ASMB3-SOL REV:1.02G
PCB MADE IN CHINA
U3
U2
U5
U6
C21
C6
C7
C8
C12
Q4
Q1
Q3
Q205
C13
X1
TP7
TP2
TP4
TP5
TP6
L1
TP8
Q7
LED1
RN3
RN4
eCERA
7.372
FF804
IDT
71V016
SA15PHG
H0749J
U1175454072
HPE
09V0
94V-0
E186619

Asus ASMB3-SOL User Manual

Server management board

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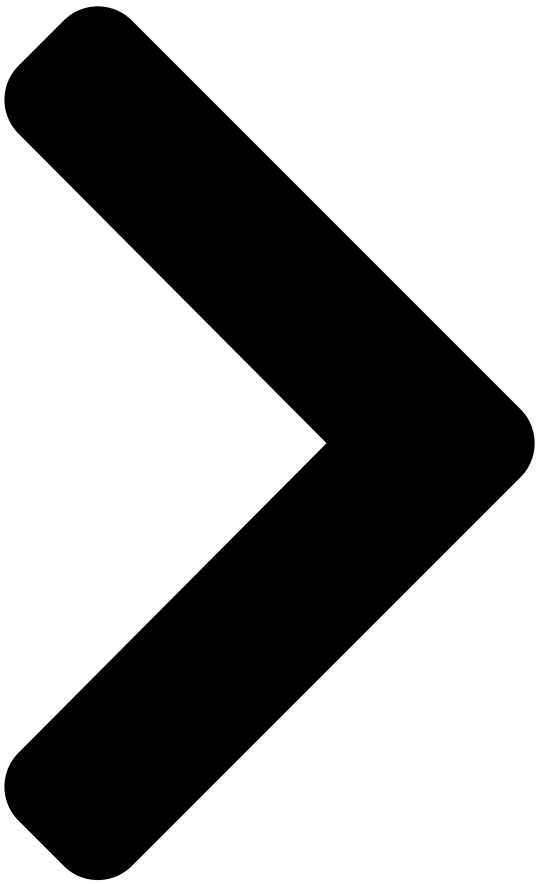

ASMB3-SOL

Server Management Board

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Related Manuals for Asus ASMB3-SOL

Server Board Asus ASMB3-SOL User Manual

Server management board (70 pages)

Server Board Asus ASMB2 User Manual

Asus asmb2 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 ASMB9-iKVM User Manual

Server management board (70 pages)

Server Board Asus AAEON ARES-WHI0 User Manual

(76 pages)

Summary of Contents for Asus ASMB3-SOL

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ASMB3-SOL Server Management Board...

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
AMI BIOS setup ..... 2-8 Running the ASMC utility .....2-12 2.5.1 Configuring the LAN controller .....2-13 2.5.2 Using ASWM to update the ASMB3-SOL firmware ..2-15 Software installation .....2-16 2.6.1 Installing the ARC .....2-16 2.6.2 Launching ARC ..... 2-17...

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Updating the remote server BIOS file .....3-16 3.1.10 Controlling the remote server power .....3-17 3.1.11 Viewing PET information .....3-18 ASUS Host Management Controller Setup .....3-21 3.2.1 Installing and launching the ASUS Host Management Controller Setup utility .....3-21 3.2.2 Command fields .....

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: 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.

Page 7: About 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 8 Conventions used in this guide To make sure 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 9: Asmb3-Sol Specifications Summary

Remote BIOS update Short Message Service (SMS) Remote Console Redirection (text mode) Serial-Over-LAN (SOL) Remote reboot Upgradeable firmware Platform Event Trap (PET) Software support ASUS Remote Console (ARC) ASUS Host Management Controller Utility (DOS-based) Specifications are subject to change without notice.

Page 11: Chapter 1: Product Introduction

This chapter describes the server management board features and the new technologies it supports. Product introduction...

Page 12: Welcome

ARC is also capable of sending Short Message Service (SMS) or text message to your mobile or PDA phone. The ASMB3-SOL comes with a power management feature that allows you to power on/off or reset the remote server giving you full control during power-critical situations.

Page 13: Board Layout

Server management chip heartbeat Board connectors LED indicators The ASMB3-SOL board comes with a BMC heartbeat LED. Refer to the table below for the LED indications. Name Status Description LED1 BMC Heartbeat...

Page 14: Network And Smart Phone Setup

Network and smart phone setup The ASMB3-SOL 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...

Page 15: Chapter 2: Installation

This chapter provides instructions on how to install the board to the server system and install the utilities that the board supports. Installation ASUS ASMB3-SOL...

Page 16: 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.

Page 17 For direct LAN configuration, connect the other end of the LAN cable to the local/central server LAN port. For connection to a network hub or router, connect the other end of the LAN cable to the network hub or router. ASUS ASMB3-SOL...

Page 18 To uninstall the board: Simultaneously push the BMC socket retaining clips outward until the board tilts up. Carefully pull the board out from the BMC socket, then set aside. Chapter 2: Installation...

Page 19: Firmware Update

Firmware update You need to update the Broadcom IPMI and ASMB3-SOL firmware before you ® start using the ASMB3-SOL board. 2.3.1 For motherboards with Broadcom 5721 LAN ® To update the firmware: Insert the support CD into the optical drive.

Page 20 Firmware Version.....: 5721-v3.49a MAC Address..... : 00-E0-18-04-21-00 NVRAM Size in KBytes.....: 128/0x/80 TPM Size in KBytes.....: 0/0x0 The screen then goes back to the

main menu. Type <d> (ASMB3-SOL Firmware Update). MB: KFN4-DRE FreeDOS command prompt Broadcom ASF Firmware Update...

Page 21 Please turn off the stand by power !! Press any key to continue . . ._ 10. When the update is complete, turn off the system and unplug the AC power cord for 5 seconds before restarting the system. ASUS ASMB3-SOL...

Page 22: Bios Configuration

You need to adjust the settings in the BIOS setup of the remote server for correct configuration and connection to the cental 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. 2.4.1...

Page 23 BMC. Timeout Value Clear System Even Log [Disabled] BMC Time Sync. [Enabled] System Event Log LAN Setting Select Screen Select Item Change Option General Help F10 Save and Exit ESC Exit v02.58 (C)Copyright 1985-2004, American Megatrends, Inc. ASUS ASMB3-SOL...

Page 24 Boot Option Uses [System] Set this item to [System] if you want the BIOS to control the boot option. Set to [BMC] if you want the BMC to control the boot option. OS Boot Timeout [Disabled] A system reset occurs after the specified timeout if the operating system boot fails (does not connect to the Server Manager).

Page 25 Gateway Address Allows you to provide information to set the gateway address. We recommend that you use the same gateway address you have specified on the operating system network for the used network card. ASUS ASMB3-SOL 2-11...

Page 26: Running The Asmc Utility

Running the ASMC utility The ASUS Server Management Card Utility allows you to know the MAC address of the server motherboard and to set the IP address. This utility is available from the support CD that came with the package.

Page 27: Configuring The Lan Controller

MAC addresses 2.5.1 Configuring the LAN controller Before you can establish connection to the ASMB3-SOL board, you must configure the LAN port for server management used by the remote server to connect to the local/central server. To configure the LAN port of the remote server: On the prompt, type asmc -init_asmb, then press <Enter>.

Page 28 Configure the ASMB3-SOL baud rate (asmc -sol_baud 57600). Make sure that the ASMB3-SOL baud rate is the same as the Remote Access baud rate that you previously set in the BIOS. See section “2.4 BIOS remote console” for details.

Page 29: Using Aswm To Update The Asmb3-Sol Firmware

2.5.2 Using ASWM to update the ASMB3-SOL firmware You can use the ASUS System Web-based Management (ASWM) application to update the ASMB3-SOL firmware. To do this: Download the latest ASMB3-SOL firmware from the ASUS website (www. asus.com), then save the firmware file.

Page 30: Software Installation

Software installation You can monitor, control, or manage the remote server from the local/central server using the ASUS Remote Console (ARC). The ARC is a web-based application available from the support CD that came with the ASMB3-SOL package. You must install the ARC on the local/central server to access the remote server.

Page 31: Launching Arc

Follow the installation wizard instructions to install the utility. 2.6.2 Launching ARC To launch the ARC utility, click Start > All Programs > ASUS Remote Console > ASUS Remote Console from the Windows desktop. ® Double-click the ASUS Remote Console icon on the Windows desktop.

Page 32 2-18 Chapter 2: Installation...

Page 33: Chapter 3: Software Support

This chapter tells you how to use the software applications that the server management board supports. Software support...

Page 34: Asus Remote Console (Arc)

ASUS Remote Console (ARC) The ASUS Remote Console (ARC) is a web-based utility that allows you to monitor the remote host's hardware information including temperatures, fan rotations, voltages, and power. This application also lets you instantly power on/off or reset the remote server.

Page 35: Arc Sections

Click before the server connection to display available remote server information including the Sensor Data Record (SDR), Field Replaceable Unit (FRU), System Event Log (SEL), and Remote Console. ASUS ASMB3-SOL...

Page 36 Some remote server information (such as the SDR) contains several sensor groups such as Temperature, Voltage, and Fan. Click before the remote server information to display the sensor groups. Click before a sensor group to display individual sensors. For example, clicking before the sensor group Temperature displays the CPU1 and system temperatures.

Page 37: Detail/Sel Window

ASF specification. Status bar The Status bar located at the bottom of the ARC window displays the connection status to the remote server, connection duration, IP address of the remote server, and the progress of SDR/SEL/FRU information download. ASUS ASMB3-SOL...

Page 38: Connecting To The Remote Server

3.1.2 Connecting to the remote server To connect to the remote server: From the menu bar, click Server, then select New. An Add new server connection window appears. Type the remote server name and IP address on the fields. Click Save Default to set the remote server connection as the default.

Page 39 (admin) and password (admin). Set the connection request level authentication and privilege, then click OK. The default connection request level authentication is HMAC-SHA1 with Administrator privileges. You may change these configuration according to your network settings or preference. ASUS ASMB3-SOL...

Page 40: Retrieving Sensor Information

3.1.3 Retrieving sensor information The Sensor Data Record (SDR) provides remote server system information through available sensors including CPU/system/power temperatures, voltages, fan speeds, chassis intrusion, etc. The SDR also provides information on the sensor location (e.g. CPU1, CPU2, FAN1), event generation, and access information.

Page 41 The tab also displays the sensor record ID and SDR version. Click the Settings tab to adjust the sensor threshold values. Click on the up/down arrow button after each threshold value to adjust. Click OK to close the window. ASUS ASMB3-SOL...

Page 42: Displaying Fru Information

3.1.4 Displaying FRU information The Field Replaceable Unit (FRU) information provides the manufacturer, product name, and/or serial number of various modules and components installed on the remote server. For example, the FRU feature can display the remote server motherboard name, model, and serial number. You can use this feature when retrieving information on a module or component installed on the remote server.

Page 43: Displaying System Event Logs

Detail/SEL window displays the system events in chronological order. Double-click an event to display an Event Information window. This window displays the sensor type and record ID, event message, current and threshold values, and other system event information. Click OK to close the window. ASUS ASMB3-SOL 3-11...

Page 44: Using Remote Console

3.1.6 Using Remote Console The Remote Console feature lets you see the remote server screen (text only) and is useful when you update the remote server BIOS file or adjust the BIOS settings. Refer to section “3.1.9 Updating the remote server BIOS file” for details on remote BIOS update.

Page 45: Displaying All Remote Server Sensors

Click All Sensors value. All remote server sensors are displayed on the Information window in graphical format. The color bar represents the upper/lower threshold values of each sensor. The green pointer indicates the current value of the sensor. ASUS ASMB3-SOL 3-13...

Page 46: Adjusting The Monitoring Settings

3.1.8 Adjusting the monitoring settings The ARC application allows you to adjust the remote server monitoring settings including SEL polling, SDR reading, ASF, and PET. To adjust the monitoring settings: Click Server on the menu bar, then select General Setting from the drop-down menu.

Page 47 Enabling the Short Message Service (SMS) feature The Short Message Service or SMS feature allows you to receive Platform Event Trap (PET) information on your smart phone (ASUS P505). You must install Microsoft ActiveSync before you enable the SMS feature.

Page 48: Updating The Remote Server Bios File

3.1.9 Updating the remote server BIOS file The ASMB3-SOL features a remote BIOS file update capability that allows you to update the BIOS file of the remote server when the file gets outdated or corrupted. Make sure to download and save the latest BIOS file for the remote server motherboard.

Page 49: Controlling The Remote Server Power

Click Yes when the Confirm power down window appears. The remote server is turned off. Click OK to close the window. Use the same instructions as reference when powering up or resetting the remote server. ASUS ASMB3-SOL 3-17...

Page 50: Viewing Pet Information

3.1.11 Viewing PET information The Platform Event Trap or PET is an SNMP trap used for system management alerts. When the ARC receives a PET, it displays a pop-up window notifying you of the alert and its source (IP address). Right-click the window to close. You need to install an SNMP service to the remote server to receive PET information.

Page 51 Double-click Management and Monitoring Tools. Select Simple Network Management Protocol (SNMP). Click OK. ASUS ASMB3-SOL 3-1...

Page 52 On the Services tab, click the Add button to display a Service Settings window. Type a name on the Description of service field (i.e. ASUS ARC). Type the IP address of the local/central server, then set the External and Internal Port number to 162.

Page 53: Asus Host Management Controller Setup

ASUS Host Management Controller Setup The ASUS Host Management Controller Setup utility provides precise configuration and basic functions including System Event Log (SEL) generation and System Data Record (SDR) reading in DOS mode. This utility also supplies configuration sequences for the type of host interface as well as direct real-time monitoring of system information including CPU temperature(s), fan speeds and system voltages.

Page 54: Command Fields

3.2.2 Command fields The utility menu bar has five commands: Initial, View, Set, Monitor and Help. You can select a command using the left or right arrow button on the keyboard. After selecting a command, use the down arrow key to display available options. Select a command, then press <Enter>...

Page 55 Use the down arrow key to display the next sensor data record. Press <Esc> to return to the main screen. ASUS ASMB3-SOL 3-23...

Page 56 To view the BMC information: Select BMC Info from the View command option, then press <Enter>. A list of BMC information appears on the left pane. Use the down arrow button to select a BMC information. The BMC information is displayed in the right pane. Press <Esc>...

Page 57: Set

When finished, press <Esc> to return to the main screen. To set the BMC Timer: Select BMC Timer from the Set command option, then press <Enter>. Set the BMC IPMI timer to the current system time. When finished, press <Esc> to return to the main screen. ASUS ASMB3-SOL 3-25...

Page 58: Monitor

3.2.6 Monitor The Monitor command displays real-time data on the remote server system and CPU temperatures, voltages, and fan speeds. To display a remote server information: Select a sensor from the Monitor command options, then press <Enter>. A list of server information appears on the left pane. Use the down arrow button to select a monitor information.

Page 59 The Appendix shows the location of the LAN port for server management and BMC socket on several motherboards. This section also presents common problems that you may encounter when installing or using the server Reference management board. information...

Page 60: Appendix: Reference Information

LAN port for server management The ASUS server motherboards that support the ASMB3-SOL comes with two LAN (RJ-45) ports: one for network connection and the other for server management. For easy identification, the LAN port for server management is the LAN port near the VGA port.

Page 61: Bmc Socket

BMC socket The ASUS server motherboards that support the ASMB-LE comes with a Baseboard Management Controller (BMC) socket. Refer to the illustrations below to locate the BMC socket on different server motherboards. KFN4-DRE motherboard REAR_FAN4 USB34 ATXPWR1 PS/2KBMS PRI_IDE1 PSUSMB1...

Page 62: Troubleshooting

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