

Hi-Fi H170Z3 Motherboard



- Supports 6th Generation Intel® Core™ Processor
- Intel H170 single chip architecture
- Support 2-DIMM DDR3L-1866(OC)/ 1600/ 1333 up to 16G maximum capacity
- Support 2-DIMM DDR4-2133/ 1866 up to 32G maximum capacity
- BIOSTAR Hi-Fi Technology inside
- Support USB 3.0
- Support PCIe M.2(32Gb/s)
- Support SATA Express(16Gb/s)
- Support DisplayPort

Hi-Fi H170Z3 Specification

<p>CPU SUPPORT</p>	<p>7th & 6th Gen Intel® Core™ i7 LGA 1151 Processor 7th & 6th Gen Intel® Core™ i5 LGA 1151 Processor 7th & 6th Gen Intel® Core™ i3 LGA 1151 Processor 7th & 6th Gen Intel® Pentium® LGA 1151 Processor 7th & 6th Gen Intel® Celeron® LGA 1151 Processor Maximum CPU TDP (Thermal Design Power) : 95Watt</p>
<p>MEMORY</p>	<p>Support Dual Channel DDR3L 1866(OC)/1600/1333 MHz Support Dual Channel DDR4 2133/ 1866 MHz 2 x DDR3 DIMM Memory Slot 2 x DDR4 DIMM Memory Slot Max. Supports up to 16(DDR3L)/ 32(DDR4)GB Memory</p>
<p>INTEGRATED VIDEO</p>	<p>By CPU model Supports DX12 Supports HDCP</p>

STORAGE	<ul style="list-style-type: none"> 4 x SATA III Connector 1 x SATA Express 16Gb/s Connector Support SATA RAID: 0,1,5,10 1 x M.2 (M Key) 32Gb/s Connector, support M.2 type 2242/ 2260/ 2280 SATA 6Gb/s & PCI-E Storage Support PCI-E Storage RAID: 0,1
LAN	<ul style="list-style-type: none"> Intel i219V - Gigabit Ethernet PHY Support Super LAN Surge Protection
AUDIO CODEC	<ul style="list-style-type: none"> Realtek ALC892 8-Channel Blu-ray Audio Support Biostar Hi-Fi
USB	<ul style="list-style-type: none"> 4 x USB 3.0 Port 1 x USB 3.0 Header 2 x USB 2.0 Port 2 x USB 2.0 Header
EXPANSION SLOT	<ul style="list-style-type: none"> 1 x PCI-E 3.0 x16 Slot 1 x PCI-E 3.0 x1 Slot 2 x PCI Slot
REAR I/O	<ul style="list-style-type: none"> 1 x PS/2 Keyboard 4 x USB 3.0 Port 2 x USB 2.0 Port 1 x DisplayPort Connector, resolution up to 4096 x 2304 @60Hz 1 x HDMI® Connector, resolution up to 4096 x 2160 @24Hz, compliant with HDMI® 1.4a 1 x DVI-D Connector, resolution up to 1920 x 1200 @60Hz 1 x VGA Port, resolution up to 1920 x 1200 @60Hz 1 x LAN Port 6 x Audio Jacks
INTERNAL I/O	<ul style="list-style-type: none"> 1 x USB 3.0 Header 2 x USB 2.0 Header 4 x SATA III Connector (6Gb/s) 1 x SATA Express 16Gb/s Connector 1 x M.2 Key M 32Gb/s Connector, support M.2 type 2242/ 2260/ 2280 SATA 6Gb/s & PCI-E Storage 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 CIR Header 1 x COM Port Header 1 x Printer Port Header
H/W MONITORING	<ul style="list-style-type: none"> CPU / System Temperature Monitoring CPU / System Fan Monitoring Smart / Manual CPU / System Fan Control System Voltage Monitoring

DIMENSION	Micro ATX Form Factor Dimension: 24.4cm x 24.4cm (W x L)
OS SUPPORT	Supports Windows 7 / 8.1(x64) / 10(x64)
BUNDLE SOFTWARE	BullGuard Smart Ear headphone Utility BIO-Remote2 BIO-Remote Smart Speed LAN
ACCESSORIES	2 x SATA Cable 1 x I/O Shield 1 x DVD Driver 1 x Quick Guide
FEATURES	Supports Double Hi-Fi Supports 100% Solid capacitor Supports Charger Booster II Supports BIOS Online Update

Hi-Fi H170Z3 OVERVIEW

CPU-Chipset



Intel H170 chipset

The Intel® H170 chipset is a single-chipset design to support socket 1151 Intel® 6th generation Intel® Core™ processor-based platform. Provides excellent performance and increased bandwidth and stability. Intel® H170 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 1151 6th Generation Intel Core™ Processor support

The 6th generation Intel® Core™ processors are based on 5th generation Intel® Core™ processor architecture, with the latest 14nm process to maximize the processor platform. Based on the new LGA 1151 socket, 5th generation Intel® Core™ processors with graphics with DX12 & OCL2.0 cores, the overall performance will meet your demand.

Audio+



Hi-Fi

A combination of exclusive hardware & software design including "ground-isolation circuit design", "an independent audio power", and "a built-on-board amplifier", with all these hardware features gives you the best audio quality and performance. As for software, we offer you a free bundle utility "Multi-Channel Calibration" which normally you'll find in high level sound systems; this feature allows you to auto detect your location; with a user friendly interface, you can easily adjust the volume of every speakers to make a well balanced surround sound. And of course, the built-on-board amplifier always gives you a super powerful sound comparing to other motherboards.



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.



Super Hi-Fi Audio Connectors

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



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 AMP

The built-in amplifier can drive major high-end headphones with over 100dB loads and offer wide band-width, low noise, high slew rate and low distortion audio source from front panel I/O. Gaming enthusiasts can enjoy a fuller range of dynamic sound with crisper details and less distortion.



Smart Ear

Smart EAR is a windows-based audio utility which allows you to easily adjust system volume. With its user-friendly GUI, you can also increase or decrease impedance setting (Low/High Gain) to optimize your headphone performance. You can easily enjoy high-quality and awesome sound.



Hi-Fi Resistor

Metal-oxide film resistors are made of metal oxides such as tin oxide. The electric characteristics are greater stability and reliability than regular metal film resistors when operating in an extremely broad working temperature range. This special component is used in applications with high endurance audio demands.



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.



Hi-Fi 110dB+

Embrace exceptional sound quality for the win with 110dB SNR and stylish and efficient EMI shield blocks electromagnetic interference to help provide cleaner audio. It has achieved a signal-to-noise ratio (SNR) of 110dB, yielding almost loss-less audio from rear audio connectors.

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.



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.



DX12

DirectX 12 introduces the next version of Direct3D, the graphics API at the heart of DirectX. Direct3D is one of the most critical pieces of a game or game engine, and we've redesigned it to be faster and more efficient than ever before. Direct3D 12 enables richer scenes, more objects, and full utilization of modern GPU hardware.

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.



PCIe M.2 32Gb/s

PCI-e M.2 32Gb/s delivers the highest bandwidth and lower latency. It is 3 times faster compared with PCI-e M.2 10Gb/s.



Charger Booster II

Charger booster 2, with maximum voltage up to 2A which provides a quicker charging time on various portable devices.



SATA Express 16Gb/s

New generation SATA Express standard with speed up to 16Gb/s and meets SATA specifications.



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.



DDR3/DDR4 Combo

The motherboard memory slots can be optioned of DDR3 or DDR4 by users.

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.



Super Conductive Heatsink Design

Massive heatsink design provides super fast heat dissipation, high stability and reliability for extreme performance.



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 LAN Surge Protection

Super LAN Surge Protection, providing LAN port with more advanced antistatic protection capabilities by adding an integrated chip to strengthen electrical stability and prevent damage from lightning strikes and electrical surges. SLSP (Super LAN Surge Protection) series motherboard upgrades the existing system protection standards with maximum 4X protection comparing to other board makers.



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.



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.

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

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.



Super Durable Box Header

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

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