870 Extreme3

AMD 870 + SB850 Chipsets

ASRock®
www.asrock.com

Detail Specification ‹ ‹ ‹

Platform	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm - All Solid Capacitor design (100% Japan-made high-quality Conductive Polymer Capacitors)
CPU	- Support for Socket AM3 processors: AMD Phenom™ II X4 / X3 / X2 (except 920 / 940) / Athlon II X4 / X3 / X2 / Sempron processors - Six-Core CPU Ready - Supports UCC feature (Unlock CPU Core) - V4 + 1 Power Phase Design - Supports CPU up to 140W - Supports AMD's Cool 'n' Quiet Technology - FSB 2600 MHz (5.2 GT/s) - Supports Untied Overclocking Technology - Supports Hyper-Transport 3.0 (HT 3.0) Technology
Chipset	- Northbridge: AMD 870 - Southbridge: AMD SB850
Memory	- Dual Channel DDR3 memory technology - 4 x DDR3 DIMM slots - Supports DDR3 1800(OC)/1600(OC)/1333/1066/800 non-ECC, un-buffered memory - Max. capacity of system memory: 16GB
Expansion Slot	- 2 x PCI Express 2.0 x16 slots (Single at x16 or dual at x8/x8 mode) - 2 x PCI Express 2.0 x1 slots - 2 x PCI slots - Supports ATI™ Quad CrossFireX™ and CrossFireX™
Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec) - Premium Blu-ray audio support
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111E - Supports Wake-On-LAN - Supports LAN Cable Detection
Rear Panel I/O	I/O Panel - 1 x PS/2 Keyboard Port - 1 x Coaxial SPDIF Out Port - 1 x Optical SPDIF Out Port - 6 x Ready-to-Use USB 2.0 Ports - 1 x eSATAIII Connector - 2 x Ready-to-Use USB 3.0 Ports - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - 1 x IEEE 1394 Port - 1 x Clear CMOS Switch with LED - HD Audio Jack: Side Speaker / Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone
USB 3.0	- 2 x USB 3.0 ports by NEC MPD720200, support USB 1.0/2.0/3.0 up to 5Gb/s
SATA3	- 5 x SATA3 6.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 0+1 and RAID 5), NCQ, AHCI and "Hot Plug" functions
Connector	- 5 x SATA3 6.0 Gb/s connectors - 1 x IR header - 1 x COM port header - 1 x IEEE 1394 header - 1 x HDMI_SPDIF header - 1 x Power LED header - CPU/Chassis/Power FAN connector - 24 pin ATX power connector - 8 pin 12V power connector - Front panel audio connector - 3 x USB 2.0 headers (support 6 USB 2.0 ports) - 1 x Dr. Debug (7-Segment Debug LED)
Smart Switch	- 1 x Power Switch with LED - 1 x Reset Switch with LED - 1 x Clear CMOS Switch with LED
BIOS Feature	- 8Mb AMI Legal BIOS - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - CPU VID, VCCM, NB, SB Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), AMD OverDrive™ Utility, AMD Fusion, AMD Fusion Media Explorer, ASRock Software Suite (CyberLink DVD Suite - OEM and Trial; Creative Sound Blaster X-Fi MB - Trial)

Unique Feature	- ASRock OC Tuner
	- Intelligent Energy Saver
	- Instant Boot
	- ASRock Instant Flash
	- ASRock OC DNA
	- Hybrid Booster:
	   - CPU Frequency Stepless Control
	   - ASRock U-COP
	   - Boot Failure Guard (B.F.G.)

Hardware Monitor	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU Quiet Fan - CPU/Chassis Fan Multi-Speed Control - 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)
Accessories	- Quick Installation Guide, Support CD, I/O Shield - 4 x SATA data cables (optional)

Product Brief ‹ ‹ ‹

- Phenom II X6 Six-Core CPU Ready
- Supports Exclusive ASRock UCC Chip - Unlock CPU Core feature
- ASRock DuraCap (2.5 x longer life time), 100% Japan-made high-quality Conductive Polymer Capacitors
- Supports ATI™ Quad CrossFire™, CrossFireX™
- 1 x eSATAIII Connector, 5 x SATA3 6.0 Gb/s connectors, 2 x USB 3.0 ports, 2 x IEEE1394 ports
- Smart Swith Design : 1 x Power Switch with LED, 1 x Reset Switch with LED, 1 x Clear CMOS Switch with LED
- Supports ASRock Instant Boot, Instant Flash, OC Tuner, IES, OC DNA, Multi-Speed Fan Control
- 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec) , Premium Blu-ray audio support
- ErP/EuP Ready
- Free Software: CyberLink DVD Suite - OEM and Trial; Creative Sound Blaster X-Fi MB - Trial

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Stunning Data Transfer Speed
ASRock True 333

USB3.0 SATA3 eSATA3

USB3.0

10X Super Speed
USB 3.0 — 5 Gb/s
USB 2.0 — 1X 480 Mb/s

USB3.0, the world's best-known computer peripheral interface once again receives a major revamp to stay current with today's most demands for connectivity bandwidth. Delivering data transfer rates up to ten times faster than USB 2.0 with the optimized power efficiency, USB 3.0 promises a major leap forward in transfer speeds and capability.

SATA3

SATA3 — 6 Gb/s
SATA2 — 3 Gb/s
SATA1 — 1.5 Gb/s

SATA3, the world's fastest interface, enables to maximum your hard disk drive performance. With the new SATA Revision 3.0 technology, ASRock ensures you the incredible data transfer rate up to 6Gb/s speed over SATA2.

eSATA3

eSATA3, the much-anticipated interface, can not only provide the faster transfer speed up to 6 Gb/s but also the hassle-free computing environment.

The above rear I/O layout is just an example and it may be different from the actual layout.

ASRock True 333 V.S. Other 333

	PCI-E	SATA3	USB 3.0
ASRock True 333 series	x16	PCI-E 2.0	PCI-E 2.0
Other 333 series	x8	PCI-E 1.0	PCI-E 2.0
	x8	PCI-E 2.0	PCI-E 1.0
	x16	PCI-E 1.0	PCI-E 1.0

ASRock True 333 series motherboards can run the PCI-E for VGA card, SATA3 and USB 3.0 at full speed together at the same time. However, other 333 series motherboards can only run one of them at full speed at one time.

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ASRock UCC (Unlock CPU Core)

World's First AMD 870 Chipset Motherboard
Supports Unlock CPU Core

After Enable
ASRock UCC

AMD CPU Core X2/X3 ▶▶▶ X4

With ASRock unique UCC chip onboard, one simple click in BIOS can unlock CPU core to enjoy an instant performance boost.

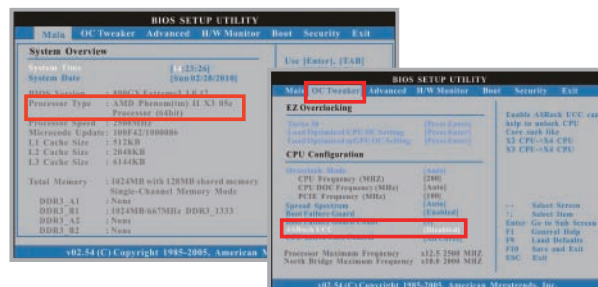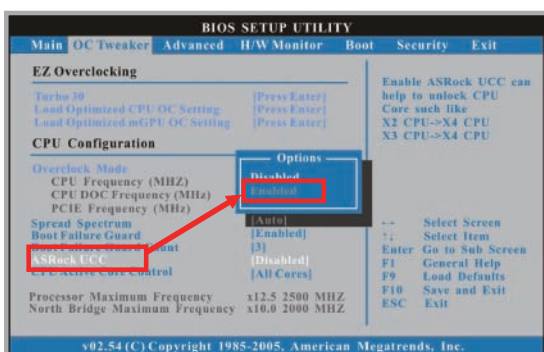### Step 1

Press "F2 or DEL" to enter the BIOS.

Step 2
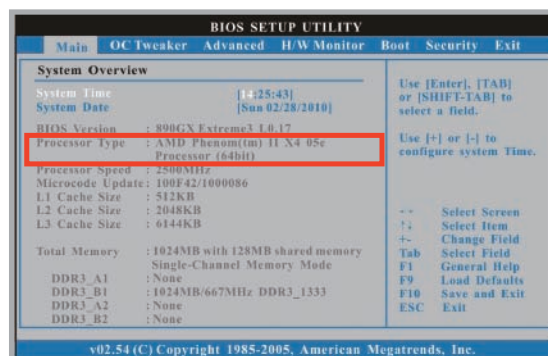
Choose the "OC Tweaker" page and "ASRock UCC" option!

Step 3

- "ASRock UCC" set to Enabled.
- Press "F10" to save change and exit.

Step 4

- Press "F2 or DEL" to enter the BIOS.
- Processor Type unlock to "AMD Phenom II X4 05e" under "Main" page.

Step 5

CPU Information Under OS
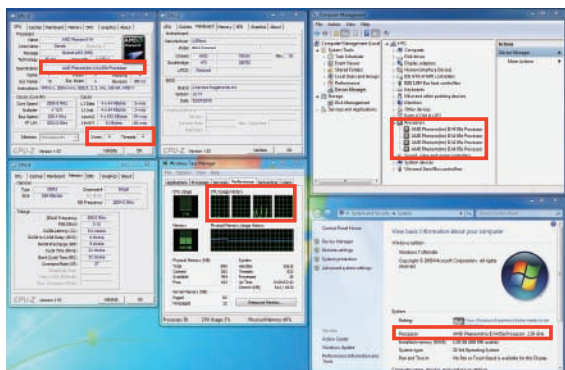
Step 6

Before and After UCC

AMD Phenom II X4 705e X3 core ▶ **X4 core**

Before -
UCC not enabled, Cores: 3

Simply enables UCC function in BIOS
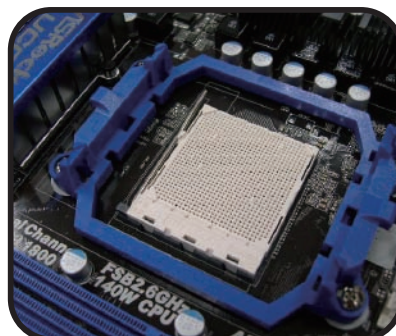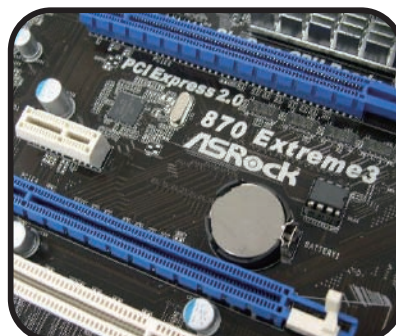
After -
UCC enabled, Cores: 4
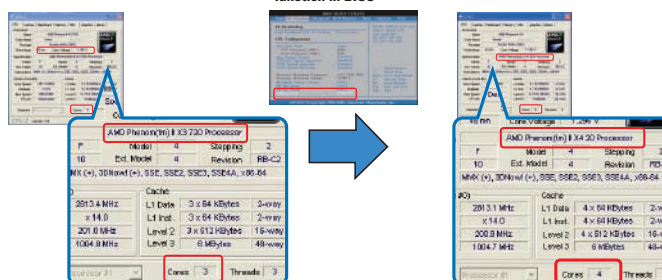
Phenom II X6 Six-Core CPU Ready
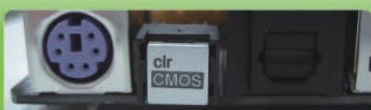
AMD Phenom II X6

Phenom II X6 CORE CPU READY

Supports ATI™ Quad CrossFireX™ and CrossFireX™

Smart Switch Design

Clear CMOS Switch	Power Switch	Reset Switch

Multi SPEED Fan Control

Chassis FAN1 1298RPM Level 1
Chassis FAN1 3125RPM Level 10

Set your ideal fan speed by tuning the fan speed from level 1 to 10 in BIOS or OC Tuner.
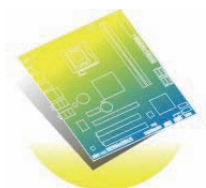
| ErP/EuP Ready Motherboard | ErP/EuP Ready Power Supply | ErP/EuP System |
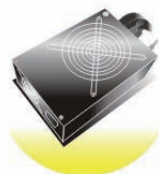
What is ErP/EuP?

ErP/EuP, stands for Energy Using Product, was a provision regulated by European Union to define the power consumption for the completed system. With the great quantity and the popularly using of the electrical products nowadays and the continuously increasing of the electrical products categories in the following 20 to 30 years, European Union decided to establish an effective strategy to solve the energy consumption problem. That is, according to ErP/EuP, the total AC power of the completed system shall be under 1.00W in off mode condition.

Premium Blu-ray Audio

Premium Blu-ray Audio, an outstanding technology developed on ASRock motherboard, provides the excellent audio output of 24-bit/192 kHz with its respective Blu-ray DRM compatible driver/software. With Content Protection-Support and High SNR DAC, the Blu-ray entertainments can be played in a high quality of 24-bit/192KHz. In other words, if you are using a device without the Blu-ray Audio support, the audio quality will be downgraded to 16-bit/48kHz like a regular CD quality. To deliver the best possible sound solution for today's most demanding users, ASRock Premium Blu-ray Audio motherboard is the best choice for users who are particularly desired to enjoy the pure HD audio. ASRock users are able to take full advantages of our Blu-ray Audio motherboards. Choose ASRock, choose Pure HD audio!

Why ASRock?
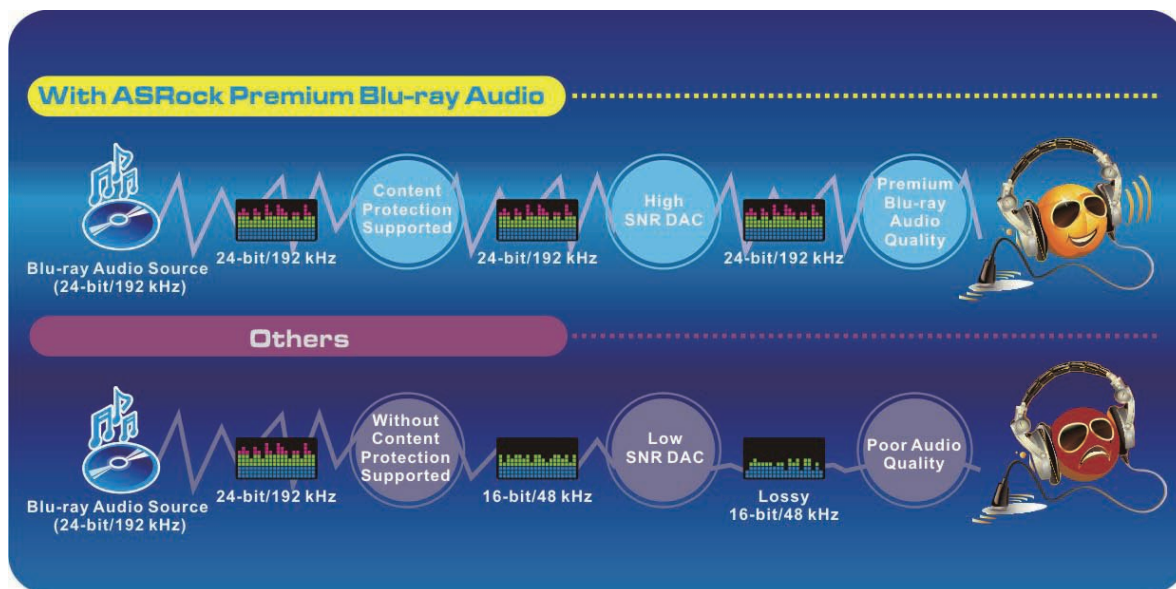
* SNR: Signal-to-Noise Ratio.

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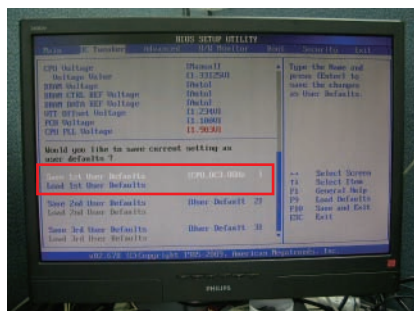AMD 870 + SB850 Chipsets

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OC DNA

Save your OC settings as a profile and share with friends. Try OC DNA now!
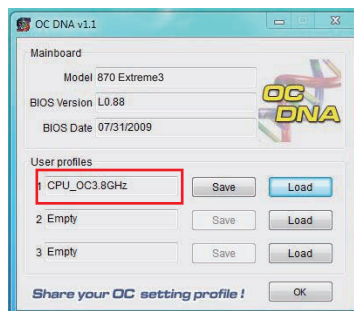
OC DNA Instruction

Step 1

Save your BIOS OC settings as User Default in BIOS OC Tweaker menu. (For example: we name this User Default setting as "CPU_OC3.8GHz")
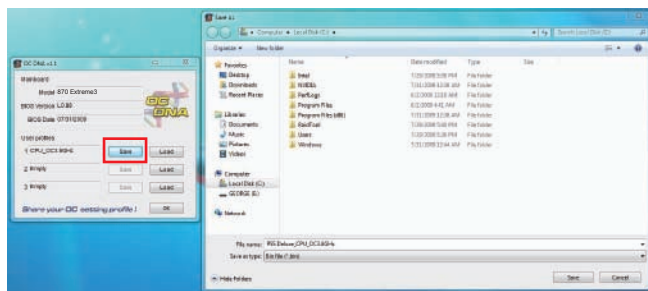
Step 2

Execute ASRock OC DNA under OS, you will find "CPU_OC3.8GHz" as User Profile 1.

Step 3

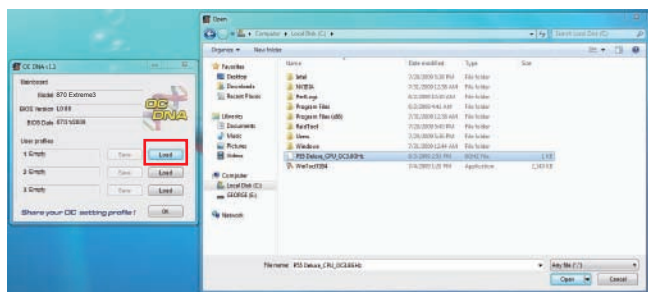Press "Save" button to save the "CPU_OC3.8GHz" OC settings as a profile.

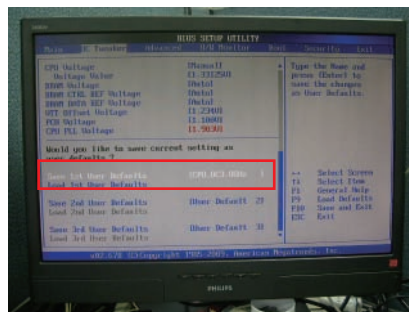### Step 4

Send the "CPU_OC3.8GHz" profile to other friends.

Step 5

When the friend receives your "CPU_OC3.8GHz" profile, he can press "Load" to load the "CPU_OC3.8GHz" profile in OC DNA.

Step 6

After that, the friend can enter into BIOS OC Tweaker menu to load the "CPU_OC3.8GHz" profile as his BIOS OC settings.

Now, you have successfully share your OC setting profile with your friends.

*The OC DNA works only when users use the same motherboard and BIOS version.

ASRock Instant Boot

ASRock Instant Boot is a new feature invented exclusively by ASRock.
It can boot up system in an amazing speed,
which is 10 times faster than traditional boot up. For home users or office PC users, ASRock Instant Boot can also
guarantee a clean Windows OS, and consumed less power! For details:
http://www.asrock.com/feature/InstantBoot/index.asp

* This function is applicable ONLY to single user that does not secure ID and Password to their
   systems.
* The boot up time depends on the hardware configuration.

10 Times Faster, Only 4 Secs to Boot Up to Windows!

ASRock YouTube
http://tw.youtube.com/watch?v=BucIjXZVxXo

4 Secs

ASRock Instant Boot is 10 times faster than traditional mode!

ASRock Instant Flash

ASRock Instant Flash is an exclusive and the most user-friendly BIOS flash utility developed by ASRock. It is embedded in Flash ROM which is used to update the system BIOS without having to enter operating systems like MS-DOS or Windows.

Features

Once executing ASRock Instant Flash, the utility will automatically detect all devices such as USB, hard disk or even floppy drive to find the exact BIOS for your system. Instead of giving you all BIOS in your devices, the Instant Flash just list BIOS versions that apply to your motherboard model only. For example, if you have many different BIOS of different motherboards saved in your devices, but you just need to flash your P45 motherboard, the Instant Flash will just list the P45 BIOS versions for you. This unique function allows you to easily select the suitable BIOS version instead of browsing through all data.
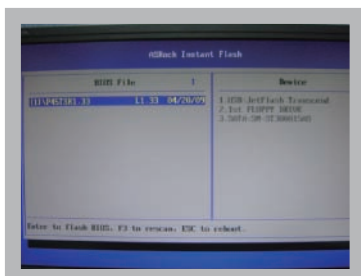
Instant Flash just list BIOS versions that apply to your motherboard model.

Simple!

Click and start Flashing!

Quick!

CyberLink Power2Go 6.1 LE OEM

Power2Go 6 lets you burn and backup videos, photos, music and data onto Blu-ray Discs and DVDs.

CyberLink MediaShow 4.1 SE OEM

Photo and video management software MediaShow edits videos and photos instantly, creates slideshow, and allows publishing directly to YouTube and Flickr.

CyberLink PowerDVD 8.0 DTS Trial

World-renowned PowerDVD 8 DTS delivers outstanding DVD movie playback quality on your PC.

CyberLink PowerDirector 8.0 Trial

PowerDirector - Video Editing software – edits high-definition videos including AVCHD, allows output to PSP iPod and Blu-ray Disc.

CyberLink PowerBackup 2.5 Trial

PowerBackup backups valuable data on your PC.

Creative Sound Blaster X-Fi MB Trial

The Sound Blaster X-Fi MB solution provides premium audio quality, effects and features for PC systems equipped with onboard audio.
For gamers, the EAX® ADVANCED HD 4.0, with its state-of-the-art Multi-Environment rendering and reverb modelling, delivers a much more realistic and immersive 3D gaming experience than your motherboard audio ever will.