Asus Prime H270-Plus User Manual

1
2
Table Of Contents

18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36

-

-

Quick Links

Download this manual
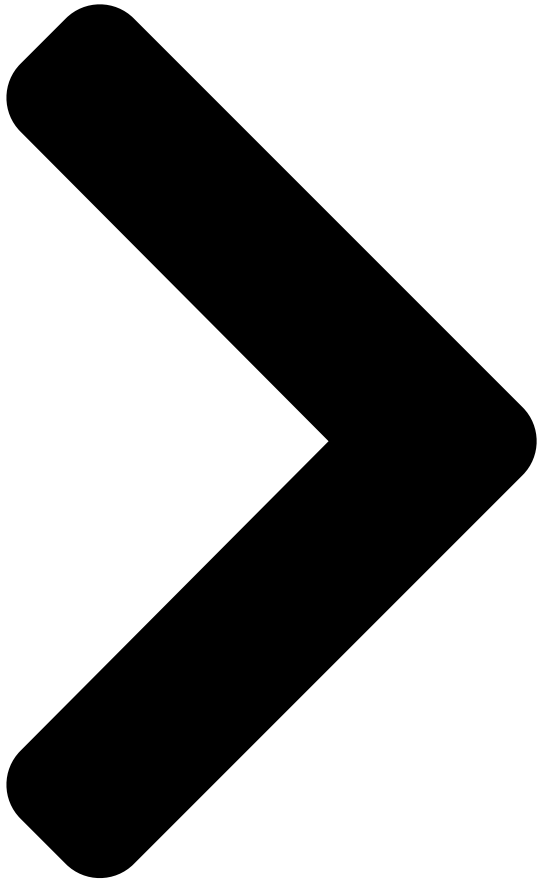
PRIME H270-PLUS

Table of Contents

Next Page

1
2
3
4
5

Related Manuals for Asus Prime H270-Plus

[Motherboard Asus STRIX H270F GAMING User Manual](#)

(113 pages)

[Motherboard Asus STRIX H270F GAMING Manual](#)

(113 pages)

[Motherboard Asus STRIX H270F GAMING Quick Start Manual](#)

(2 pages)

[Motherboard Asus STRIX H270I GAMING Manual](#)

(75 pages)

[Motherboard Asus Prime H270-PRO Manual](#)

(38 pages)

[Motherboard Asus PRIME H270M-PLUS Quick Start Manual](#)

(2 pages)

[Motherboard Asus PRIME H270M-PLUS Manual](#)

(37 pages)

[Motherboard Asus H81M-PLUS User Manual](#)

H81m-plus user's manual (74 pages)

[Motherboard Asus H81M-PLUS Manual](#)

(19 pages)

[Motherboard Asus H81M-E R2.0 User Manual](#)

(46 pages)

[Motherboard Asus H110I User Manual](#)

(25 pages)

[Motherboard Asus H81M-CT Manual](#)

(63 pages)

[Motherboard Asus H110T Manual](#)

(28 pages)

[Motherboard Asus TUF H310-PLUS GAMING Manual](#)

(27 pages)

[Motherboard Asus PRIME H410M-D Manual](#)

(28 pages)

[Motherboard Asus PRIME H370-A Manual](#)

(36 pages)

Summary of Contents for Asus Prime H270-Plus

Processing Unit (CPU) ....1-10 System memory ....1-11...

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: Conventions Used In This Guide

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

** Due to Intel® chipset limitation, DDR4 2133MHz and higher memory modules on 6th Generation Intel® processors will run at the maximum transfer rate of DDR4 2133MHz. *** Refer to www.asus.com for the latest Memory QVL (Qualified Vendors List). 1 x PCI Express 3.0/2.0 x16 slot (at x16 mode) Expansion slots 1 x PCI Express 3.0/2.0 x16 slot (max.

Page 7 ASUS unique features 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: Asus Exclusive Features

PRIME H270-PLUS specifications summary ASUS unique ASUS Exclusive Features features - ASUS Ai Charger - ASUS AI Suite 3 EZ DIY UEFI BIOS EZ Mode - Featuring friendly graphics user interface - ASUS CrashFree BIOS 3 - ASUS EZ Flash 3...

Page 9 128 Mb Flash ROM, UEFI AMI BIOS, PnP, DMI3.0, WfM2.0, SM BIOS features BIOS 3.0, ACPI 6.0, Multi-language BIOS, ASUS EZ Flash 3, CrashFree BIOS 3, F11 EZ Tuning Wizard, F6 Qfan Control, F3 My Favorites, Last Modified log, F12 PrintScreen, and ASUS...

Page 10: Before You Proceed

® H270 PCIEX1_2 Super PCIEX16_2 2280 2260 2242 PCIEX1_3 128Mb BIOS M.2_2 PCIE SATA IRST PCIEX1_4 SATA6G_4 SATA6G_3 SPDIF_OUT CLRTC USB1112 USB1314 USB3_34 SATA6G_2 SATA6G_1 MONO_OUT AAFP 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 H270-PLUS...

Page 11: Layout Contents

For a fully configured system, we recommend that you use a power supply unit (PSU) that complies with ATX 12 V Specification 2.0 (or later version) and provides a minimum power of 350 W. This PSU type has 24-pin and 8-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. • 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. Chapter 1: Product introduction...

Page 12 Install 2 GB, 4 GB, 8 GB, and 16 GB unbuffered non-ECC DDR4 DIMMs into these DIMM sockets. For more details, refer to System memory. USB 3.0 connectors (20-1 pin USB3_12, USB3_34) USB3_12 Connect a USB 3.0 module to any of these connectors PIN 1 USB3+5V USB3+5V IntA_P1_SSRX- for additional USB 3.0 front or rear panel ports. These IntA_P2_SSRX- IntA_P1_SSRX+ IntA_P2_SSRX+ connectors comply with USB 3.0 specifications and IntA_P1_SSTX- IntA_P2_SSTX- IntA_P1_SSTX+ IntA_P2_SSTX+ provides faster data transfer speeds of up to 5 Gbps, faster IntA_P1_D- IntA_P2_D- IntA_P1_D+ IntA_P2_D+ charging time for USB-chargeable devices, optimized power efficiency, and backward compatibility with USB 2.0

USB3_34 PIN 1 ASUS PRIME H270-PLUS...

• Only M.2_1 can support Intel Optane Memory. Intel Optane Technology is only ® ® supported when using 7th Generation Intel processors. Before using Intel Optane ® ® memory modules, ensure that you have updated your motherboard drivers and BIOS to the latest version from ASUS support website. Intel H270 Serial ATA 6.0Gb/s connectors (7-pin ® SATA6G SATA6G_1~6) These connectors connect to Serial ATA 6.0 Gb/s hard disk RSATA_TXP RSATA_TXN drives via Serial ATA 6.0 Gb/s signal cables. RSATA_RXN RSATA_RXP Clear RTC RAM (2-pin CLRTC)

This connector 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. USB 2.0 connectors (10-1 pin USB1112, USB1314) USB1112 USB1314 Connect a USB module cable to any of these connectors, then install the module to a slot opening at the back of the system chassis. These USB connectors comply with USB 2.0 specifications and supports up to 480Mbps connection speed. PIN 1 PIN 1 ASUS PRIME H270-PLUS...

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 PIN 1 digital identities, and ensures platform integrity. Serial port connector (10-1 pin COM) This connector is for a serial (COM) port. Connect the serial port module cable to this connector, then install the module to a slot opening at the back of the system chassis. PIN 1 Mono out header (2-pin MONO_OUT) MONO_OUT This internal mono out header allows connection to an internal, PIN 1 low power speaker for basic system sound capability. The subsystem is capable of driving a speaker load of 4 Ohms at 2 Watts (rms).

Page 16: Irq Assignments For This Motherboard

– – – PCIEx1_3 – shared – – PCIEx1_4 – – shared – PCIEx16_1 shared – – – PCIEx16_2 shared – – – M.2_1 shared – – – M.2_2 shared – – – When using PCI cards on shared slots, ensure that the drivers support "Share IRQ" or that the cards do not need IRQ assignments. Otherwise, conflicts will arise between the two PCI groups, making the system unstable and the card inoperable. ASUS PRIME H270-PLUS...

Page 17: Rear Panel Connectors

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. LAN (RJ-45) port. This port allows Gigabit connection to a Local Area Network (LAN) through a network hub. Refer to the table below for the LAN port LED indications. LAN port LED indications Speed Activity Link Activity/Link LED Speed LED Status Description Status Description No link 10Mbps connection Orange Linked ORANGE 100Mbps connection Orange (Blinking) Data activity GREEN 1Gbps connection Orange (Blinking...

Bass/Center Lime (Front panel) — — — Side Speaker Out For a 7.1-channel speaker setup, refer to the 7.1-channel configuration in the table. USB 2.0 ports These four 4-pin Universal Serial Bus (USB) ports are for USB 2.0/1.1 devices. USB 3.0 ports. These four 9-pin Universal Serial Bus (USB) ports connect to USB 3.0/2.0 devices. • Due to USB 3.0 controller limitations, USB 3.0 devices can only be used under a Windows OS environment and after USB 3.0 driver installation. ® • USB 3.0 devices can only be used for data storage. • We strongly recommend that you connect USB 3.0 devices to USB 3.0 ports for faster and better performance from your USB 3.0 devices. HDMI port. This port is for a High-Definition Multimedia Interface (HDMI) connector, and is HDCP compliant allowing playback of HD DVD, Blu-ray, and other protected content. 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. PS/2 keyboard port (purple). This port is for a PS/2 keyboard. ASUS PRIME H270-PLUS...

Page 19: Central Processing Unit (Cpu)

Central Processing Unit (CPU) This motherboard comes with a surface mount LGA1151 socket designed for the 7th/6th 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 1-10...

Page 20: System Memory

OS, when you install 4GB ® or more memory on the motherboard, the actual usable memory for the OS can be about 3GB or less. For effective use of memory, we recommend that you do any of the following: Use a maximum of 3GB system memory if you are using a 32-bit Windows OS. ® I nstall a 64-bit Windows OS if you want to install 4GB or more on the ® motherboard. F or more details, refer to the Microsoft support site at http://support.microsoft. ® com/kb/929605/en-us. • 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 (4 DIMMs). • Refer to www.asus.com for the latest Memory QVL (Qualified Vendors List) 1-11 ASUS PRIME H270-PLUS...

Page 21: Installing A Dimm

Installing a DIMM To remove a DIMM Chapter 1: Product introduction 1-12...

Page 22: Chapter 2: Bios Information

Managing and updating your BIOS Save a copy of the original motherboard BIOS file to a USB flash disk in case you need to restore the BIOS in the future. Copy the original motherboard BIOS using the ASUS Update utility.

Page 23: Asus Ez Flash

2.1.2 ASUS EZ Flash 3 The ASUS EZ Flash 3 feature allows you to update the BIOS without using an OS-based utility. • Ensure that you load the BIOS default settings to ensure system compatibility and stability. Select the Load Optimized Defaults item under the Exit menu. See section 2.3 Exit Menu for details.

Page 24: Asus Crashfree Bios 3 Utility

2.1.3 ASUS CrashFree BIOS 3 utility The ASUS CrashFree BIOS 3 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 the motherboard support DVD or a USB flash drive that contains the updated BIOS file.

Page 25 On the BIOS Updater screen, press <Tab> to switch from Files panel to Drives panel then select D:. ASUSTeK BIOS Updater for DOS V1.31 [2014/01/01] Current ROM Update ROM BOARD: PRIME H270-PLUS BOARD: Unknown VER: 0207 (H :00 B :00)

Page 26: Bios Setup Program

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 27 2.2.1 EZ Mode By default, the EZ Mode screen appears when you enter the BIOS setup program. The EZ Mode provides you an overview of the basic system information, and allows you to select the display language, system performance mode and boot device priority. To access the Advanced Mode, click Advanced Mode or press <F7>...

Page 28: Advanced Mode

Language Hot Keys Menu bar Sub-menu item Search on FAQs General help Last modified Menu items Pop-up window settings Goes back to EZ Mode Configuration fields Displays the CPU Scroll bar temperature, CPU and memory voltage output ASUS PRIME H270-PLUS...

[Page 29: Menu Bar](#)

Menu bar The menu bar on top of the screen has the following main items: My Favorites For saving the frequently-used system settings and configuration Main For changing the basic system configuration Ai Tweaker For changing the overclocking settings Advanced For changing the advanced system settings For displaying the system temperature, power status, and changing the Monitor...

[Page 30: Scroll Bar](#)

Search on FAQ Move your mouse over this button to show a QR code. Scan this QR code with your mobile device to connect to the ASUS BIOS FAQ web page. You can also scan the QR code below. Scroll bar A scroll bar appears on the right side of a menu screen when there are items that do not fit on the screen.

[Page 31: 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. You can access the EZ Mode from the Exit menu. Load Optimized Defaults This option allows you to load the default values for each of the parameters on the Setup menus.

[Page 32: Appendix](#)

Cet appareil est conforme aux normes CNR exemptes de licence d'Industrie Canada. Le fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité de l'appareil. ASUS PRIME H270-PLUS...

[Page 33: Canadian Department Of Communications Statement](#)

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 34](#) Slovensky Spoločnosť ASUSTeK Computer Inc. týmto vyhlasuje, že toto Cijeli tekst EU izjave o sukladnosti dostupan je na: www.asus.com/support zariadenie vyhovuje základným požiadavkám a ostatým príslušným ustanoveniam príslušných smerníc. Celý text vyhlásenia o zhode pre štáty EÚ...

[Page 35: 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...

[Page 36: Declaration Of Conformity](#)

800 Corporate Way, Fremont Phone/Fax No: (510)739-3777/(510)608-4555 hereby declares that the product Product Name : Motherboard Model Number : PRIME H270-PLUS Conforms to the following specifications: FCC Part 15, Subpart B, Unintentional Radiators Supplementary Information: This device complies with part 15 of the FCC Rules. Operation is subject to the...

Save PDF