

# TA890GXE Motherboard



- Supported Socket AM3 processors AMD Phenom II / Athlon II processor
- Supported AMD Mutil Core(x6,x4,x2)
- AMD 140W processor support
- AMD 890GX Chipset with ATI Radeon HD 4290 DX10.1 Graphics
- 4 DIMM supported DDR3-1600(OC)/1333/1066
- On Board 128MB DDR3 Side-Port memory
- Supported SATA 6Gb/s 2X speed than current SATA 3G
- ATI Hybrid Graphics Support
- Integrated HDMI®/DVI interface with HDCP Support 1080P HD Video Experience
- BIOSTAR G.P.U ( Green Power Utility ) for green power saving your desktop
- D.P.U( Digital Power Unit ) Technology for better OC experience
- AMD OverDrive™ with ACC feature (Advanced Clock Calibration) supported

# **TA890GXE Specifcation**

CPU SUPPORT	AMD Phenom™ II X6 Processor  AMD Phenom™ II X4 Processor  AMD Phenom™ II X3 Processor  AMD Phenom™ II X2 Processor  AMD Athlon™ II X4 Processor  AMD Athlon™ II X3 Processor  AMD Athlon™ II X2 Processor  AMD Athlon™ II X2 Processor  AMD Sempron™ Processor  Maximum CPU TDP (Thermal Design Power):  140Watt
НТ	Support HT3.0 up to 5.2GT/s (Depends on AMD CPU Specification)

MEMORY	Support Dual Channel DDR3 1600(OC)/1333/1066/800 MHz 4 x DDR3 DIMM Memory Slot Max. Supports up to 16GB Memory
INTEGRATED VIDEO	ATI Radeon™ HD4290 Graphics with 128MB DDR3 Side-port memory, Max. Memory Share Up to 512 MB Support ATI Hybrid Crossfire
STORAGE	5 x SATA III Connector 1 x IDE Connector Support SATA RAID: 0,1,5,10
LAN	Realtek RTL8111DL - 10/100/1000 Controller
AUDIO CODEC	Realtek ALC892 8-Channel Blu-ray Audio
USB	4 x USB 2.0 Port 3 x USB 2.0 Header
EXPANSION SLOT	1 x PCI-E 2.0 x16 Slot 1 x PCI-E 2.0 x1 Slot 2 x PCI Slot
REAR I/O	1 x PS/2 Mouse 1 x PS/2 Keyboard 1 x eSATA2 Connector 1 x FireWire IEEE 1394a Port 4 x USB 2.0 Port 1 x HDMI® Connector 1 x DVI-D Connector 1 x VGA Port 1 x LAN Port 6 x Audio Jacks 1 x S/PDIF Out Port
INTERNAL I/O	3 x USB 2.0 Header 5 x SATA III Connector (6Gb/s) 1 x IDE Connector 1 x Front Audio Header 1 x Front Panel Header 1 x S/PDIF-Out Header 1 x CPU Fan Connector 2 x System Fan Connector 1 x FireWire IEEE 1394 Header 1 x CIR Header 1 x COM Port Header
DIMENSION	Micro ATX Form Factor Dimension: 24.4cm X 24.4cm ( W x L )
OS SUPPORT	Supports Windows XP / Vista / 7

BUNDLE SOFTWARE	BIO-Remote
ACCESSORIES	3 x SATA Cable 1 x SATA Power Cable 1 x I/O Shield 1 x Fully Setup Driver CD 1 x User Manual
FEATURES	Supports GTO666 Supports GT60 Supports BIO-unlocKING Windows 7 Compatible Supports AOD ACC Supports Phenom II x6 Supports AM3 Supports 100% Solid capacitor Tweak Tech Supports Clean-Tone Supports O.N.E Supports Rapid Switch Supports Rapid Debug BIO-FLASHER Supports GPU

# TA890GXE OVERVIEW

# **CPU-Chipset**



# AMD 890GX+SB850

Powered by ATI Radeon™ HD 4290 Graphics, DirectX® 10.1 introduces detail-rich images and dynamic interactivity designed for playing the latest DirectX® 10.1 games. AMD® 890GX Chipset is designed with up to 5200MT/s HyperTransport™ 3.0 (HT3.0) interface and PCI Express™ 2.0 x 16 graphics. It has enhanced AMD's latest AM3 and multi-core CPUs to experience life-like images and dynamic interactivity when playing the latest games or editing digital photos and videos.

#### Audio+



# S/P DIF Output on board

Onboard Optical & Coaxial connector supports your desktop in transferring the non-distortion digital audio output to the AV amplifier and professional speaker system.

# Video+



# 128MB {INS\_STR}SidePort

The 128MB side-port memory onboard can accelerate 3D gaming performance easily. Side-port memory is similar to onboard graphics memory buffer. When enabled, it could increase the 3D performance by another 10% or more.



#### Integrated HDMI® with HDCP

Onboard HDMI® connector allows full video & audio support. It has industry-leading high definition video quality.

# Speed+



# SATAIII 6Gbps

SATAIII 6Gbps provides a higher bandwidth to retrieve and transfer HD media. With this super speed data transfer, SATAIII allows an incredible data boost which is 2x faster than the SATA II.



#### **BIO-unlocKING**

BIO-unlocKING technology enables the ACC function on AMD processors and unlocks extra 3rd or 4th core with a super-simple click on the keyboard.



GTO6<sup>3</sup> the newest technology presented by BIOSTAR

GTO 6<sup>3</sup> stands for GreaTurbo Overclock, which is specially designed for overclockers. GT60, SATA 6G, and AMD 6-core processor support the Actor of GTO 6<sup>3</sup>. GTO 6<sup>3</sup> offers "GT60" technology with gaming capability of up to 60% gain performance; SATA6G has the fastest storage transfer rate on Earth; and the upcoming AMD 6-core processor has remarkable multi-computing solution.



#### GT60

Biostar GT60 is a unique OC method that enables users to adjust onboard GPU clock and voltage. GT60's innovative design with flexible adjustment can enhance system gaming performance by up to 60%.



# ATI Hybrid CrossFireX™ Technology

ATI Hybrid CrossFireX™ takes your gaming experience to the next level, under a Windows Vista® environment. ATI Hybrid CrossFireX boosts PC performance by enabling the AMD Chipset's integrated graphics processor and a discrete GPU (ATI Radeon™ HD 2400 Series ATI Radeon™ HD 3400 Series) to operate simultaneously with combined output to a single display for blis display for blisteringly-fast frame rates. Unleash the graphics performance that you've been waiting for on a mainstream Windows Vista® PC!



#### eSATA

One or Two external SATA 3Gb/s ports connectivity with minimal host overhead and host to device latency.



#### IEEE1394 on board

IEEE 1394a is a serial bus interface for high-speed communication and data transfer. Major applications are in desktop, digital video/audio and other portable devices.



#### O.N.E

Biostar offers 3 kinds of overclocking settings (V6/V8/V12) that provide good, better, best O.C settings. The motherboard features the Biostar T series motherboards that allow users to conveniently load preset BIOS settings. These BIOS settings give users freedom to enjoy overclocking with simple instructions.



# Tweak Tech

Biostar has a unique engineering PWM layout with low ESR and high ripple conductive solid state caps that provide sufficient, stable power supply to the CPU. The same philosophy applies to our DDR design to enhance the memory's voltage stability.

Tweak Tech

Durable+



# DPU (Digital Power Unit)

BIOSTAR DPU (Digital Power Unit) delivers highspeed phase control for lower, efficient, and balanced temperature. DPU can be configured for precise optimization of the power current. It also supports dynamic phase control that automatically increments and decrements active phases based upon load current. With DPU's Utility and 3D (Digital Command, Digital Communication and Digital Control) architecture, it improves CPU VR efficiency by over 15% gain performance.



# Real 4+1 Phases Power Design

4+1-phase VRM design with high quality power components such as low RDS (on) Mosfet for lower temperature has the advantage to raise the overclocking ability for Phenom/ PhenomII CPU.



# 2 Phase Memory Power Design

2-phase independent power design increases memory voltage stability and durability.



# 2-Phase Power

# 100% Solid Caps

With armor-plated Biostar Technology, all capacitors are placed with 100% solid capacitors that have a lasting life cycle, durability and stability for crucial components.



# G.P.U (Green Power Utility)

BIOSTAR G.P.U (Green Power Utility) is a new function that enhances energy efficiency by disabling extra phases while CPU is under light loading. It integrates a friendly GUI to monitor the resourcing and response of your CPU thus optimizing the power saving function in your system. G.P.U. constantly sets up the best power efficiency in your system, be it for heavy 3D gaming, Internet or MSN charting.

DIY+





As an Biostar customer you can download MAGIX multimedia tools designed to enhance your music, videos and photos for free. From music and website creation to video editing and photo management. Four products that cover all of your multimedia needs. Simply do more with your media than you ever thought possible.



# Simplitec

"Simplitec" offers premium solutions to ensure your PC is faster, more reliable and free of security gaps - automatically or with customized setups. "Simplitec" is a free bundle software to scan your computer for problems and offers a professional solution for each problem to put your PC back in top form.



#### **BIO-Flasher**

BIO-Flasher is a convenient BIOS update tool. Just launch this tool and put the BIOS on USB pen driver before entering the OS. You can update your BIOS with only a few clicks without preparing an additional floppy disk or other complicated flash utility.



#### **BIO-ReLife**

BIO-ReLife Technology lets you recover crashed BIOS data from a USB flash pen driver that stores new BIOS file. This practical BIOS utility can restore your system and recover from a BIOS crash situation.



### Rapid Switch

No more meddling with the power and reset jumpers onboard. The power and reset buttons are already built onboard. It is convenient for DIY users to test the board without short-circuiting the wrong pins.



# Rapid Debug

There is no need to check any H/W installation error. Onboard LED indicator answers the question for the user.

\*The specification and pictures are subject to change without notice and the package contents may differ by area or your motherboard version!