Asus ASMB9-iKVM User Manual

Server management board

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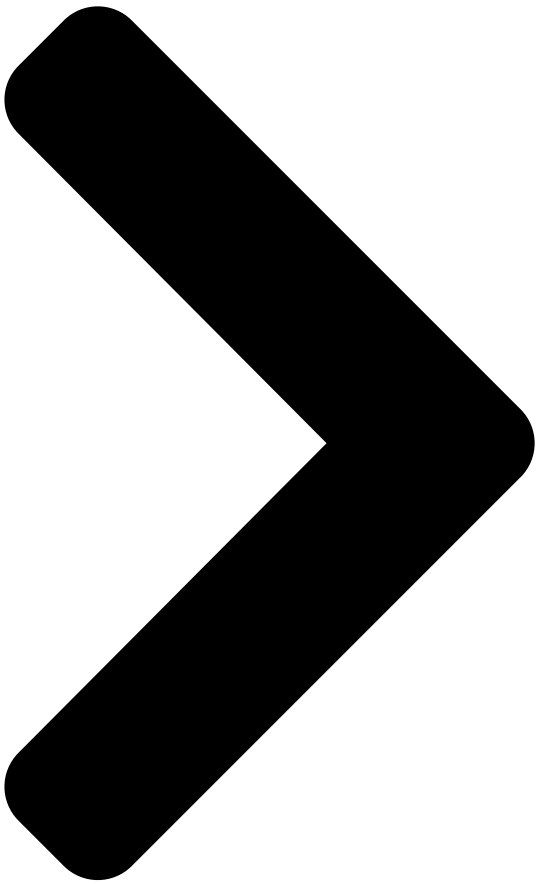

ASMB9-iKVM

Server Management Board

User Guide

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Related Manuals for Asus ASMB9-iKVM

Server Board Asus ASMB2 User Manual

Asus asmb2 server management board (62 pages)

Server Board Asus ASMB3-SOL User Manual

Server management board (70 pages)

Server Board ASUS ASMB3-SOL User Manual

Server management board (62 pages)

Server Board Asus ASMB-LE User Manual

Server management board (52 pages)

Server Board Asus ASMB4-IKVM User Manual

Server management board (84 pages)

Server Board Asus ASMB7-iKVM User Manual

Server managment board (98 pages)

Server Board Asus AAEON ARES-WHI0 User Manual

(76 pages)

Summary of Contents for Asus ASMB9-iKVM

Page 1 ASMB9-iKVM Server Management Board User Guide...

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

Page 3: Table Of Contents

Contents Notices .....v Safety information ..... vii About this guide ..... viii ASMB9-iKVM specifications summary.....x Chapter 1: Product Introduction Welcome! .....1-2 Package contents .....1-2 Features ..... 1-3 System requirements ..... 1-4 Network setup ..... 1-5 Chapter 2: Hardware Information Before you proceed .....

Page 4 Console Redirection .....3-19 Image Redirection .....3-22 Power Control ..... 3-22 3.10 Maintenance ..... 3-23 Appendix LAN ports for server management .....A-2 Troubleshooting .....A-3 Sensor Table.....A-4 Simplified EU Declaration of Conformity .....A-12 ASUS contact information .....A-13...

Page 5: Notices

Notices Federal Communications Commission Statement This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: • This device may not cause harmful interference, and • This device must accept any interference received including interference that may cause undesired operation.

Page 6 ASUS website at http://csr.asus.com/english/REACH.htm. 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 7: Safety Information

Safety information Electrical safety • To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the server. • When adding or removing devices to or from the server, 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 server before you add a device.

Page 8: About This Guide

Where to find more information 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.

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Conventions used in this guide To ensure that you perform certain tasks properly, take note of the following symbols used throughout this manual. DANGER/WARNING: Information to prevent injury to yourself when trying to complete a task. CAUTION: Information to prevent damage to the components when trying to complete a task.

Page 10: Asmb9-Ikvm Specifications Summary

ASMB9-iKVM specifications summary Aspeed 2500 Chipset 384 MB for system Internal RAM 64 MB for video Internal ROM 32 MB Timers 32-bit Watchdog Timer IPMI 2.0-compliant and supports Main features KVM over LAN Web-based user interface (remote management) Virtual media...

Page 11: Chapter 1: Product Introduction

Chapter 1: Product Introduction Product Introduction This chapter describes the server management board features and the new technologies it supports.

Page 12: Welcome

(LAN). With ASMB9-iKVM in your server motherboard, you can completely and efficiently monitor your server in real-time. The solution allows you to reduce IT management costs and increase the productivity.

Page 13: Features

Remotely control and monitor your system over the web • Supports Directory Integration – AD, LDAP • Supports up to 2 administrators to simultaneously operate the remote server via the Web-based GUI Update Firmware • DOS Tool ® • Web GUI (Windows XP/Vista/2003/2008, RHEL5.2, SLES10SP2) ASUS ASMB9-iKVM...

Page 14: System Requirements

* A power supply supported PMBus and PSMI is necessary. ** Specifications are subject to change without notice. System requirements Before you install the ASMB9-iKVM board, check if the remote server system meets the following requirements: • ASUS server motherboard with Baseboard Management Controller (BMC) connector* •...

Page 15: Network Setup

Network setup The ASMB9-iKVM server management board installed on the remote server connects to a local/central server via direct LAN connection or through a network hub. Below are the supported server management configurations. Direct LAN connection RJ-45 cable Remote console with web-...

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Chapter 1: Product Introduction...

Page 17: Chapter 2: Hardware Information

Chapter 2: Hardware Information Hardware Information This chapter provides instructions on how to install the board to the server system and install the utilities that the board supports.

Page 18: Before You Proceed

Before you proceed Take note of the following precautions before you install the server management board to the remote server system. • Unplug the server system power cord from the wall socket before touching any component. • Use a grounded wrist strap or touch a safely grounded object or to a metal object, such as the power supply case, before handling components to avoid damaging them due to static electricity. • Hold components by the edges to avoid touching the ICs on them. • Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that came with the component. •...

Page 19: Firmware Update And Ip Configuration

To update the firmware: Insert the support CD into the optical drive. Restart the remote server then press <Del> during POST to enter the BIOS setup. Go to the Boot menu and set the Boot Device Priority item to [CD-ROM]. When finished, press <F10> to save your changes and exit the BIOS setup. On reboot, select ASMB9-iKVM Firmware Update for Clear Configuration from the main menu and press <Enter> to enter the sub-menu. ASUS Server Z11PP-D24 Series System FreeDOS command prompt Configure BMC IP Source Static IP for Shared LAN Configure BMC IP Source DHCP IP for Shared LAN...

Page 20: Configure Bmc Ip Source Static Ip

When finished, press <F10> to save your changes and exit the BIOS setup. On reboot, select Configure BMC IP Source Static IP for Shared LAN (or DM_LAN1) from the main menu and press <Enter> to enter the sub-menu. ASUS Server Z11PP-D24 Series System FreeDOS command prompt Configure BMC IP Source Static IP for Shared LAN Configure BMC IP Source DHCP IP for Shared LAN...

Page 21: Configure Bmc Ip Source Dhcp

Go to Boot menu and set the Boot Device Priority item to [CD-ROM]. When finished, press <F10> to save your changes and exit the BIOS setup. On reboot, select Configure BMC IP Source DHCP for Shared LAN (or DM_LAN1) from the main menu and press <Enter> to enter the sub-menu. ASUS Server Z11PP-D24 Series System FreeDOS command prompt Configure BMC IP Source Static IP for Shared LAN Configure BMC IP Source DHCP IP for Shared LAN...

Page 22: Bios Configuration

BIOS configuration You need to adjust the settings in the BIOS setup of the remote server for correct configuration and connection to the central server. • Update the remote server BIOS file following the instructions in the motherboard/ system user guide. Visit the ASUS website (www.asus.com) to download the latest BIOS file for the motherboard. • The BIOS setup screens shown in this section are for reference purposes only, and may not exactly match what you see on your screen. 2.4.1 Running the BIOS BMC configuration To configure the BMC in the BIOS: Restart the remote server, then press <Del> during POST to enter the BIOS setup. Go to the Server Mgmt menu, then select the BMC network configuration sub-menu. Use this sub-menu to configure the BMC settings. When finished, press <F10> to save your changes and exit the BIOS setup. Chapter 2: Hardware Information...

Page 23: Server Mgmt Menu

Server Mgmt menu The Server Management menu displays the server management status and allows you to change the settings. OS Watchdog Timer [Disabled] This item allows you to start a BIOS timer which can only be shut off by Intel Management Software after the OS loads. Configuration options: [Disabled] [Enabled] The following items is configurable only when the OS Watchdog Timer is set to [Enabled]. OS Wtd Timer Timeout [10 minutes] Allows you to configure the length fo the OS Boot Watchdog Timer. Configuration options: [5 minutes] [10 minutes] [15 minutes] [20 minutes] OS Wtd Timer Policy [Reset] This item allows you to configure the how the system should respond if the OS Boot Watch Timer expires. Configuration options: [Do Nothing] [Reset] [Power Down] ASUS ASMB9-iKVM...

Page 24: System Event Log

2.5.1 System Event Log Allows you to change the SEL event log configuration. Erase SEL [No] Allows you to choose options for erasing SEL. Configuration options: [No] [Yes, On next reset] [Yes, On every reset] When SEL is Full [Do Nothing] Allows you to choose options for reactions to a full SEL. Configuration options: [Do Nothing] [Erase Immediately] Chapter 2: Hardware Information...

Page 25: Bmc Network Configuration

Config Address Source [Previous State] Allows you to select the IP address source type. Set the LAN channel parameters statically or dynamically. Configuration options: [Previous State] [Static] [DynamicBmcDhcp] The following items are available when you set Config Address Source to [Static]. IP Address in BMC Allows you to set the station IP address. Subnet Mask in BMC Allows you to set the subnet mask. We recommend that you use the same Subnet Mask you have specified on the operating system network for the used network card. Gateway IP Address Allows you to set the Gateway IP address. ASUS ASMB9-iKVM...

Page 26: View System Event Log

Configure IPV6 support DM_LAN1 / Shared LAN IPV6 support [Disabled] Allows you to enable or disable IPV6 support. Configuration options: [Enabled] [Disabled] The following items are available when you set IPV6 support to [Enabled]. Config Address Source [Previous State] Allows you to select the IP address source type. Set the LAN channel parameters statically or dynamically. Configuration options: [Previous State] [Static] [DynamicBmcDhcp] The following items are available when you set Config Address Source to [Static]. Station IPV6 address Allows you to set the station IPV6 address.

Page 27: Running The Asmc8 Utility

+ - + | ASUS Server Management card Utility 8.03 Help Menu...

Page 28

ASMC8 Help Menu options Options Description -kcs[smic/bt/pci_smic] NetFn command data..Send IPMI command -bmc_ip_source source[1: Static, 2: DHCP] Set the IP source -bmc_ip [ip_addr] Write the BMC IP address for (e.g., bmc_ip 10.10.10.20) dedicated LAN -bmc_mask [ip_mask] Write the subnet mask for dedicated (e.g., bmc_mask 255.255.255.0) -bmc_gateway [ip_addr] Write the gateway address for (e.g., bmc_gateway 10.10.10.254) dedicated LAN -pet_ip_mac [ip_addr] [mac_addr] Write the PET destination IP and MAC (e.g., pet_ip_mac 10.10.10.20 010203040506) addresses for dedicated LAN -bmc_ip_s_lan1 source[1: Static, 2: DHCP] Set the IP source for shared LAN -bmc_ip_lan1 [ip_addr] Write the BMC IP address for shared (e.g., bmc_ip 10.10.10.20) -bmc_mask_lan1 [ip_mask] Write the subnet mask for shared LAN (e.g., bmc_mask 255.255.255.0) -bmc_g_lan1 [ip_addr] Write the gateway address for shared (e.g., bmc_gateway 10.10.10.254) -pet_ip_m_lan1 [ip_addr] [mac_addr] Write the PET destination IP and MAC (e.g., pet_ip_mac 10.10.10.20 010203040506) addresses for shared LAN -adm_name new_name_string Change the administration name...

Page 29: Configuring The Lan Controller

Write the remote server IP address on a piece of paper for future reference. c:\>ASMC8 -bmc_ip 10.10.10.243 Detect MotherBoard -> (Z11PP-D24 Series) Detect KCS Interface New BMC IP : 10.10.10.243 c:\> When finished, the utility returns to the DOS prompt. Make sure that the assigned IP address for both remote and local/central servers are in the same subnet. You can use the network settings utility in your OS to check. Configure your subnet mask and gateway address if necessary. Type ASMC8 -bmc_mask xxx.xxx.xxx.xxx (your subnet mask encoded in hexadecimal system) Type ASMC8 -bmc_gateway xxx.xxx.xxx.xxx (your gateway address encoded in hexadecimal system) Restart the remote server, enter the BIOS setup, then boot from the hard disk drive. Adjust the local/central server network settings, if necessary. ASUS ASMB9-iKVM 2-13...

Page 30: Configuring The User Name And Password

2.6.2 Configuring the user name and password You may change your user name and password from the ASMC8 utility. To change the user name and password: Insert the support CD into the optical drive. Restart the remote server then press <Del> during POST to enter the BIOS setup. Go to Boot menu and set the Boot Device Priority item to [CD-ROM]. When finished, press <F10> to save your changes and exit the BIOS setup. On reboot, select FreeDOS command prompt from the main menu then press <Enter>. From the C:> prompt, type ASMC8 -user_name xxxxx then press <Enter> to change the user name. c:\>ASMC8 -user_name super Detect MotherBoard ->...

Page 31: Chapter 3: Web-Based User Interface

Chapter 3: Web-based User Interface Web-based User Interface This chapter tells you how to use the web-based user interface that the server management board supports.

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Press <F10> to save your changes and exit the BIOS Setup. You should install JRE on remote console first before using web-based management. You can find JRE from the folder

JAVA of the ASMB9-iKVM support CD. You can also download JRE from http://www.oracle.com/technetwork/java/javase/downloads/index.

Page 33: Logging In The Utility

The web-based graphics user interface displays when you login in the utility successfully. Click on a function from the list on the left hand side to start using its specific functions. Toggle sync On/Off Reload current page Notifications received Function list Account information Messages received Content window ASUS ASMB9-iKVM...

Page 34: Dashboard

Dashboard The dashboard gives you a quick overview for all the system status, sensors, messages, and logs. Click or hover your mouse over an item to see more details. Sensor The Sensor Readings page displays live readings for all the available sensors with details like Sensor Name, Status, Current Reading and Behavior will be displayed.

Page 35: Fru Information

This Page displays the BMC's FRU device information. The FRU page shows Basic Information, Chassis Information, Board Information and Product Information of the FRU device. Logs & Reports This menu contains the IPMI Event Log, System Log, Audit Log, and Video Log. ASUS ASMB9-iKVM...

Page 36: Ipmi Event Log

3.5.1 IPMI Event Log This page displays the list of events incurred by different sensors on this device. Click on a record to see the details of that entry. You can click the Download Event Logs button to download the logs. To view the Event Log on a selected time period From the Filter By Date field, select the time period by selecting the Start Date and the End Date from the calender.

Page 37: System Log

From the Filter By Date field, select the time period by selecting the Start Date and the End Date from the calender. From the Event Category field, select the type of event to view the events of the selected event type. ASUS ASMB9-iKVM...

Page 38: Audit Log

3.5.3 Audit Log This page displays logs of audit events for this device (if the options have been configured). Logs have to be configured under Settings > Log Settings > Advanced Log Settings in order to display any entries. To view the Audit Log on a selected time period, from the Filter By Date field, select the time period by selecting the Start Date and the End Date from the calender.

Page 39: Settings

Settings This page allows you to configure the BMC settings. Click on an item for more options. 3.6.1 Date & Time This page allows you to set the date and time on the BMC. ASUS ASMB9-iKVM...

Page 40: External User Services

3.6.2 External User Services This page allows you to set the LDAP/E-directory Settings, Active directory Settings, and RADIUS Settings. LDAP/E-directory Settings This page allows you to set the LDAP/E-directory Settings. The Lightweight Directory Access Protocol (LDAP) is an application protocol for querying and modifying data of directory services implemented in Internet Protocol (IP) networks.

Page 41: Kvm Mouse Setting

This page allows you to set the log policy for the event log. Log Settings Policy This page is used to configure the log policy for the event log Advanced Log Settings This page allows you to set advanced settings for the event logs. ASUS ASMB9-iKVM 3-11...

Page 42: Media Redirection Settings

3.6.5 Media Redirection Settings This page allows you to set the media redirection settings. General Settings This page allows you to enable or disable Local Media support, check or uncheck the checkbox respectively. VMedia Instance Settings This page allows you to configure

settings for media devices. Remote Session This page allows you to change the settings for the remote session.

Page 43: Network Settings

This page allows you to manage LAN support for the interface. Network Bond Configuration This page allows you to enable network bonding for network interfaces. DNS Configuration This page allows you to manage DNS settings of the device. ASUS ASMB9-iKVM 3-13...

Page 44: Platform Event Filters

3.6.7 Platform Event Filters Platform Event Filtering (PEF) provides a mechanism for configuring the BMC to take selected actions on event messages that it receives or has internally generated. These actions include operations such as system power-off, system reset, as well as triggering the generation of an alert.

Page 45: Services

3.6.8 Services This page lists services running on the BMC. It shows current status and other basic information about the services. 3.6.9 SMTP The SMTP page allows you to configure SMTP mail server. ASUS ASMB9-iKVM 3-15...

Page 46: Ssl Settings

3.6.10 SSL Settings The Secure Socket Layer protocol was created by Netscape to ensure secure transactions between web servers and browsers. The protocol uses a third party, a Certificate Authority (CA), to identify one end or both end of the transactions. View SSL Certificate This page displays the basic information about the uploaded SSL certificate.

Page 47: System Firewall

This page allows you to create and manage existing firewall settings based on ports. 3.6.12 User Management The User Management page allows you to view the current list of user slots for the server. You can add a new user and modify or delete the existing users. ASUS ASMB9-iKVM 3-17...

Page 48: Video Recording

3.6.13 Video Recording This page allows you to customize the video recording settings. Auto Video Settings This page allows you to configure the events that will trigger the auto video recording function of the KVM server and display the list of available recorded video files on the BMC. Sol Settings The Java SOL page allows you to launch the Java SOL application.

Page 49: Remote Control

CD/DVD, Floppy diskette and Hard disk/USB thumb drives as if they were connected directly to the server. Click Start KVM to start the redirection session. When launching the KVM, pop-up block should be disabled. For Internet explorer, enable the download file options from the settings. ASUS ASMB9-iKVM 3-19...

Page 50 Remote KVM interface Video Pause Video: This option is used for pausing Console Redirection. Resume Video: This option is used to resume the Console Redirection when the session is paused. Refresh Video: This option can be used to update the display shown in the Console Redirection window.

Page 51: Hot Keys

This menu will display the help menu. Browse File Click this button to add or modify a CD media, then click Start Media to start or stop the redirection of a physical DVD/CD-ROM drive and CD image types such as iso. ASUS ASMB9-iKVM 3-21...

Page 52: Image Redirection

Image Redirection This menu allows you to emulate CD/DVD/Floppy/HDD Images as media drives to host. Local Media This page allows you to select a local media to emulate to host as media through BMC. Remote Media This page allows you to select a remote media to emulate to host as media through BMC. Power Control The Power Control displays the current server power status and allows you to change the current settings.

Page 53: Maintenance

Preserve Configuration This page allows you to select specific configuration items to be preserved in while performing the Restore Configuration. Restore Configuration This page allows you to select and upload a .bak file to restore the configuration settings. ASUS ASMB9-iKVM 3-23...

Page 54 Restore Factory Defaults This page allows you to select configuration items that will be preserved while all the other configuration items will be restored to their default values. If none are selected, all the configuration items will be restored to their default values, essentially restoring the device configuration to its factory defaults.

Page 55: Appendix

Appendix Appendix The Appendix shows the location of the LAN ports for server management and BMC connector on server motherboards. This section also presents common problems that you may encounter when installing or using the server management board.

Page 56: Lan Ports For Server Management

LAN ports for server management The ASUS server motherboards that support ASMB9-iKVM comes with three (3) LAN (RJ-45) ports: one for network connection and the other two for server management. For easy identification, the LAN ports for server management are Shared LAN and DM_LAN1 ports.

Page 57: Troubleshooting

Troubleshooting This troubleshooting guide provides answers to some common problems that you may encounter while installing and/or using ASUS ASMB9-iKVM. These problems require simple troubleshooting that you can perform by yourself. Contact the Technical Support if you encounter problems not mentioned in this section.

Page 58: Sensor Table

Sensor Table Memory ECC Sensor Sensor Type Sensor Name Sensor Type Sensor Value or Event Type Event Data 3 code CPU1_ECC1 Memory ECC Sensor Discrete (6Fh) 0x00h: DIMM_A1, 0x01h: DIMM_A2 0x01: Correctable ECC 0x02h: DIMM_A3, 0x03h: DIMM_A4, 0x02: Uncorrectable ECC 0x04h: DIMM_B1, 0x05h: DIMM_B2, 0x40: Presence detected 0x06h: DIMM_B3, 0x07h: DIMM_B4...

Page 59 0x01: Drive Presence 0x02: Drive Fault 0x80: Rebuild 0x7E Backplane2 HD7 Drive Slot 0x0D Discrete(0x6F) 0x01: Drive Presence 0x02: Drive Fault 0x80: Rebuild 0x7F Backplane2 HD8 Drive Slot 0x0D Discrete(0x6F) 0x01: Drive Presence 0x02: Drive Fault 0x80: Rebuild ASUS ASMB9-iKVM...

Page 60: Power Supply

Power Supply Sensor No. Sensor Name Sensor Type Sensor Type Code Sensor Value or Event Type 0x81 PSU1 Temp Temperature 0x01 Threshold(0x01) Upper Non-Critical - going high Upper Critical - going high 0x82 PSU1 Fan1 0x04 Threshold(0x01) Lower Non-critical - going low Lower Critical - going low 0x83 PSU1 Fan2...

Page 61: Hardware Monitor

Upper Non-critical - going high Upper Critical - going high +VCORE2 02h Voltage Threshold (01h) Lower Non-critical - going low Lower Critical - going low Upper Non-critical - going high Upper Critical - going high (continued on the next page) ASUS ASMB9-iKVM...

Page 62 Sensor Name Sensor Type Sensor Type Code Sensor Value or Event Type +3.3V Voltage Threshold (01h) Lower Non-critical - going low Lower Critical - going low Upper Non-critical - going high Upper Critical - going high Voltage Threshold (01h) Lower Non-critical - going low Lower Critical - going low Upper Non-critical - going high Upper Critical - going high...

Page 63 Upper Critical - going high +VDDIO_EFGH_CPU1 Voltage Threshold (01h) (For AMD platform only) Lower Non-critical - going low Lower Critical - going low Upper Non-critical - going high Upper Critical - going high (continued on the next page) ASUS ASMB9-iKVM...

Page 64 Sensor Name Sensor Type Sensor Type Code Sensor Value or Event Type +VDDIO_IJKL_CPU2 Voltage Threshold (01h) (For AMD platform only) Lower Non-critical - going

low Lower Critical - going low Upper Non-critical - going high Upper Critical - going high +VDDIO_MNOP_CPU2 Voltage Threshold (01h)

Page 65 Lower Critical - going low SYS_FAN4 Threshold (01h) Lower Non-critical - going low Lower Critical - going low CPU CATERR Sensor No. Sensor Name Sensor Type Sensor Type Code Sensor Value or Event Type 0xDA CPU_CATERR Processor Discrete (6Fh) 0x01: IERR ASUS ASMB9-iKVM A-11...

Page 66: Simplified Eu Declaration Of Conformity

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 zařízení...

Page 67: Asus Contact Information

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Page 69 Web site http://www.asus.com Technical Support Telephone +31-(0)591-5-70292 +31-(0)591-666853 E-mail advance.rma.eu@asus.com Online Support http://support.asus.com/techserv/techserv.aspx ASUS Polska Sp. z o.o. (Poland) Address Ul. Postępu 6, 02-676 Warszawa, Poland Web site http://pl.asus.com Technical Support Telephone +48-225718033 Online Support http://support.asus.com/techserv/techserv.aspx ASK-Service (Russia and CIS) Address г.Москва, ул.

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