

Hi-Fi A88ZN Motherboard



- Supported Socket FM2+/FM2 processors AMD A-series/ E2-series processor
- Supported AMD Multi Core(x4,x2)
- AMD 100W processor support
- AMD A88X Chipset
- 2 DIMM supported DDR3-2600(OC)/ 2400(OC)/ 2133/ 1866/ 1600/ 1333/ 1066/ 800
- Mini ITX (17*17cm) for flexible use
- mSATA/Mini PCI-E Combo Connector
- AMD Dual Graphics Technology
- BIOSTAR Hi-Fi 3D

Hi-Fi A88ZN Specification

CPU SUPPORT	AMD A10 Processor AMD A8 Processor AMD A6 Processor AMD A4 Processor AMD E2 Processor AMD Athlon™ II X4 Processor Maximum CPU TDP (Thermal Design Power) : 100Watt
MEMORY	Support Dual Channel DDR3 2600(OC)/2400(OC)/2133/1866/1600/1333/1066/800 MHz 2 x DDR3 DIMM Memory Slot Max. Supports up to 32GB Memory
INTEGRATED VIDEO	By CPU model AMD Dual Graphics Technology Supports DX11.1 Supports HDCP
STORAGE	4 x SATA III Connector 1 x mSATA Connector Support SATA RAID: 0,1,5,10
LAN	Realtek RTL8111G - 10/100/1000Mb/s Controller

AUDIO CODEC	Realtek ALC892 8-Channel Blu-ray Audio Support Biostar Hi-Fi 3D
USB	2 x USB 3.0 Port 1 x USB 3.0 Header 4 x USB 2.0 Port 2 x USB 2.0 Header
EXPANSION SLOT	1 x PCI-E 3.0 x16 Slot(supported by FM2+ CPU)
REAR I/O	1 x PS/2 Keyboard 2 x USB 3.0 Port 4 x USB 2.0 Port 2 x HDMI Connector 1 x DVI (Dual Link) Connector 1 x LAN Port 5 x Audio Jacks 1 x S/PDIF Out Port
INTERNAL I/O	1 x USB 3.0 Header 2 x USB 2.0 Header 4 x SATA III Connector (6Gb/s) 1 x mSATA/Mini PCI-E Combo Connector 1 x Front Audio Header 1 x Front Panel Header 1 x CPU Fan Connector 1 x System Fan Connector
H/W MONITORING	CPU / System Temperature Monitoring CPU / System Fan Monitoring Smart / Manual CPU Fan Control System Voltage Monitoring
DIMENSION	Mini ITX Form Factor Dimension: 17cm x 17cm (W x L)
OS SUPPORT	Supports Windows XP / 7 / 8 / 8.1 / 10(x64)
BUNDLE SOFTWARE	BullGuard BIO-Remote2 Smart Speed LAN
ACCESSORIES	2 x SATA Cable 1 x I/O Shield 1 x DVD Driver 1 x Quick Guide
FEATURES	Supports PURO Hi-Fi 3D Supports 100% Solid capacitor BIO-FLASHER Supports Charger Booster Supports BIOS Online Update
Hi-Fi A88ZN OVERVIEW	

CPU-Chipset



AMD A88X chipset

AMD® A88X chipset is designed to support up to 5GT/s interface speed and PCI Express™ 3.0/2.0 graphics. It natively supports SATA 6Gb/s ports and USB 3.0 Ports.



FM2+ APU Support

Socket FM2+ is a new AMD CPU socket design that will support the yet to be released Steamroller core Kaveri APUs. The FM2+ has a slightly different pin configuration with two additional pin sockets, however FM2+ motherboards will retain backwards compatibility with previous generation Socket FM2 APUs. Socket FM2+ APUs possibly will not be compatible with Socket FM2 motherboards due to the aforementioned additional pins.

Audio+



Hi-Fi 3D

Hi-Fi 3D Technology enables high definition multi-dimensional sound where it matters the most with height, width and depth in front of the listener. It's based on the physics of reproduced sound and the basic human perception of sound. The high resolution sound reproduction stands above existing sound enhancements or virtualization technologies.



Blu-ray Audio

Upgrading your Audio performance in the easiest way is choosing BIOSTAR ultimate Motherboard. It does support Blu-ray audio DRM (compatible driver/software) and provide the higher audio output of 24 bit/ 192KHz than the 16 bit/ 48KHz from the normal MB. You will experience the high quality sound effect with pure Blu-Ray Audio.



Hi-Fi AMP 3D

With the built-in new generation 3D amplifier, Biostar Hi-Fi 3D motherboard can drive major high-end headphones with over 100dB loads and up to 600ohm impedance. It allows you enjoy a fuller range of dynamic sound with crisper details and less distortion when you are using any headphones.



Smart Ear 3D

Smart Ear 3D provides true reproduction of virtual 3D space using any headphones! It delivers the true 3D sounds for music, movies and also games. It's fantastically, especially if you've never experienced this kind of acoustic phenomenon before.



Hi-Fi Pre AMP

Hi-Fi 3D Technology is built-in power amplifier to boost the speaker volume. It will increase double volume level with high-quality HD audio output. Hi-Fi 3D Technology not only improves on the headphone but also enhances your speakers' sound volume. Hi-Fi preamp can boost the line level audio signals from analog and digital sources to levels that a power amplifier can detect and boost again to successfully power up the loadspeaker.



3D Sound Fields

The six types of 3D Sound Fields are including Hi-Fi Theater, Hi-Fi Hall, Hi-Fi Game spots, Hi-Fi Studio, Hi-Fi Conference and Hi-Fi Bistro for your different applications. Biostar Hi-Fi 3D technology involves the virtual placement of sound sources anywhere in 3 dimensional spaces, including behind, above or below.



Hi-V Caps

Hi-V Caps is "Metalized Polypropylene Film Capacitor" for each audio channel circuit. The customized audio capacitors deliver low noise, low distortion and wide bandwidth to achieve the highest sound resolution and sound expansion.



Hi-Fi Power

Audio power is an important factor in audio quality. Most AV equipment isolates the power supply for each analog and digital signal to gather high-quality sound reproduction. Equipped with BIOSTAR Hi-Fi Power technology, it will utilize audio components with independent power design for a significant reduction in electronic noise and superb sound quality.



Hi-Fi Ground

BIOSTAR Hi-Fi Ground (Golden Line) is noise-blocking multi-layer PCB design to isolates analog audio signals from digital sources. Unique PCB layout is ideal for exceptional clarity and high fidelity sound.



Hi-Fi Sound

BIOSTAR Hi-Fi series motherboards have a sampling rate of 192kHz/24-bit which delivers a high quality audio through an analog connection to your home theater system, multi-channel speakers and high-end headphone. You can enjoy real Blu-ray grade high-definition sound that you've never experienced before.

Video+



DVI

DVI is better than VGA for LCD displays since it is digital while VGA is analog. For LCD displays, the picture is digitized pixel per pixel. Through DVI, the panel gets data for each pixel, so the picture generated in the Graphics device matches the pixels on the panel itself.



DX11.1

Direct3D 11.1 enables Direct3D 10 APIs and Direct3D 11 APIs to use one underlying rendering device. And it allows developers to achieve a high speed, fully conformant software rasterizer.



Integrated HDMI with HDCP

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

Speed+



SmartSpeedLAN

SmartSpeedLAN is a free software application which monitors and manages your PC's network behavior. With user-friendly GUI, it allows you to select and prioritize different types of network traffic, including gaming, media streaming, communications or web surfing. You can also set any specific applications, choosing to prioritize or block accordingly. SmartSpeedLAN can feature automatic management options that use adaptive networking intelligence to ensure that you are getting the best online experience possible.



USB 3.0

Experience Fastest data transfers at 5 Gbps with USB 3.0--the new latest connectivity standard. Built to connect easily with next-generation components and peripherals, USB 3.0 transfers data 10X faster and backward compatible with previous USB 2.0 components.



Charger Booster

Charger booster is the best and efficient charger solution for apple devices such as iPad, iPhone. Basically, Charger booster Technology is able to boost the charging time to be more efficiency and faster once any apple goods connecting to our Motherboard. With charger booster technology, you are able to charge your apple devices up to 42 % faster.



PCIe 3.0

PCIe 3.0 is the ubiquitous and general-purpose PCI Express I/O standard. At 8GT/s bit rate, the interconnect performance bandwidth is doubled over PCIe 2.0, while preserving compatibility with software and mechanical interfaces.

Durable+



Super Durable Ferrite Choke

Super Durable Ferrite Choke brings the benefits of higher current capacity, lower energy loss and better power stability.



Super Durable Solid Caps

The best quality solid state capacitors with ultra low ESR design, the Super Durable Solid Caps doubles the lifespan.



Moistureproof of PCB

The popularity of PC usage and working environment is getting deteriorating and moist (rural, coastal, etc.). The PCB will be oxidizing easily by damp or absorbed moisture, and ionic migration or CAF (Conductive Anodic Filament) will be generated. Moisture-proof PCB meets high density and high reliability requirements for moisture proof.



Low RdsOn P-Pak MOS

Low resistance design can significantly reduce the current out of energy loss. Low temperature, small size, excellent thermal conductivity.



5 Phase Power Phase Design

5-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.



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.

Protection+



ESD Protection

ESD (Electrostatic Discharge) is the major factor to destroy the PC by electrical overstress (EOS) condition. ESD occurred by PC users when touch any devices connect to a PC, which may result in damage to the motherboard or parts. ESD protection is designed to protect the motherboard and equipment from damage by EOS.



USB Polyswitch

On board dedicated power fuse to help prevent USB port failure. It prevents USB Port overcurrent and safe guard your system and device lifespan.



**BIOS Virus
Protection**

BIOS Virus Protection

When enabled, the BIOS will protect the boot sector and partition table by halting the system and flashing a warning message whether there's an attempt to write to these areas.



OC / OV / OH Protection

OC / OV / OH Protection design detects overvoltage conditions and prevents voltage surges from spreading in real time. It also actively cuts off the overvoltage supply to protect your system.



High Quality ESD

BIOSTAR Hi-Fi series motherboards provide high quality ESD (Electro-Static Discharge) solution for its front I/O panel. This function prevents static electricity and reduces the damage to the motherboards when you are plugging or unplugging your headphone.



BullGuard Internet Security (90 days FREE trial)

BullGuard Internet Security comes with the broadest line-up of internet security features on the market, including: a cutting-edge dual Antivirus engine, Online Backup for your precious files, PC Tune Up to speed up your system, a Game Mode for a seamless gaming experience, Parental Control, Firewall, Safe Browsing and many more. Make the most of your digital life with Bullguard!



UEFI BIOS

Unified Extensible Firmware Interface (UEFI) is a brand new framework that provides a revolutionary interface. It is a modern clear and easy-to-use graphical user interface. The UEFI comes with a colorful easy-understand icons leads users into the setup layer directly.



Header Zone

Users can easily assemble their own computer, a simple-swap data discs and other accessories.



BIO-Remote 2

BIO-Remote2 Technology is featuring users a better Home Theater environment. Users who own either Android mobile or Apple goods are able to access and control your PC remotely; At this moment, you're smart device became a intelligent and functional remote controller; more than that, BIO-Remote2 also includes both function of mouse pad and power point presentation mode.



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.



eHot-Line Utilitiy

Integrated e-service automatically sends your technical support request to Biostar Globe tech support without any delay.



BIOScreen Utility

Personalize your desktop with customizable boot logo. BIOScreen is the new feature that lets you personalize and create your own style with unique, custom-made boot logo.

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