Asus Prime H310M-C Manual
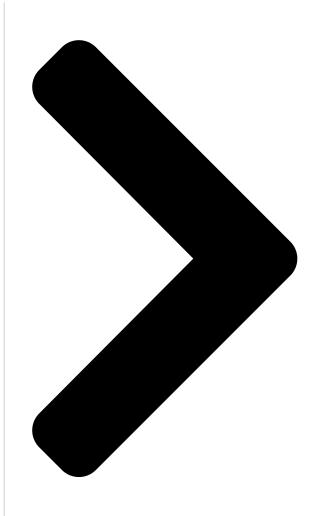
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Related Manuals for Asus Prime H310M-C

[Motherboard Asus PRIME H310M-C R2.0 Manual](#)

(28 pages)

[Motherboard Asus PRIME H310M-C R2.0/CSM Quick Start Manual](#)

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[Motherboard Asus H310M-C/HDMI R2.0 Quick Start Manual](#)

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[Motherboard Asus PRIME H310M2 R2.0 Manual](#)

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Summary of Contents for Asus Prime H310M-C

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 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 2 x PCI Express 2.0 x1 slots...

Page 7 Bespoke Motherboard Design & Business Motherboard Focused Features : - ASUS Self-Recovering BIOS: Automatically recovers BIOS update once crash happens - ASUS Event Log: Records activities of system and provides information in BIOS - ASUS Commercial BIOS kit: Speeds up BIOS update solution by partial BIOS design - Anti-Moisture: Against moisture and corrosion —...

Page 8 SATA6G_2 port. 128 Mb Flash ROM, UEFI AMI BIOS, PnP, SM BIOS 3.1, ACPI 6.1, Multi-BIOS features language BIOS, ASUS EZ Flash 3, CrashFree BIOS 3, Last Modified log, and ASUS DRAM SPD (Serial Presence Detect) memory information Manageability...

Page 9: Motherboard Overview

LAN_U31G1_34 M.2(SOCKET3) CHA_FAN PCIE SATA IRST 2280 2260 AUDIO PCIEX16 ASM1480 CLRTC PCIEX1_1 128Mb BIOS Super Intel ® H310 PCIEX1_2 1083 LPC DEBUG SPEAKER COM2 USB914 AAFP F_PANEL SATA6G_4 SATA6G_3 SATA6G_2 Scan the QR code to get the detailed pin definitions. ASUS PRIME H310M-C...

Page 10 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. • If you are uncertain about the minimum power supply requirement for your system, refer to the Recommended Power Supply Wattage Calculator at http://support.asus.com/PowerSupplyCalculator/PSCalculator.aspx?SLanguage=en-us for details. 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. Do not forget to connect the fan cables to the fan connectors. Insufficient air flow inside the system may damage the motherboard components. These are not jumpers! Do not place jumper caps on the fan connectors! The CPU_FAN connector supports a CPU fan of maximum 0.5A (6 W) fan power. Intel LGA1151 CPU socket ® Install Intel LGA1151 CPU into this surface mount LGA1151 socket, which is ®...

Page 11 Hold down the <Del> 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. Intel 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) This connector supports several chassis-mounted functions. USB 2.0 connector (10-1 pin USB914) 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-C...

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 platform integrity. LPC Debug header This header allows connection to a LPC debug card. • Scan the QR code to view the meaning of each debug code. • Debug codes are only available for ASUS LPC debug card. • Contact your region sales representative for LPC debug header ordering. LPT connector (26-1 pin LPT) The LPT (Line Printing Terminal) connector supports devices such as a printer. LPT standardizes as IEEE 1284, which is the parallel port interface on IBM PC-compatible computers. 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.

PCI slot The PCI slot supports cards such as a LAN card, SCSI card, USB card, and other cards that comply with PCI specifications. PCI Express 2.0 x1 slots This motherboard has two PCI Express 2.0 x1 slots that support PCI Express x1 network cards, SCSI cards, and other cards that comply with the PCI Express specifications. PCI Express 3.0/2.0 x16 slot This motherboard supports one PCI Express 3.0/2.0 x16 graphic card that complies with the PCI Express specifications. ASUS PRIME H310M-C...

Rear panel connectors PS/2 Mouse port (green). This port is for a PS/2 mouse. USB 2.0 ports. These 4-pin Universal Serial Bus (USB) ports are for USB 2.0/1.1 devices. From the top to the bottom, the port numbering is Port7, Port8, Port5, and Port6. Video Graphics Adapter (VGA) port. This 15-pin port is for a VGA monitor or other VGA-compatible devices. Serial port connector (COM). This port connects a modem, or other devices that conform with serial specification. LAN (RJ-45) port. This port allows Gigabit connection to a Local Area Network (LAN) through a network hub. LAN port LED indications Speed Activity Link Activity/Link LED Speed LED Status Description Status Description...

Lime (Front panel) 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. USB 3.1 Gen 1 ports. These 9-pin Universal Serial Bus (USB) ports are for USB 3.1 Gen 1 devices. • USB 3.1 Gen 1 devices can only be used for data storage. • We strongly recommend that you connect USB 3.1 Gen 1 devices to USB 3.1 Gen 1 ports for faster and better performance from your USB 3.1 Gen 1 devices. • Due to the design of the Intel 300 series chipset, all USB devices connected to the ® USB 2.0 and USB 3.1 Gen 1 ports are controlled by the xHCI controller. Some legacy USB devices must update their firmware for better compatibility. 10. DVI-D port. This port is for any DVI-D compatible device. DVI-D can not be converted to output from RGB Signal to CRT and is not compatible with DVI-I. 11. PS/2 Keyboard port (purple). This port is for a PS/2 keyboard. ASUS PRIME H310M-C...

Page 16: Central Processing Unit (Cpu)

Central Processing Unit (CPU) This motherboard comes with a surface mount LGA1151 socket designed for the 8th Generation Intel Core™ i7 / Core™ i5 / Core™ i3, ® Pentium , 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. Chapter 1: Product introduction...

Page 17: System Memory

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 DIMM_B1* DIMM_A1* DIMM_A1* ASUS PRIME H310M-C...

Page 19: Chapter 2: Bios Information

BIOS information Scan the QR code to view the BIOS update guide. The system will automatically active ASUS Self-Recovering BIOS after reboot from the BIOS update failure. ASUS Self-Recovering BIOS ASUS-exclusive BIOS protection technology automatically recovers the system's BIOS with a verified backup in the event of an update failure, preventing the need to replace or reinstall your hardware.

Page 20: 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 21: Event Log

Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc. Main Ai Tweaker Advanced Monitor Boot Tool Exit Show Event Logs in setup. ASUS EZ Flash 3 Utility ASUS SPD Information Event Log :Select Screen : Select Item Enter: Select +/-: Change Opt. General Help Previous Values Optimized Defaults F10: Save &...

Page 22: Exit Menu

Exit menu The Exit menu items allow you to load the optimal default values for the BIOS items, and save or discard your changes to the BIOS items. Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc. Main Ai Tweaker Advanced Monitor Boot...

Page 23: Appendix

Consult the dealer or an experienced radio/TV technician for help. The use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. ASUS PRIME H310M-C...

Page 27: Asus Contact Information

+1-510-739-3777 +1-510-608-4555 Web site http://www.asus.com/us/ Technical Support Support fax +1-812-284-0883 Telephone +1-812-282-2787 Online support

http://qr.asus.com/techserv ASUS COMPUTER GmbH (Germany and Austria) Address Harkort Str. 21-23, 40880 Ratingen, Germany +49-2102-959931 Web site http://www.asus.com/de Online contact http://eu-rma.asus.com/sales Technical Support Telephone +49-2102-5789555 Support Fax...

FCC COMPLIANCE INFROMATION Per FCC Part 2 Section 2.1077 Asus Computer International Responsible Party: 800 Corporate Way, Fremont CA 94539. Address: Phone/Fax No: (510)739-3777/(510)608-4555 hereby declares that the product Product Name : Motherboard Model Number : PRIME H310M-C compliance statement: This device complies with part 15 of the FCC Rules.

This manual is also suitable for:

Prime h310m-c/csm