1) (see p.2, No. 9)	1_2 Default 2_3 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.

English

ASRock *880GM-SC/128M* Motherboard

2.8 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. 25)

PIN1 FLOPPY1

the red-striped side to Pin1

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)

PIN1 IDE1

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. 19)
(SATAII_2 (PORT 1): see p.2, No. 18)
(SATAII_3 (PORT 2): see p.2, No. 17)
(SATAII_4 (PORT 3): see p.2, No. 13)
(SATAII_5 (PORT 4): see p.2, No. 12)
(SATAII_6 (PORT 5): see p.2, No. 11)

SATAII_4 (PORT 3)   SATAII_5 (PORT 4)   SATAII_6 (PORT 5)

SATAII_1 (PORT 0)   SATAII_2 (PORT 1)   SATAII_3 (PORT 2)
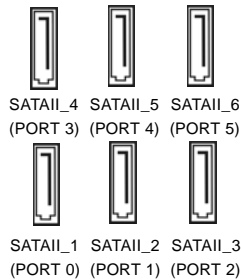
These six Serial ATAII (SATAII) connectors support SATAII or SATA hard disk for internal storage devices. The current SATAII interface allows up to 3.0 Gb/s data transfer rate.

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.

English

USB 2.0 Headers

(9-pin USB10_11)

(see p.2 No. 24)

USB_PWR
P-11
P+11
GND
DUMMY
GND
P+10
P-10
USB_PWR

Besides six default USB 2.0 ports on the I/O panel, there are three USB 2.0 headers on this motherboard. Each USB 2.0 header can support two USB 2.0 ports.
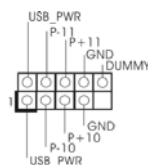
(9-pin USB8_9)
(see p.2 No. 23)

USB_PWR
P-9
P+9
GND
DUMMY
GND
P+8
P-8
USB_PWR
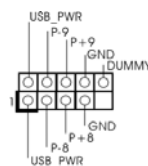
(9-pin USB6_7)
(see p.2 No. 21)

USB_PWR
P-7
P+7
GND
DUMMY
GND
P+6
P-6
USB_PWR

Print Port Header

(25-pin LPT1)

(see p.2 No. 27)

AFD#
ERROR#
PINIT#
SLIN#
GND
SPD7
SPD6
ACK#
SPD5
BUSY
SPD4
PE
SPD3
SLCT
SPD2
SPD1
SPD0
STB#
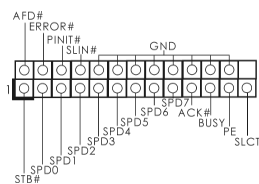
This is an interface for print port cable that allows convenient connection of printer devices.

Infrared Module Header

(5-pin IR1)

(see p.2 No. 26)

IRTX
+5V
DUMMY
GND
IRRX
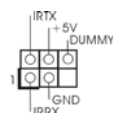
This header supports an optional wireless transmitting and receiving infrared module.

Internal Audio Connectors

(4-pin CD1)

(CD1: see p.2 No. 29)

GND   GND
CD-L   CD-R

CD1
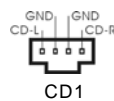
This connector allows you to receive stereo audio input from sound sources such as a CD-ROM, DVD-ROM, TV tuner card, or MPEG card.

Front Panel Audio Header

(9-pin HD_AUDIO1)

(see p.2, No. 28)

GND
PRESENCE#
MIC_RET
OUT_RET

OUT2_L
J_SENSE
OUT2_R
MIC2_R
MIC2_L
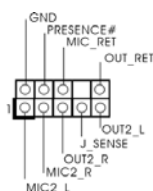
This is an interface for the front panel audio cable that allows convenient connection and control of audio devices.

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].
   F. Enter Windows system. Click the icon on the lower right hand taskbar to enter Realtek HD Audio Manager.
      For Windows® XP / XP 64-bit OS:
      Click "Audio I/O", select "Connector Settings"   , choose

      "Disable front panel jack detection", and save the change by clicking "OK".
      For Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:
      Click the right-top "Folder" icon   , choose "Disable front

      panel jack detection", and save the change by clicking "OK".
   G. To activate the front mic.
      For Windows® XP / XP 64-bit OS:
      Please select "Front Mic" as default record device.
      If you want to hear your voice through front mic, please deselect "Mute" icon in "Front Mic" of "Playback" portion.
      For Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:
      Go to the "Front Mic" Tab in the Realtek Control panel.
      Click "Set Default Device" to make the Front Mic as the default record device.

System Panel Header

(9-pin PANEL1)

(see p.2 No. 16)
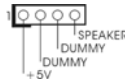
PLED+
PLED-
PWRBTN#
GND

DUMMY
RESET#
GND
HDLED-
HDLED+
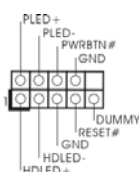
This header accommodates several system front panel functions.

English

Chassis Speaker Header

(4-pin SPEAKER 1)

(see p.2 No. 15)

SPEAKER
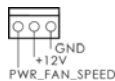DUMMY
DUMMY
+5V

Please connect the chassis speaker to this header.

Chassis and Power Fan Connectors

(3-pin CHA_FAN1)

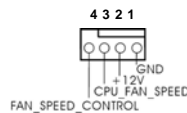(see p.2 No. 20)

GND
+12V
CHA_FAN_SPEED

(3-pin PWR_FAN1)

(see p.2 No. 7)

GND
+12V
PWR_FAN_SPEED

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

CPU Fan Connector

(4-pin CPU_FAN1)

(see p.2 No. 6)

4 3 2 1

GND
+12V
CPU_FAN_SPEED
FAN_SPEED_CONTROL

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

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
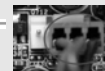
ATX Power Connector

(24-pin ATXPWR1)

(see p.2 No. 8)

12   24

1   13
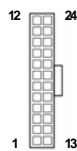
Please connect an ATX power supply to this connector.

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

12   24

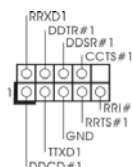1   13
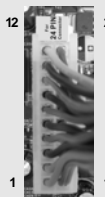
ATX 12V Power Connector

(4-pin ATX12V1)

(see p.2 No. 1)

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.34)

RRXD1
DDTR#1
DDSR#1
CCTS#1
RRI#1
RRTS#1
GND
TTXD1
DDCD#1

This COM1 header supports a serial port module.

2.9 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.

2.10 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

2.11 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.

2.11.1 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 (IDE mode)

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.

English

2.11.2 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 (IDE mode)

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 (AHCI mode)

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

2.12 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.

English

ASRock *880GM-SC/128M* Motherboard

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 Media Center / 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.

English

1. 主板简介

谢谢你采用了华擎 *880GM-SC/128M* 主板，本主板由华擎严格制造，质量可靠，稳定性好，能够获得卓越的性能。此快速安装指南包括主板介绍和分步安装向导。您可以查看支持光盘里的用户手册了解更详细的资料。

> 由于主板规格和BIOS软件将不断升级，本手册之相关内容变更恕不另行通知。请留意华擎网站上公布的升级版本。你也可以在华擎网站找到最新的显卡和CPU支持表。
> 华擎网址：http://www.asrock.com
> 如果您需要与此主板有关的技术支持，请参观我们的网站以了解您使用机种的规格信息。
> www.asrock.com/support/index.asp

1.1 包装盒内物品

华擎 *880GM-SC/128M* 主板
  (Micro ATX规格：9.6英寸 X 7.8英寸，24.4厘米 X 19.8厘米)
华擎 *880GM-SC/128M* 快速安装指南
华擎 *880GM-SC/128M* 支持光盘
两条Serial ATA(SATA)数据线(选配)
一块I/O挡板

简体中文

1.2 主板规格

架构	– Micro ATX 规格： 9.6 英寸 X 7.8 英寸，24.4 厘米 X 19.8 厘米 – 全固态电容设计
处理器	– 支持 Socket AM3 处理器：AMD Phenom™ II X6 / X4 / X3 / X2(920/940 除外) / Athlon II X4 / X3 / X2 / Sempron 处理器 – 六核心 CPU 就绪 – 通过 ACC（高级时钟校准）功能支持 AMD OverDrive™ 系 统调节 – 支持 AMD Cool 'n' Quiet™ 冷静技术 – 支持 FSB 2600 MHz (5.2 GT/s) – 支持异步超频技术（详见警告 1 ） – 支持 Hyper-Transport 3.0 (HT 3.0) 技术
芯片组	– 北桥：AMD 880G – 南桥：AMD SB710
系统内存	– 支持双通道内存技术（见警告 2） – 配备 2 个 DDR3 DIMM 插槽 – 支持 DDR3 1800(超频)/1600(超频)/1333/1066/800 non-ECC 、un-buffered 内存（见警告 3） – 系统最高支持 8GB 容量（见警告 4）
扩展插槽	– 1 x PCI Express 2.0 x16 插槽(蓝色 @ x16 模式) – 1 x PCI Express 2.0 x1 插槽 – 2 x PCI 插槽 – 支持 ATI™ Hybrid CrossFireX™
板载显卡	– 集成 AMD Radeon HD 4250 显卡 – DX10.1 级别 iGPU，Shader Model 4.1 技术 – 最大共享内存 512MB（见警告 5） – 集成 128MB 板载显存支持 iGPU – 双 VGA 输出:通过独立显示控制器提供 DVI-D 和 D-Sub 接口 – 支持 DVI,最高分辨率达 2560x1600 @ 75Hz – 支持 D-Sub,最高分辨率达 2048x1536 @ 85Hz – 通过 Dual-link DVI 接口支持 HDCP 功能 – 通过 DVI-D 接口可播放 1080 线蓝光光盘(BD) / HD-DVD 光盘
音效	– 5.1 声道高保真音频（ALC662 音频编解码器）
板载 LAN 功能	– PCIE x1 Gigabit LAN 10/100/1000 Mb/s – Realtek RTL8111DL – 支持网路唤醒（Wake-On-LAN）

简体中文

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Rear Panel I/O （后面板输入 / 输出接口）	I/O 界面 - 1 个 PS/2 鼠标接口 - 1 个 PS/2 键盘接口 - 1 个 VGA/D-Sub 接口 - 1 个 VGA/DVI-D 接口 - 6 个可直接使用的 USB 2.0 接口 - 1 个 RJ-45 局域网接口与 LED 指示灯（ACT/LINK LED 和 SPEED LED） - 高保真音频插孔：音频输入 / 前置喇叭 / 麦克风
连接头	- 6 x SATAII 3.0Gb/s 连接头，支持 RAID（RAID 0，RAID 1，RAID 10 和 JBOD），NCQ，AHCI 和"热插拔"功能（详见**警告** 6） - 1 x ATA133 IDE 插座 （最高支持 2 个 IDE 驱动器） - 1 x 软驱接口 - 1 x 红外线模块接头 - 1 x 打印机端口接针 - 1 X 串行接口连接器 - CPU/ 机箱 / 电源风扇接头 - 24 针 ATX 电源接头 - 4 针 12V 电源接头 - 内置音频接头 - 前置音频面板接头 - 3 x USB 2.0 接口 （可支持 6 个额外的 USB 2.0 接口）（详见**警告** 7）
BIOS	- 8Mb AMI BIOS - 采用 AMI BIOS - 支持即插即用 （Plug and Play,PnP） - ACPI 1.1 电源管理 - 支持唤醒功能 - 支持 jumperfree 免跳线模式 - 支持 SMBIOS 2.3.1 - VCCM 、NB（北桥芯片）电压多功能调节器
支持光盘	- 驱动程序, 工具软件, 杀毒软件 （试用版）,AMD OverDrive™ 工具,AMD Live! 浏览器,AMD Fusion, 华擎软件套装 (CyberLink DVD 套件与 Creative Sound Blaster X-Fi MB)(OEM 与试用版)
独家功能	- 华擎超频调节器 （详见**警告** 8） - 智能节能器 (Intelligent Energy Saver)(见**警告** 9) - 即时开机功能 - 华擎 Instant Flash （见**警告** 10） - 华擎 OC DNA （见**警告** 11） - Hybrid Booster（安心超频技术）：

	– 支持CPU无级频率调控（见**警告**12） – ASRock U-COP（见**警告**13） – Boot Failure Guard（B.F.G.,启动失败恢复技术）
硬件监控器	– CPU温度侦测 – 主板温度侦测 – CPU/机箱/电源风扇转速计 – CPU静音风扇 – 电压范围：+12V，+5V，+3.3V，核心电压
操作系统	– Microsoft® Windows® 7/7 64位元/Vista™/ Vista™ 64位元/XP/XP多媒体中心/XP 64位元适用于 此主板
认证	– FCC，CE，WHQL – 支持ErP/EuP（需要同时使用支持ErP/EuP的电源供应 器）（见**警告**14）

* 请参阅华擎网站了解详细的产品信息：http://www.asrock.com

> **警告**
> 请了解超频具有不可避免的风险,这些超频包括调节BIOS设置、运用异步超
> 频技术或使用第三方超频工具。超频可能会影响您的系统稳定性,甚至会导
> 致系统组件和设备的损坏。这种风险和代价须由您自己承担,我们对超频可
> 能导致的损坏不承担责任。

警告！

1. 这款主板支持异步超频技术。请阅读第41页的"Untied Overclocking Technology"(自由超频技术)了解详情。
2. 这款主板支持双通道内存技术。在您实现双通道内存技术之前，为能 正确安装，请确认您已经阅读了第33页的内存模组安装指南。
3. 1800/1600MHz内存频率是否支持在于您使用的AM3 CPU。如果您想在 这款主板上使用DDR3 1800/1600内存条,请查阅我们网站的内存支持列 表了解兼容的内存。华擎网站 http://www.asrock.com
4. 由于操作系统的限制，在Windows® 7 / Vista™ / XP下，供系统使用 的实际内存容量可能小于4GB。对於Windows® 操作系统搭配64位元 CPU来说， 不会存在这样的限制。
5. 最大共享内存大小由芯片组厂商定义并且可以更改。请查阅AMD网站了 解最新资讯。
6. 在将SATAII硬盘连接到SATAII接口之前，请阅读CD光盘中的"User Manual"(用户手册， 英文版)第28页的"SATAII Hard Disk Setup Guide"(SATAII硬盘安装指南) 调整您的SATAII硬盘驱动器为SATAII 模式。您也可以直接将SATA硬盘连接到SATAII接口。
7. USB2.0电源管理在Windows® 7 64位元/7/Vista™ 64位元/Vista™/ XP 64位元/ XP SP1或SP2系统下可正常工作。

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8. 这是一款具有友好使用介面的华擎超频工具,让您通过硬件监控功能监控您的系统,帮助您在 Windows® 环境下对硬件运行超频以获得最佳的系统性能。请访问我们的网站了解华擎超频调节器的使用方法。
华擎网站: http://www.asrock.com

9. 智能节能器(Intelligent Energy Saver)采用先进的软硬件专利设计,这项革新技术带来极佳的节能效果。当 CPU 核心闲置时,电压调节器可以简小输出电压的相数,有助于提升能源效率。换句话说,它可以在不牺牲性能的前提下,让系统更省电,并提高能源效率。为了使用智能节能器(Intelligent Energy Saver)的功能,请在 BIOS 的高级设置里启用 Cool 'n' Quiet 选项。请访问我们的网站了解智能节能器(Intelligent Energy Saver)的使用方法。华擎网站: http://www.asrock.com

10. 华擎 Instant Flash 是一个内建于 Flash ROM 的 BIOS 更新工具程序。这个方便的 BIOS 更新工具可让您无需进入操作系统(如 MS-DOS 或 Windows®)即可进行 BIOS 的更新。在系统开机自检过程中按下<F6>键或在 BIOS 设置菜单中按下<F2>键即可进入华擎 Instant Flash 工具程序。启动这一程序后,只需把新的 BIOS 文件保存在 U 盘、软盘或硬盘中,轻松点击鼠标就能完成 BIOS 的更新,而不再需要准备额外的软盘或其他复杂的更新程序。请注意:U 盘或硬盘必须使用 FAT32/64 文件系统。

11. 软件的名字本身 -OC DNA 已经向您透露了它的用途。OC DNA 是华擎独家研发的创新工具程序,它为用户提供一种记录超频设置并与他人分享的简单方法。这个好用的工具程序可帮助您在操作系统中保存超频记录,大大简化了超频设置的记录过程。有了 OC DNA,您可以将超频设置保存为一个设置文件并与朋友分享!请注意: 超频设置文件只能在相同的主板上分享和使用。

12. 尽管本主板提供无级频率调控,但不推荐用户超频使用。不同于标准 CPU 总线频率的非标准频率可能会使系统不稳定,甚至会损害 CPU 和主板。主板的处理器主频由跳线装置决定。

13. 当检测到 CPU 过热问题时,系统会自动关机。在您重新启动系统之前,请检查主板上的 CPU 风扇是否正常运转并拔出电源线,然后再将它插回。为了提高散热性,在安装 PC 系统时请在 CPU 和散热器之间涂一层导热胶。

14. EuP,全称 Energy Using Product(能耗产品),是欧盟用来定义完整系统耗电量的规定。根据 EuP 的规定,一个完整系统在关机模式下的交流电总消耗必须在 1.00W 以下。为满足 EuP 标准,您需要同时具备支持 EuP 的主板和支持 EuP 的电源供应器。根据 Intel® 的建议,支持 EuP 的电源供应器必须满足在 100mA 电流消耗时,5Vsb 电源效率高于 50%。有关支持 EuP 的电源供应器选择方面的更多细节,我们建议您咨询电源供应器的制作商。

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2. 主板安装

这是一款Micro ATX规格的主板(9.6英寸 X 7.8英寸，24.4厘米 X 19.8厘米)。在安装主板之前，了解您的机箱配置以确保主板的正确安装。

安全防范

安装主板时，注意以下安全防范：

在您安装或者拆卸任何组件之前，确保已关闭电源或者已拔掉电源线。错误的做法可能会导致主板、外围设备或组件严重受损。

1、 设备要有良好的接地线，避免静电损害，进行安装前，请先断开电源，否则会损坏主板。
2、 为了避免主板上的组件受到静电损害，绝不要把主板径直放到地毯等类似的地方，也要记住在接触主板前使用一个静电手腕带或接触金属。
3、 通过边缘拿住整块主板安装，切毋接触芯片。
4、 在证明放掉静电后，方可进行安装。
5、 当把螺丝钉放入螺丝孔用来将主板固定到机箱上时，请不要过度拧紧螺丝！这样做很可能会损坏主板。

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ASRock *880GM-SC/128M* Motherboard

2.1 CPU 安装

步骤1：移动固定杆90°角解除插槽锁。
步骤2：将CPU直接放置在CPU插槽上方，让有金三角标记的CPU一角与插槽上有小三角标记的一角对齐。
步骤3：谨慎地将处理器插入插槽直到它安装到恰当的位置。

> CPU安装都只有一个正确的方向,为了避免损坏针脚,请不要强迫将CPU插入插槽中。

步骤4：处理器放置妥当后，按紧它并推下插槽固定杆来稳固处理器。推动固定杆到侧面的突起部分时会发出"答"的声响表明它被锁住了。
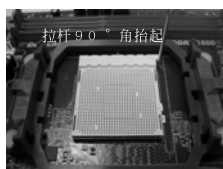
步骤1：
抬起插座拉杆

步骤2 / 步骤3：
将CPU的金三角对准插座
边角上的小三角

步骤4：
下推并锁住插座拉杆

2.2 安装CPU风扇和散热片

> 在主板上安装CPU之後，必须安装大尺寸散热片和散热风扇。同时，您还需要在CPU和散热片之间涂抹散热硅脂改进散热效果。确保CPU和散热片彼此接触稳固良好。接著将CPU风扇连接到CPU FAN接口(CPU_FAN，参看第2页 No. 6)。为了正确安装,请仔细查阅CPU风扇和散热器的使用说明。

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2.3 内存安装

此主板提供两个240-针 DDR3 (Double Data Rate 3,双倍数据传输速率)DIMM 内存插槽,并且支持双通道内存技术。为了配置双通道,您必须在 DDR3 DIMM 内存插槽上安装两根**同样的**内存条(相同的牌子、速率、容量和芯片类型),以此激活双通道内存技术。否则内存将以单通道模式运行。

> 1. 不允许将 DDR 或 DDR2 内存条插入 DDR3 插槽,否则主板和 DIMM 有可能损坏。
> 2. 如果您仅安装了一根内存条或者两根不同的内存条,这不能激活双通道内存技术。

安装步骤:

> 请确保在添加或移走 DIMM 内存或系统部件之前切断电源适配器。

步骤1、 DIMM 插槽两端的起拔器向外扳开。

步骤2、 将每个 DIMM 插槽的凹口与 DIMM 内存上凸出部分对应,使凹口与凸出部分吻合,内存即能正确安装。
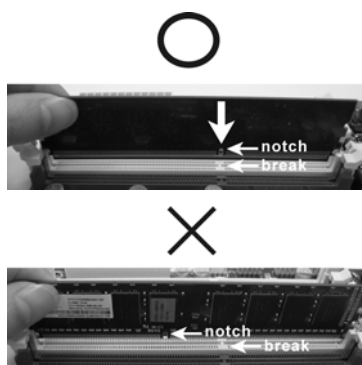
> DIMM 内存只能以正确的方向安装。如果你以错误的方向强行将 DIMM 内存插入插槽,那将会导致主板和 DIMM 内存的永久性损坏。

步骤3、 将 DIMM 内存平稳地插入插槽直至两端卡子迅速而充分地归位以及 DIMM 内存完全就位。

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2.4 扩展插槽 (PCI 插槽以及 PCI Express 插槽)

此主板配备 2 个 PCI 插槽和 2 个 PCI Express 插槽。

PCI 插槽: 用于安装 32 位的扩展 PCI 卡。

PCIE 插槽: PCIE1 (PCIE x1 插槽;白色)用来安装 PCIE x1 显卡,例如千兆
网卡,SATA2 卡等。

PCIE2 (PCIE x16 插槽; 蓝色)用来安装 PCIE x16 显卡。

安装步骤:

1、在安装扩展卡之前,请确认已经关闭电源或拔掉电源线。在你安装之前,
请阅读扩展卡的说明并完成必需的硬件设置。

2、移动机箱挡板,以便使用扩展槽。

3、选择一个扩展槽安装扩展卡,装进机箱并用螺丝固定。

4、确定接触正确,没有单边翘起的现象。

簡体中文

2.5 跳线设置

插图所示的就是设置跳线的方法。当跳线帽放置在针脚上时，这个跳线就是"短接"。如果针脚上没有放置跳线帽，这个跳线就是"开路"。插图显示了一个 3 针脚的跳线,当跳线帽放置在针脚 1 和针脚 2 之间时就是"短接"。

短接　　开路
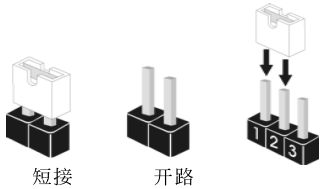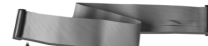
接 脚	设 定	
PS2_USB_PW1 （见第 2 页第 2 项）	1_2 +5V 2_3 +5VSB	短接 pin2 和 pin3，就可以设置 +5VSB（待机），使 PS/2 或 USB 能唤醒系统。

注意： 选择 +5VSB，电源必须能提供 +2 AMP 或更高的待机电流。

| 清除 CMOS
 （CLRCMOS1，3 针脚跳线）
 （见第 2 页第 9 项） | 1_2 默认设置　　2_3 清除 CMOS | |

注意：CLRCMOS1 允许您清除 CMOS 里的资料。在 CMOS 里的资料包括系统设置资讯，例如系统密码，日期，时间及系统设置参数。为了清除并重置系统参数到默认设置，请关闭电脑并拔掉电源线，然后用跳线帽短接 CLRCMOS1 上的 pin2 和 pin3 五秒钟。如果您需要再完成 BIOS 刷新时清除 CMOS，您必须首先启动系统，然后在您进行 CMOS 清除操作之前关闭系统。

2.6 连接头

此类连接头是不用跳线帽连接的，请不要用跳线帽短接这些连接头。跳线帽不正确的放置将会导致主板的永久性损坏！

连 接 头	图 示	说 明
软驱接头 （33 针 FLOPPY1） （见第 2 页第 25 项）	PIN1　FLOPPY1	将标示红色斑纹的一边插入第 1 针脚（Pin1）

注意：请确保数据线标红色斑纹的一边插入连接器第 1 针脚（Pin1）的位置。

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主 IDE 连接头 (蓝色)

(39针 IDE1，见第2页第10项)

PIN1   IDE1
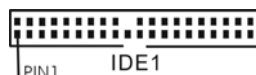
蓝色端接到主板上 (   ) 黑色端接到硬盘驱动器上

80 针 的 ATA 66/100/133 排线

注意：请查阅您的ＩＤＥ驱动器供应商提供的说明书了解详细资料。

Serial ATAII 接口

(SATAII_1(PORT0) 见第2页第19项)
(SATAII_2(PORT1) 见第2页第18项)
(SATAII_3(PORT2) 见第2页第17项)
(SATAII_4(PORT3) 见第2页第13项)
(SATAII_5(PORT4) 见第2页第12项)
(SATAII_6(PORT5) 见第2页第11项)

SATAII_4 SATAII_5 SATAII_6
(PORT 3) (PORT 4) (PORT 5)
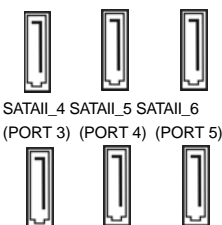
SATAII_1 SATAII_2 SATAII_3
(PORT 0) (PORT 1) (PORT 2)

这里有六组 Serial ATAII (SATAII)接口支持SATA或SATAII硬盘作为内部储存设置。目前SATAII界面理论上可提供高达3.0Gb/s的数据传输速率。

Serial ATA (SATA)
数据线
(选配)

SATA数据线的任意一端均可连接SATA/SATAII硬盘或者主板上的SATAII接口。

USB 2.0 扩展接头

(9针 USB10_11)
(见第2页第24项)

USB_PWR
P-11
P+11
GND
DUMMY
GND
P+10
P-10
USB_PWR
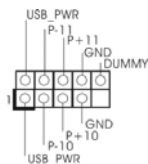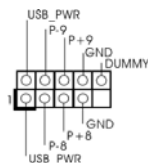
除了位于Ｉ/Ｏ面板的六个默认USB 2.0接口之外，这款主板有三组USB 2.0接针。每组USB 2.0接针可以支持两个USB 2.0接口。

(9针 USB8_9)
(见第2页第23项)

USB_PWR
P-9
P+9
GND
DUMMY
GND
P+8
P-8
USB_PWR

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(9针 USB6_7)
(见第2页第21项)
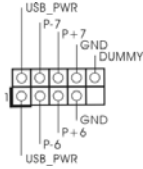
打印机端口接针
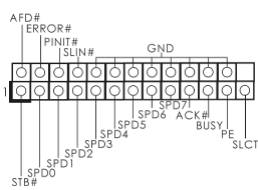
这是一个连接打印机端口的接口，方便您连接打印机设备。
(25针 LPT1)
(见第2页第27项)

红外线模块接头
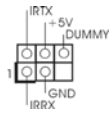
这个接头支持一个选配的无线发送和接受红外线的模块。
(5针 IR1)
(见第2页第26项)

内置的音频接头
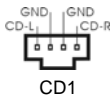
可以通过CD-ROM，DVD-ROM，TV 调谐器或MPEG卡接收音频输入。
(4针 CD1)
(CD1 见第2页第29项)

CD1

前置音频面板接头

可以方便连接音频设备。
(9针 HD_AUDIO1)
(见第2页第28项)
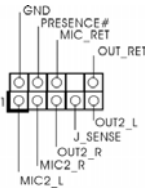
1. 高保真音频(High Definition Audio，HDA)支持智能音频接口检测功能(Jack Sensing)，但是机箱面板的连线必须支持HDA才能正常使用。请按我们提供的手册和机箱手册上的使用说明安装您的系统。

2. 如果您使用AC＇97音频面板，请按照下面的步骤将它安装到前面板音频接针：
   A. 将Mic_IN(MIC)连接到MIC2_L。
   B. 将Audio_R(RIN)连接到OUT2_R，将Audio_L(LIN)连接到OUT2_L。
   C. 将Ground(GND)连接到Ground(GND)。
   D. MIC_RET和OUT_RET仅用于HD音频面板。您不必将它们连接到AC＇97音频面板。
   E. 进入BIOS设置程序。进入Advanced Settings(高级设置)并选择Chipset Configuration(芯片组配置)。将Front Panel Control(前面板控制)选项由Auto(自动)设置为Enabled(启用)。
   F. 进入Windows系统。点击右下角任务栏上的图标进入Realtek HD Audio Manager(Realtek 高保真音频管理器)。

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支持 Windows® XP/XP 64 位元操作系统：
点击"Audio I/O"(音频输入/输出接口)，点选"Connector Settings"(连接设置) [icon]，选择"Disable front panel jack detection"(关闭前面板插孔检测)并点击"OK"保存更改。
支持 Windows® 7/7 64 位元/Vista™/Vista™ 64 位元操作系统：
点击右上角的"Folder"(文件)图标 [icon]，选择"Disable front panel jack detection"(关闭前面板插孔检测)并点击"OK"保存更改。

G. 启用前置麦克风。
支持 Windows® XP/XP 64 位元操作系统：
请选择"Front Mic"(前置麦克风)作为默认录音设备。
如果您想通过前置麦克风聆听您的声音，请点击"Playback"(播放)部分"Front Mic"(前置麦克风)一项里的"Mute"(静音)图标。
支持 Windows® 7/7 64 位元/Vista™/Vista™ 64 位元操作系统：
进入 Realtek 控制面版的"Front Mic"(前置麦克风)选项卡。
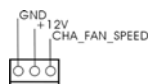点击"Set Default Device"(设置默认设备)将前置麦克风设置为默认录音设备。

系统面板接头
(9针 PANEL1)
(见第2页第16项)

PLED+
PLED-
PWRBTN#
GND
DUMMY
RESET#
GND
HDLED-
HDLED+
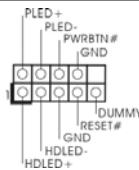
可接各种不同灯，电源开关及重启键等各种连线。

机箱喇叭接头
(4针 SPEAKER1)
(见第2页第15项)

SPEAKER
DUMMY
DUMMY
+5V
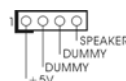
请将机箱喇叭连接到这个接头。

机箱，电源风扇接头
(3针 CHA_FAN1)
(见第2页第20项)

GND
+12V
CHA_FAN_SPEED

(3针 PWR_FAN1)
(见第2页第7项)

GND
+12V
PWR_FAN_SPEED

请将风扇连接线接到这个接头，并让黑线与接地的针脚相接。
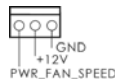
CPU 风扇接头
(4针 CPU_FAN1)
(见第2页第6项)

4 3 2 1
GND
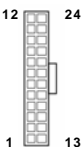+12V
CPU_FAN_SPEED
FAN_SPEED_CONTROL
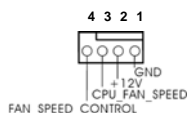
请将CPU风扇连接线接到这个接头，并让黑线与接地的针脚相接。

虽然此主板支持4-Pin CPU风扇(Quiet Fan,静音风扇),但是没有调速功能的3-Pin CPU风扇仍然可以在此主板上正常运行。如果您打算将3-Pin CPU风扇连接到此主板的CPU风扇接口,请将它连接到Pin 1-3。
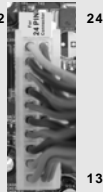
Pin 1-3连接 ←

3-Pin风扇的安装

ATX 电源接头

(24针 ATXPWR1)

(见第2页第8项)

12 24

1 13

请将ATX电源供应器连接到这个接头。

虽然此主板提供24-pin ATX电源接口,但是您仍然可以使用传统的20-pin ATX电源。为了使用20-pin ATX电源,请顺著Pin 1和Pin 3插上电源接头。
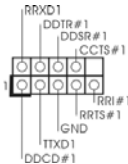
20-Pin ATX电源安装说明

12 24

1 13

ATX 12V电源接口

(4针 ATX12V1)

(见第2页第1项)

请注意,必需将带有ATX 12V插头的电源供应器连接到这个插座,这样就可以提供充足的电力。如果不这样做,就会导致供电故障。

串行接口连接器

(9针 COM1)

(见第2页第34项)

RRXD1
DDTR#1
DDSR#1
CCTS#1

RRI#1
RRTS#1
GND
TTXD1
DDCD#1

这个COM1端口支持一个串行接口的外设。

2.7 驱动程序安装指南

要将驱动程序安装到您的系统,首先请您将支持光盘放入光驱里。然后,系统即可自动识别兼容的驱动程序,并在支持光盘的驱动程序页面里依次列出它们。请依此从上到下安装那些必须的驱动程序。如此您安装的驱动程序就可以正常工作了。

简体中文

2.8 在带 RAID 功能的系统上安装 Windows® 7 / 7 64 位元 Vista™ / Vista™ 64 位元 / XP / XP 64 位元

如果您想在 SATA / SATAII 硬盘上使用 RAID 功能安装 Windows® 7 / 7 64 位元 / Vista™ / Vista™ 64 位元 / XP / XP 64 位元操作系统，请查阅随机支持光盘如下路径里的文件了解详细步骤：

..\ RAID Installation Guide

2.9 在不带 RAID 功能的系统上安装 Windows® XP / XP 64 位元 / Vista™ / Vista™ 64 位元

如果您打算在不带 RAID 功能的 SATA / SATAII 硬盘上安装 Windows® XP / XP 64 位元 / Vista™ / Vista™ 64 位元操作系统，请根据您安装的操作系统按如下步骤操作。

2.9.1 在不带 RAID 功能的系统上安装 Windows® XP / XP 64 位元

如果您打算在不带 RAID 功能的 SATA / SATAII 硬盘上安装 Windows® XP / XP 64 位元操作系统，请按如下步骤操作。

Using SATA / SATAII HDDs without NCQ function（使用不带 NCQ 功能的 SATA / SATAII 硬盘）

步骤 1： 设置 BIOS 。
A. 进入 BIOS SETUP UTILITY（BIOS 设置程序）→Advanced Screen（高级界面）→Storage Configuration（存储配置）。
B. 将 "SATA Operation Mode" 选项设置为 [IDE]。
步骤 2： 在系统上安装 Windows® XP / XP 64 位元操作系统。

2.9.2 在不带 RAID 功能的系统上安装 Windows® 7 / 7 64 位元 / Vista™ / Vista™ 64 位元

如果您打算在不带 RAID 功能的 SATA / SATAII 硬盘上安装 Windows® 7 / 7 64 位元/ Vista™ / Vista™ 64 位元，请按下面的步骤操作。

Using SATA / SATAII HDDs without NCQ function（使用不带 NCQ 功能的 SATA / SATAII 硬盘）

步骤 1： 设置 BIOS 。
A. 进入 BIOS SETUP UTILITY（BIOS 设置程序）→Advanced Screen（高级界面）→Storage Configuration（存储配置）。
B. 将 "SATA Operation Mode" 选项设置为 [IDE]。

简体中文

步骤 2: 在系统上安装 Windows® 7 / 7 64 位元 / Vista™ /
       Vista™ 64 位元操作系统。

Using SATA / SATAII HDDs with NCQ function (使用带 NCQ 功
能的 SATA / SATAII 硬盘)

步骤 1: 设置 BIOS。
A.   进入 BIOS SETUP UTILITY (BIOS 设置程序)→Advanced Screen (高级
       界面)→Storage Configuration (存储配置)。
B.   将"SATA Operation Mode"选项设置为[AHCI]。
步骤 2: 在系统上安装 Windows® 7 / 7 64 位元 / Vista™ /
       Vista™ 64 位元操作系统。

2.10 Untied Overclocking Technology 异步超频技术

这款主板支持 Untied Overclocking Technology 异步超频技术。这意味著在
超频时,由於固定了 PCI/PCIE 总线,前端总线的超频拥有更多富余的空间,在您
启用 Untied Overclocking Technology 异步超频技术之前,请进入 BIOS 里的"
Overclock Mode"(超频模式)选项,并将它从[Auto](自动)设置为[CPU,PCIE,
Async.]。经此更改之後,超频时 CPU 的前端总线将不再受约束, 同时 PCI 和
PCIE 总线处于固定模式,因此前端总线可以在更稳定的超频环境下运行。

在您使用异步超频技术之前,请查阅第 29 页了解可能的超频风险。

简体中文

3．BIOS 信息

主板上的Flash Memory 芯片存储了BIOS设置程序。启动计算机，在机器开机自检(POST)的过程中按下<F2>键，就可进入BIOS设置程序，否则将继续进行开机自检之常规检验。如果须要在开机自检后进入BIOS设置程序，请按下<Ctl> + <Alt> + <Delete>键重新启动计算机，或者按下系统面板上的重启按钮。功能设置程序储存有主板自身的和连接在其上的设备的缺省和设定的参数。这些信息用于在启动系统和系统运行需要时，测试和初始化元器件。有关BIOS设置的详细信息，请查阅随机支持光盘里的用户手册(PDF文件)。

4．支持光盘信息

本主板支持各种微软视窗操作系统：Microsoft® Windows® 7/7 64位元/Vista™/Vista™ 64位元/XP/XP多媒体中心/XP 64位元。主板附带的支持光盘包含各种有助于提高主板效能的必要驱动和实用程序。请将随机支持光盘放入光驱里，如果计算机的"自动运行"功能已启用，屏幕将会自动显示主菜单。如果主菜单不能自动显示，请查找支持光盘内BIN文件夹下的ASSETUP.EXE文件并双击它，即可调出主菜单。

简体中文

ASRock *880GM-SC/128M* Motherboard

电子信息产品污染控制标示

依据中国发布的「电子信息产品污染控制管理办法」及SJ/T 11364-2006「电子信息产品污染控制标示要求」，电子信息产品应进行标示，藉以向消费者揭露产品中含有的有毒有害物质或元素不致发生外泄或突变从而对环境造成污染或对人身、财产造成严重损害的期限。依上述规定，您可于本产品之印刷电路板上看见图一之标示。图一中之数字为产品之环保使用期限。由此可知此主板之环保使用期限为１０年。

图一

有毒有害物质或元素的名称及含量说明

若您欲了解此产品的有毒有害物质或元素的名称及含量说明，请参照以下表格及说明。

部件名称	有害物质或元素					
	铅(Pb)	镉(Cd)	汞(Hg)	六价铬(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
印刷电路板及其电子组件	X	O	O	O	O	O
外部信号连接头及线材	X	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 标准规定的限量要求，然该部件仍符合欧盟指令 2002/95/EC 的规范。

备注： 此产品所标示之环保使用年限，系指在一般正常使用状况下。

简体中文