



# Hi-Fi A88W 3D 5.0/5.1/5.2

- Supported Socket FM2+/FM2 processors AMD A-series/ E2-series processor
- Supported AMD Mutil Core(x4,x2)
- AMD 100W processor support
- AMD A88X Chipset
- 4 DIMM supported DDR3-2600(OC)/ 2400(OC)/ 2133/ 1866/ 1600/ 1333/ 1066/ 800
- Supported SATA 6Gb/s 2X speed than current SATA 3G
- Supported USB 3.0
- AMD Dual Graphics Technology
- 100% X.D.C solid capacitor
- BIOSTAR Puro Hi-Fi 3D

Chipset	AMD A88X
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  4 x DDR3 DIMM Memory Slot  Max. Supports up to 64GB Memory
EXPANSION SLOT	<ul> <li>1 x PCI-E x16 3.0 Slot (supported by FM2+ CPU)</li> <li>1 x PCI-E x16 2.0 Slot (x4)</li> <li>2 x PCI-E x1 2.0 Slot</li> <li>2 x PCI Slot</li> </ul>
STORAGE	<ul> <li>8 x SATA3 Connector</li> <li>Support SATA RAID: 0,1,5,10</li> </ul>
USB	<ul> <li>2 x USB 3.0 Port</li> <li>1 x USB 3.0 Header</li> <li>4 x USB 2.0 Port</li> <li>2 x USB 2.0 Header</li> </ul>
LAN	Realtek RTL8111G - 10/100/1000 Controller
MULTI GRAPHICS	AMD CrossFireX
INTEGRATED VIDEO	<ul> <li>By CPU model</li> <li>AMD Dual Graphics Technology</li> <li>Supports DX11.1</li> <li>Supports HDCP</li> </ul>
CODEC	Realtek ALC892 8-Channel Blu-ray Audio
REAR I/O	<ul><li>1 x PS/2 Keyboard</li><li>2 x USB 3.0 Port</li></ul>



	<ul> <li>4 x USB 2.0 Port</li> <li>1 x HDMI Connector</li> <li>1 x DVI (Dual Link) Connector</li> <li>1 x VGA Port</li> <li>1 x RJ-45 Port</li> <li>6 x Audio Connector</li> </ul>
INTERNAL I/O	<ul> <li>1 x USB 3.0 Header</li> <li>2 x USB 2.0 Header</li> <li>8 x SATA3 6Gb/s Connector</li> <li>1 x Front Audio Header</li> <li>1 x Front Panel Header</li> <li>1 x S/PDIF-Out Header</li> <li>2 x CPU Fan Header</li> <li>3 x System Fan Header</li> <li>1 x Serial Header</li> <li>1 x CIR Header</li> </ul>
H/W MONITORING	<ul> <li>CPU / System Temperature Monitoring</li> <li>CPU / System Fan Monitoring</li> <li>Smart / Manual CPU Fan Control</li> <li>System Voltage Monitoring</li> </ul>
DIMENSION	ATX Form Factor Dimension: 30.5cm x 23.5cm ( W x L )
OS SUPPORT	Support Windows XP / 7 / 8
BUNDLE	BIO-Remote2



SOFTWARE	BIO-Remote     Smart Speed LAN
ACCESSORIES	<ul> <li>4 x SATA Cable</li> <li>1 x I/O Shield</li> <li>1 x DVD Driver</li> <li>1 x User Manual</li> </ul>
FEATURES	<ul> <li>Windows 8 Ready</li> <li>Supports PURO Hi-Fi 3D</li> <li>Supports 100% Solid capacitor</li> <li>Supports Rapid Switch</li> <li>Supports Rapid Debug3</li> <li>Supports BIOS-Flasher</li> <li>Supports Charger Booster</li> <li>Supports BIOS Online Update</li> </ul>

# **CPU-Chipset Features**

# AMD A88X chipset

AMD® A88X chipset is designed to support up to 5GT/s interface speed and PCI Express  $^{\text{TM}}$  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 virtaul 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.



## Hi-Fi Cap

BIOSTAR Hi-Fi series motherboards come with high quality 'Non-Polarized Electrolysis Electric audio capacitors' 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. The critical component will ensure the most realistic sound effects to gaming enthusiasts.





# 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+

## **Dual-Link DVI**

A dual link doubles the number of TMDS pairs, effectively doubling video bandwidth at a given pixel clock frequency.



#### 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.



## **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.



### PCI-E Gen 3.0

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



#### **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 3G.



#### **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.

#### **T-Overclocker**

T-overclocker presents a simple Windows-based system performance enhancement and utility management. It features several powerful yet easy to use tools such as overclocking for system performance enhancement, CPU and memory special enhancement, a smart-fan control for managing fan speed control of both CPU cooling fan, northbridge chipset cooling fan, PC health for monitoring system status, and pre-set OC modes for easy OC.



#### Dual DDR3-2600+

It supports 2 or 4 DIMM Slots DDR3 memory that features data transfer rates of DDR3 2600(O.C). The processor support 2 memory channels and setting the memory multiplier, allows selection of the channel speed. These clearly uplift the band width and boost the overall system performance.



# **Durable+**

## **Moisture proof 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.



## **6 Phase Power Phase Design**

6-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 PC by electrical overstress(EOS) condition, ESD occurred by PC users when touch any devices connect to PC, which may result in damage to 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 safegurand your system and device lifespan.





#### OC / OV / OH Protection

All BIOSTAR special circuit 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. Over current protection, avoid motherboard from damage when doing overclock or an unusual current import. Over heat protection, avoid motherboard & CPU from burning when exceeding the temperature limitation.



# **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!



DIY+

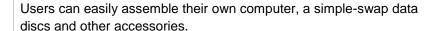
#### **UEFI BIOS**

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**





#### **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**

Update BIOS effortlessly from a USB flash disk before entering the OS. 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.



## **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.



# Rapid Switch 2

Engineered by BIOSTAR, the exquisite onboard switches allow you to easily shut down and restart your system.





# Rapid Debug 3

Rapid Debug3 posts critical POST code information in a digital LED display. When system malfunction occurs, it auto-detects the device's failure and translates the error codes on the digital LED. It also shows the CPU temperature on the same screen.

