

GAMING Z97W Motherboard



- GAMING COMMANDER
- Support for 4th Gen Intel Core Processors, enables overclocking on Unlocked Intel Core Processors
- Intel Z97 single chip architecture
- Support 4-DIMM DDR3-3000(OC)/ 2800(OC)/ 2600(OC)/ 2400(OC) up to 32G maximum capacity
- Support Killer E2201 LAN
- BOSTAR Hi-Fi 3D Technology inside
- Support USB 3.1
- Support PCIe M.2(10Gb/s)
- Support SATA Express(10Gb/s)
- Support DisplayPort

GAMING Z97W Specification

GAMING COMMANDER	External GAMING Commander Box / Audio Control Software Utility
CPU SUPPORT	Intel® Core™ i7 LGA 1150 Processor Intel® Core™ i5 LGA 1150 Processor Intel® Core™ i3 LGA 1150 Processor Intel® Pentium® LGA 1150 Processor Maximum CPU TDP (Thermal Design Power) : 95Watt Ready for Intel 4th Gen. unlocked CPU (codename Devil's Canyon) Ready for Intel next enthusiast-class CPU(codename Broadwell) Support CPU Bclk overclock
MEMORY	Support Dual Channel DDR3 3000(OC)/ 2800(OC)/ 2600(OC)/ 2400(OC)/ 2200(OC)/ 2133(OC)/ 1866(OC)/ 1800(OC)/ 1600/ 1333/ 1066 MHz Support non-ECC memory modules Support Extreme Memory Profile(XMP) memory modules 4 x DDR3 DIMM Memory Slot Max. Supports up to 32GB Memory

INTEGRATED VIDEO	By CPU model Supports DX11.1/ 11/ 10.1/ 10/ 9 Supports HDCP Support DirectX Video Acceleration(DXVA) for accelerating video processing Full AVC/VC1/MPEG2 HW Decode Support Advanced Scheduler 2.0, 1.0, XPDM Support OpenGL 4.0 Support HDMI, 1.4a specification compliant with 3D Support 3 Displays
STORAGE	4 x SATA III Connector 1 x SATA Express Connector(Support 1 x SATA Express 10Gb/s Devices or 2 x SATA3 6Gb/s Devices) Support SATA RAID: 0,1,5,10 Support both Legacy and AHCI Mode Support Hot-Plug in AHCI mode Support Intel Smart Response Technology 1 x M.2 (M Key) Connector Support both PCIE NAND for PCIE SSD and SATA NAND for SATA SSD
LAN	Killer E2201 - 10/100/1000 Controller Realtek RTL8111GR - 10/100/1000Mb/s Controller *Dual GbE
AUDIO CODEC	Realtek ALC898 8 Channel Blu-ray Audio Support Blu-ray Audio Support HD Audio Support 2/4/6/8-channel Support Biostar Hi-Fi 3D
USB	ASMedia ASM1142 USB 3.1 controller 2 x USB 3.1 Port 4 x USB 3.0 Port 1 x USB 3.0 Header 2 x USB 2.0 Header
EXPANSION SLOT	2 x PCI-E 3.0 x16 Slot(x8, x8 support CrossfireX) 2 x PCI-E 2.0 x1 Slot 2 x PCI Slot

REAR I/O	1 x PS/2 Keyboard 2 x USB 3.1 Port 4 x USB 3.0 Port 1 x DisplayPort Connector, resolution up to 4096x2160@24Hz / 3840x2160@60Hz 1 x HDMI Connector, resolution up to 4096x2160@24Hz, 24bpp / 2560x1600@60Hz, 24bpp / 1920x1080@60Hz, 36bpp 1 x DVI Connector, resolution up to 1920x2000@60Hz @24bpp 1 x VGA Port, resolution up to 1920x2000@60Hz @24bpp 2 x LAN Port 6 x Audio Jacks
INTERNAL I/O	1 x USB 3.0 Header 2 x USB 2.0 Header 4 x SATA III Connector (6Gb/s) 1 x SATA Express Connector(Support 1 x SATA Express 10Gb/s Devices or 2 x SATA3 6Gb/s Devices) 1 x M.2 Key M Connector 1 x Front Audio Header 1 x Front Panel Header 1 x S/PDIF-Out Header 2 x CPU Fan Connector 3 x System Fan Connector 1 x GAMING_Panel Header 1 x LN2 Switch
H/W MONITORING	CPU / System Temperature Monitoring CPU / System Fan Monitoring Smart / Manual CPU / System Fan Control System Voltage Monitoring
DIMENSION	ATX Form Factor Dimension: 30.5cm x 24.4cm (W x L)
OS SUPPORT	Supports Windows 7 / 8 / 8.1 /10(x64)
BUNDLE SOFTWARE	BullGuard Smart Ear headphone Utility BIO-Remote2 Smart Speed LAN Intel Rapid Start Technology Intel Smart Connect Technology Intel Rapid Storage Technology(include Intel Smart Response Technology)
ACCESSORIES	1 x GAMING COMMANDER Box 4 x SATA Cable 1 x I/O Shield 1 x 4GB USB Flash Drive 1 x User Manual

FEATURES	Supports PURO Hi-Fi 3D Supports 100% Solid capacitor Supports Rapid Switch2 Rapid Debug3 Supports Charger Booster Supports BIOS Online Update
GAMING Z97W OVERVIEW	
CPU-Chipset	
	Intel Z97 chipset The Intel® Z97 Express Chipset is a single-chipset design to support socket 1150 Intel® 4th generation Intel® Core™ processor-based platform. Provides excellent performance and increased bandwidth and stability. Intel® Z97 Express Chipset can also enable iGPU function, letting users enjoy the latest Intel® integrated graphic performance. The PC platform features improved adaptive performance that adds speed when you need it. When combined with advanced system responsiveness, the platform delivers the ultimate PC experience.
	Intel LGA 1150 4th Generation Intel Core™ Processor support The 4th generation Intel® Core™ processors are based on 4th generation Intel® Core™ processor architecture, with the latest 22nm process to maximize the processor platform. Based on the new LGA 1150 socket, 4th generation Intel® Core™ processors with graphics with DX11.1 & OCL1.2 cores, the overall performance will meet your demand.
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.



XLouder

XLouder button offers players a quicker way to enable the "XLouder" function, it increases the volume from "microphone", allowing players to have a quicker control over the microphone while enjoying the games.



Super Hi-Fi Audio Connectors

30uF "Golden" plated audio connectors provide superb signal conductivity, less oxidation, and best possible studio-grade headgears.



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 BISTAR 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+



HDMI 4K2K

The new 4K2K resolution enables high-definition image display with four times the resolution of full HD, 4K2K display is faithfully express bright, highly detailed content that fills the entire screen with lifelike images. Connectivity with PCs via a single HDMI cable for displaying 4K2K data.



HDMI 3D Visual

The HDMI 3D Visual provides a level of interoperability for devices designed to deliver 3D content over the HDMI connection. The latest HDMI Specification adds key enhancements to support the market requirements for bringing broadcast 3D content into the home featuring key enhancements for 3D applications including the addition of mandatory 3D formats for broadcast content.



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.



DisplayPort

DisplayPort is a digital display interface developed by the Video Electronics Standards Association (VESA). The interface is primarily used to connect a video source to a display device such as a computer monitor, though it can also be used to carry audio.



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.



ATI CrossFire X™ Technology

ATI CrossFireX™ is the ultimate multi-GPU performance gaming platform. With game-dominating power, ATI CrossFireX technology enables two or more discrete graphics processors to work together to improve system performance. It supports up to four ATI Radeon™ HD graphics cards, making it the most scalable gaming platform ever!

Speed+



Killer E2200 LAN

BIOSTAR Gaming series motherboard adopts Killer E2200 LAN, a dedicated LAN chip for gaming network; it is designed to provide the highest performance for online games. Killer E2200 with Advanced Stream Detect feature can automatically detect the game traffic flow and other network traffic to ensure it's quality of instant messaging, allowing players always in control of the network hardware and enjoy the thrill of games without delay.



Dual GbE LAN

The primary advantage is the doubling of bandwidth which allows the network bandwidth of 1G to become that of 2G, and with two high-speed gigabit networks plus zero packet delay that provides super high data transmission efficiency. Another major advantage is "Load Balancing", it allows users to attach both network adapters to a single network. It will therefore support the aggregation "teaming" function by merging the two connections to support multiple aggregation modes. In addition, two Gigabit Ethernet lightning protection circuits reducing the probability of damage from lightning or other power surge. So if one connection is disabled the other connection will automatically kick in.



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.



PCIe M.2

The extremely data transfer rate can be up to 1000MB/s (PCIe x2) and also compatible with SATA interface M.2, up to 6Gb/s. It is specifically designed for higher performance SSD.



USB 3.1

USB 3.1 is a new standard known as SuperSpeed +, in order to highlight the improvement from USB3.0 (SuperSpeed) transmission speed. The new standard doubles data transfer rate from 5Gbps to 10Gbps. It is also backward compatible with existing USB3.0 connectors and all the USB 2.0 devices.



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.



SATA Express

The SATA Express supports both SATA and PCIe storage solutions and maximum data transfer speed up to 10Gb/s.



XMP

Press XMP key to automatically adjust XMP MEMORY to the best performance and enjoying the extreme pleasure of the stability and speed.



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.



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.



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, north-bridge chipset cooling fan, PC health for monitoring system status, and pre-set OC modes for easy OC.

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.



10 Phase Power Phase Design

10-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+



Super Anti-Surge Protection

BIOSTAR exclusive Anti-Surge design provides the best protection of board and extends the product life. Having the latest model of "Transient Voltage Suppressor" on-board can effectively protect the board circuit, reducing the shocks caused by ESD as well as other damages arising from overvoltage transients to enhance system durability.



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!

DIY+



GAMING COMMANDER

External GAMING COMMANDER BOX features an independent USB DAC, dedicated MIC_IN and Line-out jacks, Buttons for volume adjustments, Diagnose LED for CPU/ DDR/ VGA temperature indicator, and exclusive XLouder button for quick MIC boost. GAMING COMMANDER software is a user friendly interface with equalizer function which allows users to make his own voice effects while enjoying the games.



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.



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.



Super Rapid Debug 3

Super Rapid Debug 3 posts critical POST code information on a vivid digital LED display.



Super Durable Box Header

Super Durable Box Header provides solid, secure and durable connections between motherboard and peripheral cables.



LN2 Switch

With LN2 mode activated the BIOSSTAR motherboard is optimization to remedy the cold boot bug during POST at an extremely low temperature and help the system boot successfully.

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