

# 939A785GMH/128M

AMD 785G + SB710 Chipsets

**ASRock**  
www.asrock.com



## Detail Specification

<b>Platform</b>	- Micro ATX Form Factor: 9.6-in x 8.6-in, 24.4 cm x 21.8 cm - Solid Capacitor for CPU power
<b>CPU</b>	- Socket 939 for AMD Athlon™ 64FX / 64X2 / 64 processors - Supports AMD's Cool 'n' Quiet Technology - FSB 1000 MHz (2.0 GT/s) - Supports Untied Overclocking Technology - Supports Hyper-Transport Technology
<b>Chipset</b>	- Northbridge: AMD 785G - Southbridge: AMD SB710
<b>Memory</b>	- Dual Channel DDR memory technology - 4 x DDR DIMM slots - Supports DDR 400/333/266 non-ECC, un-buffered memory - Max. capacity of system memory: 4GB
<b>Expansion Slot</b>	- 1 x PCI Express 2.0 x16 slot (green @ x16 mode) - 1 x PCI Express 2.0 x1 slot - 2 x PCI slots - Supports ATI™ Hybrid CrossFireX™
<b>Graphics</b>	- Integrated AMD Radeon HD 4200 graphics - DX10.1 class iGPU, Shader Model 4.1 - Max. shared memory 512MB - Integrated 128MB side port memory for iGPU - Three VGA Output options: D-Sub, DVI-D and HDMI - Supports HDMI Technology with max. resolution up to 1920x1200 (1080P) - Supports Dual-link DVI with max. resolution up to 2560x1600 @ 75Hz - Supports D-Sub with max. resolution up to 2048x1536 @ 60Hz - Supports HDCP function with DVI-D port - Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with DVI-D port
<b>Audio</b>	- 7.1 CH Windows® Vista™ Premium Level HD Audio (ALC888 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 Keyboard Port - 1 x VGA/D-Sub Port - 1 x VGA/DVI-D Port - 1 x HDMI Port - 1 x Optical SPDIF Out Port - 4 x Ready-to-Use USB 2.0 Ports - 1 x eSATAII Port - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - HD Audio Jack: Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone
<b>Connector</b>	- 5 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 COM port header - 1 x Print 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)
<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 - VCCM, NB Voltage Multi-adjustment - Supports Smart BIOS
<b>Support CD</b>	- Drivers, Utilities, AntiVirus Software (Trial Version)
<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 - Voltage Monitoring: +12V, +5V, +3.3V, Vcore
<b>OS</b>	- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP Media Center / XP 64-bit compliant
<b>Certifications</b>	- FCC, CE, WHQL - EuP Ready (EuP ready power supply is required)
<b>Accessories</b>	- Quick Installation Guide, Support CD, I/O Shield - ATA 133 cable - 2 x SATA data cables (optional)

## Product Brief

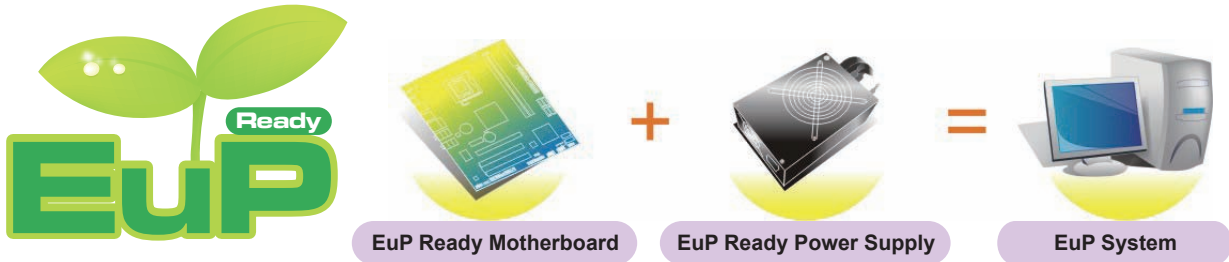
- Integrated AMD Radeon HD 4200 graphics, DX10.1 class iGPU, Shader Model 4.1, Max. shared memory 512MB
- Supports ATI™ Hybrid CrossFireX™, Built-in 128MB SidePort Memory
- Three VGA Output options: D-Sub, DVI-D and HDMI
- EuP Ready
- Supports ASRock Instant Boot, Instant Flash, Smart BIOS, ASRock OC Tuner, Intelligent Energy Saver, OC DNA

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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## What is EuP?

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 EuP, the total AC power of the completed system shall be under 1.00W in off mode condition.

## How to setup an EuP system?

To meet EuP standard, the EuP ready motherboard and the EuP ready power supply are required. As a motherboard vendor with eco-awareness, ASRock is the pioneer to develop “EuP Ready” motherboards based on the great efforts of our exceptional hardware design.

According to Intel, 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, please check with the power supply manufacturer for more details.

## ASRock, Worldwide First EuP Ready Motherboard Manufacturer!

ASRock hereby proudly announced that we are the Worldwide First motherboard manufacturer to release “EuP Ready” motherboard to the market! With ASRock “EuP Ready” motherboard, you are confident to setup a system to pass the EuP standard.

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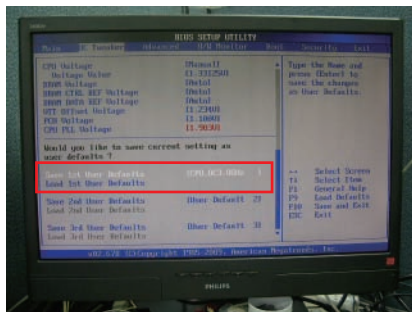
## OC DNA

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

## OC DNA Instruction

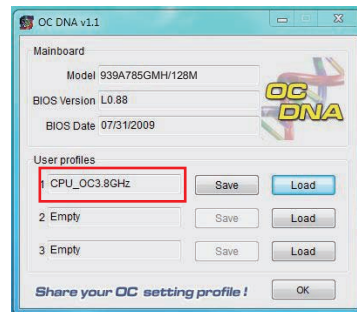
### Step 1

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")



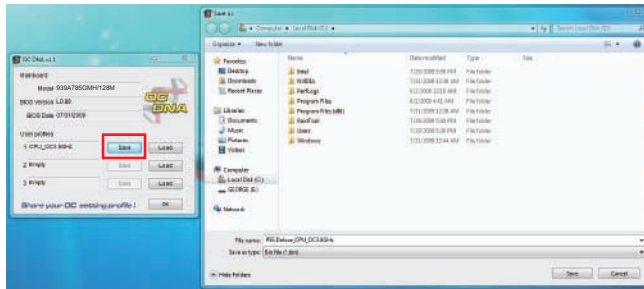
### Step 2

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.



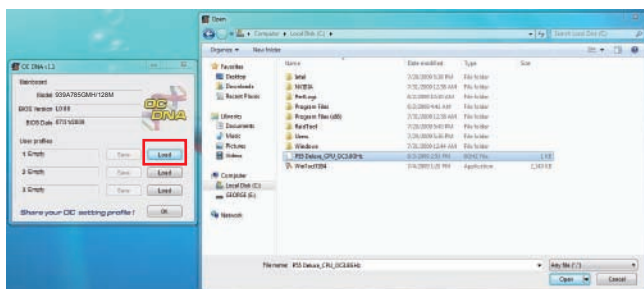
### Step 4

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



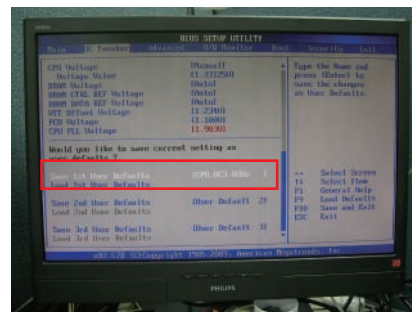
### Step 5

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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## ATI Radeon® HD4200

### DirectX 10.1 Onboard Graphics

Key features of DirectX 10.1 include an updated shader model, improved anti-aliasing support, more flexible data access, and tighter specifications for better application compatibility.

#### DirectX 10.1 Anti-Aliasing



DirectX 10 –Standard  
MSAA:Foliage edges do  
not get anti-aliased  
–causes shimmering and  
crawling when they move

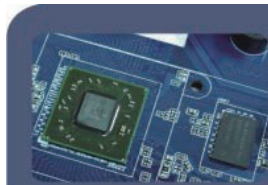
DirectX 10.1 –Alpha Test  
MSAA:Foliage edges are  
smoothed and anti-aliased  
–offers significant image  
quality improvement

Features	DirectX® 10	DirectX® 10.1
Shader Model	4	4.1
Separate per-MRT blend modes	No	Yes
Pixel Coverage Masks	No	Yes
Sample Pattern Selection	No	Yes
Cube Map Arrays	No	Yes
Gather4	No	Yes
VS Inputs	16	32
Blending	INT8, FP16/32	INT8/16, FP16/32
Filtering	FP16	FP32

### Side port memory 128MB:

Boost performance up to 18.1% which is rarely seen on other 785G boards

#### side port memroy 128MB



ASRock 785G MB with  
Side Port Memory 128MB

**Up to 18.1%**  
Performance Boost

3DMARK 06

Without side  
port memory

967

With side  
port memory

**18.1%** 1142

Performance Boost

GPU=900MHz, Sideport runs at DDR2 800, at performance setting

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## 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>



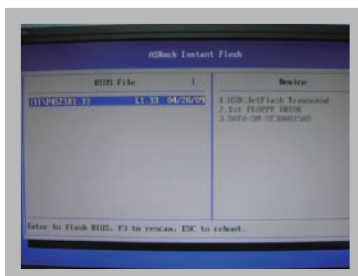
## ASRock Instant Flash

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!**