



# Asus PRIME H510M-E Manual



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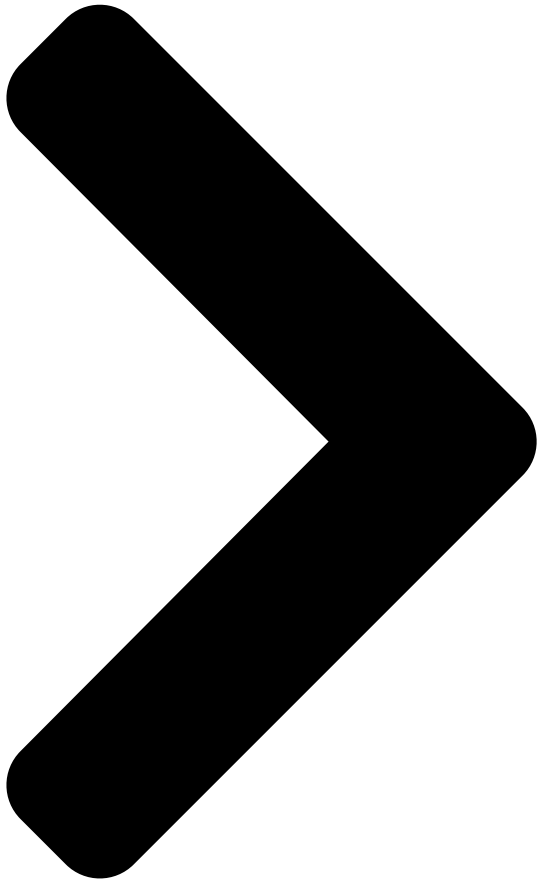
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PRIME H510M-E



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## Summary of Contents for Asus PRIME H510M-E

[Page 1](#) PRIME H510M-E...

[Page 2](#) Product warranty or service will not be extended if: (1) the product is repaired, modified or altered, unless such repair, modification or alteration is authorized in writing by ASUS; or (2) the serial number of the product is defaced or missing.

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Motherboard overview ..... 1-1 Central Processing Unit (CPU) .....1-8 System memory .....

## [Page 4: Safety Information](#)

Safety information Electrical safety • To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system. • When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.

## [Page 5: About This Guide](#)

Refer to the following sources for additional information and for product and software updates. ASUS website The ASUS website provides updated information on ASUS hardware and software products. Refer to the ASUS contact information. Optional documentation Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer.

## [Page 6: Package Contents](#)

\* 11 Gen Intel processors support 2933/2800/2666/2400/2133 natively. ® \* Refer to www.asus.com for the Memory QVL (Qualified Vendors Lists), and memory frequency support depends on the CPU types. 1 x DisplayPort 1.4\*\* 1 x D-Sub 1 x HDMI™ 2.0\*\*\* \* Graphics specifications may vary between CPU types.

[Page 7](#) PRIME H510M-E specifications summary Total supports 1 x M.2 slot and 4 x SATA 6Gb/s ports Intel H510 Chipset ® M.2 slot (Key M), type 2242/2260/2280 (supports PCIe 3.0 x4 & SATA Storage modes) 4 x SATA 6Gb/s ports \* The M.2 slot shares bandwidth with the SATA6G\_2 port. When a device in SATA mode is installed on the M.2 socket, the SATA6G\_2 port cannot be used.

[Page 8](#) ASUS CPU-Z Features AI Charger DAEMON Tools Norton Anti-virus software (Free Trial version) WinRAR UEFI BIOS ASUS EZ DIY - ASUS CrashFree BIOS 3 - ASUS EZ Flash 3 - ASUS UEFI BIOS EZ Mode (continued on the next page) viii..

[Page 9](#) WOL by PME, PXE Operating Windows 10 64-bit ® System mATX Form Factor Form Factor 8.9 inch x 8.3 inch (22.6 cm x 21.1 cm) Specifications are subject to change without notice. Please refer to the ASUS website for the latest specifications.

## [Page 10: Connectors With Shared Bandwidth](#)

Connectors with shared bandwidth KBMS ATX\_12V CPU\_FAN DIGI+ HDMI LGA1200 U32G1\_34 LAN\_USB914 AUDIO 2280 2260 2242 M.2(SOCKET3) SATA6G\_1 PCIE SATA IRST 3.0 X4 PCIEX16 Ethernet PCIEX1\_1 Super Intel ® Audio CODEC H510 PCIEX1\_2 128Mb BIOS COM\_DEBUG RGB\_HEADER USB78 USB56 SATA6G\_4 SPEAKER CLRTC AAFP...

## [Page 11: Chapter 1 Product Introduction](#)

CODEC H510 PCIEX1\_2 128Mb BIOS COM\_DEBUG RGB\_HEADER USB78 USB56 SATA6G\_4 SPEAKER CLRTC AAFP F\_PANEL Unplug the power cord before installing or removing the motherboard. Failure to do so can cause you physical injury and damage motherboard components. ASUS PRIME H510M-E...

[Page 12](#) 1.2.1 Layout contents 1. CPU socket The motherboard comes with a LGA1200 socket designed for 11 Gen Intel Core™ ® Processors & 10 Gen Intel Core , Pentium Gold and Celeron Processors. ® ® ® For more details, refer to Central Processing Unit (CPU). 2.

[Page 13](#) Use a metal object such as a screwdriver to short the two pins. PIN 1 Plug the power cord and turn ON the computer. Hold down the <Del> key during the boot process and enter BIOS setup to re- enter data. ASUS PRIME H510M-E...

[Page 14](#) If the steps above do not help, remove the onboard battery and short the two pins again to clear the CMOS RTC RAM data. After clearing the CMOS, reinstall the battery. 12. COM Port header This header is for a serial (COM) port. Connect the serial port module cable to this header, then install the module to a slot opening at the back of the system chassis.

[Page 15](#) • Power button/Soft-off button (2-pin PWR\_BTN) This header is for the system power button. • Reset button (2-pin RESET) This 2-pin header is for the chassis-mounted reset button for system reboot without turning off the system power. ASUS PRIME H510M-E...

[Page 16](#) 1.2.2 Rear panel connectors PS/2 Mouse port (green). This port is for a PS/2 mouse. Video Graphics Adapter (VGA) port. This 15-pin port is for a VGA monitor or other VGA-compatible devices. USB 3.2 Gen 1 (up to 5Gbps) ports. These 9-pin Universal Serial Bus (USB) ports connect to USB 3.2 Gen 1 devices.

[Page 17](#) Lime (front panel) jack will support headphone, and the Pink (front panel) jack will support Side Speaker Out. To configure a 7.1-channel audio output: Use a chassis with HD audio module in the front panel to support a 7.1-channel audio output. ASUS PRIME H510M-E...

### [Page 18: Central Processing Unit \(Cpu\)](#)

PnP cap/socket contacts/motherboard components. • Keep the cap after installing the motherboard. ASUS will process Return Merchandise Authorization (RMA) requests only if the motherboard comes with the cap on the LGA1200 socket.

### [Page 19: System Memory](#)

For system stability, use a more efficient memory cooling system to support a full memory load. • Refer to [www.asus.com](http://www.asus.com) for the latest Memory QVL (Qualified Vendors Lists) and memory frequency support depends on the CPU types. Recommended memory configurations DIMM\_A1\*...

[Page 20](#) Installing a DIMM To remove a DIMM 1-10 Chapter 1: Product Introduction...

### [Page 21: Chapter 2 Bios Information](#)

BIOS Information Knowing BIOS The new ASUS UEFI BIOS is a Unified Extensible Interface that complies with UEFI architecture, offering a user-friendly interface that goes beyond the traditional keyboard- only BIOS controls to enable a more flexible and convenient mouse input. You can easily navigate the new UEFI BIOS with the same smoothness as your operating system.

### [Page 22: Bios Setup Program](#)

BIOS Setup program Use the BIOS Setup to update the BIOS or configure its parameters. The BIOS screens include navigation keys and brief onscreen help to guide you in using the BIOS Setup program. Entering BIOS at startup To enter BIOS Setup at startup, press <Delete> or <F2> during the Power-On Self Test (POST).

### [Page 23: Asus Ez Flash 3](#)

ASUS EZ Flash 3 The ASUS EZ Flash 3 feature allows you to update the BIOS without using an OS-based utility. Ensure to load the BIOS default settings to ensure system compatibility and stability. Select the Load Optimized Defaults item under the Exit menu or press hotkey <F5>.

### [Page 24: Asus Crashfree Bios 3](#)

ASUS CrashFree BIOS 3 The ASUS CrashFree BIOS 3 utility is an auto recovery tool that allows you to restore the BIOS file when it fails or gets corrupted during the updating process. You can restore a corrupted BIOS file using a USB flash drive that contains the BIOS file.

### [Page 25: Appendix](#)

Appendix Notices FCC Compliance Information Responsible Party: Asus Computer International Address: 48720 Kato Rd., Fremont, CA 94538, USA Phone / Fax No: (510)739-3777 / (510)608-4555 This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

[Page 26](#) Compliance Statement of Innovation, Science and Economic Development Canada (ISED) This device complies with Innovation, Science and Economic Development Canada licence exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including

interference that may cause undesired operation of the device.

[Page 27](#) ASUS products sold in Vietnam, on or after September 23, 2011, meet the requirements of the Vietnam Circular 30/2011/TT-BCT. Các sản phẩm ASUS bán tại Việt Nam, vào ngày 23 tháng 9 năm 2011 trở về sau, đều phải đáp ứng các yêu cầu của Thông tư 30/2011/TT-BCT của Việt Nam.

[Page 28](#) ASUS Recycling/Takeback Services ASUS recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for you to be able to responsibly recycle our products, batteries, other components as well as the packaging materials.

[Page 29](#) доступний на: [www.asus.com/support](http://www.asus.com/support) Cijeli tekst EU izjave o sukladnosti dostupan je na: [www.asus.com/support](http://www.asus.com/support) Türkçe AsusTek Computer Inc., bu aygıtın temel gereksinimlerle ve ilişkili Čeština Společnost ASUSTeK Computer Inc. tímto prohlašuje, že Yönergelerin diğer ilgili koşullarıyla uyumlu olduğunu beyan eder.

### [Page 30: Warranty](#)

• ASUS offers a voluntary manufacturer's Commercial Guarantee. • ASUS dragovoljno nudi komercijalno proizvođačko jamstvo. • ASUS reserves the right to interpret the provisions of the ASUS • ASUS zadržava prava na tumačenje odredbi ASUS komercijalnog Commercial Guarantee. jamstva. •...

[Page 31](#) • Si tiene alguna queja o necesidad de un centro de reparación local o el periodo de garantía del producto ASUS, por favor visite el sitio Información de garantía de ASUS de Soporte de ASUS en <https://www.asus.com/mx/support/> para •...

### [Page 32: Asus Contact Information](#)

+1-510-739-3777 +1-510-608-4555 Web site <https://www.asus.com/us/> Technical Support Support fax +1-812-284-0883 Telephone +1-812-282-2787 Online support <https://qr.asus.com/techserv> ASUS COMPUTER GmbH (Germany and Austria) Address Harkortstrasse 21-23, 40880 Ratingen, Germany Web site <https://www.asus.com/de> Online contact [https://www.asus.com/support/Product/ContactUs/ Services/questionform/?lang=de-de](https://www.asus.com/support/Product/ContactUs/Services/questionform/?lang=de-de) Technical Support Telephone (DE) +49-2102-5789557 Telephone (AT)

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