

# A320MH Motherboard





- Supports AMD Ryzen CPU / APU
- AMD A320 single chip architecture
- Supports 2-DIMM DDR4-2933/2667/2400/2133/1866 up to 32G maximum capacity
- Supports HDMI
- Supports USB 3.2 Gen1

## Specification

CPU SUPPORT	Supports AMD AM4 Socket for 3 <sup>rd</sup> , 2 <sup>nd</sup> and 1 <sup>st</sup> Gen Ryzen/2 <sup>nd</sup> and 1 <sup>st</sup> Gen Ryzen with Radeon Vega Graphics/Athlon with Radeon Vega Graphics/7 <sup>th</sup> Gen A-Series/Athlon X4 Processors *Please refer to <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> for CPU support list.
MEMORY	Support Dual Channel DDR4 2933/2667/2400/2133/1866 MHz 2 x DDR4 DIMM Memory Slot Max. Supports up to 32GB Memory Each DIMM supports non-ECC 8/16 GB DDR4 module *DDR4 - 2933 only for AMD Ryzen CPU *DDR4 speed depends on CPU type *Please refer to <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> for Memory support list.
INTEGRATED VIDEO	By CPU model Supports DX12 Supports HDCP
STORAGE	4 x SATA III Connectors (6Gb/s) Support SATA RAID: 0,1,10
LAN	Realtek RTL 8111H 10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability
AUDIO CODEC	Realtek ALC887 7.1 Channels, High Definition Audio
USB	4 x USB 3.2 Gen1 ports (2 on rear I/Os and 2 via internal headers) 8 x USB 2.0 ports (4 on rear I/Os and 4 via internal headers)
EXPANSION SLOT	2 x PCIe 2.0 x1 Slots 1 x PCIe 3.0 x16 Slot (When using APU, the bandwidth is x8 speed)

REAR I/O	<ul style="list-style-type: none"> <li>1 x PS/2 Keyboard / Mouse</li> <li>1 x VGA Port</li> <li>1 x HDMI Port</li> <li>1 x LAN port</li> <li>2 x USB 3.2 Gen1 (5Gb/s) Ports</li> <li>4 x USB 2.0 Ports</li> <li>3 x Audio Jack</li> </ul>
INTERNAL I/O	<ul style="list-style-type: none"> <li>4 x SATA III 6Gb/s Connectors</li> <li>2 x USB 2.0 Headers (each header supports 2 USB 2.0 ports)</li> <li>1 x USB 3.2 Gen1 (5Gb/s) Header (each header supports 2 USB 3.2 Gen1 ports)</li> <li>1 x 4-Pin Power Connector</li> <li>1 x 24-Pin Power Connector</li> <li>1 x CPU Fan Connector</li> <li>1 x System Fan Connector</li> <li>1 x Front Panel Header</li> <li>1 x Front Audio Header</li> <li>1 x COM Serial Header</li> <li>1 x Clear CMOS Header</li> </ul>
H/W MONITORING	<ul style="list-style-type: none"> <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	Micro ATX Form Factor Dimension: 22.6cm x 17.4cm ( W x L )
OS SUPPORT	<ul style="list-style-type: none"> <li>Supports Windows 7(64bit) for Bristol / Summit /Pinnacle Ridge only</li> <li>Supports Windows 10(64bit) /11(64bit)&gt;</li> <li>※BIOSTAR reserves the right to add or remove support for any OS with or without notice</li> </ul>
BUNDLE SOFTWARE	<ul style="list-style-type: none"> <li>BullGuard</li> <li>Smart Speed LAN(Windows 7 only)</li> </ul>
ACCESSORIES	<ul style="list-style-type: none"> <li>2 x SATA Cable</li> <li>1 x I/O Shield</li> <li>1 x DVD Driver</li> <li>1 x Quick Guide</li> </ul>
FEATURES	<ul style="list-style-type: none"> <li>Supports 100% Solid capacitor</li> <li>BIO-FLASHER</li> <li>Supports BIOS Online Update</li> </ul>

## OVERVIEW

	<p><b>AMD A320 chipset</b></p> <p>AMD's A320 chipset provides a simple, stable platform and more than enough connectivity and bandwidth options to satisfy both demanding home users and media aficionados.</p>
	<p><b>HD Audio</b></p> <p>Provides high quality sound with minimal loss of audio fidelity.</p>

	<h3>HDMI 4K2K</h3> <p>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.</p>
	<h3>DX12</h3> <p>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.</p>
	<h3>PCIe 3.0</h3> <p>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.</p>
	<h3>USB 3.2 Gen1 Type-A</h3> <p>USB 3.2 Gen1 delivers a compelling performance boosts and can be used to connect multiple devices without worrying about compatibility. It is capable of data transfer speeds up to 5Gbps and backwards compatible with all existing USB products.</p>
	<h3>Moistureproof of PCB</h3> <p>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.</p>
	<h3>Low RdsOn P-Pak MOS</h3> <p>Low resistance design can significantly reduce the current out of energy loss. Low temperature, small size, excellent thermal conductivity.</p>
	<h3>100% Solid Caps</h3> <p>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.</p>
	<h3>ESD Protection</h3> <p>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.</p>
	<h3>USB Polyswitch</h3> <p>On board dedicated power fuse to help prevent USB port failure. It prevents USB Port overcurrent and safe guard your system and device lifespan.</p> 



## 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.



## HDMI

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



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