AMD 890GX + SB850 Chipsets



















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 - Support for Socket AM3 processors - AMD Phenom™ II X6 / X4 / X3 / X2 (except 920 / 940) / Althlon II X4 / X3 / X2 / Sempron processors - Supports B-Core CPU - Supports UCC feature (Unlock CPU Core) - Advanced V8 + 2 Power Phase Design - Supports CPU up to 140W - Supports AMID's Cool 'n' Quiet Technology - FSB 2600 MHz (5/2 GT/s) - Supports United Overclocking Technology - Supports United Overclocking Technology
Chipset	- Northbridge: AMD 890GX - Southbridge: AMD SB850
Memory	_ Dual Channel DDR3 memory technology -4 x DDR3 DIMM slots - Supports DDR3 1866(OC)/1800(OC)/1600(OC)/1333/1066/800 non-ECC, un-buffered memory: - Max. capacity of system memory: 32GB
Evnancion Slot	- 3 x PCI Express 2.0 x16 slots (PCIE2/PCIE3: single at x16 or dual

Expansion Slot

- 3 x PCI Express 2.0 x16 slots (PCIE2IPCIE3: single at x10 at x8/x8 mode; PCIE4: x4 mode)
- 1 x PCI Express 2.0 x1 slot
- 3 x PCI slots
- Supports ATI™ Quad CrossFireX™, 3-Way CrossFireX™, CrossFireX™ and Hybrid CrossFireX™.

Graphics

Integrated AMD Radeon HD 4290 graphics
DX10.1 class iGPU, Shader Model 4.1
Max. shared memory 512MB
Built-in 128MB DDR3 1333/1200MHz SidePort Memory
Multi VGA Output options: D-Sub, DVI-D and HDMI
Supports HDMI Technology with max. resolution up to 1920x1200
(1080P)

(1080P)
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 and HDMI ports
Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with DVI
and HDMI ports Supports Full H and HDMI ports

7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Audio Codec)
Premium Blu-ray audio support
Supports THX TruStudio PRO™

PCIE x1 Gigabit LAN 10/100/1000 Mb/s Atheros® AR8151 LAN

Supports Wake-On-LAN

I/O Panel - 1 x PS/2 Keyboard P - 1 x VGA/D-Sub Port - 1 x VGA/D-VI-D Port Rear Panel I/O

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 eSATA3 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: Rear Speaker / Central / Bass / Line in / Front
Speaker / Microphone

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 2 x Rear USB 3.0 ports by Etron EJ168A, support USB 1.0/2.0/3.0 **USB 3.0** 2 x Real GUS 2005-1200 (up to 505b/s 1 x Front USB 3.0 header (supports 2 USB 3.0 ports) by Etron EJ168A, supports USB 1.0/2.0/3.0 up to 5Gb/s

5 x SATA3 6.0 Gb/s connectors Connector

x COM port header x IEEE 1394 heade 1 x HDMI_SPDIF header 1 x Power LED header CPU/Chassis/Power FAN connector

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 USB 3.0 header (supports 2 USB 3.0 ports) 1 x USP 3.0 header (supports 2 USB 3.0 ports) 1 x Dr. Debug (7-Segment Debug LED)

1 x Power Switch with LED 1 x Reset Switch with LED 1 x Clear CMOS Switch with LED **Smart Switch**

32Mb AMI UEFI Legal BIOS with GUI support Supports "Plug and Play" ACPI 1.1 Compliance Wake Up Events Supports jumperfree SMBIOS 2.3.1 Support CPU, VCCM, NB, SB Voltage Multi-adjustment **BIOS Feature**

Drivers, Utilities, AntiVirus Software (Trial Version), AMD OverDrive™ Utility, AMD Livel Explorer, ASRock Software Suite (CyberLink DVD Suite - OEM and Trial) Support CD

Unique Feature

Hardware Monitor

Cybelline IV Souther Octive and many
ASRock Extreme Tuning Utility (AXTU)
ASRock Instant Flash
ASRock Instant Flash
ASRock APP Charger
ASRock APP Charger
ASRock APP Charger
ASRock SmartView
ASRock Stast USB
Hybrid Booster:
- CPU Frequency Stepless Control
- ASRock U-COP
- Boot Failure Guard (B F G.)

- AGNOUN U-CUP
- Boot Failure Guard (B.F.G.)
Turbo 25 / Turbo 30 GPU Overclocking
Turbo UCC

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

Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit compliant os

FCC, CE, WHQL ErP/EuP Ready (ErP/EuP ready power supply is required) Certifications

- Quick Installation Guide, Support CD, I/O Shield
- 4 x SATA data cables (optional)
- 2 x SATA 1 to 1 power cables (optional)
- 1 x Front USB 3.0 Panel
- 4 x HDD Screws
- 6 x Chassis Screws Accessories

















Product Brief < < <

- Supports AM3+, 8-Core CPU Ready
- ASRock DuraCap (2.5 longer life time), 100% Japan-made high-quality Conductive Polymer **Capacitors**
- Supports Dual Channel DDR3 1866(OC)
- Supports ATI™ Quad CrossFireX™, 3-Way CrossFireX™, CrossFireX™ and Hybrid CrossFireX™
- Integrated AMD Radeon HD 4290 graphics, DX10.1 Class iGPU, Shader Model 4.1
- Multi VGA Output options: D-Sub, DVI-D and HDMI
- 2 x Front USB 3.0 ports, 2 x Rear USB 3.0 ports, 5 x SATA3 connectors, 2 x IEEE1394 ports
- Supports XFast USB, AXTU, UEFI, Instant Boot, Instant Flash, OC Tuner, IES, OC DNA, Good Night LED, APP Charger
- 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec), supports THX TruStudio PRO™

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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ATTO Disk Benchmark - 4K Write

41775 KB/s



181817 KB/s 335.23%

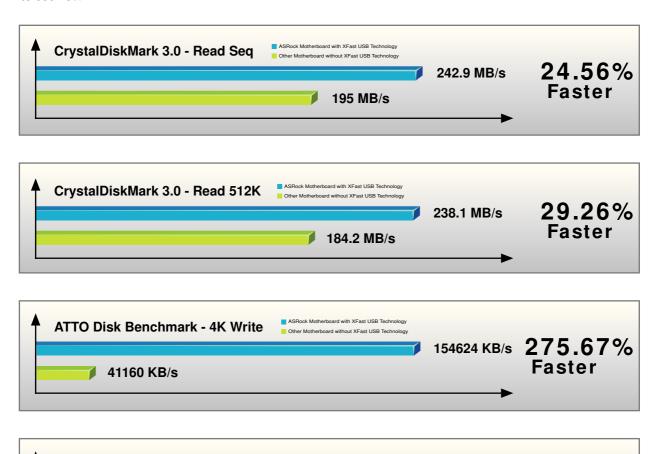
Faster

ASRock XFast USB Technology - Faster Than Your Imagination!



(The rear I/O photo is example only)

ASRock XFast USB Technology redefines the new standard in high performance computing. Proving once again to be the pioneer in motherboard industry, ASRock XFast USB Series Motherboards integrate with the latest XFast USB Technology which delivers the world's fastest USB data transfer speed. According to the below graph, it shows that the ASRock XFast USB technology can even boost USB 3.0 performance up to 335.23%!



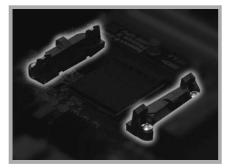
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AM3+ 8-Core Processor Support

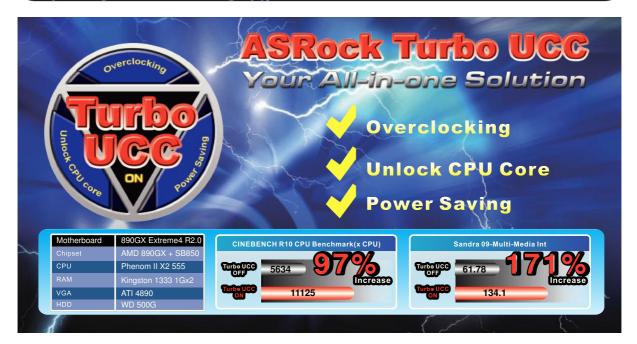
Compatible with AM3+ 8-Core CPU! This board is designed to build up the most powerful system performance and deliver the most demanding technology for users nowadays. Just enjoy next generation computing with ASRock 8-Core CPU Ready motherboard.



Two-Piece Retention Module

By adopting the exclusive AMD two-piece retention module that improves the cooling efficiency with AM3+/AM3/AM2+ CPU coolers, this board allows heat dissipation becomes faster and effective.





Turbo UCC technology provides you an all-in-one solution to unlock the hidden cpu cores in the CPU, get the amazing system performance boost by auto-overclocking, and running the system in a certainly lower power consumption level as well. When you press "X" when switch on the computer, the system will automatically reboot itself, after that, the system will execute the Turbo UCC function. Enabling Turbo UCC, it will automatically help you to unlock the extra CPU core to enjoy an instant performance boost, and the system performance will boost up by overclocking CPU frequency, memory frequency and all related voltage settings! Different from normal high-energy consumption for overclocking or system upgrading process, ASRock Turbo UCC can allow an energy-saving overclocking or system upgrade computing operation!

AMD 890GX + SB850 Chipsets



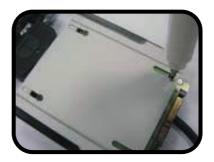
Front USB 3.0 Panel



The Front USB 3.0 Panel supports 2 x USB 3.0 ports and provides a 2.5" SSD/HDD rack.



1. Prepare a 2.5" HDD/SSD and place it on the Front USB 3.0 Panel.



2. Screw the 2.5" HDD/SSD to the Front USB 3.0 Panel with four HDD screws.



3. Intall the Front USB 3.0 Panel into the 2.5" drive bay of the chassis.



4. Screw the Front USB 3.0 Panel to the drive bay with six chassis screws.



5. Plug the Front USB 3.0 cable into the USB 3.0 header on the motherboard.



6. The Front USB 3.0 Panel is ready to use.

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AXTU - The All-In-1 Tuning Software



ASRock Extreme Tuning Utility (AXTU) is an all-in-one software to fine-tune different features in an user-friendly interface, which includes Hardware Monitor, Fan Control, Overclocking, OC DNA and IES. In Hardware Monitor, it shows the major readings of your system. In Fan Control, it shows the fan speed and temperature for you to adjust. In Overclocking, you are allowed to adjust the CPU frequency, ratio and some voltages for optimal system performance. In 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. In IES (Intelligent Energy Saver), the voltage regulator can reduce the number of output phases to improve efficiency when the CPU cores are idle without sacrificing computing performance.

UEFI - The Revolutionary BIOS Interface



*Windows Vista-64bit or Windows 7-64bit OS is required

Unified Extensible Firmware Interface (UEFI) is a revolutionary BIOS utility which offers tweak-friendly options in an advanced viewing interface. Compared with traditional BIOS design, the latest UEFI utility provides lots improved functions. The major features of UEFI include:

- 1. Graphical Visual Experience UEFI provides an improved visual interface with colorful icons and makes your computing environment more versatile to replace the traditional dull BIOS page.
- 2. Mouse Enabling Besides keyboard control, you can freely use mouse to select your ideal settings in UEFI as well.
- 3. Supports 3TB bootable HDD UEFI breaks the limitations of 2TB bootable HDD on traditional BIOS. With UEFI, you can enjoy 3TB bootable HDD size.

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Experience the Brand New Browser Now

SmartView is the smart start page for IE that combines your most visited web sites, your history, your Facebook friends and your real-time newsfeed into an enhanced view for a more personal Internet experience. ASRock motherboards are exclusively equipped with the SmartView utility that helps you keep in touch with friends on-the-go.

The Major Features of SmartView

Visual thumbnail images which categorize and rank your frequently visited websites, as well as provide a chronological view of your browser history.



A "Friend Wall" that conveniently alphabetizes your Facebook friends by profile photo, allowing immediate access to your friends' profile pages.



A persistent, real-time Facebook newsfeed located within the Internet Explorer sidebar.



A "share this" button which allows you to instantly and immediately share webpage posts and links to your friends' Facebook pages.



Two mode options that allow you to choose your favored view style.



Flow Mode



Flow Mode

System Requirements
OS version: Win7 32/64 bit, Vista 32/64 bit□Browser version: IE8

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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.