

# 770DE3L

AMD 770 + SB710 Chipsets

**ASRock**  
www.asrock.com



## Product Brief <<<

- Phenom II X6 6-Core CPU Ready
- Supports ASRock UCC - Unlock CPU Core
- Solid Capacitor for CPU power
- Hyper Transport 5200 MT/s
- Supports Dual Channel DDR3 1800(OC)
- Supports ATI™ Quad CrossFireX™ and CrossFireX™
- PCIe Gigabit LAN
- Supports ASRock Instant Boot, Instant Flash, OC Tuner, IES, OC DNA, Multi-Speed Fan Control
- ErP / EuP Ready
- Free Software: CyberLink DVD Suite - OEM and Trial; Creative Sound Blaster X-Fi MB - Trial

## Detail Specification <<<

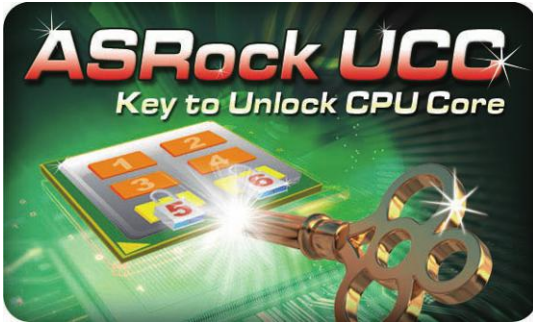
<b>Platform</b>	- ATX Form Factor: 12.0-in x 7.5-in, 30.5 cm x 19.1 cm - Solid Capacitor for CPU power
<b>CPU</b>	- Support for Socket AM3 processors: AMD Phenom™ II X6 / X4 / X3 / X2 (except 920 / 940) / Athlon II X4 / X3 / X2 / Sempron processors - Six-Core CPU Ready - Supports CPU up to 140W - Supports ASRock UCC - Unlock CPU Core - 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
<b>Chipset</b>	- Northbridge: AMD 770 - Southbridge: AMD SB710
<b>Memory</b>	- Dual Channel DDR3 memory technology - 2 x DDR3 DIMM slots - Supports DDR3 1800(OC)/1600/1333/1066/800 non-ECC, un-buffered memory - Max. capacity of system memory: 8GB
<b>Expansion Slot</b>	- 2 x PCI Express 2.0 x16 slots (PCIe2 @ x16 mode; PCIe3 @ x4 mode) - 1 x PCI Express 2.0 x1 slot - 3 x PCI slots - Supports ATI™ Quad CrossFireX™ and CrossFireX™
<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 Serial Port: COM1 - 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
<b>Connector</b>	- 6 x Serial ATAII 3.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 10 and JBOD), NCQ, AHCI and "Hot Plug" functions - 1 x ATA133 IDE connector (supports 2 x IDE devices) - 1 x Floppy connector - 1 x IR 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 - CD in header - Front panel audio connector - 3 x USB 2.0 headers (support 6 USB 2.0 ports)
<b>BIOS Feature</b>	- 8Mb AMI Legal BIOS - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - CPU VID Voltage Multi-adjustment
<b>Support CD</b>	- Drivers, Utilities, AntiVirus Software (Trial Version), AMD OverDrive™ Utility, ASRock Software Suite (CyberLink DVD Suite - OEM and Trial; Creative Sound Blaster X-Fi MB - Trial)
<b>Unique Feature</b>	- 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.)
<b>Hardware Monitor</b>	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU Quiet Fan - CPU/Chassis/Power Fan Multi-Speed Control - Voltage Monitoring: +12V, +5V, +3.3V, Vcore
<b>OS</b>	- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit compliant
<b>Certifications</b>	- FCC, CE, WHQL - ErP/EuP Ready (ErP/EuP ready power supply is required)
<b>Accessories</b>	- Quick Installation Guide, Support CD, I/O Shield - 2 x SATA Data Cables (Optional)

The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than original product specification is not guaranteed.

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**Before -  
UCC not enabled, Cores: 4**

Before UCC is enabled, the CPU-Z software shows the processor as a 4-core processor. The 'Cores' field in the 'Boards' tab is set to 4.

Name	Thuban	Brand ID	0		
Code Name	Socool A91 (09)				
Package	Socket AM3 (938)				
Technology	45 nm	Core Voltage	1.320 V		
Specification	AMD Phenom(tm) 960 Processor				
Family	1000	A	Stepping	3	
Ext. Family	10	Ext. Model	A	Revision	
Instructions	MMX(1), SSE(1), SSE2(1), SSE3(1), SSE4(1), SSE4a(1), SSE4b(1), SSE4c(1), SSE4d(1)				
Cache (Core #)	Cache				
Core Speed	3800.0 MHz	L1 Data	4 x 64 KBytes	2-way	
Multiplier	x 15.0	L1 Inst.	4 x 64 KBytes	2-way	
Bus Speed	200.0 MHz	L2 Inst.	4 x 512 KBytes	16-way	
HT Link	2000.0 MHz	Level 2	6 KBytes	48-way	
Boards	Processor #1	Cores	4	Threads	4

**After -  
UCC enabled, Cores: 6**

After UCC is enabled, the CPU-Z software shows the processor as a 6-core processor. The 'Cores' field in the 'Boards' tab is set to 6.

Name	Thuban	Brand ID	0		
Code Name	Socool A91 (09)				
Package	Socket AM3 (938)				
Technology	45 nm	Core Voltage	1.320 V		
Specification	AMD Processor model 96000				
Family	F	1000	A	Stepping	3
Ext. Family	10	Ext. Model	A	Revision	
Instructions	MMX(1), SSE(1), SSE2(1), SSE3(1), SSE4(1), SSE4a(1), SSE4b(1), SSE4c(1), SSE4d(1)				
Cache (Core #)	Cache				
Core Speed	3000.0 MHz	L1 Data	6 x 64 KBytes	3	
Multiplier	x 15.0	L1 Inst.	6 x 64 KBytes	3	
Bus Speed	200.0 MHz	L2 Inst.	6 x 512 KBytes	18	
HT Link	2000.0 MHz	Level 2	6 KBytes	48	
Boards	Processor #1	Cores	6	Threads	6

\* The success rate of this enhancement depends on the individual CPU.

\* The technological implement of Unlock CPU Core may vary by different models.

**Multi  
SPEED  
Fan Control**



Set your ideal fan speed by tuning the fan speed from level 1 to 10 in BIOS or OC Tuner.

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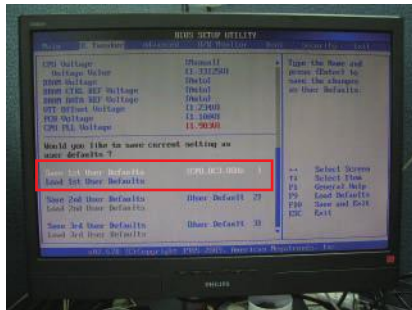
## OC DNA

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")



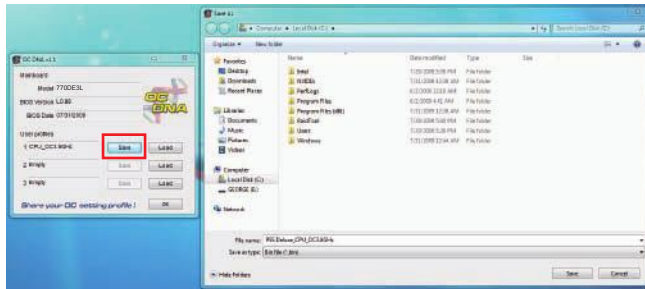
### Step 2

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.



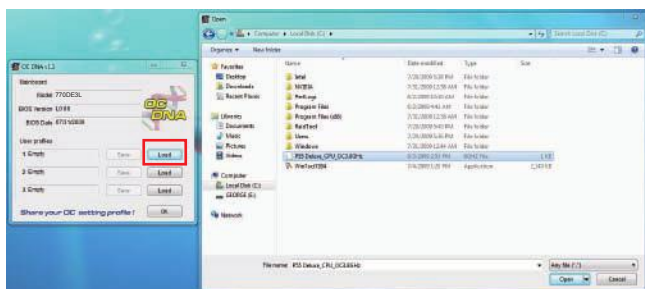
### Step 4

Send the "CPU\_OC3.8GHz" profile to other friends.



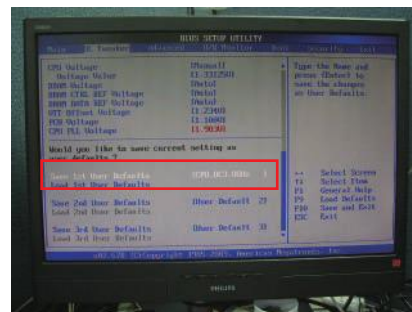
### Step 5

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.



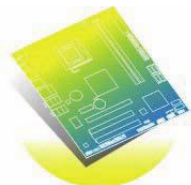
Now, you have successfully share your OC setting profile with your friends.

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

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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.

## 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=BucljXZVxXo>



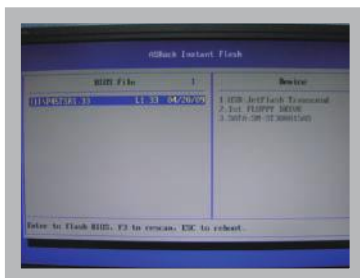
## ASRock Instant Flash

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!**

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**CyberLink**



## **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.