



SuperBlade[®]

SBI-6119R-C3N

SBI-6119R-T3N



SBI-6119R-C3N



SBI-6119R-T3N

USER'S MANUAL

Revision 1.0c

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Preface

About this Manual

This manual is written for professional system integrators and PC technicians. It provides information for the installation and use of the blade module. Installation and maintenance should be performed by experienced technicians only.

Please refer to the SBI-6119R-C3N/T3N server specifications page on our website for updates on supported memory, processors and operating systems (<http://www.supermicro.com>).

Notes

For your system to work properly, please follow the links below to download all necessary drivers/utilities and the user's manual for your server.

- Supermicro product manuals: <http://www.supermicro.com/support/manuals/>
- Product drivers and utilities: <https://www.supermicro.com/wftp/driver>
- Product safety info: http://www.supermicro.com/about/policies/safety_information.cfm

If you have any questions, please contact our support team at:
support@supermicro.com

This manual may be periodically updated without notice. Please check the Supermicro website for possible updates to the manual revision level.

Secure Data Deletion

A secure data deletion tool designed to fully erase all data from storage devices can be found on our website: https://www.supermicro.com/about/policies/disclaimer.cfm?url=/wftp/utility/Log9_Secure_Data_Deletion_Utility/

Warnings

Special attention should be given to the following symbols used in this manual.



Warning! Indicates important information given to prevent equipment/property damage or personal injury.



Warning! Indicates high voltage may be encountered when performing a procedure.

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Appendix B Standardized Warning Statements for AC Systems

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Chapter 1

Introduction

1.1 Overview

This user's manual covers the SBI-6119R-C3N/T3N SuperBlade module. These blade modules are compact self-contained servers that connect into a pre-cabled enclosure that provides power, cooling, management and networking functions. One SBE-610J(B)-822/622/422 enclosure (with up to eight 2200W power supplies) can hold up to ten SBI-6119R-C3N/T3N SuperBlade units.

In this manual, "blade system" refers to the entire system (including the enclosure and blades units), "blade" or "blade unit" refers to a single blade module, "Node" refers to a single node in each blade module and "blade enclosure" is the chassis that the blades, power supplies and modules are housed within.

Please refer to our website for information on operating systems that have been certified for use with the SuperBlade (www.supermicro.com/products/superblade/).

Note: For your system to work properly, please follow the links below to download all necessary drivers/utilities and the user's manual for your server.

Supermicro product manuals: <http://www.supermicro.com/support/manuals/>

Product drivers and utilities: <https://www.supermicro.com/wftp/driver>

Product safety information: http://www.supermicro.com/about/policies/safety_information.cfm

If you have any questions, please contact our support team at:

support@supermicro.com

A complete list of safety warnings is provided on the Supermicro website at http://www.supermicro.com/about/policies/safety_information.cfm.

1.2 Product Checklist of Typical Components

Your blade module ships with its B11SRE-CPU mainboard already installed in its chassis. Memory, hard disk drives and the CPU must all be installed by the user after shipment. See Chapter 2: "Setup and Installation" for details on installation of these components.

Typical support modules for systems with the SBI-6119R-C3N/T3N SuperBlade module when mounted in an 6U enclosure system include the following:

- MBM-CMM-001 or MBM-CMM-FIO CMM module (up to two)
- MBM-XEM-002 10G switch modules (up to two)

1.3 Blade Module Features

The table below lists the main features of the SBI-6119R-C3N/T3N SuperBlade module. See the proceeding section for components typically included in a blade system and other optional components. Specific details for the SBI-6119R-C3N/T3N blade module are found in Chapter 3: "Blade Module Features".

SBI-6119R-C3N/T3N SuperBlade Modules Specification Features	
Specification	Description
Mainboard	B11SRE-CPU (proprietary form factor)
Processors	Single Intel™ Xeon® W 2100 series Socket R4 LGA 2066 processor for each node. Please refer to our website for a complete listing of supported processors.
UPI Speed	UPI up to 10.4 GT/s
Chipset	One Intel C422 chip set
Graphics Controller	Integrated Aspeed AST2500 VGA graphics chip for each node
BIOS	32 Mb SPI Flash EEPROM with AMI® BIOS for each node
Memory Capacity	Supports up to 512 GB RDIMM/LRDIMM DDR4 2666 MHz speed and 8 GB, 16 GB, 32 GB, 64 GB and 128 GB size SDRAM memory in eight 288-pin DIMM sockets. See https://www.supermicro.com/support/resources/memory/X11_memory_config_guide.pdf for details.
Hard Drive Bays	SBI-6119R-C3N: two NVMe and one SAS3/SATA3 drive or three SAS3/SATA3 SBI-6119R-T3N: three NVMe/SATA3
Add-on Cards	The SBI-6119R-C3N/T3N blade modules can use optional add-on cards for a TPM security module, Intel VROC RAID card or a Hardware RSTe key upgrade module.
System Weight	10.5 lbs (4.76 kg)
System Dimensions	(HxWxD): 9.75 x 1.75 x 23.5" (247 x 44.45 x 596.9-mm)

Processors

The SBI-6119R-C3N/T3N SuperBlade module supports a single Intel Xeon W-2100 series, Socket R4 LGA 2066 series processor.

Refer to the Supermicro website for a complete listing of supported processors (<http://www.supermicro.com/products/superblade>). Please note that you will need to check the detailed specifications of a particular blade module for a list of the CPUs it supports.

Details on installation of the processor into the SBI-6119R-C3N/T3N SuperBlade module are found in Chapter 2: "Setup and Installation".

Memory

The SBI-6119R-C3N/T3N SuperBlade module has eight 288-pin DIMM sockets that can support up to 512 GB RDIMM/LRDIMM DDR4 2666 MHz speed, 8 GB, 16 GB, 32 GB and 64 GB size memory per node. Memory is interleaved, which requires modules of the same size and speed to be installed in groups (of two or three).

Please refer to the Supermicro website for a list of supported memory (www.supermicro.com/products/superblade). The detailed specifications for a blade module will contain a link to a list of recommended memory sizes and manufacturers.

Details on installation of memory modules into the SBI-6119R-C3N/T3N SuperBlade module are found in Chapter 2: "Setup and Installation".

Storage

The SBI-6119R-C3N/T3N SuperBlade module has three HDDs in front-mounted easily removable hot-swap carriers. These can either be configured for two NVMe and one SAS3/SATA3 2.5" drives or three SAS3/SATA3 2.5" drives for the SBI-6119R-C3N. The SBI-6119R-T3N has three 2.5" NVMe/SATA3 drives.

See Chapter 2: "Setup and Installation" for storage installation details.

RAID

Each SBI-6119R-C3N/T3N blade module supports several hard drives, which may create a RAID system for the blade module. The SBI-6119R-C3N/T3N has a Broadcom 3108 SAS RAID chip for RAID 0, 1 and 5.

Further information on the RAID and its software can be found on our website at:

http://www.supermicro.com/manuals/other/LSI_2108_2208_SAS_MegaRAID_Configuration_Utility.pdf

Enclosure Requirements

The SBI-6119R-C3N/T3N blade module requires one of the following enclosures to run in:

- SBE-610J-822
- SBE-610J-622
- SBE-610J-422
- SBE-610JB-422

The SBI-6119R-C3N/T3N blade module also requires a one or more power supplies in the enclosure to run the blade module. Available SuperBlade power supplies can be found on the Supermicro website at <https://www.supermicro.com/products/SuperBlade/powersupply/>.

Density

A maximum of 10 SBI-6119R-C3N/T3N blade modules may be installed into a single blade enclosure. Each blade enclosure is a 6U form factor, so a standard 42U rack may accommodate up to seven enclosures with 70 blade modules, or the equivalent of 70 1U servers. With the inclusion of fourteen CMM modules and twenty-eight 1G/10G Ethernet switches, this would occupy up to 98U space in a conventional 1U server configuration.

tches, this would occupy up to 119U space in a conventional 1U server configuration.

BMC Password

For security, each blade unit is assigned a unique default BMC password for the ADMIN user. It can be found on a sticker on the blade service tab, and a sticker on the motherboard. The sticker also displays the BMC MAC address. For more information, refer to our website at https://www.supermicro.com/en/support/BMC_Unique_Password. The service tab and example sticker are illustrated below.

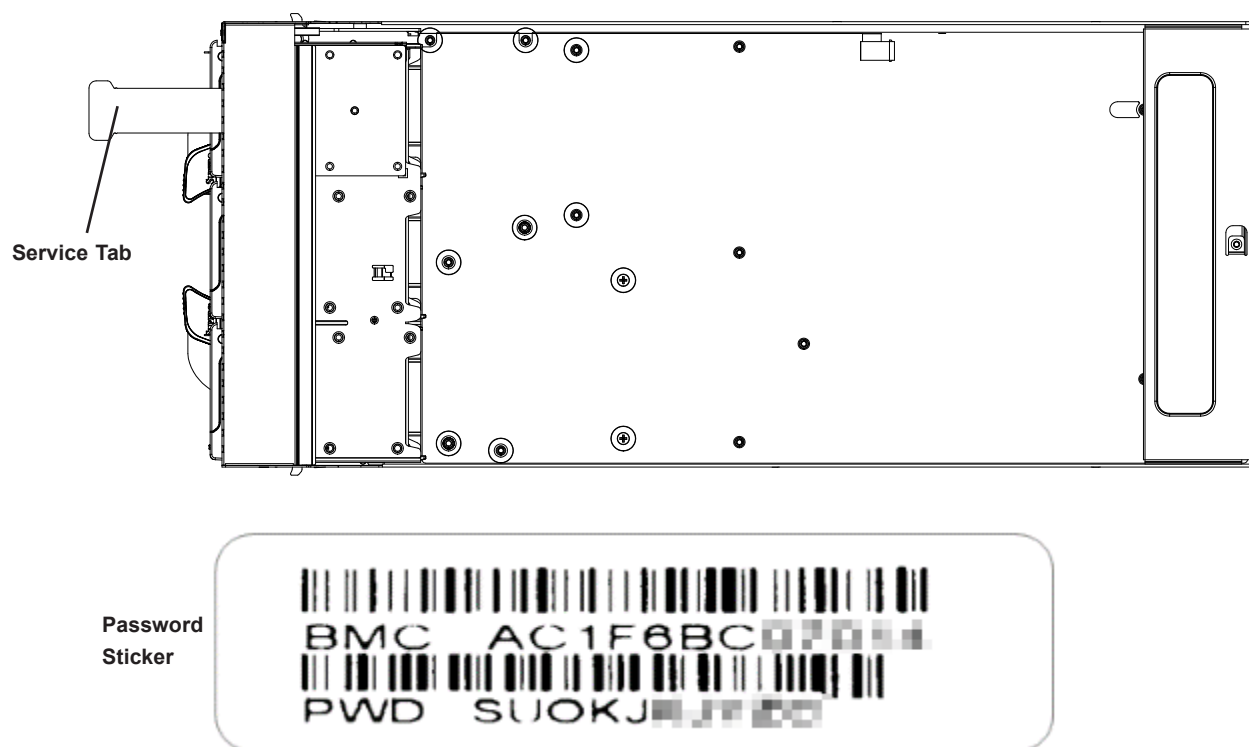


Figure 1-1. BMC Password Location and Example

Chapter 2

Setup and Installation

2.1 Overview

This chapter covers the setup and installation of the blade module and its components. Please refer to Appendix B, Standardized Warning Statements for AC Systems before installing the system or components in this chapter.

2.2 Installing Blade Modules

Up to 10 SBI-6119R-C3N/T3N SuperBlade modules may be installed into a single blade enclosure. Blade modules with Windows and Linux operating systems may be mixed together in the same blade or blade enclosure.

Powering Up a Blade Unit

Each blade unit node may be powered on and off independently from the rest of the blades and nodes installed in the same enclosure. A blade unit may be powered up in two ways:

- Press the power button on the blade unit.
- Use IPMIView, IPMITool or the web-browser based management utility to apply power using the CMM module (this requires Operator or Admin privileges on the CMM).

Powering Down a Blade Unit

A blade unit may be powered down in either of the following ways:

- Press the power button on the blade unit.
- Use IPMIView, IPMITool or the web-browser based management utility to power down (this requires Operator or Admin privileges on the CMM).

Removing a Blade Unit from the Enclosure

Although the blade system may continue to run, individual blades should always be powered down before removing them from the enclosure.

Removing a Blade Unit from the Enclosure

1. Power down the blade unit (see "Powering Down a Blade Unit" above).

2. Squeeze the handle to depress the red section then pull out the blade unit from the enclosure using the handle.

Note: Blade Modules can be Hot-Plugged from the enclosure.

Installing a Blade Unit into the Enclosure

Installing a Blade Unit into the Enclosure

1. Slowly push the blade unit into its bay with the handles fully pulled out (see Figure 2-1).
2. When the blade stops, push the handle back into its locked position, making sure the notches in the handle catches the lip of the enclosure.

Note: Blade modules can be hot-plugged into the enclosure.

Caution: Use extreme caution when inserting a blade module into the enclosure. If the blade's power connector becomes damaged, it can damage pins on other blade bays that it is inserted into.

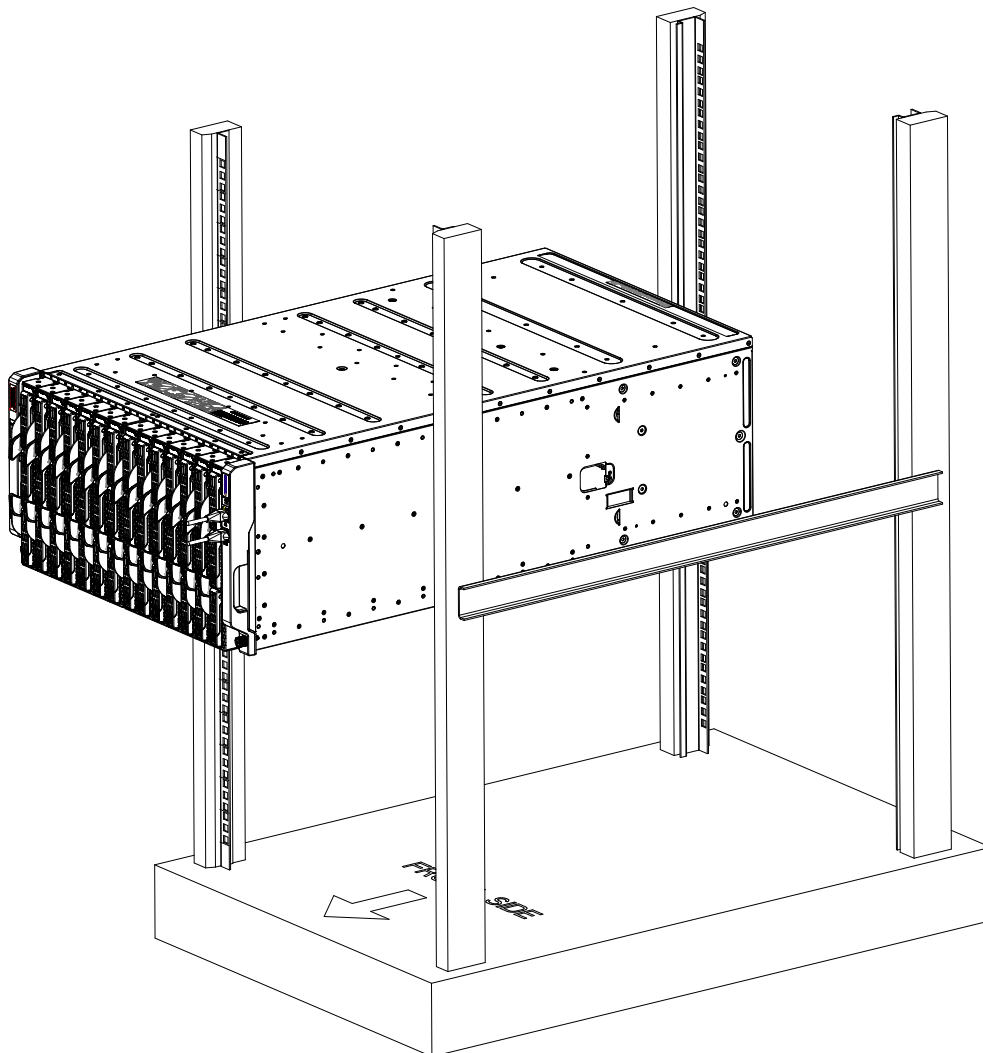


Figure 2-1. Inserting a Blade into the Enclosure

2.3 Processor and Heatsink Installation

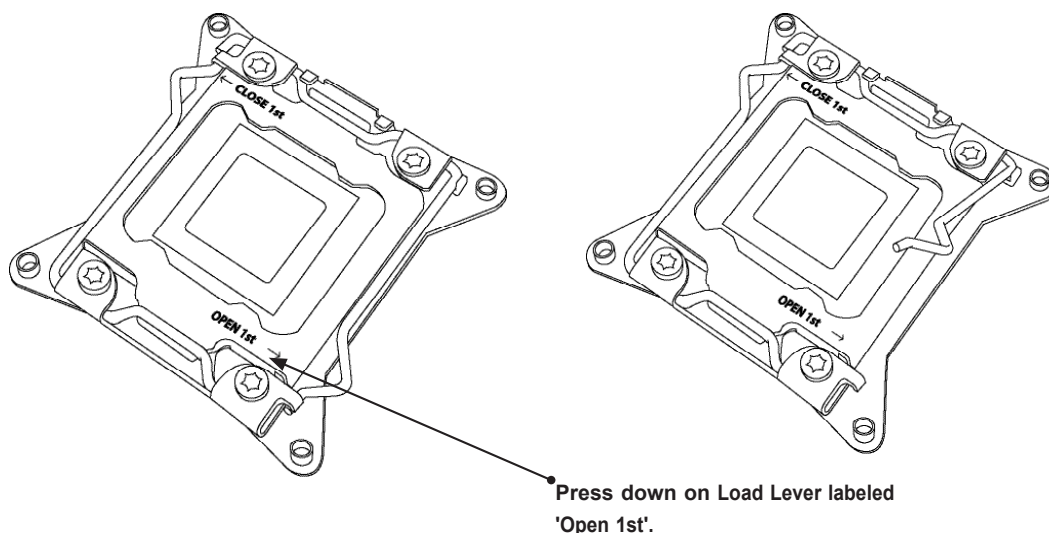
Warning: When handling the processor package, avoid placing direct pressure on the label area. Also, improper CPU installation and socket/pin misalignment may cause serious damage to the CPU or the motherboard that will require RMA repairs. Be sure to read and follow all instructions thoroughly before installing your CPU and heatsink.

Notes:

1. Always connect the power cord last, and always remove it before adding, removing, or changing any hardware components. Please note that the processor and heatsink should be assembled together first to form the Processor Heatsink Module (PHM), and then install the entire PHM into the CPU socket.
2. When you receive a motherboard without a processor pre-installed, make sure that the plastic CPU socket cap is in place and that none of the socket pins are bent; otherwise, contact your retailer immediately.
3. Refer to the Supermicro website for updates on CPU support.
4. Please follow the instructions given in the ESD Warning section on the first page of this chapter before handling, installing, or removing system components.
5. All graphics, drawings, and pictures shown in this manual are for illustration only. The components that came with your machine may or may not look exactly the same as those shown in this manual

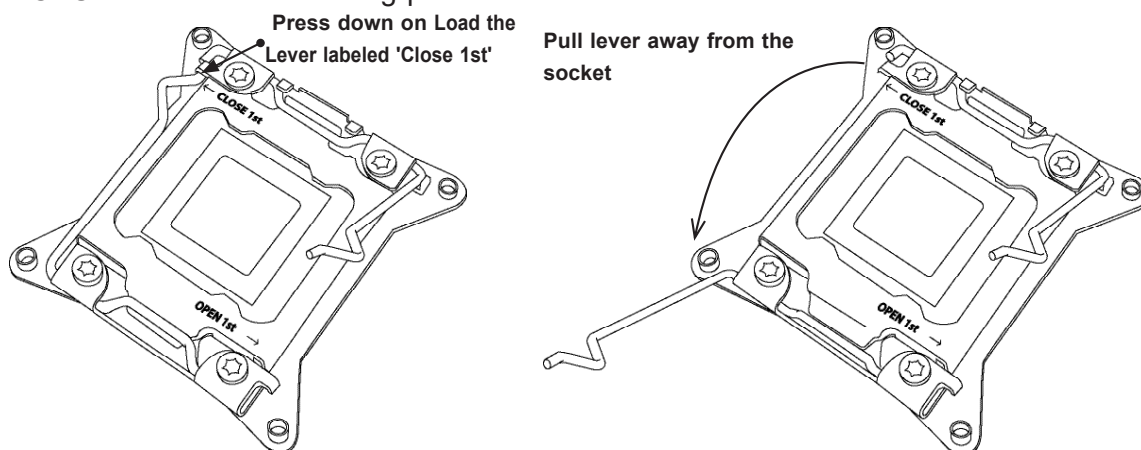
Installing the LGA2066 Processor

1. There are two load levers on the LGA2066 socket. To open the socket cover, first press and release the load lever labeled 'Open 1st'.

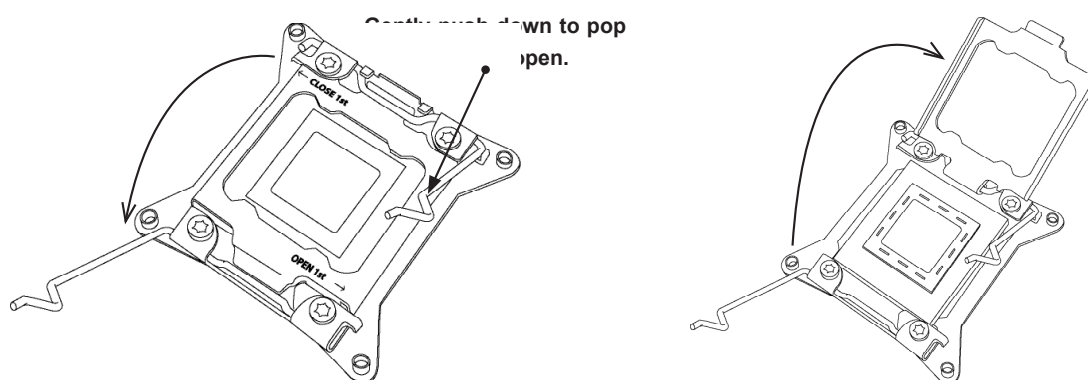


Note: Graphics and drawings shown in this manual are for illustration only. Your components may or may not look the same as the graphics shown in the manual.

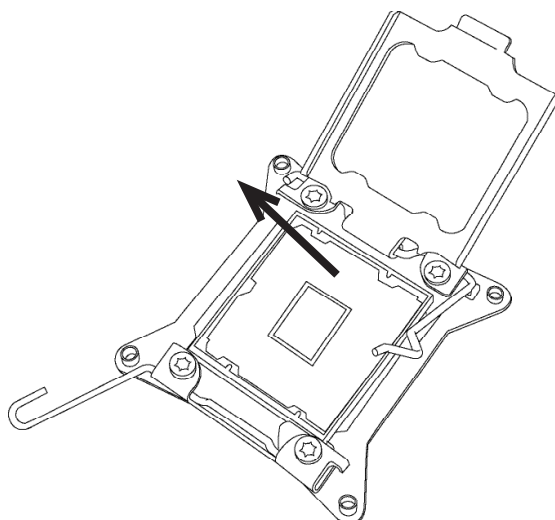
2. Press the second load lever labeled 'Close 1st' to release the load plate that covers the CPU socket from its locking position.



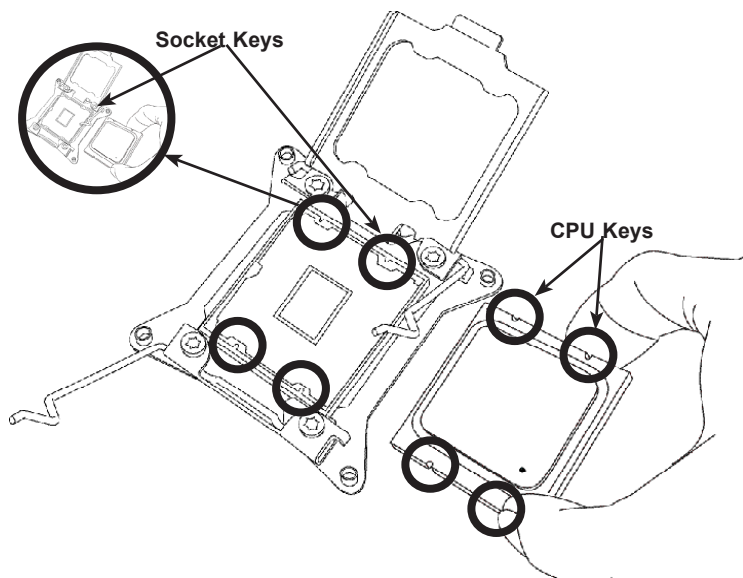
3. With the lever labeled 'Close 1st' fully retracted, gently push down on the 'Open 1st' lever to open the load plate. Lift the load plate to open it completely.



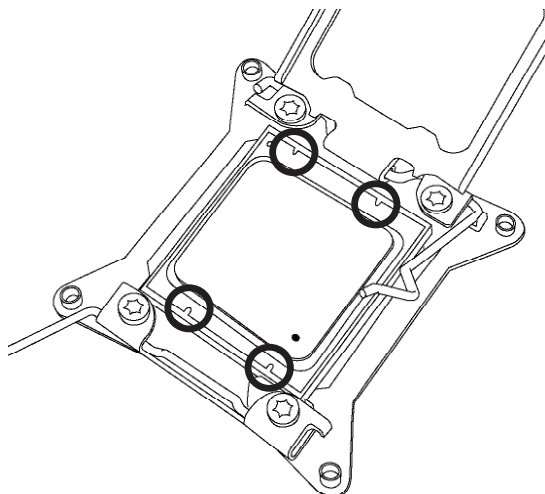
4. Using your thumb and the index finger, remove the 'WARNING' plastic cap from the socket.



5. Use your thumb and index finger to hold the CPU on its edges. Align the CPU keys, which are semi-circle cutouts, against the socket keys.

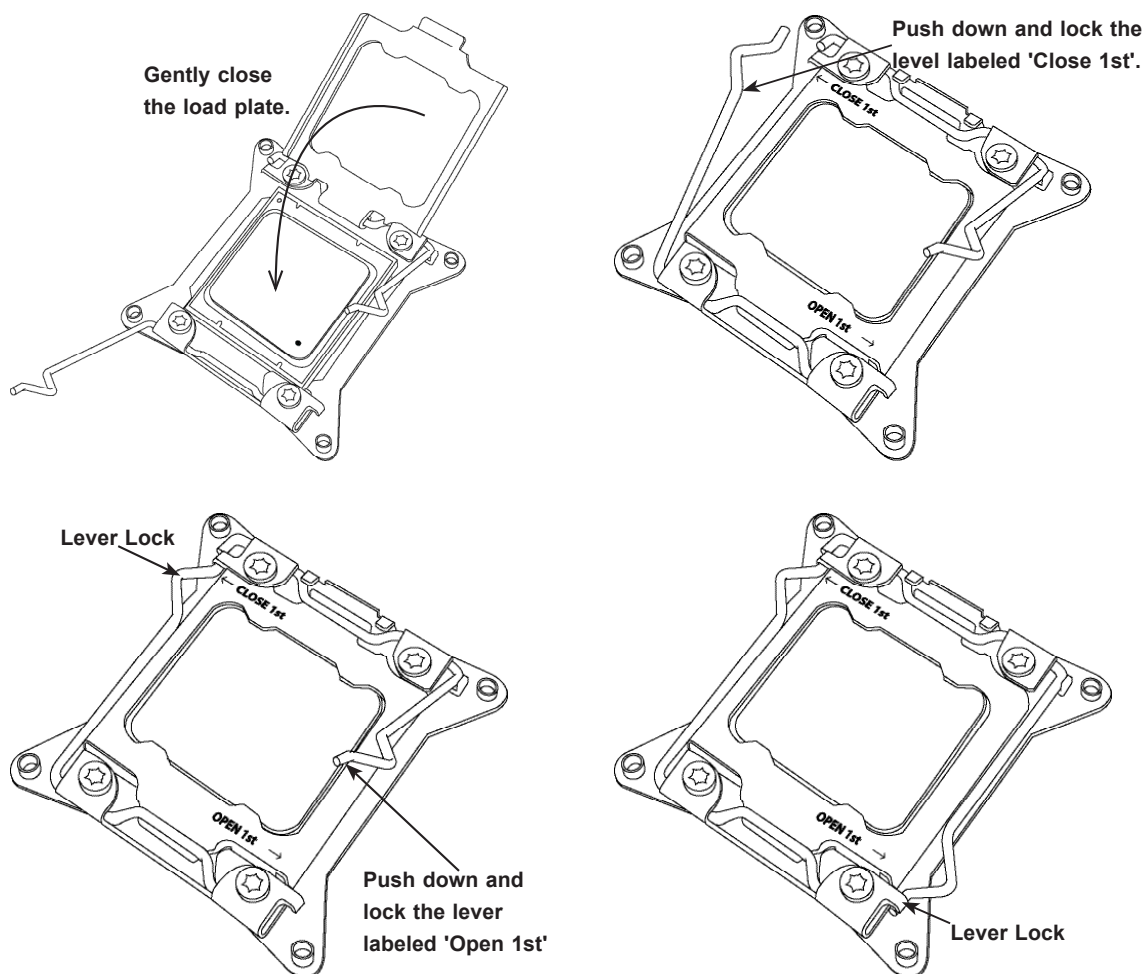


6. Once they are aligned, carefully lower the CPU straight down into the socket. (Do not drop the CPU on the socket. Do not move the CPU horizontally or vertically. Do not rub the CPU against the surface or against any pins of the socket to avoid damaging the CPU or the socket.)



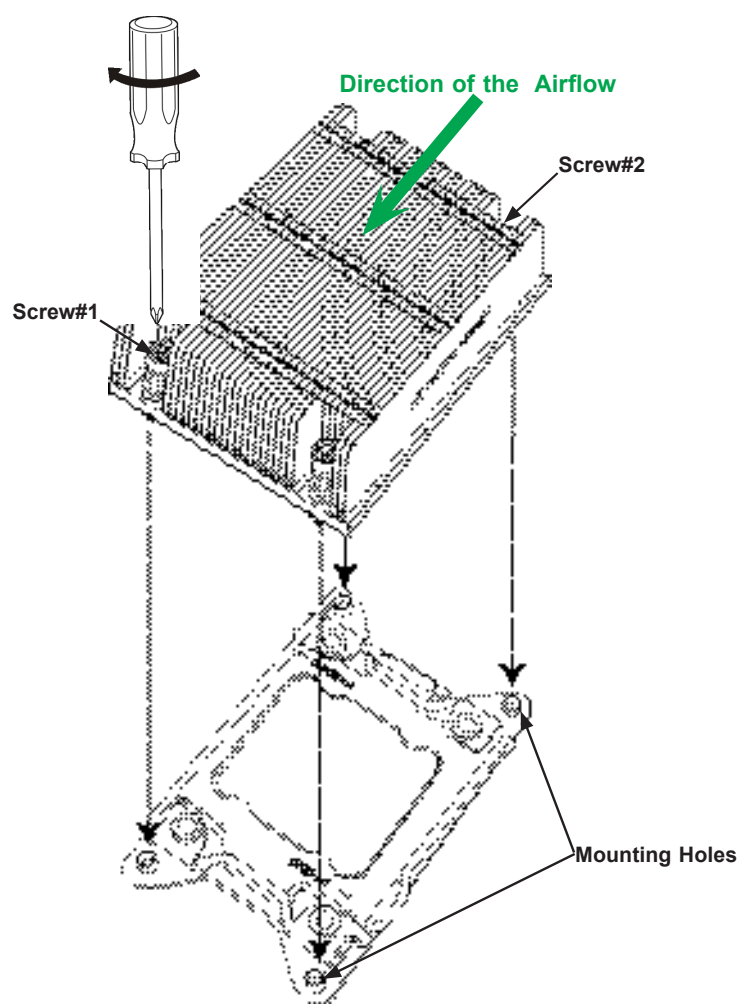
Caution: You can only install the CPU inside the socket in one direction. Make sure that it is properly inserted into the CPU socket before closing the load plate. If it doesn't close properly, do not force it as it may damage your CPU. Instead, open the load plate again and double-check that the CPU is aligned properly.

7. With the CPU inside the socket, inspect the four corners of the CPU to make sure that the CPU is properly installed.
8. Close the load plate with the CPU inside the socket. Lock the lever labeled 'Close 1st' first, then lock the lever labeled 'Open 1st' second. Use your thumb to gently push the load levers down to the lever locks.



Installing a Passive CPU Heatsink

1. Do not apply any thermal grease to the heatsink or the CPU die -- the required amount has already been applied.
2. Place the heatsink on top of the CPU so that the four mounting holes are aligned with those on the motherboard and the heatsink bracket underneath.
3. Screw in two diagonal screws (e.g., the #1 and the #2 screws) until just snug. Do not over-tighten the screws to avoid damaging the CPU and the motherboard.
4. Finish the installation by fully tightening all four screws.

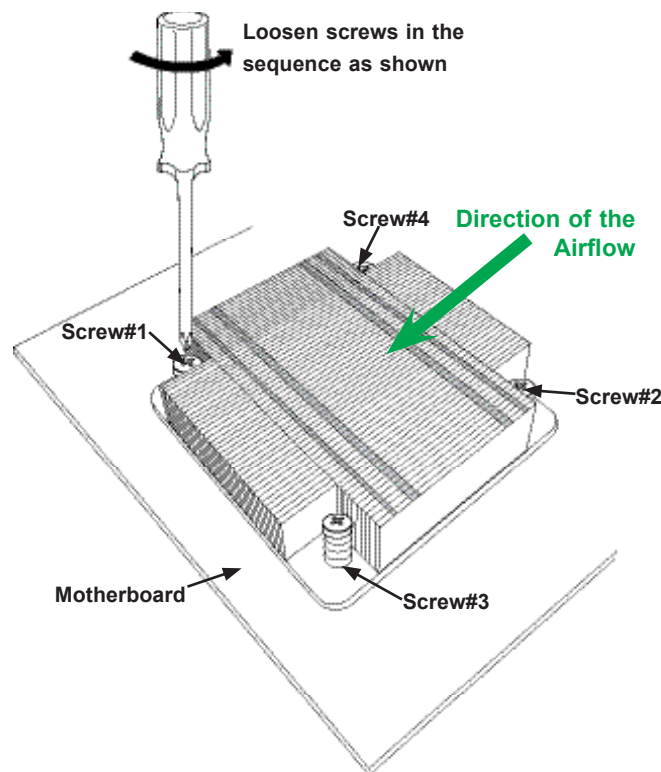


Note: For optimal airflow, please follow your chassis airflow direction to correctly install the CPU heatsink. Graphic drawings included in this manual are for reference only. They might look different from the components installed in your system.

Removing the CPU and the Heatsink

Warning: We do not recommend that the CPU or the heatsink be removed. However, if you do need to uninstall the CPU or the heatsink, please follow the instructions below to uninstall the heatsink or the CPU without damaging the CPU or the motherboard.

1. Unscrew the heatsink screws from the motherboard in the sequence as shown in the illustration below.
2. Gently wriggle the heatsink to loosen it from the CPU socket. Do not use excessive force when loosening the heatsink!
3. Once the heatsink is loosened, remove it from the socket. Once the heatsink is removed, remove the CPU from the socket as needed.
4. Remove the used thermal grease and clean the surface of the CPU and the heatsink. Reapply the proper amount of thermal grease on the surface before reinstalling the CPU and the heatsink as needed.



Note 1: To optimize airflow, please follow your chassis airflow direction to properly install the heatsink.

Note 2: Graphics shown in this manual are for reference only. They may or may not look the same as the components installed in your system.

2.4 Memory Installation

Memory Support

The B11SRE-CPU motherboard supports up to 256GB of RDIMM or 512GB of LRDIMM ECC/ Non-ECC DDR4 memory with speeds of up to 2666MHz in eight memory slots. In addition it supports Non-Volatile DIMMs (NV-DIMM).

DDR4 Memory Support for 81xx/61xx/51xx/41xx/31xx Processors						
Type	Ranks Per DIMM and Data Width	DIMM Capacity (GB)		Speed (MT/s)		
				One Slot per Channel	Two Slots per Channel	
		DRAM Density		One DIMM per Channel	One DIMM per Channel	Two DIMMs per Channel
		4 Gb	8 Gb	1.2 Volts	1.2 Volts	1.2 Volts
RDIMM	SRx4	4 GB	8 GB	2666	2666	2666
	SRx8	8 GB	16 GB			
	DRx8	8 GB	16 GB			
	DRx4	16 GB	32 GB			
RDIMM 3Ds	QRX4	N/A	2H-64GB			
	8RX4	N/A	4H-128GB			
LRDIMM	QRx4	32 GB	64 GB			
LRDIMM 3Ds	QRx4	N/A	2H-64GB			
	8Rx4	N/A	4H-128 GB			

DDR4 Memory Support for 82xx/62xx/52xx/42xx/32xx Processors							
Type	Ranks Per DIMM and Data Width	DIMM Capacity (GB)			Speed (MT/s)		
					One Slot per Channel	Two Slots per Channel	
		DRAM Density			One DIMM per Channel	One DIMM per Channel	Two DIMMs per Channel
		4 Gb*	8 Gb	16 Gb	1.2 Volts	1.2 Volts	1.2 Volts
RDIMM	SRx4	4 GB	8 GB	16 GB	2933**	2933**	2933**
	SRx8	8 GB	16 GB	32 GB			
	DRx8	8 GB	16 GB	32 GB			
	DRx4	16 GB	32 GB	64 GB			
RDIMM 3Ds	QRX4	N/A	2H-64GB	2H-128GB			
	8RX4	N/A	4H-128GB	4H-256GB			
LRDIMM	QRx4	32 GB	64 GB	128 GB			
LRDIMM 3Ds	QRx4	N/A	2H-64GB	2H-64GB			
	8Rx4	N/A	4H-128 GB	4H-256 GB			

*4Gb DRAM density is only supported on speeds up to 2666 MT/s

**Only the 82xx and 62xx series support 2933 MT/s; for other processors, memory speed as supported by the CPU.

Memory Population Guidelines

- All DIMMs must be DDR4.
- Balance memory. Using unbalanced memory topology, such as populating two DIMMs in one channel while populating one DIMM in another channel, reduces performance. It is not recommended for Supermicro systems.
- In dual-CPU configurations, memory must be installed in the slots associated with the installed CPUs.

Guidelines Regarding Mixing DIMMs

- Populating slots with a pair of DIMM modules of the same type and size results in interleaved memory, which improves memory performance.
- Use memory modules of the same type and speed, as mixing is not allowed.
- x4 and x8 DIMMs can be mixed in the same channel.
- Mixing of LRDIMMs and RDIMMs is not allowed in the same channel, across different channels, and across different sockets.
- Mixing of non-3DS and 3DS LRDIMM is not allowed in the same channel, across different channels, and across different sockets.

DIMM Construction

- RDIMM (*non-3DS*) Raw Cards: A/B (2Rx4), C (1Rx4), D (1Rx8), E (2Rx8)
- 3DS RDIMM Raw Cards: A/B (4Rx4)
- LRDIMM (*non-3DS*) Raw Cards: D/E (4Rx4)
- 3DS LRDIMM Raw Cards: A/B (8Rx4)

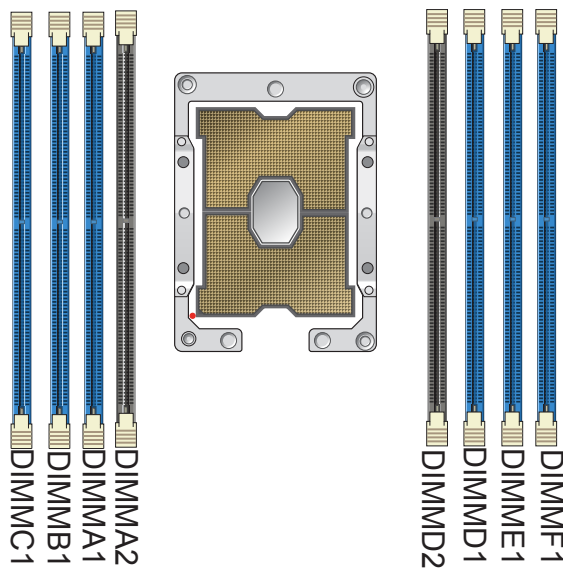
Memory Population Sequence

Blue slots versus black slots: Install the first DIMM in the blue memory slot, which is the first of a memory channel. Then, if using two DIMMs per channel, install the second DIMM in the black slot.

The following memory population sequence table was created based on guidelines provided by Intel to support Supermicro motherboards. The diagram is for illustrative purposes; your motherboard may look different.

Memory Population for X11 UP Motherboard, 8 DIMM Slots	
	Memory Population Sequence
1 DIMM	DIMMA1
2 DIMMs	DIMMA1/DIMMD1
3 DIMMs	DIMMC1/DIMMB1/DIMMA1
4 DIMMs	DIMMB1/DIMMA1/DIMMD1/DIMME1
5 DIMMs*	DIMMC1/ DIMMB1/DIMMA1/DIMMD1/DIMME1
6 DIMM	DIMMC1/DIMMB1/DIMMA1/DIMMD1/DIMME1/DIMMF1
7 DIMMs*	DIMMC1/DIMMB1/DIMMA1/DIMMA2/DIMMD1/DIMME1/DIMMF1
8 DIMMs	DIMMC1/DIMMB1/DIMMA1/DIMMA2/DIMMD2/DIMMD1/DIMME1/DIMMF1

*Unbalanced: not recommended)



Installing Memory

ESD Precautions

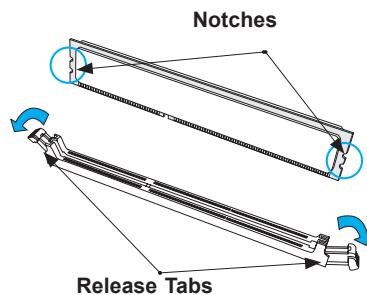
Electrostatic Discharge (ESD) can damage electronic components including memory modules. To avoid damaging DIMM modules, it is important to handle them carefully. The following measures are generally sufficient.

- Use a grounded wrist strap designed to prevent static discharge.
- Handle the memory module by its edges only.
- Put the memory modules into the antistatic bags when not in use.

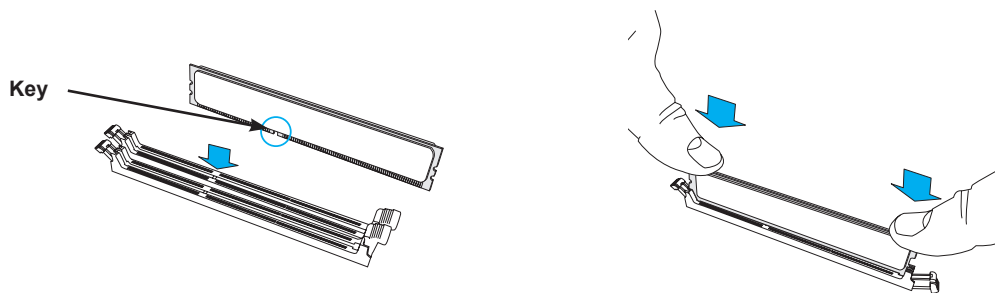
Installing Memory

Begin by removing power from the system as described in Section 2.2. Follow the memory population sequence in the table above.

1. Push the release tabs outwards on both ends of the DIMM slot to unlock it.



2. Align the key of the DIMM with the receptive point on the memory slot and with your thumbs on both ends of the module, press it straight down into the slot until the module snaps into place.



3. Press the release tabs to the locked position to secure the DIMM module into the slot.

Caution: Exercise extreme caution when installing or removing memory modules to prevent damage to the DIMMs or slots.

Removing Memory

To remove a DIMM, unlock the release tabs then pull the DIMM from the memory slot.

2.5 USB Memory Stick Installation

All newer blades have a provision for a Type A connector that will allow a USB memory stick to be placed on the blade. This is used to support ESX VMware, a custom BIOS extension (such as ScaleMP), or as a read-only bootable operating system that will allow the system to save power by eliminating mirrored drives for a reliable operating system.

2.6 Hard Disk Drive Installation

Hard disk drives are installed in “carriers” which are hot-swappable and can be removed or replaced without powering down the blade unit they reside in. A blade module needs a hard disk drive with an operating system installed to operate.

Caution: To maintain proper airflow, both hard drive bays must have drive carriers inserted during operation whether or not a drive is installed in the carrier.

To remove a hard drive carrier, do the following:

Removing a Hard Drive Carrier

1. Locate the colored “Open” button at the bottom of the drive carrier and press it with your thumb. This action releases the drive carrier from the drive bay.
2. Pull the release handle out about 45-degrees, then use it to pull the drive carrier out.

To install a hard drive, use the following procedure:

Installing a Hard Drive

1. Remove a blank drive carrier from the blade (see removal procedure above).
2. Insert a drive into the carrier with the PCB side facing down and the connector end toward the rear of the carrier.
3. Align the drive in the carrier so that the screw holes of both line up. Note that there are holes in the carrier marked “SATA” to aid in correct installation.
4. Secure the drive to the carrier with six screws as shown in Figure 2-3.
5. Insert the drive carrier into its slot keeping the Open button at the bottom. When the carrier reaches the rear of the bay the release handle will retract.
6. Push the handle in until you hear the carrier click into its locked position.

Caution: Enterprise level hard disk drives are recommended for use in Supermicro chassis and servers. For information on recommended HDDs, visit the Supermicro website at <http://www.supermicro.com/products/nfo/files/storage/SAS-CompList.pdf>.

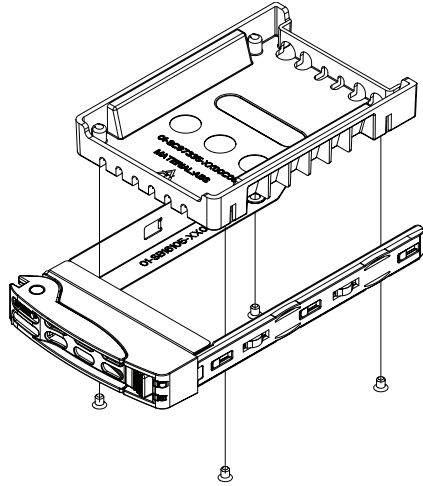


Figure 2-3. Installing a Hard Drive in a Carrier

2.7 Installing the Operating System

An operating system (OS) must be installed on each blade module. Blades with Microsoft Windows OS and blades with Linux OS can both occupy and operate within the same blade enclosure. Refer to the SuperMicro website for a complete list of supported operating systems. There are several methods of installing an OS to the blade modules.

Installing with an External USB CD-ROM Drive

The most common method of installing the OS is with an external USB CD-ROM drive. Take the following steps to install the OS to a blade module:

Caution: Installing the OS from an external CD-ROM drive may take several hours to complete.

Installing via PXE Boot

PXE (Preboot Execution Environment) is used to boot a computer over a network. To install the OS via PXE, the following conditions must be met:

1. The PXE Boot option in BIOS must be enabled.
2. A PXE server has been configured (this can be another blade in the system).
3. The PXE server must be connected over a network to the blade to be booted.
4. The blade has only non-partitioned/unformatted hard drives installed and no bootable devices attached to it.

Once these conditions are met, make sure the PXE server is running. Then turn on the blade on which you wish to boot and/or install the OS. The BIOS in the blade will look at all bootable devices and finding none will connect to the PXE server to begin the boot/install.

Installing via Virtual Media (Drive Redirection)

You can install the OS via Virtual Media through either the IPMIview (Java based client utility), IPMITool or the Web-based Management Utility. With this method, the OS is installed from an ISO image that resides on another system/blade.

Refer to the manuals on your SuperBlade CD-ROM for further details on the Virtual Media (CD-ROM or Drive Redirection) sections of these two utility programs.

2.8 Management Software

System management may be performed with either of three software packages: IPMIview, IPMITool or a Web-based Management Utility. These are designed to provide an administrator with a comprehensive set of functions and monitored data to keep tabs on the system and perform management activities.

Refer to the manuals on your SuperBlade CD-ROM for further details on the various functions provided by these management programs.

2.9 Configuring and Setting up RAID

Each blade module that supports two or more hard drives may be used to create a RAID array. The procedures for doing this vary depending upon the blade model chosen for your SuperBlade system. For this module RAID 0, 1 and 5 is available for each node.

For RAID setup see <http://www.supermicro.com/support/manuals/> under RAID Installation Guides for more details.

Chapter 3

Blade Module Features

This chapter describes the SBI-6119R-C3N/T3N blade modules. Installation and maintenance should be performed by experienced technicians only.

See Figure 3-1 for a front view of the blade units and the table below for their features.

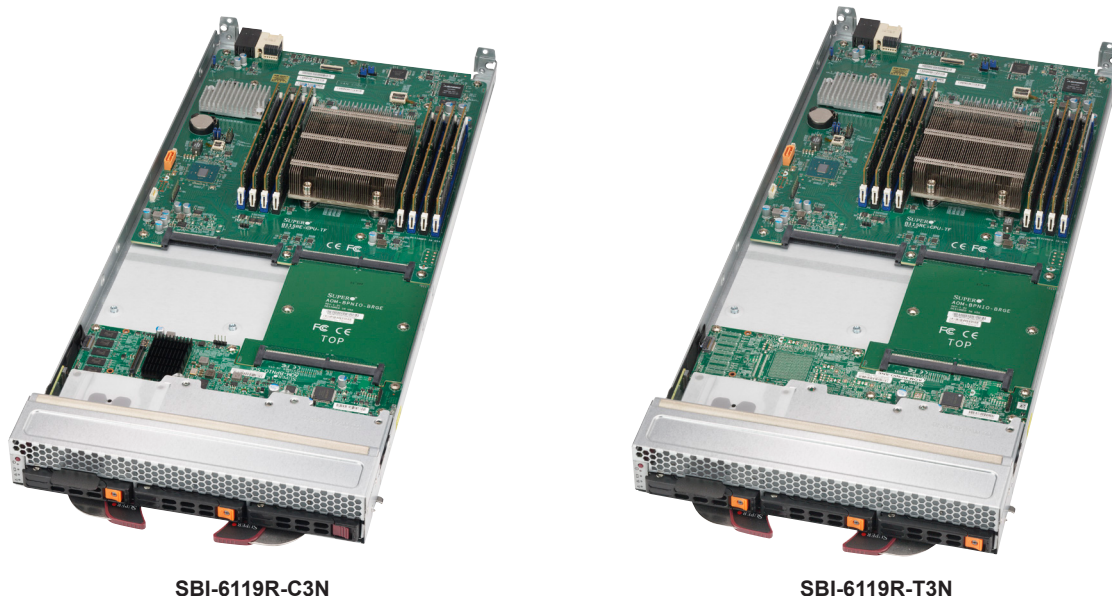


Figure 3-1. SBI-6119R-C3N/T3N Blade Unit Front Views

SBI-6119R-C3N Blade Unit Features	
Feature	Description
Processors	Supports a single Intel Xeon W2100 series Socket R4 LGA 2066 processor per node
Memory	Supports up to 512 GB RDIMM/LRDIMM DDR4 2666 MHz speed, 8 GB, 16 GB, 32 GB, 64 GB and 128 GB size SDRAM memory in eight 288-pin DIMM sockets per node. See https://www.supernmicro.com/support/resources/memory/X11_memory_config_guide.pdf for details.
Storage	Includes two hot-swap 2.5" NVMe disk drives plus one hot-swap 2.5" SAS3/SATA3 drive or three 2.5" SAS3/SATA3 drives
Ports	One TPM header, Intel X710-BM2 dual port 10-Gigabit Ethernet
Features	Onboard Integrated Aspeed AST2500 VGA Graphics chip, Intel® I/OAT 3, VMDq, IPMI 2.0, ATA/100, Plug and Play, APM 1.2, DMI 2.3, PCI 2.2, ACPI 1.0/2.0, SMBIOS 2.3, Real Time Clock, Watch Dog,

3.1 Control Panel

Each blade has a similar control panel (Figure 3-2) with power on/off button, a KVM connector, a KVM button and four LEDs on the top front of the unit. The numbers mentioned in Figure 3-2 are described in the table below.

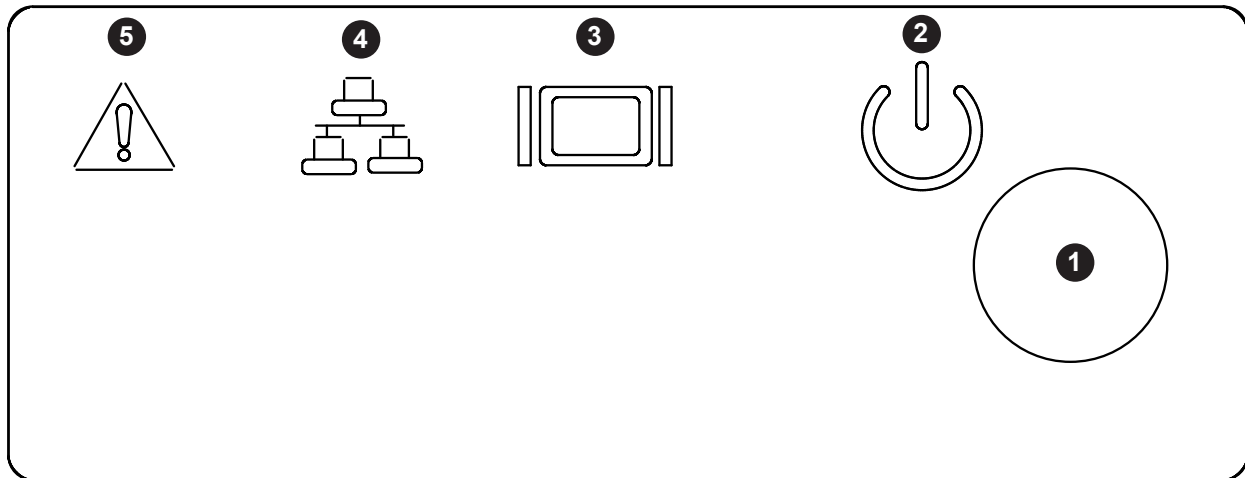


Figure 3-2. Blade Control Panel

Blade Control Panel			
Item	Function	State	Description
1	Power Button	N/A	Turns blade module on and off
2	Power LED	Green	Indicates power status "On"
		Solid Orange	Indicates power status "Off" (with power cables plugged in)
		Flashing Orange	Flashing Orange: Indicates node is not ready or not enough power to turn on
3	KVM/UID LED	Blue	Indicates KVM being utilized on blade unit
		Flashing Blue	Indicates UID activated on blade module
4	Network/IB LED	Flashing Green	Indicates network activity over LAN
		Flashing Orange	Indicates network activity
5	System Fault LED	Red	Indicates a memory error, overheat, VGA error or any error that prevents booting

Power Button

Each blade has its own power button so that individual blade units within the enclosure may be turned on or off independently of the others. Press the power button (#1) to turn on the blade server. The power LED (#2) will turn green. To turn off, press and hold the power button for >4 seconds and the power LED will turn orange.

3.2 Motherboard

The motherboard of the SBI-6119R-C3N/T3N blade unit is a proprietary design, which is based on the Intel C422 chipset. See Figure 3-5 for a block diagram of this chipset, Figure 3-3 for a top-down view of the SBI-6119R-C3N module and Figure 3-4 for the SBI-6119R-T3N module. Figure 3-6 contains an exploded view diagram of the blade unit.

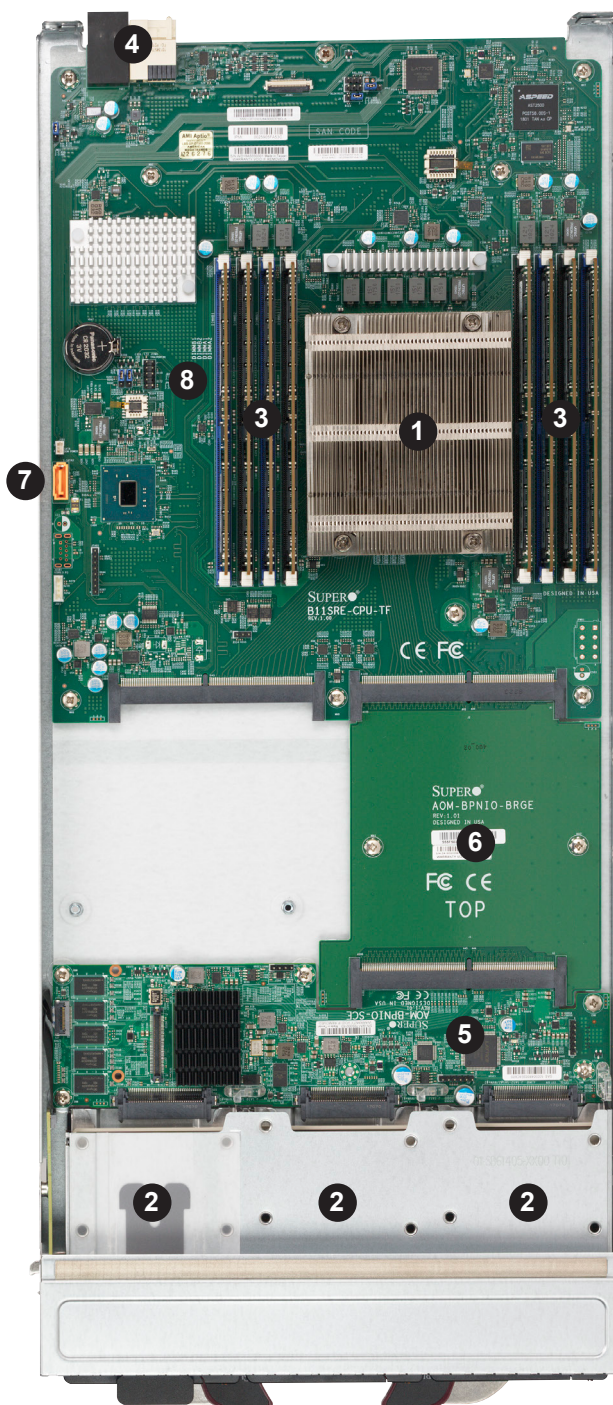


Figure 3-3. SBI-6119R-C3N Module

SBI-6119R-C3N Module Layout	
Item	Description
1	CPUs installed (see Figure 4-3 for details on CPU numbering)
2	Front housing for three 2.5" SATA3/SSD/NVMe hard drive bays
3	DIMM slots (see Figure 4-3 for details, eight total)
4	Power and Logic connectors to backplane
5	Storage Module
6	Compute Module
7	SATA Port
8	9-pin TPM Connector

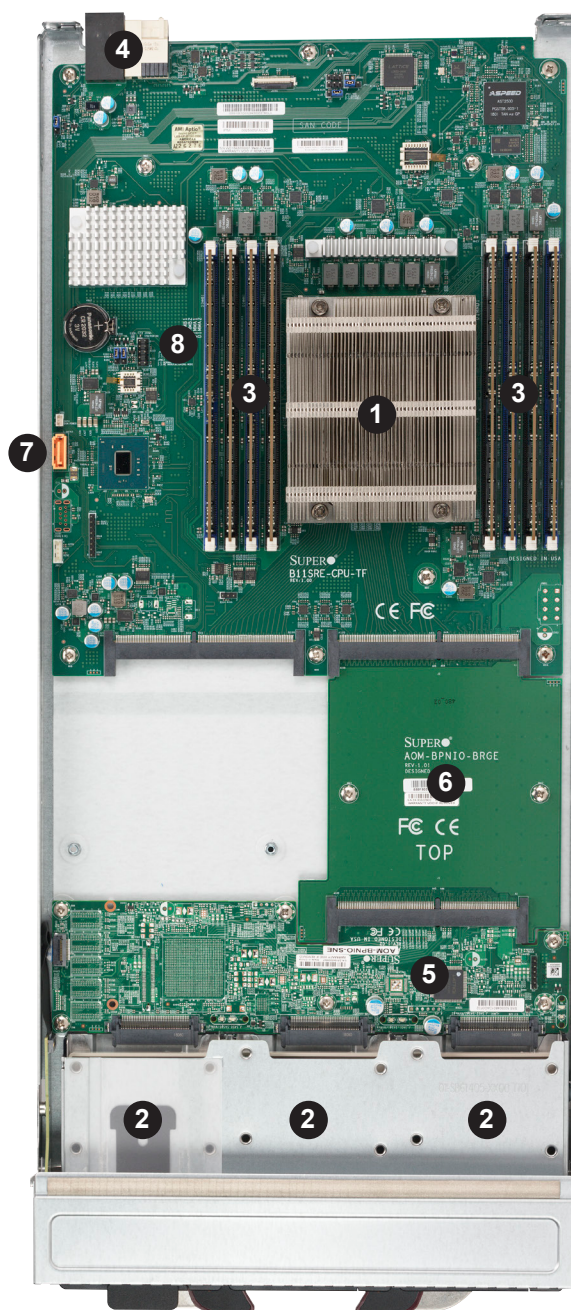


Figure 3-4. SBI-6119R-T3N Module

SBI-6119R-T3N Module Layout	
Item	Description
1	CPUs installed (see Figure 4-3 for details on CPU numbering)
2	Front housing for three 2.5" SATA3/SSD/NVMe hard drive bays
3	DIMM slots (see Figure 4-3 for details, eight total)
4	Power and Logic connectors to backplane
5	Storage Module
6	Compute Module
7	SATA Port
8	9-pin TPM Connector

B11SRE-CPU-TF

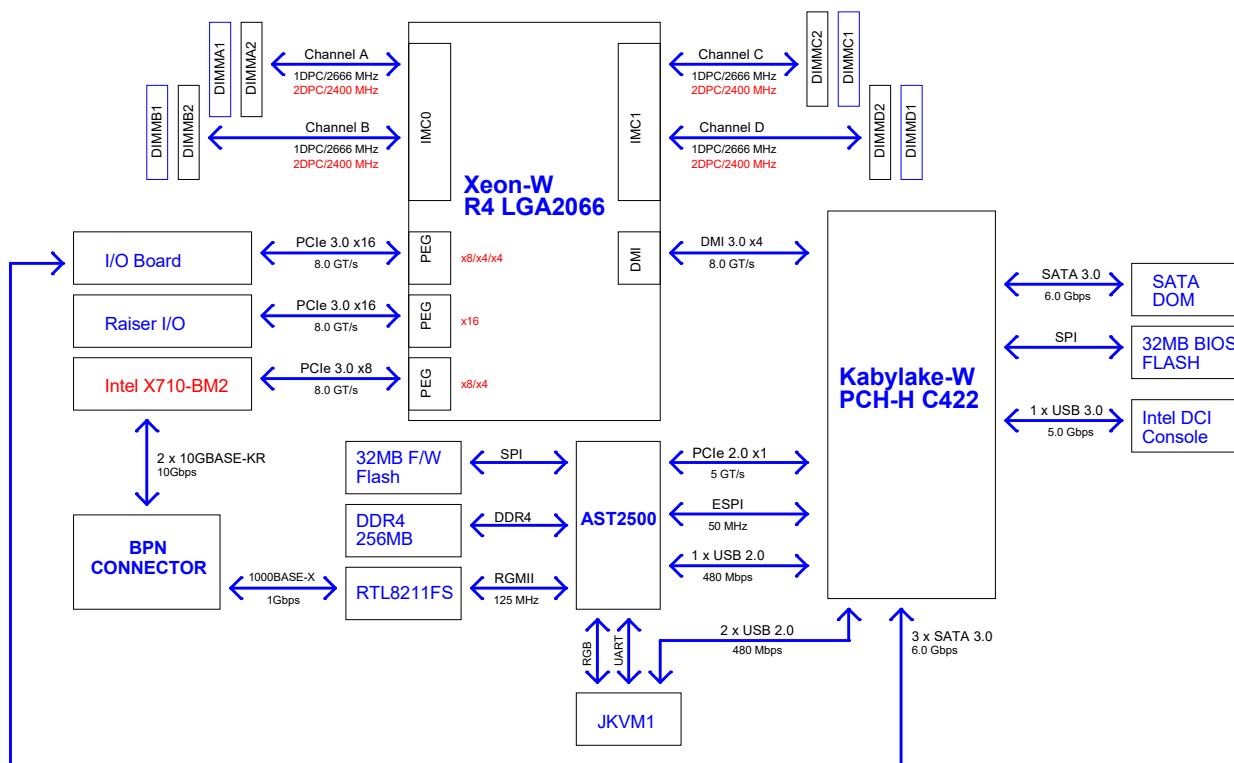


Figure 3-5. System Block Diagram

CMOS Clear

JBT1 is used to clear CMOS and will also clear any passwords. This consists of two contact pads located near the BIOS chip.

Clearing CMOS

1. First power down the blade and remove it from the enclosure.
2. Short the CMOS pads with a metal object such as a small screwdriver.
3. Replace the cover, install the blade back into the enclosure and power it on.

Jumper Settings

The following jumper settings can be used for the SBI-6119R-T3N blade modules:

Jumper Settings		
Jumper	Default Setting	Notes
JWD1	Pins 1-2	Pins 1-2: Time to reset (Default); Pins 3-3: Timeout to NMI
JPME1/2	Pins 1-2	Pins 1-2: ME normal operation (Default); Pins 3-3: ME Recovery Mode
JVRM1/2	Pins 1-2	Normal Operation (Default)

3.3 Blade Unit Components

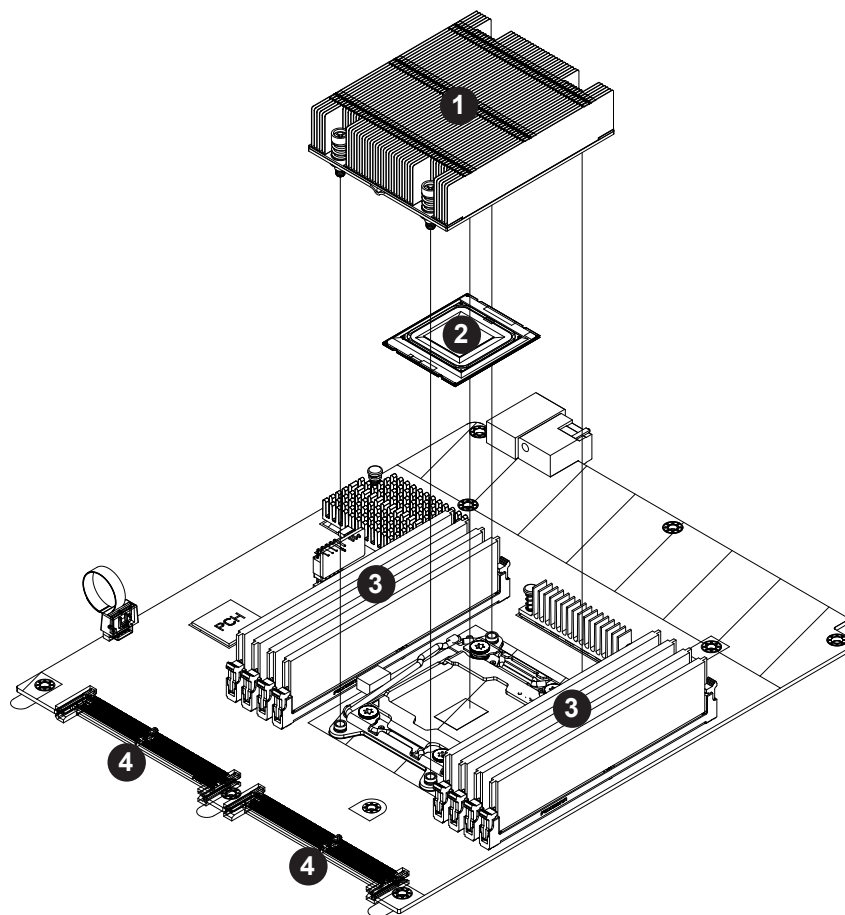


Figure 3-6. Exploded View of the SBI-6119R-C3N/T3N Blade Modules

Main Components of the SBI-6119R-C3N/T3N Blade Modules	
Item	Description
1	Heatsink
2	CPU
3	DIMM slots (8)
4	Drive Bay Connectors

Memory Support

The SBI-6119R-C3N/T3N SuperBlade modules support up to 512 GB RDIMM/LRDIMM of DDR4 2666 MHz speed, 8 GB, 16 GB, 32 GB and 64 GB size SDRAM memory in eight 288-pin DIMM sockets per node. See Section 3-4: Memory Installation for further details on motherboard memory installation.

Hard Disk Drives

The SBI-6119R-C3N/T3N blade modules accommodate up to three 2.5" SATA/SSD/NVMe hard disk drives, which are mounted in drive "trays". The drives can be hot-swapped and removed or replaced without powering down the blade unit they reside in. The three drives can be used to set up a RAID 0, 1 and 5 array. These drives use a blue color for the Blade HDD active LED. See Chapter 1 for information on RAID Setup.

Additional drives can be added by a module card mounted in the front.

For RAID setup see <http://www.supermicro.com/support/manuals/> under RAID Installation Guides for details.

Caution: To maintain proper airflow, both hard drive bays must have drive carriers inserted during operation whether or not a drive is installed in the tray.

Warning: Enterprise level hard disk drives are recommended for use in Supermicro chassis and servers. For information on recommended HDDs, visit the Supermicro website at <http://www.supermicro.com/products/nfo/storage.cfm>.

Chapter 4

BIOS

4.1 Introduction

This chapter describes the BIOS for Intel SuperBlade modules. The Blade modules use a 32 Mb SPI Flash EEPROM with AMI® BIOS that is stored in a flash chip. This BIOS can be easily upgraded using a floppy disk-based program.

Due to periodic changes to the BIOS, some settings may have been added or deleted and might not yet be recorded in this manual. Please refer to the <http://www.supermicro.com/products/SuperBlade/module/> website for further details on BIOS setup and the BIOS menus for your SuperBlade blade module.

System BIOS

BIOS stands for Basic Input Output System. The 32 Mb SPI Flash EEPROM with AMI® BIOS flash chip stores the system parameters, types of disk drives, video displays, in the CMOS. The CMOS memory requires very little electrical power. When the blade unit is turned off, a backup battery provides power to the BIOS flash chip, enabling it to retain system parameters. Each time the blade is powered on it is configured with the values stored in the BIOS ROM by the system BIOS, which gains control at boot up.

How To Change the Configuration Data

The CMOS information that determines the system parameters may be changed by entering the BIOS Setup utility. This Setup utility can be accessed by pressing the <Delete> key at the appropriate time during system boot. (See "Starting the Setup Utility" below.)

Starting the Setup Utility

Normally, the only visible POST (Power-On Self-Test) routine is the memory test. As the memory is being tested, press the <Delete> key to enter the main menu of the BIOS Setup utility. From the main menu, you can access the other setup screens, such as the Security and Power menus.

To prevent possible boot failure, do not shut down or reset the system while updating the BIOS.

4.2 BIOS Updates

It may be necessary to update the BIOS used in the blade modules on occasion. However, it is recommended that you not update BIOS if you are not experiencing problems with a blade module.

Updated BIOS files are located on our website (www.supermicro.com/products/superblade/). Please check the current BIOS revision and make sure it is newer than your current BIOS before downloading.

There are several methods you may use to upgrade (flash) your BIOS. After downloading the appropriate BIOS file (in a zip file format), follow one of the methods described below to flash the new BIOS.

4.3 Running Setup

Default settings are in bold text unless otherwise noted.

The BIOS setup options described in this section are selected by choosing the appropriate text from the Main BIOS Setup screen. All displayed text is described in this section, although the screen display is often all you need to understand how to set the options.

When you first power on the computer, the BIOS is immediately activated.

While the BIOS is in control, the Setup program can be activated in one of two ways:

1. By pressing <Delete> immediately after turning the system on, or
2. When the message Press the <Delete> key to enter Setup appears briefly at the bottom of the screen during the POST, press the <Delete> key to activate the main Setup menu:

4.4 Main BIOS Setup

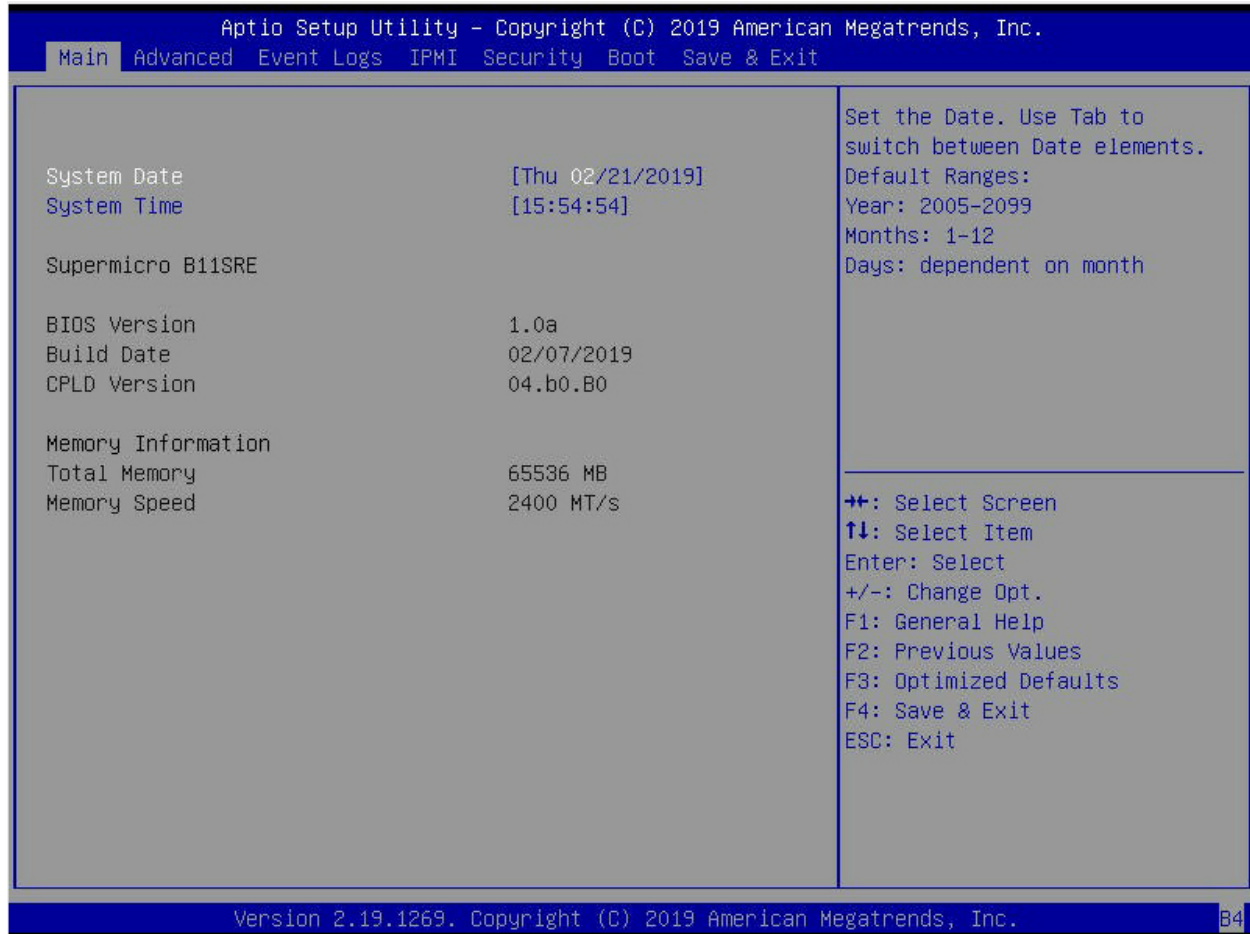


Figure 4-1. Main BIOS Setup Screen

All Main Setup options are described in this section.

Use the Up/Down arrow keys to move among the different settings in each menu. Use the Left/Right arrow keys to change the options for each setting.

Press the <Esc> key to exit the CMOS Setup menu. The next section describes in detail how to navigate through the menus.

Items that use sub-menus are indicated with the **u** icon. With the item highlighted, press the <Enter> key to access the sub-menu.

Menu options found in the Main BIOS Setup menu are described below.

System Date

Using the arrow keys, highlight the month, day and year fields, and enter the correct data for the system date. Press the <Enter> key to save the data.

System Time

To set the system date and time, key in the correct information in the appropriate fields. Then press the <Enter> key to save the data.

BIOS Information

BIOS static display information including the motherboard number, SMC version, SMC Build Date and Total Memory is also shown on the screen.

4.5 Advanced Settings Menu

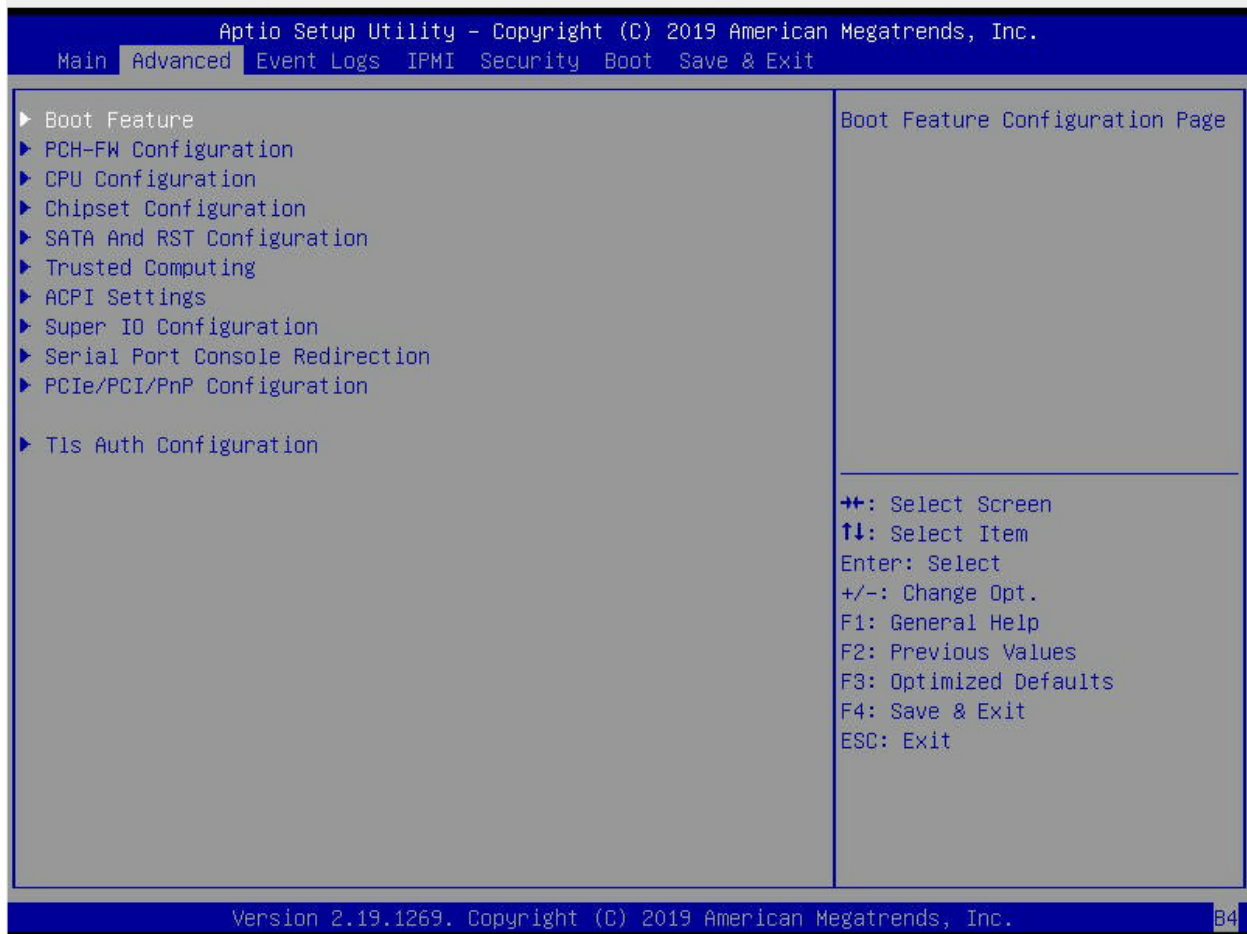


Figure 4-2. Advanced BIOS Setup Screen

Choose **Advanced** from the BIOS Setup Utility main menu with the arrow keys to display the Advanced Setup menu. The items with a triangle beside them are sub-menus that can be accessed by highlighting the item and pressing <Enter>. Options for PIR settings are displayed by highlighting the setting option using the arrow keys and pressing <Enter>.

Boot Feature Sub-menu

Fast Boot

Enables or Disables boot with an initialization of a minimal set of devices required to launch the active boot option. This has no effect for BBS boot devices.

Quiet Boot

When Disabled the BIOS displays normal POST messages. When Enabled the BIOS displays an OEM Logo instead of POST messages.

Bootup NUM-Lock State

This setting selects the Power-On state for Numlock. Options include On or Off.

Option ROM Messages

Use this setting to set the display mode for Option ROM to either Force BIOS or Keep Current.

Interrupt 19 Trap Response

This sets the BIOS reaction on INT19 trapping by the Option ROM. Options include Immediate to execute the trap right away, or Postponed to execute the trap during legacy boot.

Port 61h Bit-4 Emulation

Enables or disables emulation of Port 61h bit-4 toggling in SMM.

Wait for 'F1' If Error

When enabled, the system will wait for the F1 key to be pressed if an error occurs. Options are Enabled or Disabled.

Re-try Boot

Use this setting to specify the Re-try Boot option to use. Options include Disabled, Legacy Boot or EFI Boot.

Watch Dog Function

This setting allows the system to restart when it is not active more than 5 minutes. Option include Enabled and Disabled.

Power Button Function

This setting specifies the power button's function when pressed. Option include 4 Seconds Override or Instant Off.

Restore on AC Power Loss

Use this to select the Restore on AC Power Loss function. Options include Power On, Stay Off and Last State.

PCH-FW Configuration Sub-menu

PCH-FW Configuration Information

This section shows static information on the PCH-FW configuration.

Me FW Image Re-Flash

Use this setting to Enable or Disable Me FW Image the Re-flash function.

CPU Configuration sub-menu

Processor Configuration Information

This section shows static information on the processor configuration.

Hyper-threading [ALL]

This setting is Enabled for Windows XP and Linux (OS optimized for Hyper-threading technology), and Disabled for other OSes (any OS not optimized for Hyper-threading technology). When Disabled, only one thread per enabled core is enabled.

Max CPUID Value Limit

This setting should be Enabled in order to boot legacy OSes that cannot support CPUs with extended CPUID functions.

Execute Disable Bit

XD can prevent certain classes of malicious buffer overflow attacks when combined with a supporting OS such as Windows Server 2003 SP1, Windows XP SP2, SuSE Linux 9.2 or RedHat Enterprise 3 Update 3. Options include Enabled or Disabled.

Intel® Virtualization Technology

Select Enabled to use this Virtualization Technology feature to allow one platform to run multiple operating systems and applications in independent partitions, creating multiple “virtual” systems in one physical computer system. The options are Enabled and Disabled. Please refer to the Intel website for further detailed information.

A full reset of the system is required when you change this setting.

PPIN Control

Use this setting to enable/disable the PPIN control. Options include Unlock/Enable or Unlock/Disable.

Hardware Prefetcher

This settings allows you to Enable or Disable the Hardware Prefetcher.

Adjacent Cache Prefetch

This setting allows you to Enable or Disable the Adjacent Cache Prefetch.

DCU Streamer Prefetcher

This setting allows you to Enable or Disable the DCU Streamer Prefetcher, which is an L1 data cache prefetcher.

DCU IP Prefetcher

This setting allows you to Enable or Disable the DCU IP Prefetcher, which is an L1 data cache prefetcher.

LLC Prefetch

This setting allows you to Enable or Disable the LLC Prefetch on all threads.

DCU Mode

This sets the DCU mode to either 32KB 8Way Without the ECC or 16KB 4Way With ECC.

Extended APIC

Use this setting to Enable or Disable extended APIC support

AES-NI

Use this setting to Enable or Disable AES-NI support.

APIC Physical Mode

This setting Enables or Disables the APIC physical destination mode.

►Advanced Power Management Configuration

This submenu display and provides options to change the Power Management Settings.

►CPU P State Control

Use this submenu to specify options for CPU P-State controls.

SpeedStep (Pstates)

This setting allows you to Enable or Disable EIST (P-States).

EIST PSD Function

For this setting, choose a setting for the EIST PSD function. Options include HW_ALL, SW_ALL, or SW_ANY.

Turbo Mode

This setting allows you to Enable or Disable the processor Turbo Mode for your system.
Note: This requires EMTTM be enabled also.

►Hardware PM State Control

Use this submenu for specifying Hardware PM State controls.

Hardware P-States

Use this setting to specify an option for Hardware P-States. Options include the following:

Disable – The hardware chooses a P-State based upon the OS request (Legacy P-States).

Native Mode – The hardware chooses a P-State based upon the OS guidance.

Out of Band Mode – The hardware autonomously chooses a P-State (No OS guidance).

Native Mode with No Legacy Support

► CPU C State Control

Use this submenu to select a CPU C-State controls.

Autonomous Core C-State

This setting allows you to Enable or Disable the Autonomous Core C-State control for your system.

CPU C6 Report

This setting allows you enable/disable a CPU C6 (ACPI C3) report to the OS. Options include Disable, Enable and Auto.

Enhanced Halt State (C1E)

Use this setting to Enable or Disable Core C1E auto promotion control. Note: This setting only takes effect after a reboot.

► Package C State Control

Use this submenu to specify Package C-State controls.

Package C State

This setting allows you to specify a Package C State option. Options include: C0/C1 state, C2 state, C6 (non-retention) state, C6 (Retention) state, No Limit and Auto.

CPU T State Control

Use this submenu to specify CPU T state controls.

Software Controlled T-states

This setting Enables or Disables software controlled T-states.

► North Bridge Configuration

This sub-menu configures North Bridge features and shows configuration information.

► **Memory Configuration**

This sub-menu displays Memory Configuration settings.

Enforce POR

This setting allows you to enforce POR restrictions for DDR4 frequency and voltage programming. Options include POR or Disabled.

Memory Frequency

This setting sets the maximum memory frequency in Mhz. Options are Auto and frequency values from 1866 ~ 2666 Mhz.

Custom Refresh Enable

This setting Enables or Disables a custom memory refresh rate.

MC BGF Threshold

The HA to MC BGF threshold is used for scheduling MC requests in bypass condition. Use your keyboard to enter in a number for the threshold. The default is 0.

DLL Reset Test

Set this to the number of loops to execute the DDL reset test. The test will execute RMT for the provided number of loops without DLL resets and then it will execute RMT for the same number of loops with DLL resets. The default is 0.

►Memory Topology

This submenu, when selected, provides you with static information for memory topology.

►Memory RAS Configuration

This submenu displays and provides options to change the Memory RAS settings.

Static Virtual Lockstep Mode

This setting Enables or Disables Static Virtual Lockstep Mode.

Mirror Mode

Mirror Mode will set the entire 1LM/2LM memory in the system to be mirrored, consequently reducing the memory capacity by half. Options include Disable, Mirror Mode 1LM and Mirror Mode 2LM.

Note: Mirror Enable will disable XPT Prefetch.

ADDDC Sparing

This value Enables or Disables ADDDC Sparing for your system.

Patrol Scrub

This setting Enables or Disables Patrol Scrub in your system.

Patrol Scrub Interval

This setting selects the number of hours (1-24) required to complete full scrub. A value of 0 means auto. Default is 24. Settings are increased or decreased using the “+” or “-” keys on your keyboard’s number pad.

Patrol Scrub Address Mode

This setting selects the address mode between System Physical Address or Reverse Address.

►I/O Configuration

This sub-menu configures Integrated I/O Configuration.

EV DFX Features

This setting gives you the option to allow DFX Lock Bits to remain clear or not. Options include Enable or Disable.

►CPU1 Configuration

This submenu allows you to configure CPU1 configuration options.

IOU0 (IIO PCIe Br1)

This setting selects the PCIe port bifurcation for Br1. Options include x4x4x4x4, x4x4x8, x8x4x4, x8x8, x16 or Auto.

IOU1 (IIO PCIe Br2)

This setting selects the PCIe port bifurcation for Br2. Options include x4x4x4x4, x4x4x8, x8x4x4, x8x8, x16 or Auto.

IOU2 (IIO PCIe Br3)

This setting selects the PCIe port bifurcation for Br3. Options include x4x4x4x4, x4x4x8, x8x4x4, x8x8, x16 or Auto.

◆Socket 0 PcieBr0D00F0 - Port 0/DMI ~ Socket 0 PcieBr5D00F0 - MCP 1 Submenu

Settings for these submenus are related to PCI Express Ports in your system. This submenu contains a mix of static information and configurable option settings.

Link Speed

This setting specifies the link speed for the PCI-E port. Options include Auto, Gen 1 (2.5 GT/s), Gen 2 (5 GT/s) and Gen 3 (8GT/s)

PCI-E Port Max Payload Size

This sets the max payload size. Options include 128B, 256B or Auto.

►IOAT Configuration

This submenu allows you to configure IOAT configuration options.

Disable TPH

This setting lets you turn on/off TLP Processing Hint disabling. Options are Yes or No.

Prioritize TPH

This setting allows you to Enable or Disable the Prioritize TPH option.

Relaxed Ordering

This setting Enables or Disables relaxed ordering in your system.

►Intel VT for Directed I/O (VT-d)

Use this submenu to bring up options for Intel VT for Directed I/O configurations.

Intel VT for Directed I/O (VT-d)

This setting allows you to Enable or Disable Intel Virtualization Technology for Directed I/O (VT-d) by reporting the I/O device assignment to VMM through the DMAR ACPI Tables.

Interrupt Remapping

This setting allows you to Enable or Disable the VT_D Interrupt Remapping support.

PassThrough DMA

This setting allows you to Enable or Disable the Non-Isoch VT_D Engine Pass Through DMA support.

ATS

This setting allows you to Enable or Disable the Non-Isoch VT_D Engine ATS support.

Posted Interrupt

This setting allows you to Enable or Disable the VT_D Posted Interrupt.

Coherency Support (Non-Isoch)

This setting allows you to Enable or Disable the VT_D Engine Coherency support.

►Intel VMD Technology

This submenu contains option settings for Intel VMD Technology.

►Intel VMD for Volume Management Device on Socket 0

This submenu contains an option setting for Intel VMD Volume Management on Socket 0.

Intel VMD for Volume Management Device for PStack0

This setting Enables or Disables Intel Volume Management Device Technology in this stack.

PCI Hot Plug

Use this setting to Enable or Disable PCI-E Hot Plug globally.

PCI-E Completion Timeout (Global) Disable

This setting enables/disables the completion timeout (D:x F:0 0:B8h B:4) where x is 0-3. Options include Yes, No and Per-Port.

►South Bridge Configuration

This sub-menu allows you to configure South Bridge parameters.

USB Information

Static information for USB Module Version and USB devices connected is shown at the top of this screen.

Legacy USB Support

This setting allows you to enable the use of Legacy USB devices. If this option is set to Auto, legacy USB support will be automatically enabled if a legacy USB device is installed

on the mainboard, and disabled if no USB devices are connected. The Disable option will keep USB devices available only for EFI applications. The options include Disabled, Enabled and Auto.

XHCI Hand-off

This is a workaround for OSes without XHCI hand-off support. The XHCI ownership change should be claimed by the XHCI driver. Options include Enabled and Disabled.

Port 60/64 Emulation

This setting Enables or Disables I/O port 60h/64h emulation support. This should be enabled for the complete USB keyboard legacy support for non-USB aware OSes.

SATA and RST Configuration Sub-menu

SATA Controller

This setting allows you to Enable or Disable the SATA device.

SATA Mode Selection

Use this setting to determine how the SATA controller(s) operate. Options include AHCI or RAID.

Aggressive Link Power Management

Use this setting to Enable or Disable SALP.

SATA Port 0~3 Settings

For each of the ports you may configure the settings listed below.

Hot Plug

Use this setting to Enable or Disable the port as Hot Pluggable.

Spin Up Device

This setting allows you to Enable or Disable the Spin up Device for the system. If enabled for any ports staggered spin up will be performed and only the drives that have this option enabled will spin up at boot. Otherwise all drives spin up at boot if this setting is disabled.

SATA Device Type

This setting allows you to identify that the SATA port is connected to either a Solid State Drive or a Hard Disk Drive.

Trusted Computing Settings Sub-menu

Security Device Support

This setting Enables or Disables BIOS support for a security device. The OS will not show security devices. TCG EFI protocol and INT1A interface will not be available.

ACPI Settings Sub-menu

WHEA Support

This feature Enables the Windows Hardware Error Architecture (WHEA) support for the Windows 2008 (or a later vision) operating system. The options are Enabled and Disabled.

High Precision Timer

Select Enabled to activate the High Performance Event Timer (HPET) that produces periodic interrupts at a much higher frequency than a Real-time Clock (RTC) does in synchronizing multimedia streams, providing smooth playback and reducing the dependency on other timestamp calculation devices, such as an x86 RDTSC Instruction embedded in the CPU. The High Performance Event Timer is used to replace the 8254 Programmable Interval Timer. The options are Enabled and Disabled.

Native PCIE Enable

This setting Enables or Disables the Native PCIE.

Native ASPM

This setting enables/disables ASPM and whether it is OS or BIOS controlled. Options include Enabled (OS controlled ASPM), Disabled (BIOS controlled ASPM) or Auto.

NUMA

Use this setting to Enable or Disable NUMA.

SuperIO Device Configuration Sub-menu

Super IO Chip

This static display shows the name of the Super IO chip installed for your system.

►Serial Port 1/2 Configuration

This sub-menu allows the user the configure settings of Serial Port 1 or Serial Port 2.

Serial Port

Select Enabled to enable the a selected Onboard serial port. The options are Enabled and Disabled.

Device Settings

This displays a static display of the status of a serial port specified by the user.

Change Settings

This feature specifies the base I/O port address and the Interrupt Request address of a serial port specified by the user. Select Auto to allow the BIOS to automatically assign the base I/O and IRQ address.

The options for Serial Port 1 are Auto, (IO=3F8h; IRQ=4), (IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12), (IO=2F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12), (IO=3E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12) and (IO=2E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12).

The options for Serial Port 2 are Auto, (IO=2F8h; IRQ=3), (IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12), (IO=2F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12), (IO=3E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12) and (IO=2E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12).

Serial Port 2 Attribute (Available for Serial Port 2 only)

This feature specifies the attribute of Serial Port 1. The options are SOL and COM.

Serial Port Console Redirection Sub-menu

COM1 Console Redirection, COM2/SOL Console Redirection Sub-menus

Console Redirection

Select Enabled to enable console redirection support for a serial port specified by the user. The options are Enabled and Disabled.

► Console Redirection Settings

This feature allows the user to specify how the host computer will exchange data with the client computer, which is the remote computer used by the user.

Terminal Type

This feature allows the user to select the target terminal emulation type for Console Redirection. Select VT100 to use the ASCII Character set. Select VT100+ to add color and function key support. Select ANSI to use the Extended ASCII Character Set. Select VT-UTF8 to use UTF8 encoding to map Unicode characters into one or more bytes. The options are ANSI, VT100, VT100+, and VT-UTF8.

Bits Per second

Use this feature to set the transmission speed for a serial port used in Console Redirection. Make sure that the same speed is used in the host computer and the client computer. A lower transmission speed may be required for long and busy lines. The options are 9600, 19200, 38400, 57600 and 115200 (bits per second).

Data Bits

Use this feature to set the data transmission size for Console Redirection. The options are 7 Bits and 8 Bits.

Parity

A parity bit can be sent along with regular data bits to detect data transmission errors. Select Even if the parity bit is set to 0, and the number of 1's in data bits is even. Select Odd if the parity bit is set to 0, and the number of 1's in data bits is odd. Select None if you do not want to send a parity bit with your data bits in transmission. Select Mark to add a mark as a parity bit to be sent along with the data bits. Select Space to add a Space as a parity bit to be sent with your data bits. The options are None, Even, Odd, Mark and Space.

Stop Bits

A stop bit indicates the end of a serial data packet. Select 1 Stop Bit for standard serial data communication. Select 2 Stop Bits if slower devices are used. The options are 1 and 2.

Flow Control

Use this feature to set the flow control for Console Redirection to prevent data loss caused by buffer overflow. Send a "Stop" signal to stop sending data when the receiving buffer is full. Send a "Start" signal to start sending data when the receiving buffer is empty. The options are None and Hardware RTS/CTS.

VT-UTF8 Combo Key Support

Select Enabled to enable VT-UTF8 Combination Key support for ANSI/VT100 terminals. The options are Enabled and Disabled.

Recorder Mode

Select Enabled to capture the data displayed on a terminal and send it as text messages to a remote server. The options are Disabled and Enabled.

Resolution 100x31

Select Enabled for extended-terminal resolution support. The options are Disabled and Enabled.

Legacy OS Redirection Resolution

Use this feature to select the number of rows and columns used in Console Redirection for legacy OS support. The options are 80x24 and 80x25.

Putty KeyPad

This feature selects the settings for Function Keys and KeyPad used for Putty, which is a terminal emulator designed for the Windows OS. The options are VT100, LINUX, XTERMR6, SC0, ESCN, and VT400.

Redirection After BIOS Post

Use this feature to enable or disable legacy console redirection after BIOS POST. When set to Bootloader, legacy console redirection is disabled before booting the OS. When set to Always Enable, legacy console redirection remains enabled when booting the OS. The options are Always Enable and Bootloader.

Legacy Console Redirection Sub-menu**Legacy Serial Redirection Port**

Use this setting to select a COM port to display redirection of Legacy OS and Legacy OPRM messages. Options include COM1 Console Redirection or COM2/SOL Console Redirection.

Serial Port for Out-of-Band Management/Windows Emergency Management Services (EMS)**Console Redirection (for EMS)**

Select Enabled to use a COM Port selected by the user for Console Redirection. The options are Enabled and Disabled.

► Console Redirection Settings (for EMS)

This feature allows the user to specify how the host computer will exchange data with the client computer, which is the remote computer used by the user.

Out-of-Band Management Port

The feature selects a serial port used by the Microsoft Windows Emergency Management Services (EMS) to communicate with a remote server. The options are COM1 Console Redirection and COM2/SOL Console Redirection.

Terminal Type

This feature allows the user to select the target terminal emulation type for Console Redirection. Select VT100 to use the ASCII character set. Select VT100+ to add color and function key support. Select ANSI to use the extended ASCII character set. Select VT-UTF8 to use UTF8 encoding to map Unicode characters into one or more bytes. The options are ANSI, VT100, VT100+, and VT-UTF8.

Bits Per Second

This item sets the transmission speed for a serial port used in Console Redirection. Make sure that the same speed is used in the host computer and the client computer. A lower transmission speed may be required for long and busy lines. The options are 9600, 19200, 57600, and 115200 (bits per second).

Flow Control

This feature allows the user to set the flow control for Console Redirection to prevent data loss caused by buffer overflow. Send a "Stop" signal to stop sending data when the receiving buffer is full. Send a "Start" signal to start sending data when the receiving buffer is empty. The options are None, Hardware RTS/CTS, and Software Xon/Xoff.

Data Bits, Parity, Stop Bits

The status of each item above is displayed.

PCIe/PCI/PnP Configuration Sub-menu**PCI Bus Driver Version**

The installed version for the PCI Bus Driver is static displayed here for your information.

PCI Devices Common Settings**SR-IOV Support**

If the system has SR-IOV capable PCIe device, this option Enables or Disables single root I/O virtualization support.

MMCFG Size

This setting selects the MMCFG size. Options include 64M, 128M, 256M, 512M, 1G and 2G.

MMIO High Base

Use this setting to select the MMIO High Base. Options include 56T, 48T, 24T, 16T, 4T and 1T.

MMIO High Granularity Size

This setting selects the allocation size used to assign MMIOH resources. The total MMIOH space can be up to 32xgranularity. Per stack MMIOH resource assignments are multiples of the granularity where 1 unit per stack is the default allocation. Options are numbers 1G~1024G where 256G is the default.

Above 4G Decoding

Select Enabled to decode a 64-bit PCI device in the space above 4G Address. The options are Enabled and Disabled.

PCI Devices Option ROM Settings**Onboard Video**

Use this setting to control the execution of UEFI and Legacy Video OPRM on your system. Options include Disabled, Legacy or UEFI.

Onboard Storage

Controls the execution of UEFI and Legacy Storage SATA/sSATA OPRM. Options include Do Not Launch, UEFI or Legacy.

Onboard LAN Device

This setting enables or disables Onboard LAN devices. Options include Auto, Disabled or Enabled.

Onboard LAN 1 OPRM

This setting enables or disables the Onboard LAN 1 OPRM option. Options include Disabled, EFI or Legacy.

Onboard LAN 2 OPRM

This setting enables or disables the Onboard LAN 2 OPRM option. Options include Disabled, EFI or Legacy.

AOM-BPNIO-SCE**CPU1 SLOT1 NVME-1**

This setting enables or disables the Onboard NVME-1 OPRM option. Options include Disabled, Legacy or EFI.

CPU1 SLOT1 NVME-2

This setting enables or disables the Onboard NVME-2 OPRM option. Options include Disabled, Legacy or EFI.

CPU1 SLOT1 LSI PORT

This setting enables or disables the PCI-E slot OPRM option for the LSI port. Options include Disabled, Legacy or EFI.

CPU1 SLOT2 PCI-E 3.0 X16

This setting enables or disables the PCI-E slot OPRM option for the 3.0 X16 slot. Options include Disabled, Legacy or EFI.

► Network Stack Configuration

Use this submenu to configure network stack settings.

Network Stack

This setting allows you to Enable or Disable UEFI Network Stack for your system. If disabled, the boot option for UEFI Network Stack will not be created.

Ipv4 PXE Support

This setting allows you to Enable or Disable Ipv4 PXE support for your system. If disabled, the boot option for Ipv4 PXE Support will not be created.

Ipv4 HTTP Support

This setting allows you to Enable or Disable Ipv4 HTTP support for your system. If disabled, the boot option for Ipv4 HTTP Support will not be created.

Ipv6 PXE Support

This setting allows you to Enable or Disable Ipv6 PXE Support for your system. If disabled, the boot option for Ipv4 PXE Support will not be created.

Ipv6 HTTP Support

This setting allows you to Enable or Disable Ipv6 HTTP Support for your system. If disabled, the boot option for Ipv6 HTTP Support will not be created.

PXE Boot Wait Time

This sets the wait time in seconds for you to press the ESC key in order to abort the PXE boot for your system. Default is 0, use your system's keyboard's keypad to specify the number.

Media Detect Count

This sets the number of times the presence of media will be checked for your system. Default is 1, use your system's keyboard's keypad to specify the number.

T1s Auto Configuration**►Server CA Configuration**

Use this submenu to configure the Server CA.

►Enroll Cert

Use this submenu to enroll Cert by pressing <Enter.>.

►Enroll Cert Using File

Selecting this submenu brings up a cert file to enroll.

Cert GUID

Selecting this setting allows you to input a digital character string in 11111111-2222-3333-4444-1234567890ab format.

◆Commit Changes and Exit

Selecting this submenu commits all changes and exits.

◆Discard Changes and Exit

Selecting this submenu discards all changes and exits.

►Delete Cert

This submenu allows you to press ,Enter. to delete a Cert.

4.6 Event Logs Setup



Figure 4-3. Event Logs Setup Screen

► Change SMBIOS Event Log Settings

This sub-menu allows you to change the SMBIOS Event Log configuration settings.

SMBIOS Event Log

Change this setting to enable or disable all features of the SMBIOS Event Logging during system boot. The options are Enabled and Disabled.

Erase Event Log

If No is selected, data stored in the event log will not be erased. Select Yes, Next Reset, data in the event log will be erased upon next system reboot. Select Yes, Every Reset, data in the event log will be erased upon every system reboot. The options are No, Yes, Next reset, and Yes, Every reset.

When Log is Full

Select Erase Immediately for all messages to be automatically erased from the event log when the event log memory is full. The options are Do Nothing and Erase Immediately.

Log System Boot Event

This option toggles the System Boot Event logging to enabled or disabled. The options are Disabled and Enabled.

MECI

The Multiple Event Count Increment (MECI) counter counts the number of occurrences that a duplicate event must happen before the MECI counter is incremented. This is a numeric value. The default value is 1.

METW

The Multiple Event Time Window (METW) defines number of minutes must pass between duplicate log events before MECI is incremented. This is in minutes, from 0 to 99. The default value is 60.

Log OEM Codes

Use this setting to Enable or Disable the logging of EFI Status codes as OEM codes (if not already converted to legacy).

Convert OEM Codes

Use this setting to Enable or Disable the converting of EFI Status Codes to Standard SMBIOS types (not all may be translated).

►View SMBIOS Event Log

This section displays the contents of the SMBIOS Event Log. It provides a date, time, error code and severity with a brief description of each event.

4.7 IPMI Setup

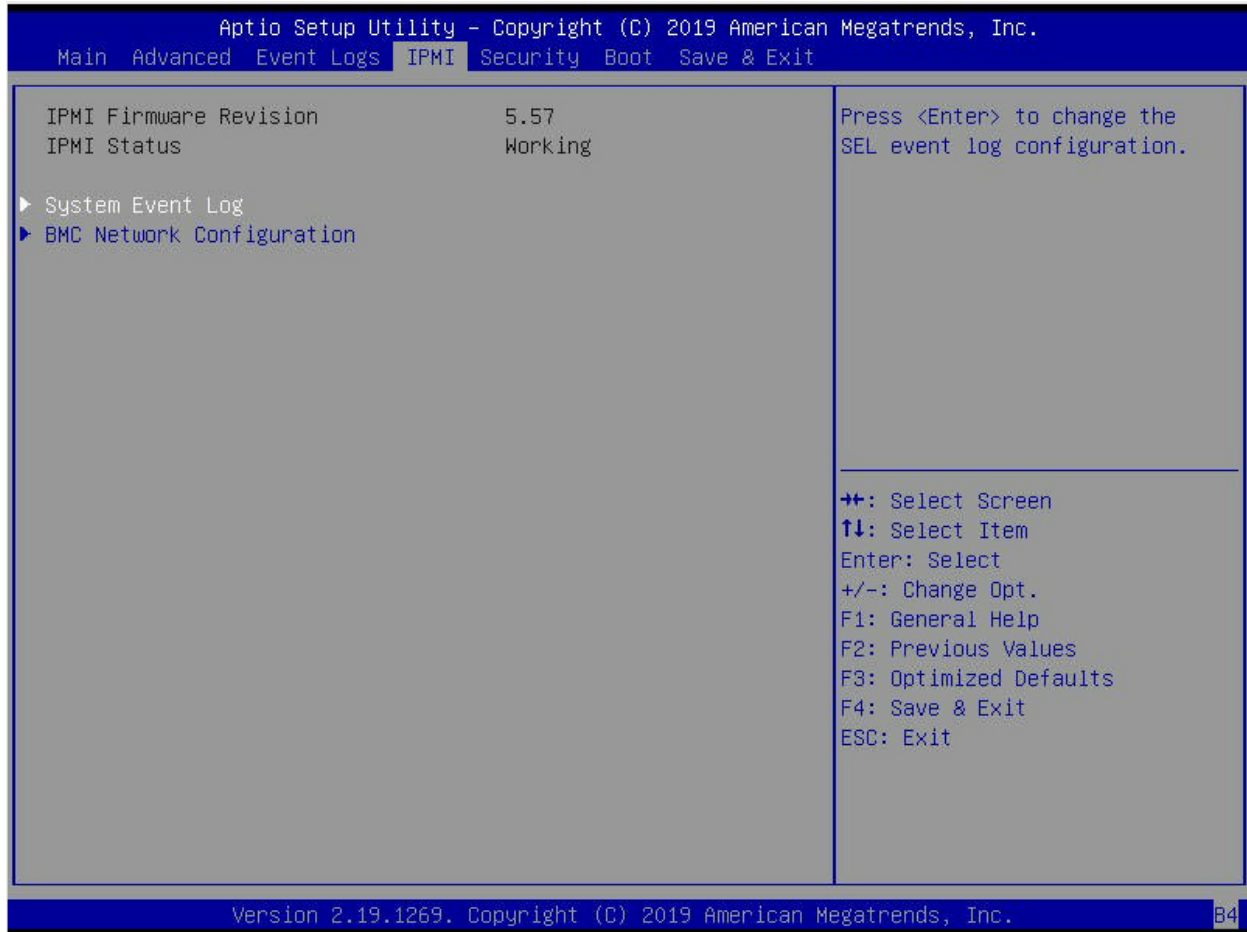


Figure 4-4. IPMI Setup Screen

IPMI Information

IPMI Firmware Revision and IPMI Status information are statically displayed at the top of this menu.

▶ System Event Log

Selecting this sub-menu displays settings for changing the SEL Event Log configuration. Note: all values changed here do not take effect until the system is restarted.

SEL Components

Change this setting to Enable or Disable all features of the System Event Logging during boot-up.

Erase SEL

Use this setting for erasing the SEL. Options are No, Yes On Next Reset and Yes On Every Reset.

When SEL is Full

Use this setting to choose options for reactions to a full SEL. Options include Do Nothing and Erase Immediately.

Log EFI Status Codes

Use this setting to Enable or Disable logging of EFI status codes, log only error codes or only progress codes

►BMC Network Configuration

Use this sub-menu to configure BMC network parameters.

BMC Network Configuration Information

The sub-menu contains static display information for the Station IP Address, Subnet Mask, Station MAC Address and Gateway IP Address.

Update IPMI LAN Configuration

Specify Yes or No for the BIOS to use this setting for IPMI in the next boot-up.

4.8 Security Setup

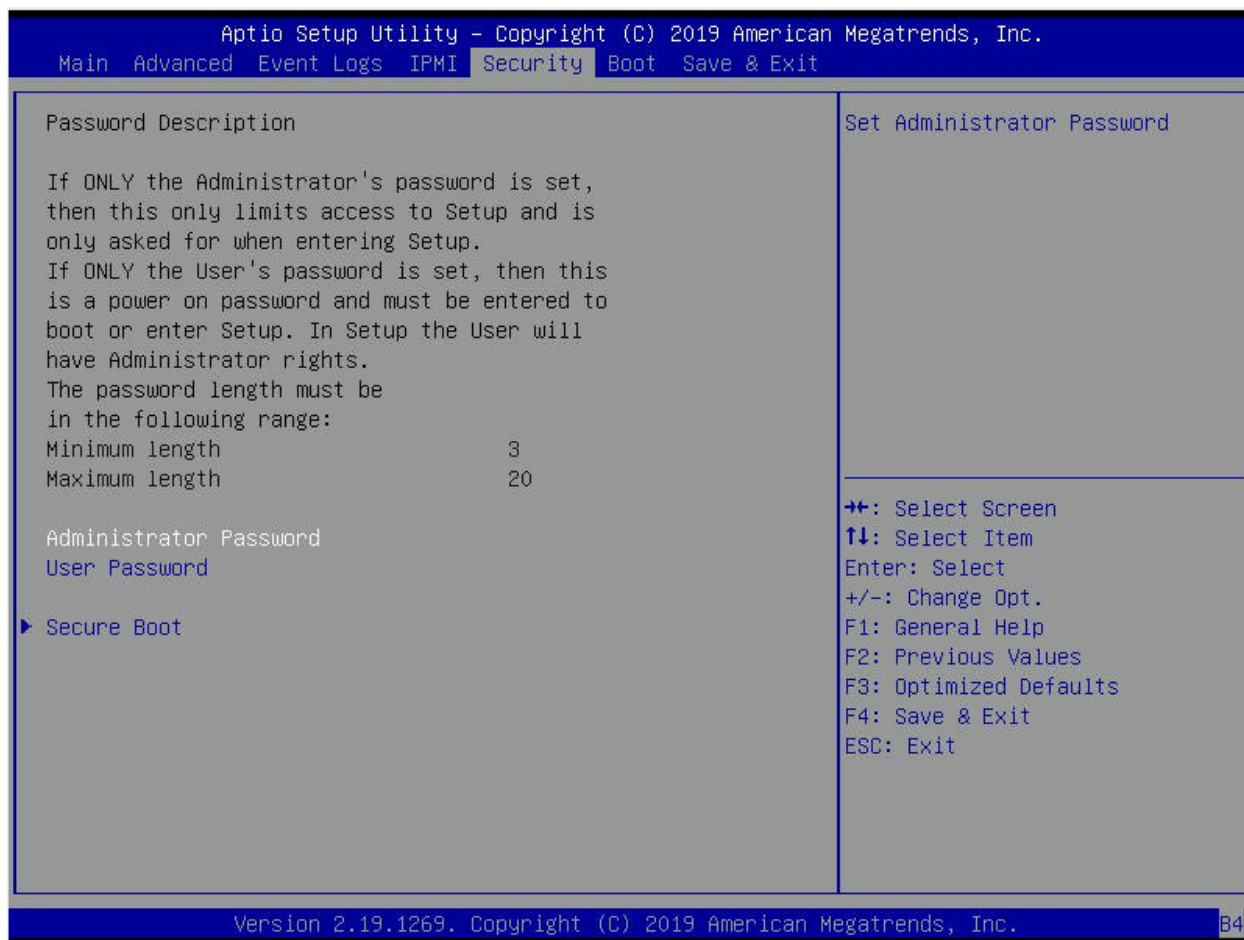


Figure 4-5. Security Setup Screen

Administrator Password

This allows you to create an administrator password for the system.

User Password

This allows you to create user password for the system.

Password Check

Use this setting to specify when to do a password check. Options include checking the password while invoking Setup, or Always when invoking setup as well as on each boot.

► Secure Boot

This submenu allows you to customize the Secure Boot settings.

Secure Boot

This setting allows you to Enable or Disable Secure Boot activation when the Platform Key (PK) is enrolled. System Mode is User/Deployed, and the CSM function is disabled.

Secure Boot

This setting Enables or Disables Secure Boot. Secure Boot is activated when:

- Secure Boot is enabled.
- Platform Key (PK) is enrolled.
- System Mode is User/Deployed.
- CSM is Disabled.

Secure Boot Customization

This setting specifies the Secure Boot Customization. Options include Standard or Custom. In Custom mode, Secure Boot Policy variables can be configured by a physically present user without full authentication.

Restore Factory Keys

Use this setting to force the system to User Mode. Options include Yes or No. Yes, when selected, configures NVRAM to contain OEM-defined factory default secure boot keys.

►Key Management

Use this submenu to modify boot policy variables without full authentication.

Factory Key Provision

This allows you to Disable or Enable factory key provision. Enabling to provision factory default keys on next re-boot only when the system is in Setup Mode.

Restore Factory Keys

Use this setting to force the system to User Mode. Options include Yes or No. Selecting Yes configures NVRAM to contain OEM-defined factory default secure boot keys.

Enroll EFI Image

When selected, this setting allows the image to run in Secure Boot Mode. This enrolls the SHA256 Hash certificate of a PE image into the Authorized Signature Database (db).

Restore DB defaults

Use this setting to restore the DB variable to factory defaults. Options include Yes or No.

Platform Key (PK)

Use this setting to enroll factory defaults or load certificates from a file.

Key Exchange Keys

Use this setting to enroll factory defaults or load certificates from a file.

Authorized Signatures

Use this setting to enroll factory defaults or load certificates from a file.

Forbidden Signatures

Use this setting to enroll factory defaults or load certificates from a file.

Authorized Timestamps

Use this setting to enroll factory defaults or load certificates from a file.

OsRecovery Signatures

Use this setting to enroll factory defaults or load certificates from a file.

4.9 Boot Setup

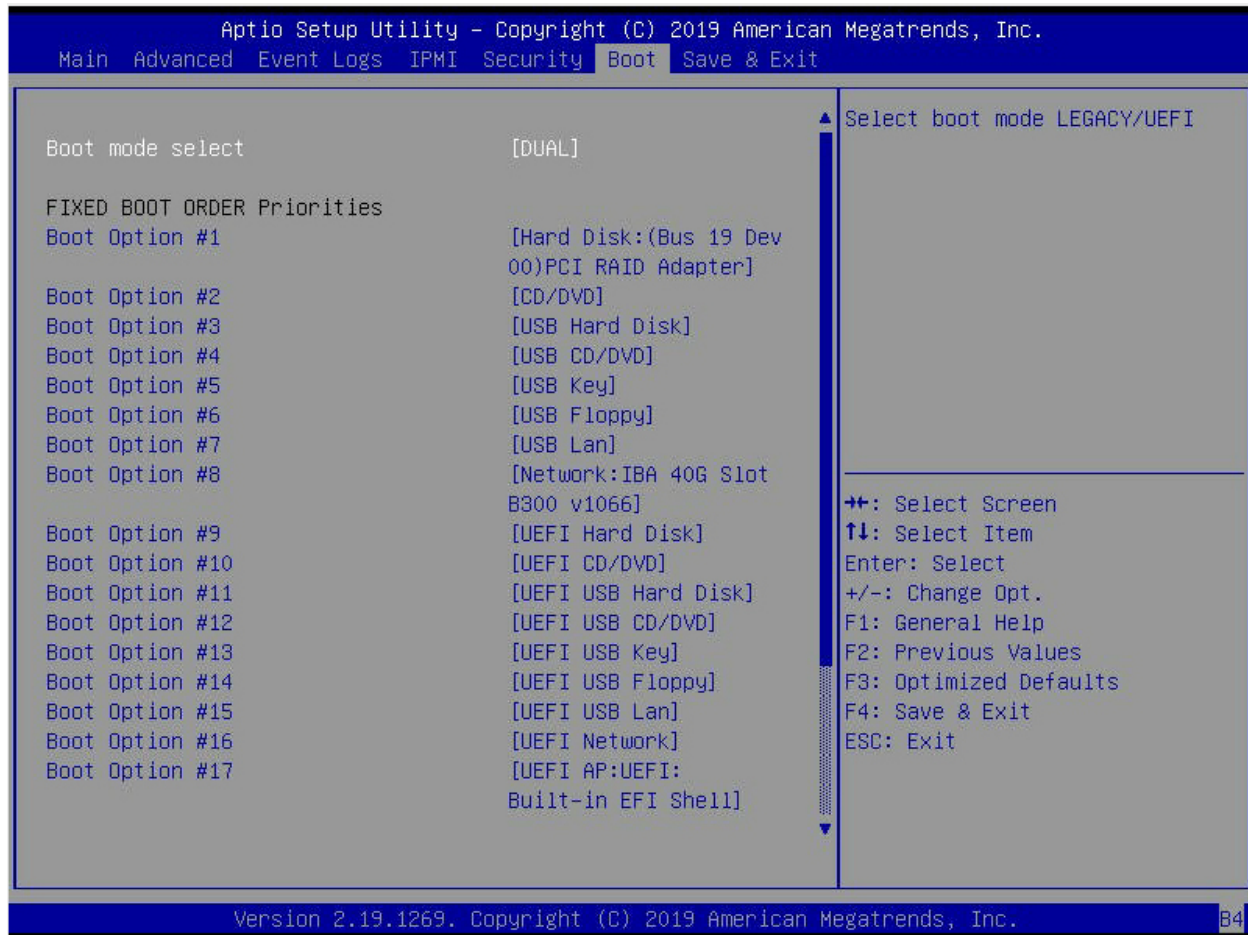


Figure 4-6. Boot Setup Screen

Boot Mode Select

This setting allows you to select the boot mode to use. Options include Legacy, UEFI or Dual.

Boot Priority Options 1 ~ 17

This feature allows you to specify the sequence of priority for the boot device (such as hard disk drives, USB devices, CD-ROM drives, Network drives and so on). The menu options are for 1st Boot Device, 2nd Boot Device and 3rd Boot device. Each numbered boot device can be set to a specific device installed in your system or to Disabled.

A device enclosed in parenthesis has been disabled in the corresponding type menu.

►Delete Boot Option

This sub-menu allows you to remove an EFI boot option form the boot order.

►Delete Driver Option

This sub-menu allows you to remove an EFI driver option form the boot order.

►UEFI Application Boot Priorities

Use this submenu to specify the Boot Device Priority sequence from the available UEFI Hard Disk Drives in the system.

►Hard Disk Drive BBS Priorities

Use this submenu to specify the Boot Device Priority sequence from the available Hard Disk Drives in the system.

►Network Device BBS Priorities

This sub-menu allows you to set the order of the legacy devices in this group for setting the boot order.

4.10 Save & Exit

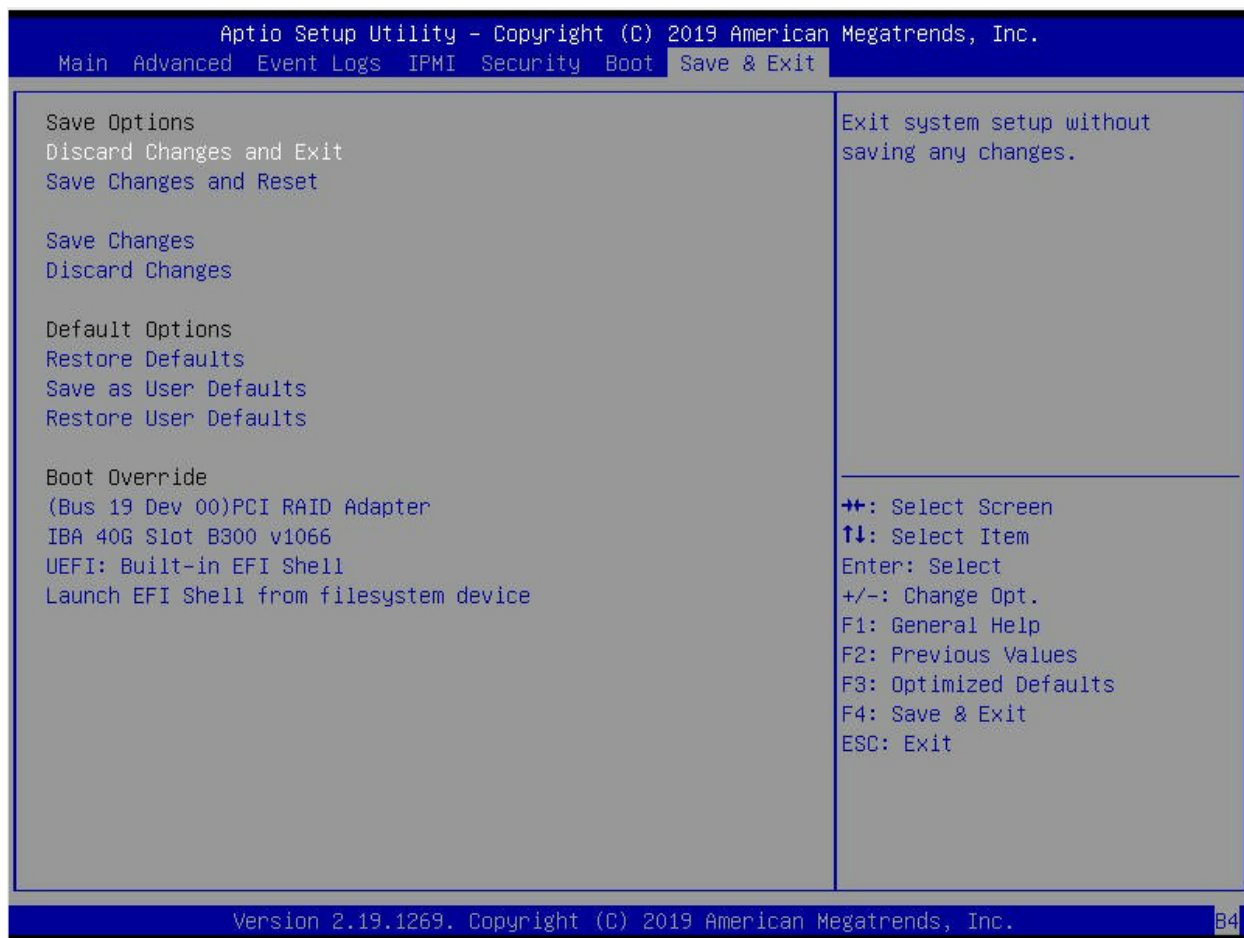


Figure 4-7. Save & Exit Setup Screen

Discard Changes and Exit

Highlight this item and hit <Enter> to exit the BIOS Setup utility without saving any changes you may have made. Any changes you have made to the BIOS Setup will not take effect upon system bootup.

Save Changes and Reset

Highlight this item and hit <Enter> to save any changes you made and to exit the BIOS Setup utility. The system will reboot and implement the changes you have made to the BIOS Setup.

Save Changes

Highlight this item and hit <Enter> to save changes done so far to any of the setup options.

Discard Changes

Highlight this item and hit <Enter> to discard (cancel) any changes you made. You will remain in the Setup utility.

Restore Defaults

Highlight this item and hit <Enter> to load the default settings for all items in the BIOS Setup. These are the safest settings to use and are designed for maximum system performance, but may not work best for all computer applications.

Save as Users Defaults

Highlight this item and hit <Enter> to save changes done so far as user defaults.

Restore User Defaults

Highlight this item and hit <Enter> to restore the user defaults to all the setup options.

Boot Override

For each boot device you have the option of saving the configuration for it and exiting.

Appendix A

Updating BIOS Using KVM Console

Use the following procedure to update a module BIOS using the KVM console software.

Updating the BIOS Using the KVM Console

1. Click on the graphic in the System -> System Information screen to launch the KVM Console window as shown in Figure A-1.

Alternately, you may go to the Configuration -> Console Redirection screen (Figure A-2) and press the Launch Console button to bring up the KVM Console window.



Figure A-1. System Information Remote Console Preview Graphic

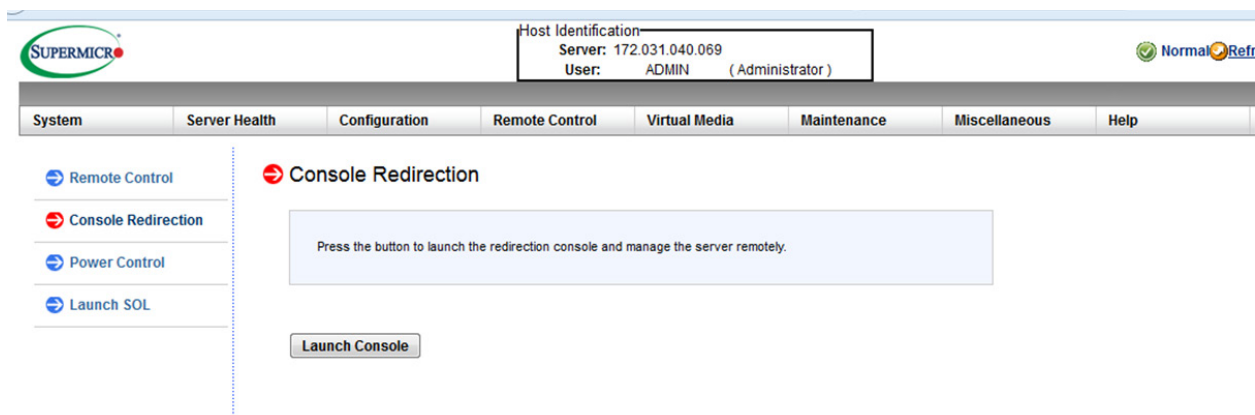


Figure A-2. Console Redirection Screen

2. In the KVM Console window, click on the Virtual Storage menu option from the Virtual Media menu (Figure A-3). The Virtual Storage window will be displayed (Figure A-4).

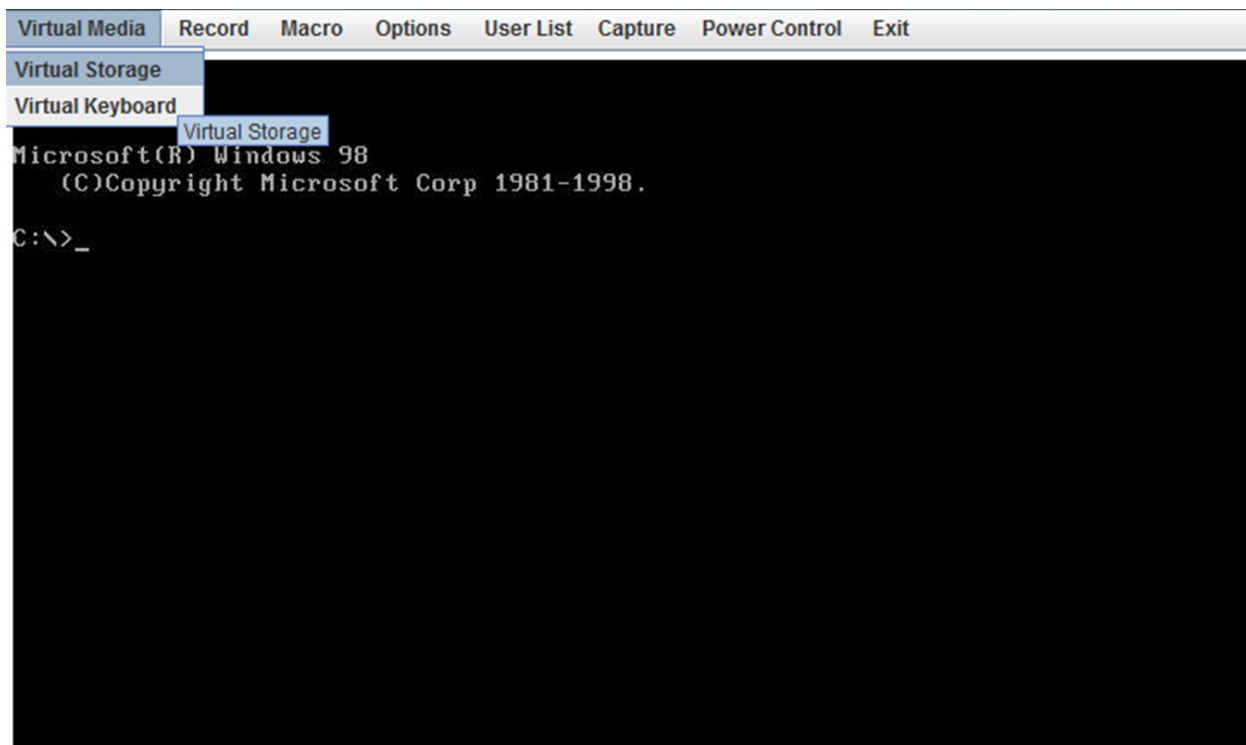


Figure A-3. KVM Console Window

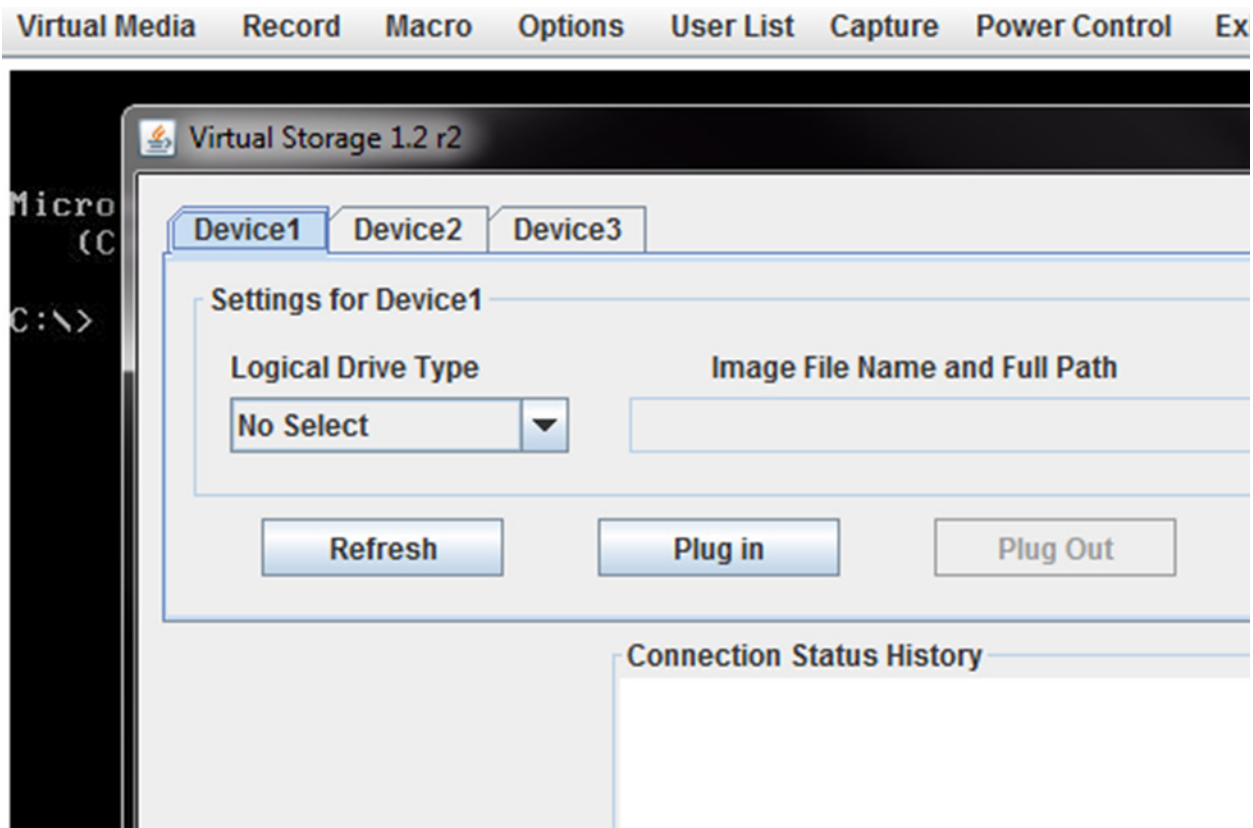


Figure A-4. Virtual Storage Window

- Under the Device 1 tab of the Virtual Storage window, select ISO File from the Logical Drive Type menu if you wish to mount an ISO file (Figure A-5).

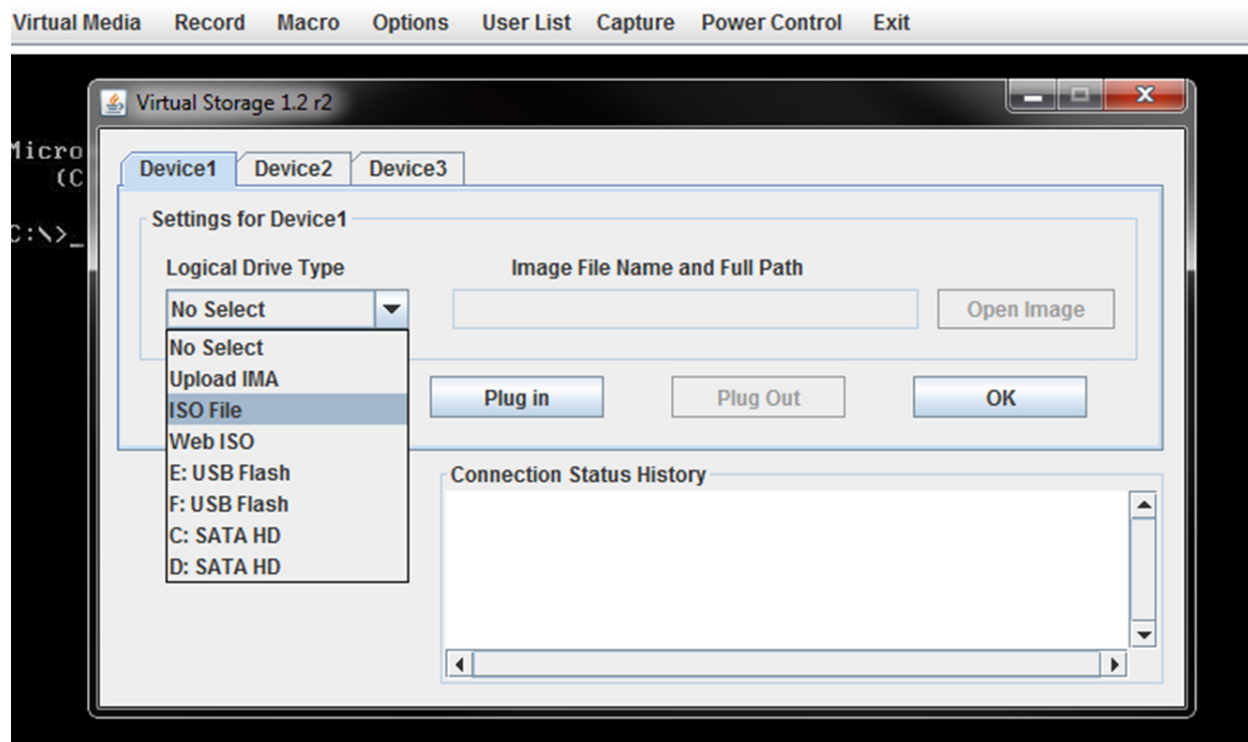


Figure A-5. Selecting ISO File to Mount an ISO File

- Browse for the ISO file on your local disk that contains the BIOS file and flash utility (Figure A-6). Press the Open button to select it.

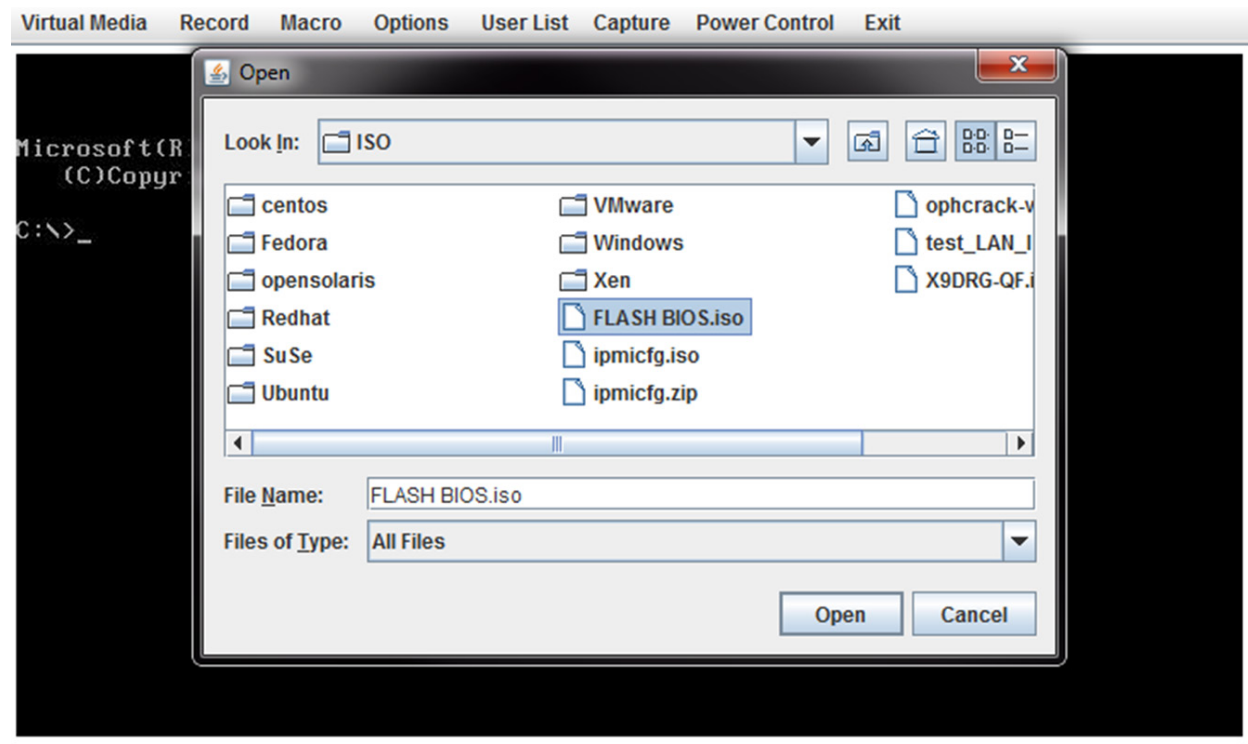


Figure A-6. Locating the ISO File

5. After you have selected the ISO file, press the Plug In button, then the OK button to exit the Virtual Storage window (Figure A-7). Skip ahead to step 8.

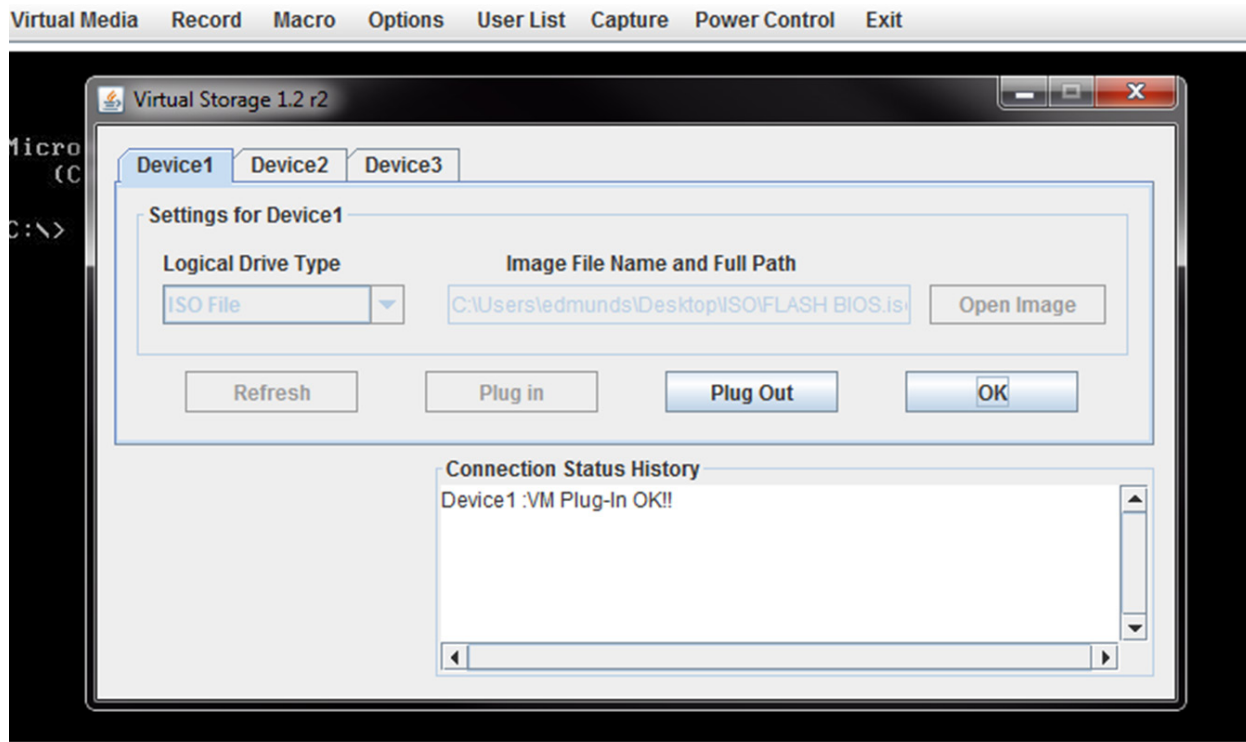


Figure A-7. Pressing the Plug in and OK Buttons for an ISO File

6. If you wish instead to download the BIOS update from a USB Flash drive, then insert the flash drive into your system and select it from the Logical Drive Type menu (Figure A-8).

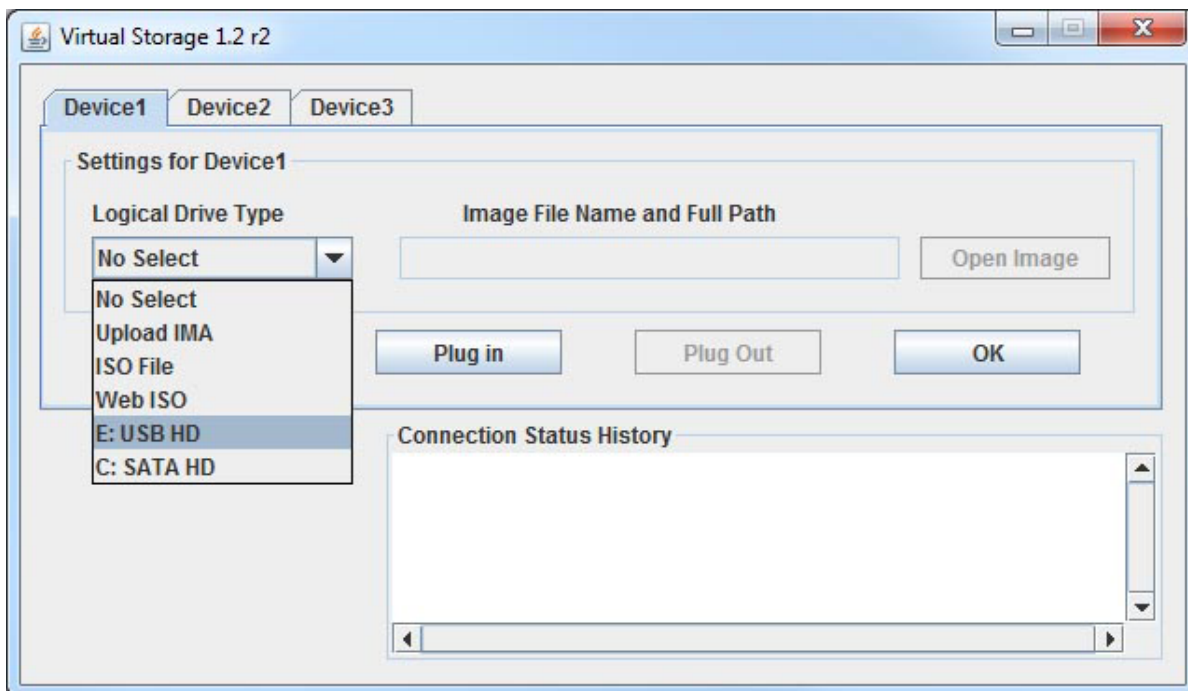


Figure A-8. Selecting a USB Flash Drive

7. After you have selected the USB flash drive file, press the Plug In button, then the OK button to exit the Virtual Storage window (Figure A-9).

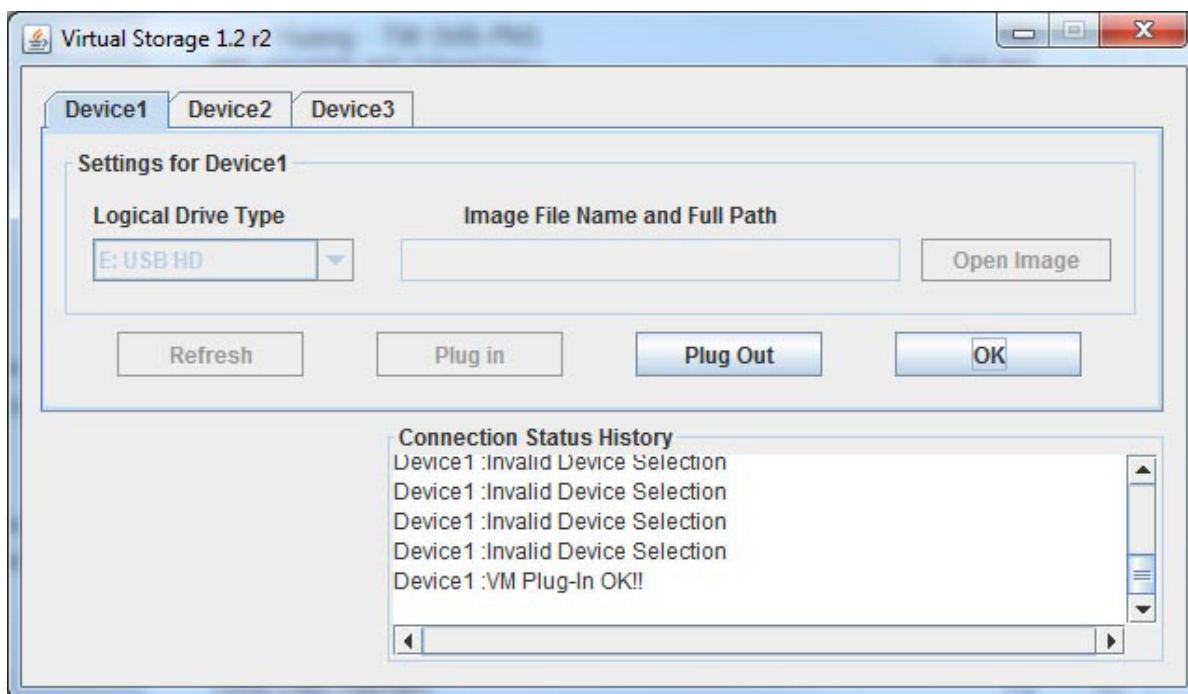


Figure A-9. Pressing the Plug In and OK Buttons for an USB Flash Drive File

8. Reboot the SuperBlade module by selecting the Power Control -> Set Power Reset menu option from the KVM Console window. If the MicroBlade is not powered on yet, please select Set Power On from the menu (Figure A-10).

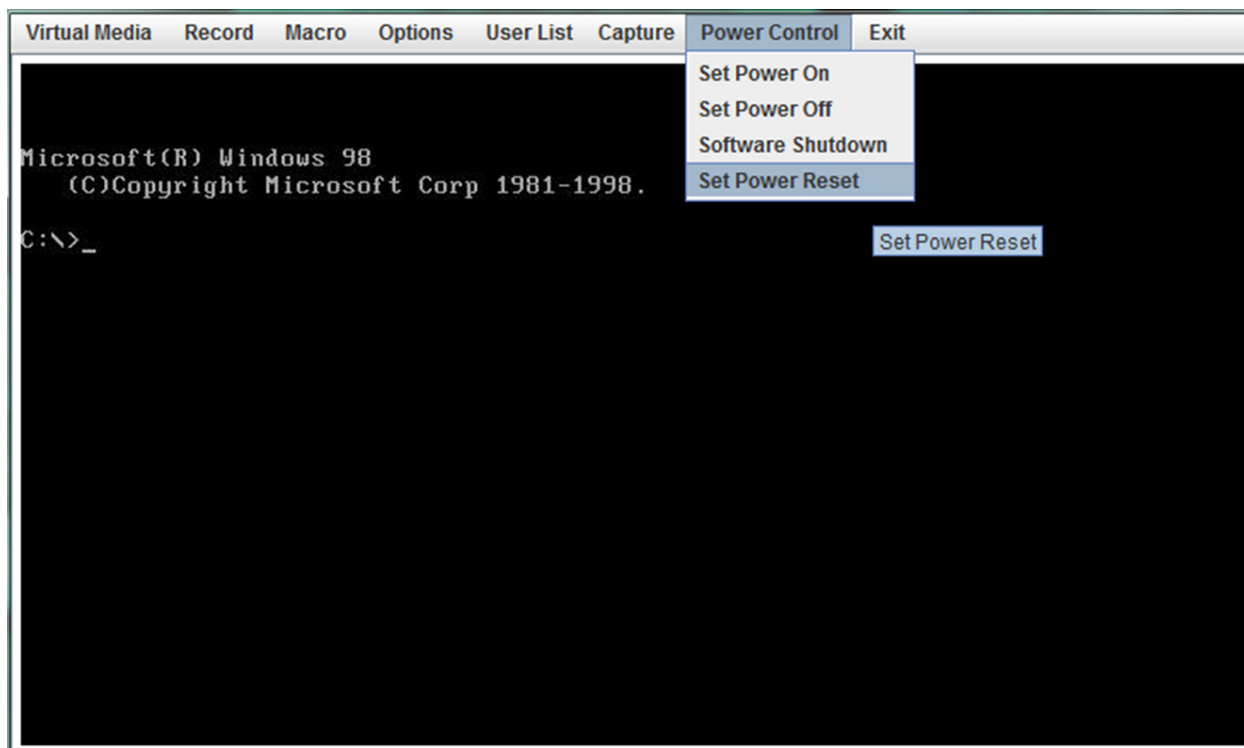


Figure A-10. Selecting Set Power Reset

When the system powers up, press your keyboard's F11 key in order to boot into the Invoke Bootable Devices List. From this list, select the ATEN Virtual CDROM YS0J command. Your MicroBlade will now boot up into mounting the ISO file which contains the new BIOS file and flash utility (Figure A-11).

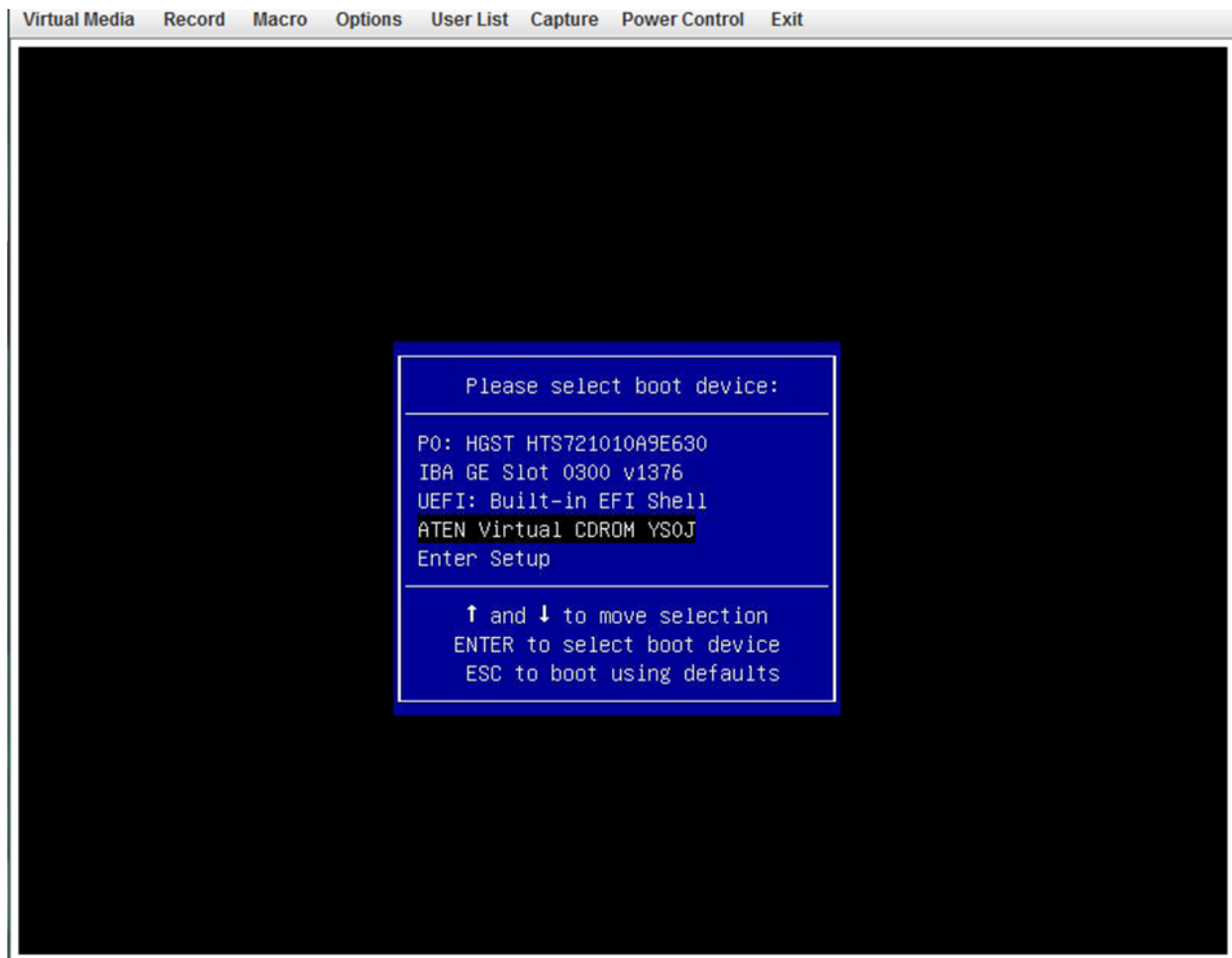


Figure A-11. Bootable Devices List

9. Close the KVM Console window, or go to the Virtual Storage window (see step 2) and click on Plug Out, this will remove mounting of the ISO file (Figure A-12).

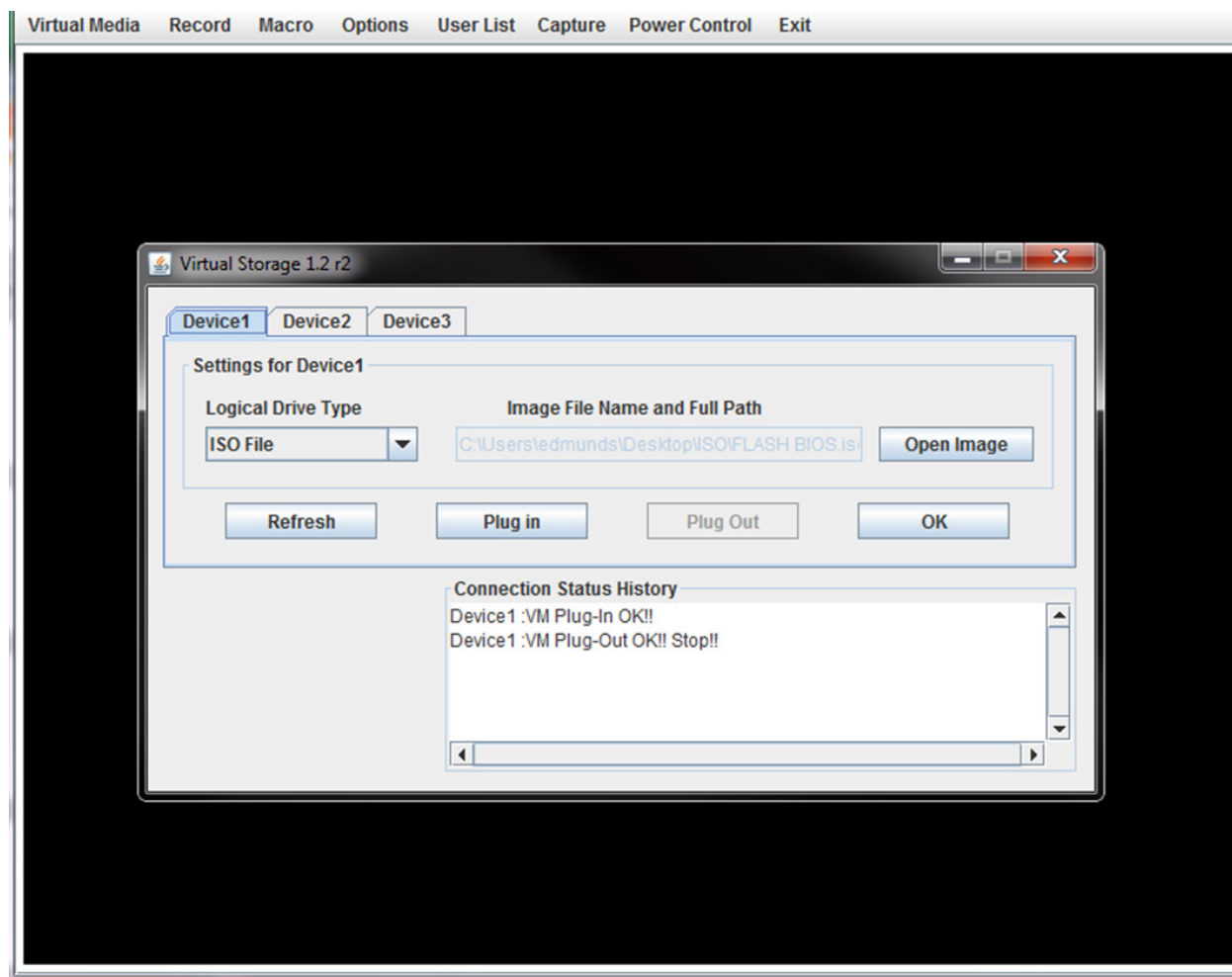


Figure A-12. Clicking Plug Out in the Virtual Storage Window

Appendix B

Standardized Warning Statements for AC Systems

B.1 About Standardized Warning Statements

The following statements are industry standard warnings, provided to warn the user of situations which have the potential for bodily injury. Should you have questions or experience difficulty, contact Supermicro's Technical Support department for assistance. Only certified technicians should attempt to install or configure components.

Read this appendix in its entirety before installing or configuring components in the Supermicro chassis.

These warnings may also be found on our website at http://www.supermicro.com/about/policies/safety_information.cfm.

Warning Definition



Warning! This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.

警告の定義

この警告サインは危険を意味します。

人身事故につながる可能性がありますので、いずれの機器でも動作させる前に、電気回路に含まれる危険性に注意して、標準的な事故防止策に精通して下さい。

此警告符号代表危險。

您正处于可能受到严重伤害的工作环境中。在您使用设备开始工作之前，必须充分意识到触电的危险，并熟练掌握防止事故发生的标准工作程序。请根据每项警告结尾的声明号码找到此设备的安全性警告说明的翻译文本。

此警告符號代表危險。

您正處於可能身體可能會受損傷的工作環境中。在您使用任何設備之前，請注意觸電的危險，並且要熟悉預防事故發生的標準工作程序。請依照每一注意事項後的號碼找到相關的翻譯說明內容。

Warnung

WICHTIGE SICHERHEITSHINWEISE

Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu Verletzungen führen kann. Machen Sie sich vor der Arbeit mit Geräten mit den Gefahren elektrischer Schaltungen und den üblichen Verfahren zur Vorbeugung vor Unfällen vertraut. Suchen Sie mit der am Ende jeder Warnung angegebenen Anweisungsnummer nach der jeweiligen Übersetzung in den übersetzten Sicherheitshinweisen, die zusammen mit diesem Gerät ausgeliefert wurden.

BEWAHREN SIE DIESE HINWEISE GUT AUF.

INSTRUCCIONES IMPORTANTES DE SEGURIDAD

Este símbolo de aviso indica peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considere los riesgos de la corriente eléctrica y familiarícese con los procedimientos estándar de prevención de accidentes. Al final de cada advertencia encontrará el número que le ayudará a encontrar el texto traducido en el apartado de traducciones que acompaña a este dispositivo.

GUARDE ESTAS INSTRUCCIONES.

IMPORTANTES INFORMATIONS DE SÉCURITÉ

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant entraîner des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers liés aux circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions des avertissements figurant dans les consignes de sécurité traduites qui accompagnent cet appareil, référez-vous au numéro de l'instruction situé à la fin de chaque avertissement.

CONSERVEZ CES INFORMATIONS.

תקנון הזהרות אזהרה

הזהרות הבאות הן אזהרות על פי תקני התעשייה, על מנת להזהיר את המשתמש מפני חבלה פיזית אפשרית. במידה ויש שאלות או היתקלות בבעיה כלשהי, יש ליצור קשר עם מחלקת תמיכה טכנית של סופרמיקרו. טכנאים מוסמכים בלבד רשאים להתקין או להגדיר את הרכיבים. יש לקרוא את הנספח במלואו לפני התקנת או הגדרת הרכיבים במארזי סופרמיקרו.

اَكْ فِ حَالَةٍ وُكِي اَيُّ تَتَسَبَّبُ فِ اَصَابَةِ جَسَدٍ هَذَا الزَّهْرُ عُ خَطَرٌ! تَحْذَرُ .
 قَبْلَ اَيُّ تَعْوَلُ عَلَى اَيُّ هَعْدَاتٍ، كِي عَلَى عِلْنِ بِالْوَحَاظِ اَلْ اُجُوَّةِ عِي الذَّوَائِرِ
 الْكَهْزِبَائِيَّةِ
 وَكِي عَلَى دَرَاةٍ بِالْوَوَارِسَاتِ الْبَقَائِيَّةِ لَوْ عُ وَقَعَ اَيُّ حَادَثٍ
 اسْتَخْدَمَ رَقْنِ الْبِ اَيُّ الْوَصُصِ فِ هَآءِ كُلِّ تَحْذَرُ لِّلْعَشْرِ تَرْجُوْتَهَا

안전을 위한 주의사항

경고!

이 경고 기호는 위험이 있음을 알려 줍니다. 작업자의 신체에 부상을 야기 할 수 있는
 상태에 있게 됩니다. 모든 장비에 대한 작업을 수행하기 전에 전기회로와 관련된
 위험요소들을 확인하시고 사전에 사고를 방지할 수 있도록 표준 작업절차를 준수해 주시기
 바랍니다.

해당 번역문을 찾기 위해 각 경고의 마지막 부분에 제공된 경고문 번호를 참조하십시오

BELANGRIJKE VEILIGHEIDSINSTRUCTIES

Dit waarschuwings symbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij een elektrische installatie betrokken risico's en dient u op de hoogte te zijn van de standaard procedures om ongelukken te voorkomen. Gebruik de nummers aan het eind van elke waarschuwing om deze te herleiden naar de desbetreffende locatie.

BEWAAR DEZE INSTRUCTIES

Installation Instructions



Warning! Read the installation instructions before connecting the system to the power source.

設置手順書

システムを電源に接続する前に、設置手順書をお読み下さい。

警告

将此系统连接电源前,请先阅读安装说明。

警告

將系統與電源連接前，請先閱讀安裝說明。

Warnung

Vor dem Anschließen des Systems an die Stromquelle die Installationsanweisungen lesen.

¡Advertencia!

Lea las instrucciones de instalación antes de conectar el sistema a la red de alimentación.

Attention

Avant de brancher le système sur la source d'alimentation, consulter les directives d'installation.

יש לקרוא את הוראות התקנה לפני חיבור המערכת למקור מתח.

اقرأ إرشادات التركيب قبل توصيل النظام إلى مصدر للطاقة

시스템을 전원에 연결하기 전에 설치 안내를 읽어주십시오.

Waarschuwing

Raadpleeg de installatie-instructies voordat u het systeem op de voedingsbron aansluit.

Circuit Breaker

Warning! This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 250 V, 20 A.

サーキット・ブレーカー

この製品は、短絡(過電流)保護装置がある建物での設置を前提としています。

保護装置の定格が250 V、20 Aを超えないことを確認下さい。

警告

此产品的短路(过载电流)保护由建筑物的供电系统提供,确保短路保护设备的额定电流不大于250V,20A。

警告

此產品的短路(過載電流)保護由建築物的供電系統提供,確保短路保護設備的額定電流不大於250V,20A。

Warnung

Dieses Produkt ist darauf angewiesen, dass im Gebäude ein Kurzschluss- bzw. Überstromschutz installiert ist. Stellen Sie sicher, dass der Nennwert der Schutzvorrichtung nicht mehr als: 250 V, 20 A beträgt.

¡Advertencia!

Este equipo utiliza el sistema de protección contra cortocircuitos (o sobrecorrientes) del edificio. Asegúrese de que el dispositivo de protección no sea superior a: 250 V, 20 A.

Attention

Pour ce qui est de la protection contre les courts-circuits (surtension), ce produit dépend de l'installation électrique du local. Vérifiez que le courant nominal du dispositif de protection n'est pas supérieur à :250 V, 20 A.

מוצר זה מסתמך על הגנה המותקנת במבנים למניעת קצר חשמלי. יש לוודא כי המכשיר המגן מפני הקצר החשמלי הוא לא יותר מ-250VDC, 20A

هذا المنتج يعتمد على معدات الحماية مه الدوائر القصيرة التي تم تثبيتها في المبنى
تأكد من أن تقييم الجهاز الوقائي ليس أكثر من : 20A, 250V

경고!

이 제품은 전원의 단락(과전류)방지에 대해서 전적으로 건물의 관련 설비에 의존합니다. 보호장치의 정격이 반드시 250V(볼트), 20A(암페어)를 초과하지 않도록 해야 합니다.

Waarschuwing

Dit product is afhankelijk van de kortsluitbeveiliging (overspanning) van uw elektrische installatie. Controleer of het beveiligde apparaat niet groter gedimensioneerd is dan 250V, 20A.

Power Disconnection Warning



Warning! The system must be disconnected from all sources of power and the power cord removed from the power supply module(s) before accessing the chassis interior to install or remove system components.

電源切斷の警告

システムコンポーネントの取り付けまたは取り外しのために、シャーシ内部にアクセスするには、システムの電源はすべてのソースから切斷され、電源コードは電源モジュールから取り外す必要があります。

警告

在你打开机箱并安装或移除内部器件前,必须将系统完全断电,并移除电源线。

警告

在您打開機殼安裝或移除內部元件前，必須將系統完全斷電，並移除電源線。

Warnung

Das System muss von allen Quellen der Energie und vom Netzanschlusskabel getrennt sein, das von den Spg.Versorgungsteilmodulen entfernt wird, bevor es auf den Chassisinnenraum zurückgreift, um Systemsbestandteile anzubringen oder zu entfernen.

¡Advertencia!

El sistema debe ser disconnected de todas las fuentes de energía y del cable eléctrico quitado de los módulos de fuente de alimentación antes de tener acceso el interior del chasis para instalar o para quitar componentes de sistema.

Attention

Le système doit être débranché de toutes les sources de puissance ainsi que de son cordon d'alimentation secteur avant d'accéder à l'intérieur du chassis pour installer ou enlever des composants de système.

אזהרה מפני ניתוק חשמלי

אזהרה!

יש לנתק את המערכת מכל מקורות החשמל ויש להסיר את כבל החשמלי מהספק לפני גישה לחלק הפנימי של המארז לצורך התקנת או הסרת רכיבים.

يجب فصل انظاؤ من جميع مصادر انطاقت وإزانت سهك انكهرباء من وحدة امداد
انطاقت قېم
انصل إلى امناطق انداخھيت نهھيكم نتشيج أو إزانت مكنناث الجهاز

경고!

시스템에 부품들을 장착하거나 제거하기 위해서는 새시 내부에 접근하기 전에 반드시 전원 공급장치로부터 연결되어있는 모든 전원과 전기코드를 분리해주어야 합니다.

Waarschuwing

Voordat u toegang neemt tot het binnenwerk van de behuizing voor het installeren of verwijderen van systeem onderdelen, dient u alle spanningsbronnen en alle stroomkabels aangesloten op de voeding(en) van de behuizing te verwijderen

Equipment Installation



Warning! Only trained and qualified personnel should be allowed to install, replace, or service this equipment.

機器の設置

トレーニングを受け認定された人だけがこの装置の設置、交換、またはサービスを許可されています。

警告

只有经过培训且具有资格的人员才能进行此设备的安装、更换和维修。

警告

只有經過受訓且具資格人員才可安裝、更換與維修此設備。

Warnung

Das Installieren, Ersetzen oder Bedienen dieser Ausrüstung sollte nur geschultem, qualifiziertem Personal gestattet werden.

¡Advertencia!

Solamente el personal calificado debe instalar, reemplazar o utilizar este equipo.

Attention

Il est vivement recommandé de confier l'installation, le remplacement et la maintenance de ces équipements à des personnels qualifiés et expérimentés.

אזהרה!

צוות מוסמך בלבד רשאי להתקין, להחליף את הציוד או לתת שירות עבור הציוד.

والمدربيه لتزكيب واستبدال أو خدمة هذا الجهاز يجب أن يسمح فقط للموظفيه المؤهليه

경고!

훈련을 받고 공인된 기술자만이 이 장비의 설치, 교체 또는 서비스를 수행할 수 있습니다.

Waarschuwing

Deze apparatuur mag alleen worden geïnstalleerd, vervangen of hersteld door geschoold en gekwalificeerd personeel.

Restricted Area

Warning! This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security. (This warning does not apply to workstations).

アクセス制限区域

このユニットは、アクセス制限区域に設置されることを想定しています。

アクセス制限区域は、特別なツール、鍵と錠前、その他のセキュリティの手段を用いてのみ出入りが可能です。

警告

此部件应安装在限制进出的场所，限制进出的场所指只能通过使用特殊工具、锁和钥匙或其它安全手段进出的场所。

警告

此裝置僅限安裝於進出管制區域，進出管制區域係指僅能以特殊工具、鎖頭及鑰匙或其他安全方式才能進入的區域。

Warnung

Diese Einheit ist zur Installation in Bereichen mit beschränktem Zutritt vorgesehen. Der Zutritt zu derartigen Bereichen ist nur mit einem Spezialwerkzeug, Schloss und Schlüssel oder einer sonstigen Sicherheitsvorkehrung möglich.

¡Advertencia!

Esta unidad ha sido diseñada para instalación en áreas de acceso restringido. Sólo puede obtenerse acceso a una de estas áreas mediante la utilización de una herramienta especial, cerradura con llave u otro medio de seguridad.

Attention

Cet appareil doit être installé dans des zones d'accès réservés. L'accès à une zone d'accès réservé n'est possible qu'en utilisant un outil spécial, un mécanisme de verrouillage et une clé, ou tout autre moyen de sécurité.

אזור עם גישה מוגבלת

אזהרה!

יש להתקין את היחידה באזורים שיש בהם הגבלת גישה. הגישה ניתנת בעזרת
'כלי אבטחה בלבד' (מפתח, מנעול וכד.).

تخصيص هذه انحدرة نترك بُها ف مناطق محظورة تم .
ممكن اننصل إن منطقت محظورة فقط من خلال استخذاو أداة خاصت
أو أ وس هُت أخري نلاأمما ققم ومفتاح

경고!

이 장치는 접근이 제한된 구역에 설치하도록 되어있습니다. 특수도구, 잠금 장치 및 키,
또는 기타 보안 수단을 통해서만 접근 제한 구역에 들어갈 수 있습니다.

Waarschuwing

Dit apparaat is bedoeld voor installatie in gebieden met een beperkte toegang. Toegang tot dergelijke gebieden kunnen alleen verkregen worden door gebruik te maken van speciaal gereedschap, slot en sleutel of andere veiligheidsmaatregelen.

Battery Handling



Warning! There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions

電池の取り扱い

電池交換が正しく行われなかった場合、破裂の危険性があります。交換する電池はメーカーが推奨する型、または同等のものを使用下さい。使用済電池は製造元の指示に従って処分して下さい。

警告

電池更換不當會有爆炸危險。請只使用同類電池或制造商推荐的功能相当的電池更換原有電池。請按制造商的說明處理廢舊電池。

警告

電池更換不當會有爆炸危險。請使用製造商建議之相同或功能相當的電池更換原有電池。請按照製造商的說明指示處理廢棄舊電池。

Warnung

Bei Einsetzen einer falschen Batterie besteht Explosionsgefahr. Ersetzen Sie die Batterie nur durch den gleichen oder vom Hersteller empfohlenen Batterietyp. Entsorgen Sie die benutzten Batterien nach den Anweisungen des Herstellers.

Attention

Danger d'explosion si la pile n'est pas remplacée correctement. Ne la remplacer que par une pile de type semblable ou équivalent, recommandée par le fabricant. Jeter les piles usagées conformément aux instructions du fabricant.

¡Advertencia!

Existe peligro de explosión si la batería se reemplaza de manera incorrecta. Reemplazar la batería exclusivamente con el mismo tipo o el equivalente recomendado por el fabricante. Desechar las baterías gastadas según las instrucciones del fabricante.

אזהרה!

קיימת סכנת פיצוץ של הסוללה במידה והוחלפה בדרך לא תקינה. יש להחליף את הסוללה בסוג התואם מחברת יצרן מומלצת. סילוק הסוללות המשומשות יש לבצע לפי הוראות היצרן.

هناك خطر من انفجار في حالة اسحبذال البطارية بطريقة غير صحيحة فعلى
اسحبذال البطارية
فقط بنفس النوع أو ما يعادلها مما أوصت به الشركة المصنعة
جخلص من البطاريات المسحمة وفقا لعمليات الشركة الصانعة

경고!

배터리가 올바르게 교체되지 않으면 폭발의 위험이 있습니다. 기존 배터리와 동일하거나 제조사에서 권장하는 동등한 종류의 배터리로만 교체해야 합니다. 제조사의 안내에 따라 사용된 배터리를 처리하여 주십시오.

Waarschuwing

Er is ontplofingsgevaar indien de batterij verkeerd vervangen wordt. Vervang de batterij slechts met hetzelfde of een equivalent type die door de fabrikant aanbevolen wordt. Gebruikte batterijen dienen overeenkomstig fabrieksvoorschriften afgevoerd te worden.

Redundant Power Supplies



Warning! This unit might have more than one power supply connection. All connections must be removed to de-energize the unit.

冗長電源装置

このユニットは複数の電源装置が接続されている場合があります。

ユニットの電源を切るためには、すべての接続を取り外さなければなりません。

警告

此部件连接的电源可能不止一个，必须将所有电源断开才能停止给该部件供电。

警告

此裝置連接的電源可能不只一個，必須切斷所有電源才能停止對該裝置的供電。

Warnung

Dieses Gerät kann mehr als eine Stromzufuhr haben. Um sicherzustellen, dass der Einheit kein Strom zugeführt wird, müssen alle Verbindungen entfernt werden.

¡Advertencia!

Puede que esta unidad tenga más de una conexión para fuentes de alimentación. Para cortar por completo el suministro de energía, deben desconectarse todas las conexiones.

Attention

Cette unité peut avoir plus d'une connexion d'alimentation. Pour supprimer toute tension et tout courant électrique de l'unité, toutes les connexions d'alimentation doivent être débranchées.

אם קיים יותר מספק אחד

אזהרה!

ליחידה יש יותר מחיבור אחד של ספק. יש להסיר את כל החיבורים על מנת לרוקן את היחידה.

قد يكون لهذا الجهاز عدة اتصالات بوحدات امداد الطاقة .

يجب إزالة كافة الاتصالات لعسل الوحدة عن الكهرباء

경고!

이 장치에는 한 개 이상의 전원 공급 단자가 연결되어 있을 수 있습니다. 이 장치에 전원을 차단하기 위해서는 모든 연결 단자를 제거해야만 합니다.

Waarschuwing

Deze eenheid kan meer dan één stroomtoevoeraansluiting bevatten. Alle aansluitingen dienen verwijderd te worden om het apparaat stroomloos te maken.

Backplane Voltage



Warning! Hazardous voltage or energy is present on the backplane when the system is operating. Use caution when servicing.

バックプレーンの電圧

システムの稼働中は危険な電圧または電力が、バックプレーン上にかかっています。

修理する際には注意ください。

警告

当システム正在进行时，背板上有很危险的电压或能量，进行维修时务必小心。

警告

當系統正在進行時，背板上有危險的電壓或能量，進行維修時務必小心。

Warnung

Wenn das System in Betrieb ist, treten auf der Rückwandplatine gefährliche Spannungen oder Energien auf. Vorsicht bei der Wartung.

¡Advertencia!

Cuando el sistema está en funcionamiento, el voltaje del plano trasero es peligroso. Tenga cuidado cuando lo revise.

Attention

Lorsque le système est en fonctionnement, des tensions électriques circulent sur le fond de panier. Prendre des précautions lors de la maintenance.

מתח בפנל האחורי

אזהרה!

קיימת סכנת מתח בפנל האחורי בזמן תפעול המערכת. יש להיזהר במהלך העבודה.

هناك خطر من التيار الكهربائي أو الطاقة المبددة على الساحة
عندما يكون النظام يعمل كه حذرا عند خدمة هذا الجهاز

경고!

시스템이 동작 중일 때 후면판 (Backplane)에는 위험한 전압이나 에너지가 발생 합니다.
서비스 작업 시 주의하십시오.

Waarschuwing

Een gevaarlijke spanning of energie is aanwezig op de backplane wanneer het systeem in gebruik is. Voorzichtigheid is geboden tijdens het onderhoud.

Comply with Local and National Electrical Codes



Warning! Installation of the equipment must comply with local and national electrical codes.

地方および国の電気規格に準拠

機器の取り付けはその地方および国の電気規格に準拠する必要があります。

警告

设备安装必须符合本地与本国电气法规。

警告

設備安裝必須符合本地與本國電氣法規。

Warnung

Die Installation der Geräte muss den Sicherheitsstandards entsprechen.

¡Advertencia!

La instalacion del equipo debe cumplir con las normas de electricidad locales y nacionales.

Attention

L'équipement doit être installé conformément aux normes électriques nationales et locales.

תיאום חוקי החשמל הארצי

אזהרה!

התקנת הציוד חייבת להיות תואמת לחוקי החשמל המקומיים והארציים.

تركيب المعدات الكهربائية يجب أن يمثل للقوايه المحلية والبطية المتعلقة
بالكهرباء

경고!

현 지역 및 국가의 전기 규정에 따라 장비를 설치해야 합니다.

Waarschuwing

Bij installatie van de apparatuur moet worden voldaan aan de lokale en nationale elektriciteitsvoorschriften.

Product Disposal



Warning! Ultimate disposal of this product should be handled according to all national laws and regulations.

製品の廃棄

この製品を廃棄処分する場合、国の関係する全ての法律・条例に従い処理する必要があります。

警告

本产品的废弃处理应根据所有国家的法律和规章进行。

警告

本產品的廢棄處理應根據所有國家的法律和規章進行。

Warnung

Die Entsorgung dieses Produkts sollte gemäß allen Bestimmungen und Gesetzen des Landes erfolgen.

¡Advertencia!

Al deshacerse por completo de este producto debe seguir todas las leyes y reglamentos nacionales.

Attention

La mise au rebut ou le recyclage de ce produit sont généralement soumis à des lois et/ou directives de respect de l'environnement. Renseignez-vous auprès de l'organisme compétent.

סילוק המוצר

אזהרה!

סילוק סופי של מוצר זה חייב להיות בהתאם להנחיות וחוקי המדינה.

التخلص النهائي من هذا المنتج ينبغي التعامل معه وفقا لجميع القوانين واللوائح الوطنية عند

경고!

이 제품은 해당 국가의 관련 법규 및 규정에 따라 폐기되어야 합니다.

Waarschuwing

De uiteindelijke verwijdering van dit product dient te geschieden in overeenstemming met alle nationale wetten en reglementen.

Hot Swap Fan Warning



Warning! Hazardous moving parts. Keep away from moving fan blades. The fans might still be turning when you remove the fan assembly from the chassis. Keep fingers, screwdrivers, and other objects away from the openings in the fan assembly's housing.

ファン・ホットスワップの警告

警告!回転部品に注意。運転中は回転部(羽根)に触れないでください。シャーシから冷却ファン装置を取り外した際、ファンがまだ回転している可能性があります。ファンの開口部に、指、ドライバー、およびその他のものを近づけないで下さい。

警告!

警告! 危险的可移动性零件。请务必与转动的风扇叶片保持距离。当您从机架移除风扇装置，风扇可能仍在转动。小心不要将手指、螺丝起子和其他物品太靠近风扇

警告

危险的可移动性零件。请务必与转动的风扇叶片保持距离。当您从机架移除风扇装置，风扇可能仍在转动。小心不要将手指、螺丝起子和其他物品太靠近风扇。

Warnung

Gefährlich Bewegende Teile. Von den bewegenden Lüfterblätter fern halten. Die Lüfter drehen sich u. U. noch, wenn die Lüfterbaugruppe aus dem Chassis genommen wird. Halten Sie Finger, Schraubendreher und andere Gegenstände von den Öffnungen des Lüftergehäuses entfernt.

¡Advertencia!

Riesgo de piezas móviles. Mantener alejado de las aspas del ventilador. Los ventiladores podran dar vuelta cuando usted quite el montaje del ventilador del chasis. Mantenga los dedos, los destornilladores y todos los objetos lejos de las aberturas del ventilador

Attention

Pieces mobiles dangereuses. Se tenir a l'écart des lames du ventilateur Il est possible que les ventilateurs soient toujours en rotation lorsque vous retirerez le bloc ventilateur du châssis. Prenez garde à ce que doigts, tournevis et autres objets soient éloignés du logement du bloc ventilateur.

אזהרה!

חלקים נעים מסוכנים. התרחק מלהבי המאוורר בפעולה כאשר מסירים את חלקי המאוורר מהמארז, יתכן והמאווררים עדיין עובדים. יש להרחיק למרחק בטוח את האצבעות וכלי עבודה שונים מהפתחים בתוך המאוורר

تحذير! أجزاء متحركة خطيرة. ابتعد عن شفرات المروحة المتحركة. من الممكن أن المراوح لا تزال تدور عند إزالة كتلة المروحة من الهيكل يجب إبقاء الأصابع ومفكات البراغي وغيرها من الأشياء بعيدا عن الفتحات في كتلة المروحة

경고!

움직이는 위험한 부품. 회전하는 송풍 날개에 접근하지 마세요. 새시로부터 팬 조립품을 제거할 때 팬은 여전히 회전하고 있을 수 있습니다. 팬 조립품 외관의 열려있는 부분들로부터 손가락 및 스크류드라이버, 다른 물체들이 가까이 하지 않도록 배치해 주십시오.

Waarschuwing

Gevaarlijk bewegende onderdelen. Houd voldoende afstand tot de bewegende ventilatorbladen. Het is mogelijk dat de ventilator nog draait tijdens het verwijderen van het ventilatorsamenstel uit het chassis. Houd uw vingers, schroevendraaiers en eventuele andere voorwerpen uit de buurt van de openingen in de ventilatorbehuizing.

Power Cable and AC Adapter



Warning! When installing the product, use the provided or designated connection cables, power cables and AC adaptors. Using any other cables and adaptors could cause a malfunction or a fire. Electrical Appliance and Material Safety Law prohibits the use of UL or CSA -certified cables (that have UL/CSA shown on the code) for any other electrical devices than products designated by Supermicro only.

電源コードとACアダプター

製品を設置する場合、提供または指定および購入された接続ケーブル、電源コードとACアダプターを、該当する地域の条例や安全基準に適合するコードサイズやプラグと共に使用下さい。他のケーブルやアダプタを使用すると故障や火災の原因になることがあります。

電気用品安全法は、ULまたはCSA認定のケーブル(UL/CSEマークがコードに表記)を Supermicro が指定する製品以外に使用することを禁止しています。

警告

安装此产品时,请使用本身提供的或指定的或采购的连接线,电源线和电源适配器。包含遵照当地法规和安全要求的合规的电源线尺寸和插头。使用其它线材或适配器可能会引起故障或火灾。除了Supermicro所指定的产品,电气用品和材料安全法律规定禁止使用未经UL或CSA认证的线材。(线材上会显示UL/CSA符号)。

警告

安裝此產品時,請使用本身提供的或指定的或採購的連接線,電源線和電源適配器。包含遵照當地法規和安全要求的合規的電源線尺寸和插頭。使用其它線材或適配器可能會引起故障或火災。除了Supermicro所指定的產品,電氣用品和材料安全法律規定禁止使用未經UL或CSA認證的線材。(線材上會顯示UL/CSA符號)。

Warnung

Nutzen Sie beim Installieren des Produkts ausschließlich die von uns zur Verfügung gestellten Verbindungskabeln, Stromkabeln und/oder Adapter, die Ihre örtlichen Sicherheitsstandards einhalten. Der Gebrauch von anderen Kabeln und Adapter können Fehlfunktionen oder Feuer verursachen. Die Richtlinien untersagen das Nutzen von UL oder CAS zertifizierten Kabeln (mit UL/CSA gekennzeichnet), an Geräten oder Produkten die nicht mit Supermicro gekennzeichnet sind.

¡Advertencia!

Cuando instale el producto, utilice la conexión provista o designada o procure cables, Cables de alimentación y adaptadores de CA que cumplan con los códigos locales y los requisitos de seguridad, incluyendo el tamaño adecuado del cable y el enchufe. El uso de otros cables y adaptadores podría causar un mal funcionamiento o un incendio. La Ley de Seguridad de Aparatos Eléctricos y de Materiales prohíbe El uso de cables certificados por UL o CSA (que tienen el certificado UL / CSA en el código) para cualquier otros dispositivos eléctricos que los productos designados únicamente por Supermicro.

Attention

Lors de l'installation du produit, utilisez les cables de connection fournis ou désigné ou achetez des cables, cables de puissance et adaptateurs respectant les normes locales et les conditions de securite y compris les tailles de cables et les prises electriques appropries. L'utilisation d'autres cables et adaptateurs peut provoquer un dysfonctionnement ou un incendie. Appareils électroménagers et la Loi sur la Sécurité Matériel interdit l'utilisation de câbles certifiés- UL ou CSA (qui ont UL ou CSA indiqué sur le code) pour tous les autres appareils électriques sauf les produits désignés par Supermicro seulement.

AC כבלים חשמליים ומתאמי

אזהרה!

אשר נרכשו או הותאמו לצורך ההתקנה, ואשר הותאמו לדרישות AC כאשר מתקינים את המוצר, יש להשתמש בכבלים, ספקים ומתאמים הבטיחות המקומיות, כולל מידה נכונה של הכבל והתקע. שימוש בכל כבל או מתאם מסוג אחר, עלול לגרום לתקלה או קצר חשמלי. בהתאם כאשר מופיע עליהם קוד) UL-CSA או ב UL - לחוקי השימוש במכשירי החשמל וחוקי הבטיחות, קיים איסור להשתמש בכבלים המוסמכים ב Supermicro עבור כל מוצר חשמלי אחר, אלא רק במוצר אשר הותאם ע"י (UL/CSA) של

عند تركيب المنتج، قم باستخدام التوصيلات المتوفرة أو المحددة أو قم بشراء الكابلات الكهربائية ومحوّلات التيار المتردد مع الالتزام بقوانين ومتطلبات السلامة المحلية بما في ذلك حجم الموصل والقابس السليم. استخدام أي كابلات ومحوّلات أخرى قد يتسبب في عطل أو حريق. يحظر قانون السلامة للأجهزة الكهربائية والمعدات استخدام الكابلات المعتمدة Supermicro مع أي معدات أخرى غير المنتجات المعنية والمحددة من قبل (UL/CSA) والتي تحمل علامة CSA أو UL من قبل

전원 케이블 및 AC 어댑터

경고! 제품을 설치할 때 현지 코드 및 적절한 굵기의 코드와 플러그를 포함한 안전 요구 사항을 준수하여 제공되거나 지정된 연결 혹은 구매 케이블, 전원 케이블 및 AC 어댑터를 사용하십시오.

다른 케이블이나 어댑터를 사용하면 오작동이나 화재가 발생할 수 있습니다. 전기 용품 안전법은 UL 또는 CSA 인증 케이블 (코드에 UL / CSA가 표시된 케이블)을 Supermicro가 지정한 제품 이외의 전기 장치에 사용하는 것을 금지합니다.

Stroomkabel en AC-Adapter

Waarschuwing! Bij het aansluiten van het Product uitsluitend gebruik maken van de geleverde Kabels of een andere geschikte aan te schaffen Aansluitmethode, deze moet altijd voldoen aan de lokale voorschriften en veiligheidsnormen, inclusief de juiste kabeldikte en stekker. Het gebruik van niet geschikte Kabels en/of Adapters kan een storing of brand veroorzaken. Wetgeving voor Elektrische apparatuur en Materiaalveiligheid verbied het gebruik van UL of CSA -gecertificeerde Kabels (met UL/CSA in de code) voor elke andere toepassing dan de door Supermicro hiervoor beoogde Producten.

Appendix D

Specifications and Compliance

Operating Environment

Operating Temperature: 10° to 35° C (50° to 95° F)

Non-operating Temperature: -40° to 70° C (-40° to 158° F)

Operating Relative Humidity: 8% to 90% (non-condensing)

Non-operating Relative Humidity: 5% to 95% (non-condensing)

Regulatory Compliance

FCC, ICES, CE, VCCI, RCM, NRTL, CB

Applied Directives, Standards

EMC/EMI: 2014/30/EU (EMC Directive)

FCC Part 15

ICES-003

VCCI 32-1

AS/NZS CISPR 32

EN55032

EN55035

CISPR 24

EN 61000-3-2

EN 61000-3-3

EN 61000-4-2

EN 61000-4-3

EN 61000-4-4

EN 61000-4-5

EN 61000-4-6

EN 61000-4-8

EN 61000-4-11

Green Environment:

2011/65/EU (RoHS Directive)

EC 1907/2006 (REACH)

2012/19/EU (WEEE Directive)

Product Safety: 2014/35/EU (LVD Directive)

UL/CSA 60950-1, 62368-1 (USA and Canada)

IEC/EN 60950-1, 62368-1

Perchlorate Warning

California Best Management Practices Regulations for Perchlorate Materials: This Perchlorate warning applies only to products containing CR (Manganese Dioxide) Lithium coin cells. "Perchlorate Material-special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate"

General Data Center Environmental Specifications

Particulate contamination specifications

Air filtration: Data centers must be kept clean to Class 8 of ISO 14644-1 (ISO 2015). The air entering the data center should be filtered with a MERV 11 filter or better. The air within the data center should be continuously filtered with a MERV 8 filter or better.

Conductive dust: Air should be free of conductive dust, zinc whiskers, or other conductive particles.

Corrosive dust: Air should be free of corrosive dust.

Gaseous* contamination specifications

Copper coupon corrosion rate: <300 Å/month per class G1 as defined by ANSI/ISA71.04-2013, reference by ASHRAE TC 9.9

Silver coupon corrosion rate: <200 Å/month per class G1 as defined by ANSI/ISA71.04-2013, reference by ASHRAE TC 9.9

*If testing with silver or copper coupons results in values less than 200 Å/month or 300 Å/month, respectively, then operating up to 70% relative humidity (RH) is acceptable. If the testing shows corrosion levels exceed these limits, then catalyst-type pollutants are probably present and RH should be driven to 50% or lower.