# H510MHP 2.0 Motherboard

- Supports 10th /11th Generation Intel Core™ Processor
- Intel H510 single chip architecture
- Supports 2-DIMM DDR4- 3200/ 2933/ 2666/ 2400/2133/ 1866 up to 64 GB Memory
- Supports PCIe 4.0
- Supports PCIe M.2 (32Gb/s)
- Supports USB 3.2 Gen1

| Specifcation | |
|---|---|
| CPU SUPPORT | Socket 1200 for 10th / 11th Gen Intel Core™, Pentium and Celeron processors<br>* Please refer to www.biostar.com.tw for CPU support list. |
| MEMORY | Supports Dual Channel DDR4 1866/ 2133/ 2400/ 2666/ 2933/ 3200<br>2 x DDR4 DIMM Memory Slot, Max. Supports up to 64 GB Memory<br>Each DIMM supports non-ECC 4/8/16/32GB DDR4 module<br>* Please refer to www.biostar.com.tw for Memory support list. |
| INTEGRATED VIDEO | Supports DX12<br>Supports HDCP |
| STORAGE | 4 x SATA III Connector (6Gb/s)<br>1 x M.2 (M Key) Socket:<br>Supports M.2 Type 2242/ 2260/ 2280 SSD module.<br>Supports PCIe 3.0 x 4 (32Gb/s) & SATA III (6Gb/s) SSD<br>* When using SATA SSD module on PCIe-M2_1 slot, the SATA_1 connector will be disabled. |
| LAN | Intel I219V<br>10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability |
| AUDIO CODEC | Realtek ALC897<br>7.1 Channels, High Definition Audio |
| USB | 4 x USB 3.2(Gen1) ports (2 on rear I/Os and 2 via internal headers)<br>6 x USB 2.0 ports (4 on rear I/Os and 2 via internal headers) |
| EXPANSION SLOT | 2 x PCIe 3.0 x1 Slot<br>1 x PCIe 3.0/4.0 x16 Slot<br>*The PCIe 4.0 only depends on Rocket Lake CPUs. |
| REAR I/O | 1 x PS/2 Keyboard<br>1 x PS/2 Mouse<br>1 x HDMI® Port<br>1 x VGA Port<br>2 x USB 3.2 (Gen1) Ports<br>4 x USB 2.0 Ports<br>1 x LAN port<br>3 x Audio Jack |

BIOSTAR Electronic International Corp.

| | |
|---|---|
| INTERNAL I/O | 4 x SATA III Connectors (6Gb/s)<br>1 x USB 2.0 Header (each header supports 2 USB 2.0 ports)<br>1 x USB 3.2 (Gen1) Header (each header supports 2 USB 3.2 (Gen1) ports)<br>1 x 8-Pin Power Connector<br>1 x 24-Pin Power Connector<br>1 x CPU Fan Connector<br>1 x System Fan Connector<br>1 x Front Panel Header<br>1 x Front Audio Header<br>1 x Clear CMOS Header<br>1 x COM Port Header |
| H/W MONITORING | CPU / System Temperature Monitoring<br>CPU / System Fan Monitoring<br>Smart / Manual CPU Fan Control<br>CPU/DDR Voltage Monitoring |
| DIMENSION | Micro ATX Form Factor Dimension: 18.5cm x 22.6cm ( W x L ) |
| OS SUPPORT | Supports Windows 10 (64bit) / 11(64bit)<br>※Biostar reserves the right to add or remove support for any OS with or without notice. |
| BUNDLE SOFTWARE | BullGuard |
| ACCESSORIES | 2 x SATA Cable<br>1 x I/O Shield<br>1 x DVD Driver<br>1 x Quick Guide |

# OVERVIEW

| | |
|---|---|
| intel CHIPSET H510 | **Intel H510 chipset**<br>With the Intel® H510 chipset and the 10th/ 11th generation Intel® Core™ i9/ i7/ i5/ i3 processors and Intel® Pentium® processors, you will immediately be at the forefront of the battlefield, fueled by mind-blowing power and performance. From content creation to gaming, the Intel H510 chipset provides you with the power and performance you need. |
| HD AUDIO | **HD Audio**<br>Provides high quality sound with minimal loss of audio fidelity. |
| HDMI | **HDMI® 4K2K**<br>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. |
| DX DX12 | **DX12**<br>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. |

BIOSTAR Microtech International Corp.

| | |
|---|---|
| | **Integrated HDMI® with HDCP**<br>Onboard HDMI® connector allows full video & audio support. It has industry-leading high definition video quality. |
| | **Intel GbE LAN**<br>Unlike ordinary LAN solution, Intel® GbE LAN offers fewer CPU resource consumption and more bandwidth stability. Thus, Intel® LAN is the best choice for performance seekers. |
| | **PCIe M.2**<br>PCIe M.2 32Gb/s delivers the highest bandwidth and lower latency. It is 3 times faster compared with PCIe M.2 10Gb/s. |
| | **PCIe 3.0**<br>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**<br>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. |
| | **Dual DDR4**<br>The primary advantages of DDR4 over DDR3, include higher module density, lower voltage requirements, coupled with higher data transfer rate. |
| | **PCIe 4.0**<br>PCIe 4.0 is the ubiquitous and general-purpose PCI Express I/O standard. At 16GT/s bit rate, the interconnect performance bandwidth is doubled over PCIe 3.0, while preserving compatibility with software and mechanical interfaces. |
| | **USB 3.2 Gen1 Type-A**<br>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. |
| | **5 Phase Power Phase Design**<br>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**<br>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. |

BIOSTAR
BIOSTAR Microtech International corp.
(ESG)

| | |
|---|---|
| BullGuard | **BullGuard Internet Security (90 days FREE trial)**<br>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! |
| BIOS UEFI BIOS | **UEFI BIOS**<br>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. |
| BIOS FLASHER | **BIO-Flasher**<br>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. |
| HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE | **HDMI®**<br>The terms HDMI® and HDMI® High-Definition Multimedia Interface, and the HDMI® Logo are trademarks or registered trademarks of HDMI® Licensing Administrator, Inc. in the United States and other countries. |

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

BIOSTAR BRING SOLUTION INTO REALITY

BIOSTAR Microtech International Corp.

ESG