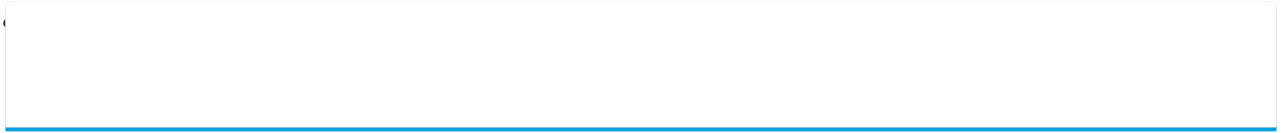




Asus PRIME H310M-CS R2.0 Manual

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Summary of Contents for Asus PRIME H310M-CS R2.0

[Page 1](#) PRIME H310M-CS R2.0...

[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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[Page 4: Safety Information](#)

Safety information Electrical safety • To prevent electrical shock hazards, 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](#) Refer to the following sources for additional information and for product and software updates. ASUS websites 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](#)

** DDR4 2666MHz and higher memory modules will run at max. 2666MHz on Intel 8th Gen. ® 6-core or higher processors. *** Refer to www.asus.com for the Memory QVL (Qualified Vendors List). 1 x PCI Express 3.0/2.0 x16 slot (at x16 mode) Expansion slots 1 x PCI Express 2.0 x1 slot...

[Page 7](#) PRIME H310M-CS R2.0 specifications summary ASUS 5X PROTECTION III - ASUS SafeSlot Core: Fortified PCIe Slot prevents damage - ASUS LANGuard: Protects against LAN surges, lightning strikes and static-electricity discharges! - ASUS Overvoltage Protection: World-class circuit-protecting power design - ASUS Stainless-Steel Back I/O: 3X corrosion-resistance for greater durability!

[Page 8](#) PRIME H310M-CS R2.0 specifications summary 1 x Front panel audio connector (AAFP) 1 x LPT header 1 x Speaker connector 1 x Chassis Intrusion header Internal 1 x 24-pin EATX Power connector connectors 1 x 4-pin ATX 12V Power connector...

[Page 9: Motherboard Overview](#)

KBMS CPU_FAN DIGI +VRM ATX12V Place this side towards LGA1151 the rear of the U31G1_34 chassis USB910_B Realtek 8111H LAN_USB56 CHA_FAN AUDIO PCIEX16 Super Intel ® H310 64Mb BIOS SPEAKER PCIEX1 USB78 SATA6G_1 SATA6G_2 F_PANEL Scan the QR code to get the detailed pin definitions. ASUS PRIME H310M-CS R2.0...

[Page 10](#) TPM connector (14-1 pin TPM) This connector supports a Trusted Platform Module (TPM) system, which can securely store keys, digital certificates, passwords, and data. A TPM system also helps enhance network security, protects digital identities, and ensures PIN 1 platform integrity. ATX power connectors (24-pin EATXPWR, 4-pin ATX12V) Correctly orient the ATX power supply plugs into these connectors and push down firmly until the connectors completely fit. • For a fully configured system, we recommend that you use a power supply unit (PSU) that complies with ATX 12V Specification 2.0 (or later version) and provides a minimum power of 350 W. Ensure this PSU type has 24-pin and 4-pin power plugs. • We recommend that you use a PSU with higher power output when configuring a system with more power-consuming devices or when you intend to install additional devices. The system may become unstable or may not boot up if the power is inadequate. • DO NOT forget to connect the 4-pin ATX +12V power plug. Otherwise, the system will not boot up. CPU and chassis fan connectors (4-pin CPU_FAN, 4-pin CHA_FAN) Connect the fan cables to the fan connectors on the motherboard, ensuring that the black wire of each cable matches the ground pin of the connector.

[Page 11](#) H310 Serial ATA 6.0Gb/s connectors (7-pin SATA6G_1~4) ® These connectors connect to Serial ATA 6.0 Gb/s hard disk drives via Serial ATA 6.0 Gb/s signal cables. Speaker connector (4-pin SPEAKER) The 4-pin connector is for the chassis-mounted system warning speaker. The speaker allows you to hear system beeps and warnings. System panel connector (10-1 pin F_PANEL) F_PANEL This connector supports several chassis-mounted functions. +PWR LED- PWR BTN PIN 1 +HDD_LED- RESET USB 2.0 connector (10-1 pin USB78) Connect a USB module cable to this connector, then install the module to a slot opening at the back of the system chassis. This USB connector complies with USB 2.0 specifications and supports up to 480Mbps connection speed. ASUS PRIME H310M-CS R2.0...

[Page 12](#) Clear RTC RAM (2-pin CLRTC) CLRTC This header allows you to clear the CMOS RTC RAM data of the system setup information such as date, time, and system passwords. To erase

the RTC RAM: PIN 1 Turn OFF the computer and unplug the power cord. Use a metal object such as a screwdriver to short the two pins. Plug the power cord and turn ON the computer. Hold down the key during the boot process and enter BIOS setup to re-enter data. 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. Chassis intrusion header (4-1 pin CHASSIS) This header is for a chassis-mounted intrusion detection sensor or switch. Connect one end of the chassis intrusion sensor or switch cable to this connector. The chassis intrusion sensor or switch sends a high-level signal to this connector when a chassis component is removed or replaced. The signal is then generated as a chassis intrusion event. Front panel audio connector (10-1 pin AAFP) This connector is for a chassis-mounted front panel audio I/O module that supports HD audio standard. Connect one end of the front panel audio I/O module cable to this connector.

[Page 13](#) LAN (RJ-45) port. This port allows Gigabit connection to a Local Area Network (LAN) through a network hub. LAN port LED indications Activity/Link LED Speed LED Speed Activity Link Status Description Status Description No link 10Mbps connection Orange Linked ORANGE 100Mbps connection Orange Data activity GREEN 1Gbps connection (Blinking) LAN port Orange Ready to wake (Blinking then up from S5 mode steady) ASUS PRIME H310M-CS R2.0...

[Page 14](#) Line In port (light blue). This port connects to the tape, CD, DVD player, or other audio sources. Line Out port (lime). This port connects to a headphone or a speaker. In the 4.1, 5.1 and 7.1-channel configurations, the function of this port becomes Front Speaker Out. Microphone port (pink). This port connects to a microphone. Refer to the audio configuration table for the function of the audio ports in 2.1, 4.1, 5.1, or 7.1-channel configuration. Audio 2.1, 4.1, 5.1 or 7.1-channel configuration Headset Port 4.1-channel 5.1-channel 7.1-channel 2.1-channel Light Blue (Rear Rear Speaker Rear Speaker Line In Rear Speaker Out panel) Front Speaker Front Speaker Lime (Rear panel) Line Out Front Speaker Out Pink (Rear panel) Mic In...

[Page 15: Central Processing Unit \(Cpu\)](#)

Central Processing Unit (CPU) This motherboard comes with a surface mount LGA1151 socket designed for the 9th/8th Gen Intel Core™, Pentium Gold, and ® ® Celeron processors. ® Unplug all power cables before installing the CPU. • Ensure that you install the correct CPU designed for the LGA1151 socket only. DO NOT install a CPU designed for LGA1150, LGA1155 and LGA1156 sockets on the LGA1151 socket. • Upon purchase of the motherboard, ensure that the PnP cap is on the socket and the socket contacts are not bent. Contact your retailer immediately if the PnP cap is missing, or if you see any damage to the 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 LGA1151 socket. • The product warranty does not cover damage to the socket contacts resulting from incorrect CPU installation/removal, or misplacement/loss/incorrect removal of the PnP cap. Installing the CPU Apply the Thermal Interface Material to the CPU heatsink and CPU before you install the heatsink and fan if necessary. ASUS PRIME H310M-CS R2.0...

[Page 16: System Memory](#)

DIMM_A1* DIMM_A1* Channel B DIMM_B1* • You may install varying memory sizes in Channel A and Channel B. The system maps the total size of the lower-sized channel for the dual-channel configuration. Any excess memory from the higher-sized channel is then mapped for single-channel operation. • Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules. • DDR4 2666MHz and higher memory modules will run at max. 2666MHz on Intel 8th ® Generation 6-core or higher processors. • Memory modules with memory frequency higher than 2133 MHz and its corresponding timing or the loaded X.M.P. Profile is not the JEDEC memory standard. The stability and compatibility of these memory modules depend on the CPU's capabilities and other installed devices. • The default memory operation frequency is dependent on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value. • For system stability, use a more efficient memory cooling system to support a full memory load (2 DIMMs). • Refer to www.asus.com for the latest Memory QVL (Qualified Vendors List). Recommended memory configuration Chapter 1: Product introduction...

[Page 17](#) Installing a DIMM To remove a DIMM ASUS PRIME H310M-CS R2.0...

[Page 18: Chapter 2: Bios Information](#)

Using the power button, reset button, or the <Ctrl>+<Alt>+ keys to force reset from a running operating system can cause damage to your data or system. We recommend you always shut down the system properly from the operating system. ASUS PRIME H310M-CS R2.0...

[Page 19: Bios Menu Screen](#)

The BIOS setup screens shown in this section are for reference purposes only, and may not exactly match what you see on your screen. • Visit the ASUS website at www.asus.com to download the latest BIOS file for this motherboard. •...

[Page 20: Exit Menu](#)

<Esc>, a confirmation window appears. Select OK to discard changes and exit. Launch EFI Shell from USB drives This option allows you to attempt to launch the EFI Shell application (shellx64.efi) from one of the available USB devices. ASUS PRIME H310M-CS R2.0...

[Page 21: 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 22](#) 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 23](#) 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 24](#) доступний на: www.asus.com/support Cijeli tekst EU izjave o sukladnosti dostupan je na: www.asus.com/support Türkçe AsusTek Computer Inc., bu aygıtın temel gereksinimlerle ve ilişkili Čeština Společnost ASUSTeK Computer Inc. tímto prohlašuje, že toto Yönergelerin diğer ilgili koşullarıyla uyumlu olduğunu beyan eder.

[Page 25: Asus Contact Information](#)

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