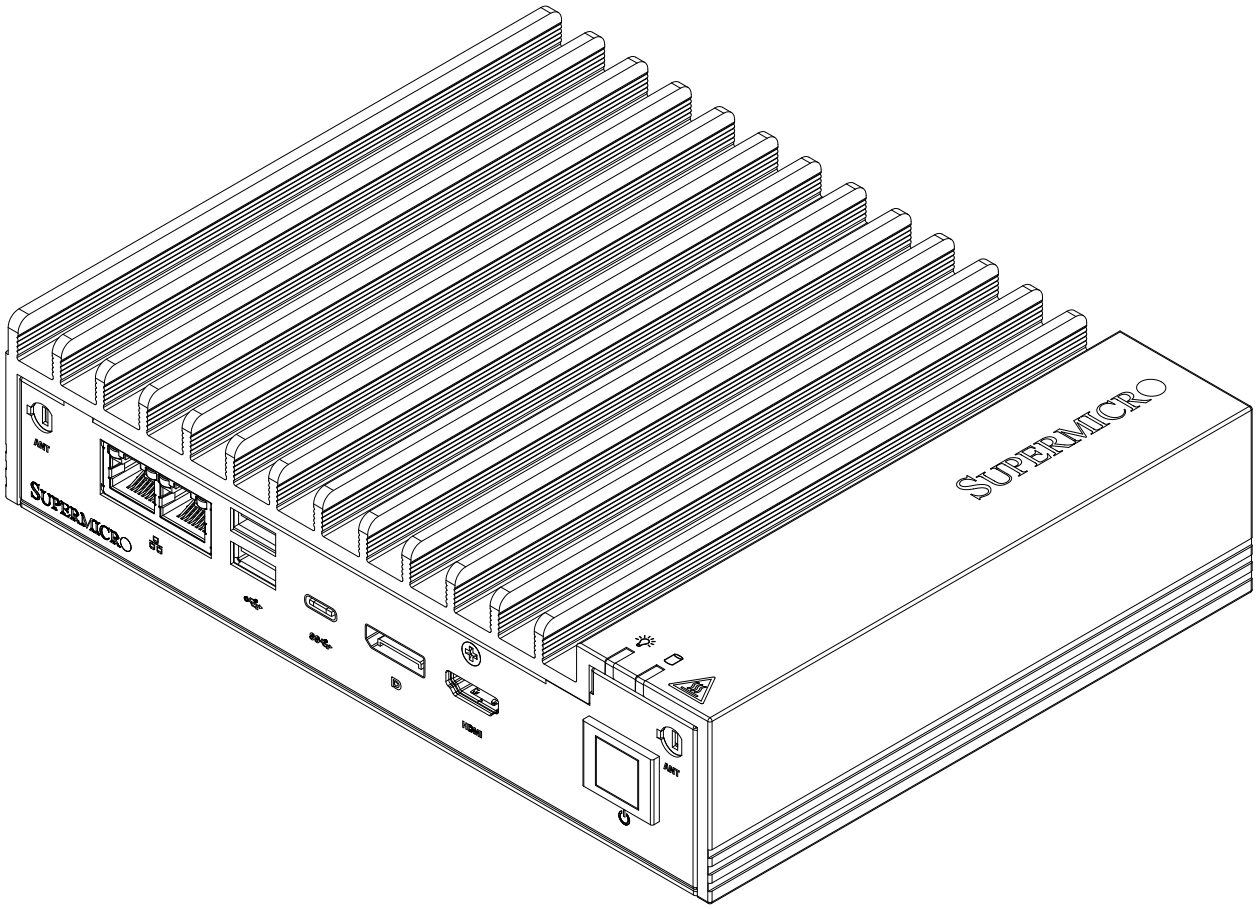
SUPERSERVER®
E100-9S/-9S-E/-9S-L



USER'S MANUAL

Revision 1.0

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Manual Revision 1.0

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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 SuperServer E100-9S/-9S-E/-9S-L. Installation and maintenance should be performed by experienced technicians only.

Please refer to the E100-9S/-9S-E/-9S-L 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: ftp://ftp.supermicro.com
- 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.

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.

Contents

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Chapter 1

Introduction

1.1 Overview

The SuperServer E100-9S/-9S-E/-9S-L is a compact, embedded system comprised of the SCE-101-01 chassis and the X11SSN-H-WOHS/-E-WOHS/-L-WOHS single processor motherboard. Refer to our website for information on operating systems that have been certified for use with the system (www.supermicro.com).

This chapter provides a brief outline of the functions and features. In addition to the motherboard and chassis, several important parts that are included with the system are listed below.

Main Parts List		
Description	**Part Number**	**Quantity**
Power Adapter	MCP-250-10117-0N	1

Important Links

For your system to work properly, follow the links below to download all necessary drivers and utilities for your server.

- Product drivers and utilities: ftp://ftp.supermicro.com
- 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. Check the Supermicro website for possible updates to the manual revision level.

1.2 System Features

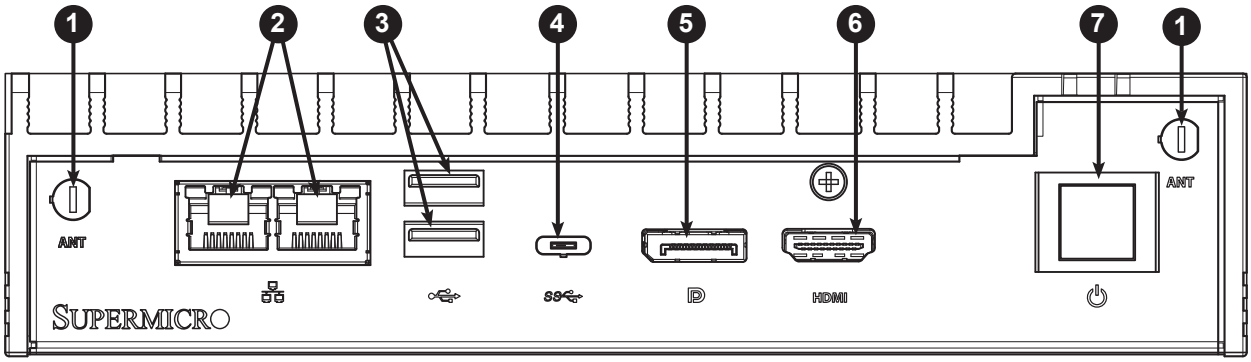
The following table provides an overview of the main features of the E100-9S/-9S-E/-9S-L. Refer to Appendix C for additional specifications.

System Features
Motherboard
E100-9S: X11SSN-H-WOHS E100-9S-E: X11SSN-E-WOHS E100-9S-L: X11SSN-L-WOHS
Chassis
SCE-101-01
CPU
E100-9S: 7th Generation Intel® Core i7-7600U Processor (System on Chip) Socket FCBGA 1356 E100-9S-E: 7th Generation Intel® Core i5-7300U Processor (System on Chip) Socket FCBGA 1356 E100-9S-L: 7th Generation Intel® Core i3-7100U Processor (System on Chip) Socket FCBGA 1356
I/O
2 x GLAN, 1 x HDMI 2.0, 1 x Display Port, 2 x USB 3.0, 1 x USB 3.1 Type C, 4 x USB 2.0, 4 x COM, 1 x DIO
Cooling
Fan-less design
Memory
Supports up to 32 GB DDR4 2133 MHz in 2 DIMM Slots
Expansion Slots
One full-size Mini-PCIe slot One M.2 B-key 2280 (SATA/PCI-E or WWAN/GNSS) slot
Power
Lockable 60W Power Adapter for 12V DC
Hard Drives
Supports one M.2 SATA SSD B-Key 2280
Form Factor
3.5" SBC small form factor (4"X5.75")
Dimensions
(WxHxD) 7.68" x 5.94" x 1.73" in. (195 x 151 x 44 mm)

1.3 I/O Features

Front I/O Features

See the illustration below for the features included on the front of the chassis.

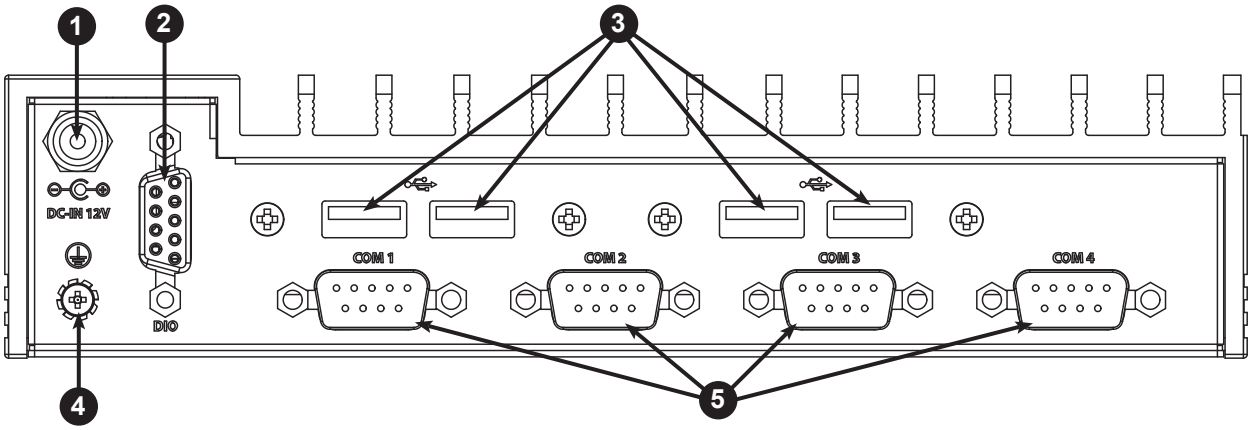


Front I/O Features		
Item	**Features**	**Description**
1	Antenna Port	Two antenna ports
2	LAN Ports	Two 1Gbe LAN ports
3	USB Ports	Two USB 3.0 ports
4	USB 3.1c Port	A front USB 3.1 Type C port
5	Display Port	A front display port
6	HDMI Port	A front High-Definition Multimedia Interface port
7	Power Button	The main power switch applies or removes primary power from the power supply to the server but maintains standby power (Note: To perform most maintenance tasks, unplug the power cord to completely remove power)

Figure 1-1. Front I/O Overview

Rear I/O Features

The illustration below shows the features included on the rear of the chassis.

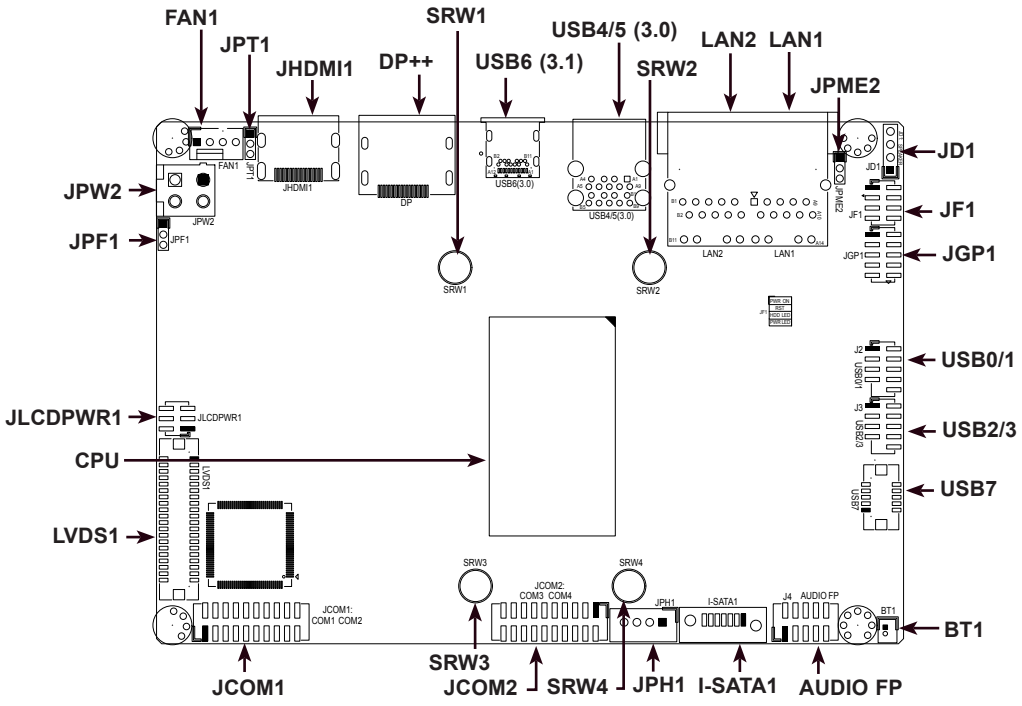


Rear Chassis Features		
Item	**Features**	**Description**
1	Power Input Port	Port used for the 40W DC power input
2	DIO Port	A rear mounted digital I/O port
3	USB Ports	Four rear USB 2.0 ports
4	Grounding Screw	Screw used for attaching an electrical grounding wire
5	COM Ports	Four communication ports

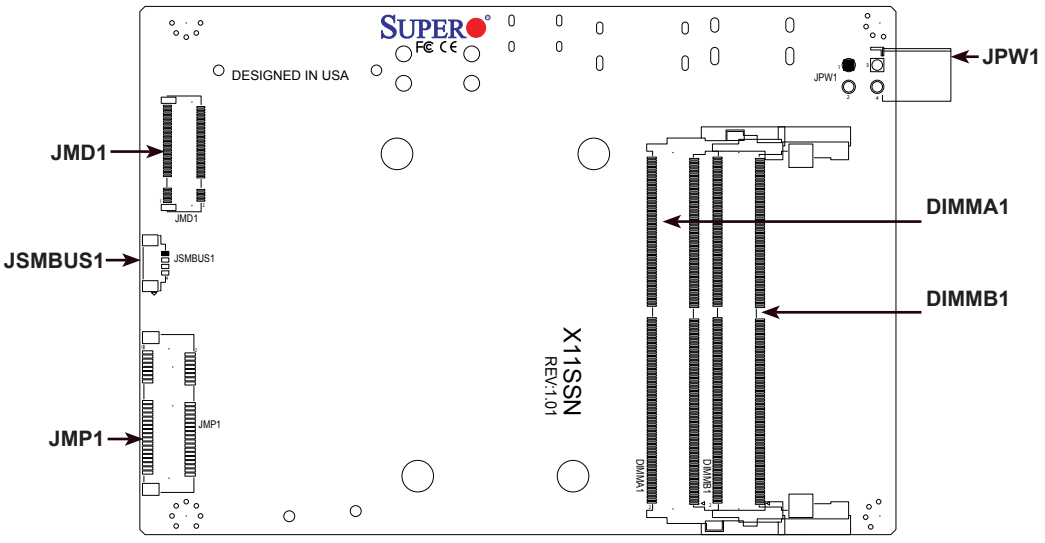
Figure 1-2. Rear I/O Overview

1.4 Motherboard Layout

Below is a layout of the X11SSN-H-WOHS/-E-WOHS/-L-WOHS with jumper, connector, and LED locations shown. See the table on the following page for descriptions. For detailed descriptions, pinout information, and jumper settings, refer to Chapter 3.



Top Layout



Bottom Layout

Figure 1-3. Motherboard Layout

Note: Components not documented are for internal testing only.

Quick Reference Table

Jumper	Description	Jumper Setting
JLCDPWR1	LVDS Panel VCC power source selection	Pin 1-3* (3.3V) Pin 3-5 (5V) Pin 3-4 (12V)
JPF1	FORCE POWER ON	Pin 1-2* (FORCE POWER ON) Pin 2-3 (POWER BUTTON ON)
JPME2	Manufacturing Mode	Pin 1-2* (Normal) Pin 2-3 (Manufacturing)
JPT1	TPM Enable/Disable Header (X11SSN-L does not support TPM)	Pin 1-2* (Enable) Pin 2-3 (Disable)

Connector	Description
AUDIO FP	Front Panel Audio Header (Mic-In/Headphone-Out)
BT1	Battery Connector (To Clear CMOS, remove the battery, short pins 1-2 for more than 10 seconds and install the battery.)
DP++	DisplayPort
FAN1	System Fan Header
I-SATA1	SATA 3.0 Port
JCOM1: COM1/COM2 JCOM2: COM3/COM4	COM Headers (JCOM1 supports two RS232/RS422/RS485, JCOM2 supports two RS232)
JD1	Speaker Header (Pins 1-4)
JF1	Front Control Panel Header (Power/HDD LED, Reset, Power button)
JGP1	8-bit General Purpose I/O Header
JHDMI1	Back Panel HDMI 2.0 Port
JMD1	M.2 Slot B-KEY 2280 (PCIe x2 Gen3, one USB 2.0, one SATA 3.0)ww
JMP1	Full Size Mini PCI-E Slot with mSATA (one PCIe x1 Gen3, one USB 2.0, one SATA 3.0)
JPH1	SATA Power Connector (for one HDD systewwwwwwwwwwwaaawm)
JPW1	4-pin 12V R/A Type Power Connector (for X11SSN-H/E/L and X11SSN-H/E/L-WOHS)
JPW2	4-pin 12V Vertical Type Power Connector (for X11SSN-H/E/L-VDC)
JSMBUS1	System Management Bus Header
LAN1, LAN2	LAN (RJ45) Ports
LVDS1	Dual Channel 48-bit LVDS Connector
SRW1 - SRW4	M.2 and Mini PCI-E Mounting Holes
USB0/1	USB 2.0 x 2 Header
USB2/3	USB 2.0 x 2 Header
USB4/5	Back Panel USB 3.0 Ports
USB6	USB 3.1 Type C Port
USB7	USB 3.0 OTG Header (one USB 3.0, one USB 2.0)

(* Default Setting)

System Block Diagram

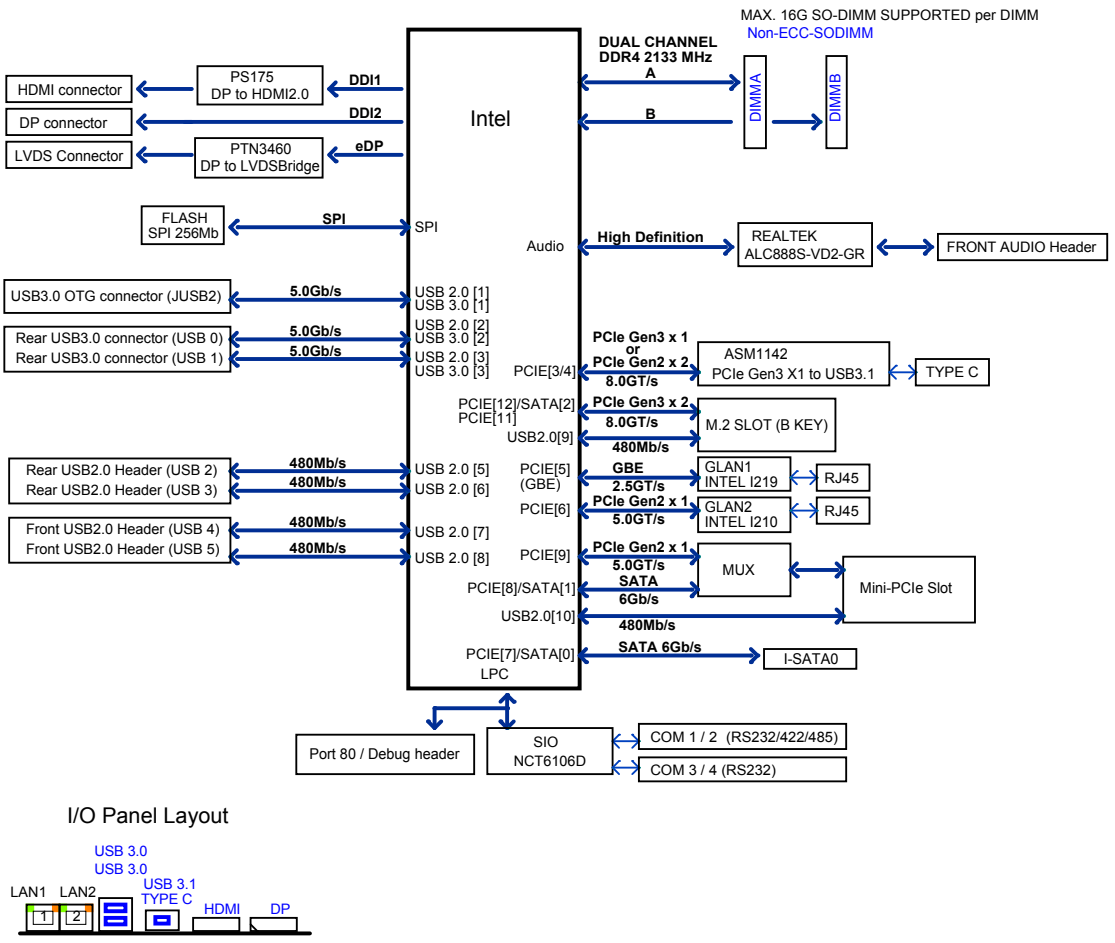


Figure 1-4. System Block Diagram

Note: This is a general block diagram and might not exactly represent the features on your motherboard. See the System Specifications appendix for the actual specifications of your motherboard.

1.5 System Installation

This section provides advice and instructions for mounting your system. The system is shipped with the onboard processor and the motherboard installed in the chassis.

Unpacking the System

Inspect the box in which the system was shipped and note if it was damaged. If the system itself shows damage, file a damage claim with the carrier.

Warnings and Precautions

Review the electrical and general safety precautions in Appendix B.

Installing Components to your System

- **Memory**: If your system is not already fully integrated with system memory, refer to Chapter 2 for details on compatible types of memory and the installation procedure.
- **Drives and Storage**: Refer to Chapter 2 for instructions on installing drives.
- **Installing Mounting Brackets:** Refer to Chapter 2 for instructions on installing mounting brackets.
- **Input/Output:** Refer to Chapter 3 for information about I/O ports.
- **Software**: Refer to Chapter 4 for software installation information, including drivers and monitoring programs.

Chapter 2
Maintenance and Component Installation

This chapter provides instructions on installing and replacing main system components. To prevent compatibility issues, only use components that match the specifications and/or part numbers given.

Installation or replacement of most components require that power first be removed from the system. Please follow the procedures given in each section.

2.1 Removing Power

Use the following procedure to ensure that power has been removed from the system. This step is necessary when removing or installing non-hot-swap components or when replacing a non-redundant power supply.

1. Use the operating system to power down the system.
2. After the system has completely shut down, disconnect the power cord from the power source.
3. Disconnect the power cord from the chassis.

2.2 Accessing the System

The E100-9S/-9S-E/-9S-L features a removable bottom cover to access to the inside of the chassis.

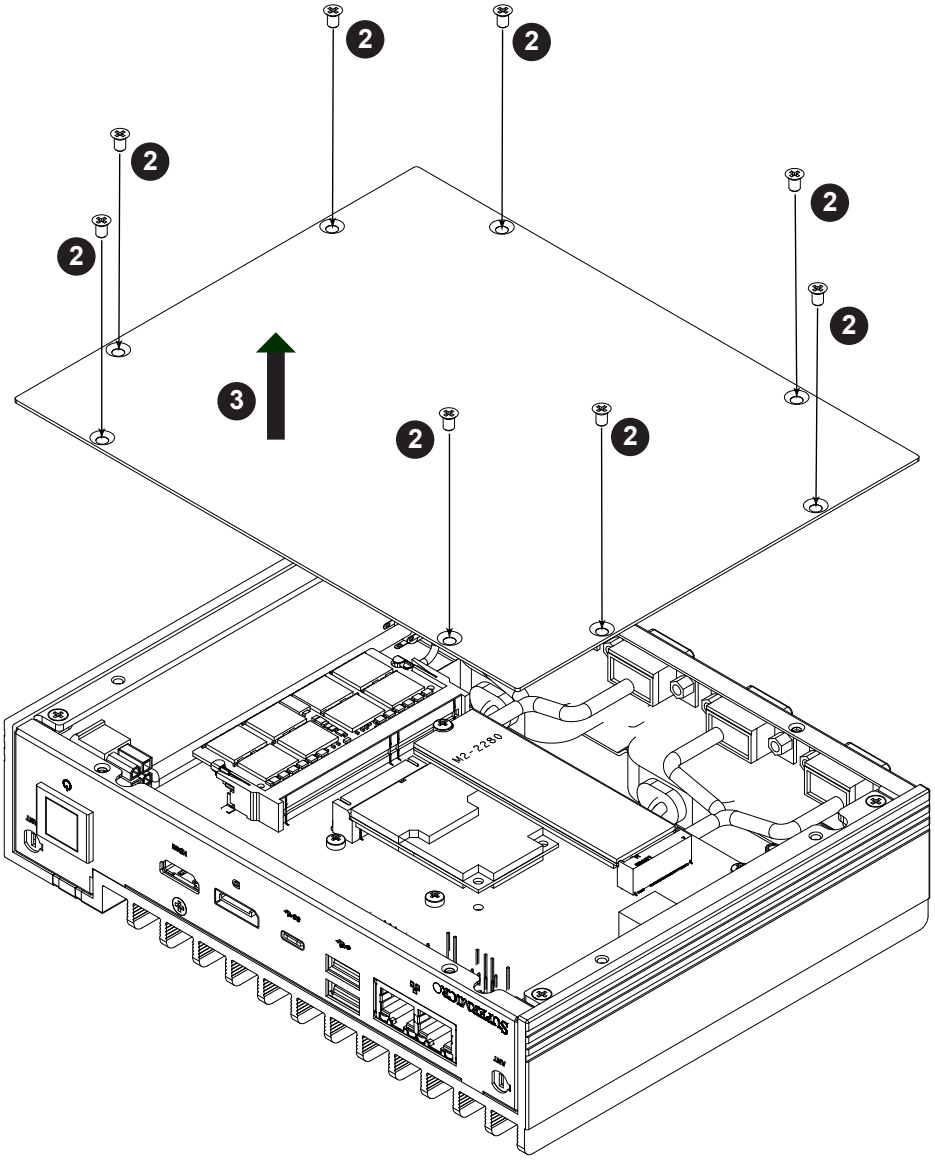


Figure 2-1. Removing the Chassis Cover

Removing the Bottom Cover

1. Power down the system as described in section 2.1.
2. Remove the eight screws that hold the cover in place.
3. Lift the cover up and off the chassis.

Caution: Except for short periods of time, do *not* operate the server without the cover in place. The chassis cover must be in place to prevent misuse**.**

2.3 Motherboard Components

Processor

The E100-9S/-9S-E/-9S-L features an embedded Intel® processor. E100-9S supports 7th Generation Intel Core i7-7600U Processor, E100-9S-E supports 7th Generation Intel Core i5-7300U Processor and E100-9S-L supports 7th Generation Intel Core i3-7100U Processor.

Memory Support

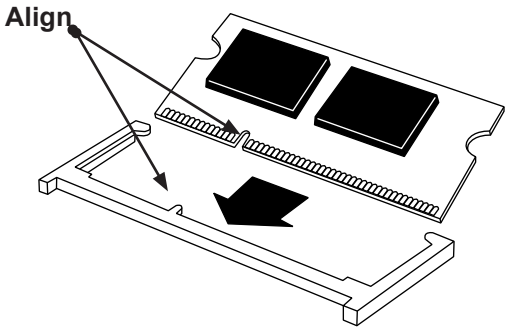
The X11SSN-H-WOHS/-E-WOHS/-L-WOHS series motherboard supports up to 32GB of DDR4 Non-ECC SODIMM memory with speeds up to 2133 MHz in two memory slots.

Note: Check the Supermicro website for recommended memory modules.®

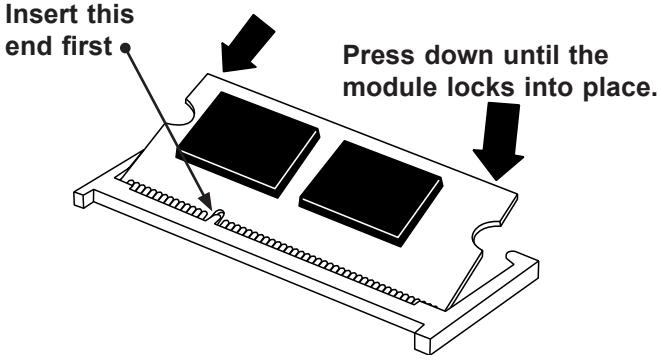
Installing Memory

Caution: Exercise extreme care when installing or removing DIMM modules to prevent damage.

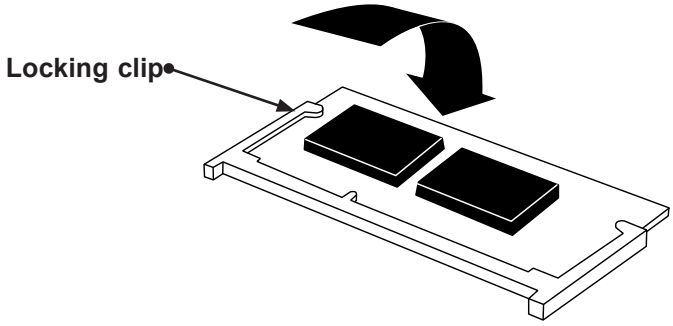
SO-DIMM Installation



1. Position the SODIMM module's bottom key so it aligns with the receptive point on the slot.
2. Insert the SODIMM module vertically at about a 45 degree angle. Press down until the module locks into place.



1. The side clips will automatically secure the SODIMM module, locking it into place.



SODIMM Removal

1. Push the side clips at the end of slot to release the SO-DIMM module.
2. Pull the SO-DIMM module up to remove it from the slot.

Solid State Storage

The E100-9S/-9S-E/-9S-L motherboard deploys a B-KEY for SATA/PCIe SSD devices or USB/PCIe WWAN or GNSS card. The E100-9S/-9S-E/-9S-L deploys a 2280 screw hole location for an M.2 module.

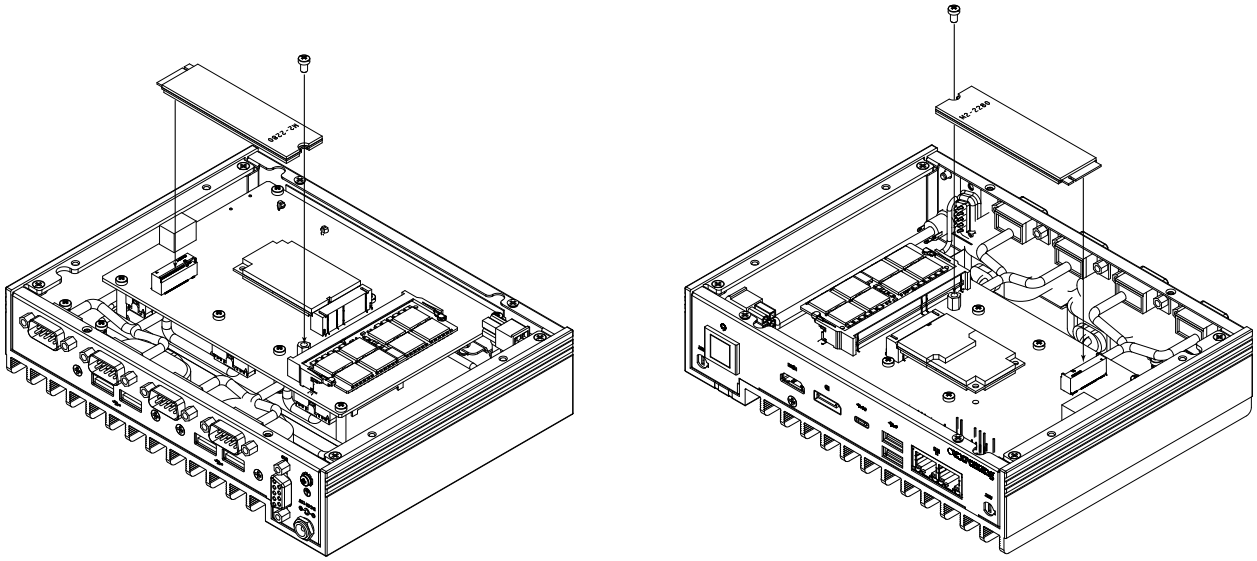


Figure 2-2. Installing an M.2 Expansion Card

Installing the M.2 Card

1. Gently insert the M.2 card into the connector.
2. Use a screw to secure the M.2 card to the M2_SRW1 standoff.

Motherboard Battery

The motherboard uses non-volatile memory to retain system information when system power is removed. This memory is powered by a lithium battery residing on the motherboard.

Installing Mounting Brackets

The chassis includes mounting brackets that allow it to be mounted in any convenient space.

1. Install the brackets to the chassis with two screws in each bracket.
2. Secure the brackets to the surface where you want the server to be mounted.

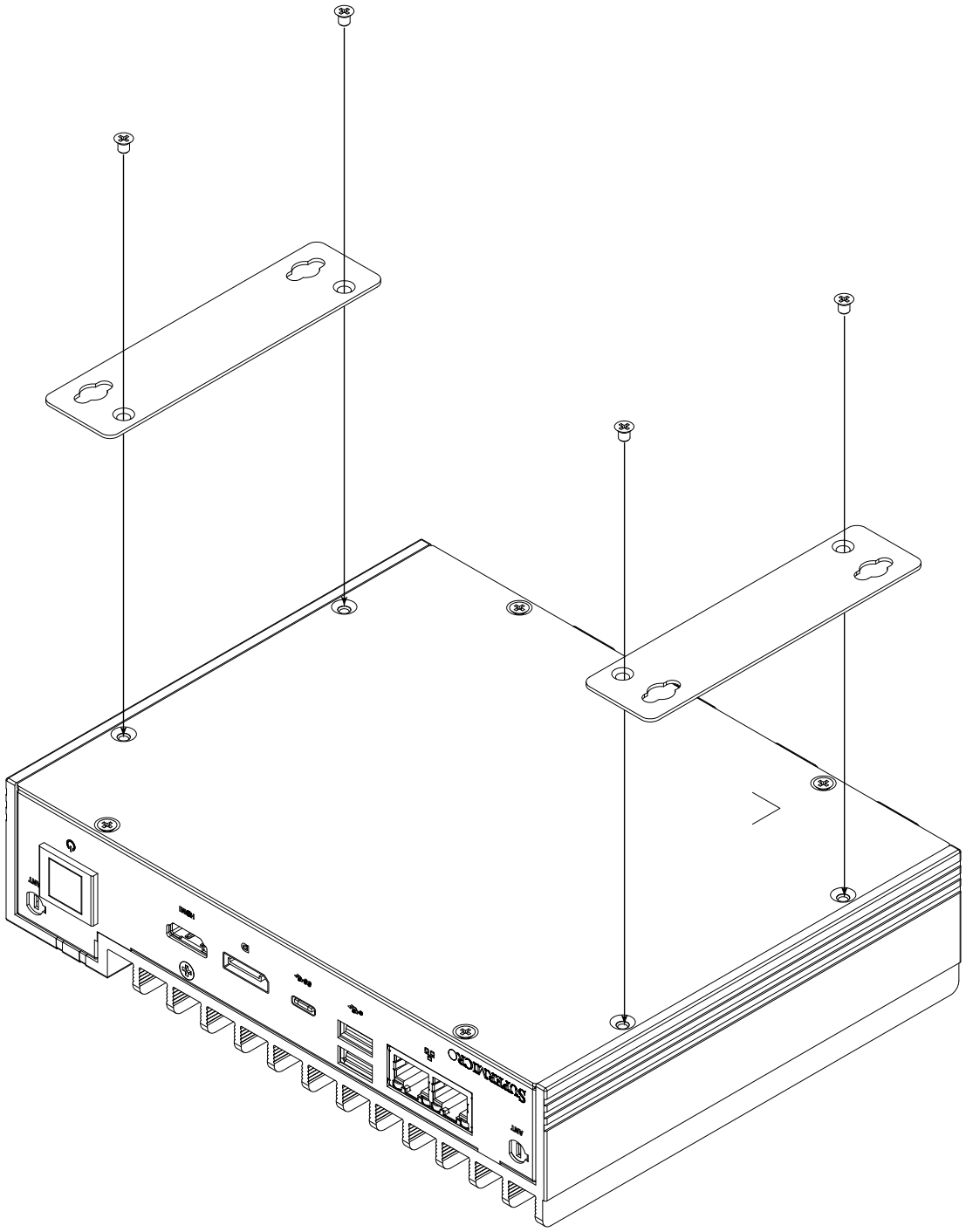


Figure 2-3. Installing Mounting Brackets
(Brackets extending out from the chassis)

Chapter 3

Motherboard Connections

This section describes the connections on the motherboard and provides pinout definitions. Depending on how the system is configured, not all connections are required. The LEDs on the motherboard are also described here. A motherboard layout indicating component locations can be found in Chapter 1.

Review the Safety Precautions in Appendix B before installing or removing components.

3.1 Ports

LAN Ports

Two LAN ports (JLAN1 - JLAN2) are located on the I/O back panel. These ports accept RJ45 type cables. Refer to the LED Indicator section for LAN LED information. Refer to the table below for pin definitions.

LAN Port Pin Definition

Pin#	Definition	Pin#	Definition
1	TD1+	11	YEL-
2	TD1-	12	YEL+
3	TD2+	13	GRN-/ORG+
4	TD2-	14	GRN+/ORG-
5	CT_VCC	15	
6	CT_VCC	16	
7	TD3+	17	
8	TD3-	18	
9	TD4+	19	
10	TD4-	20	

HDMI Port

The HDMI (High-Definition Multimedia Interface) port is used to display both high definition video and digital sound through an HDMI-capable display, using the same cable.

Universal Serial Bus (USB) Ports

There are two USB 3.0 ports (USB4/5) and one USB 3.0 Type C port (USB6) on the I/O back panel. The motherboard also has four front access USB 2.0 headers (USB0/1 and USB2/3). The onboard headers can be used to provide front side USB access with a cable. Two USB 2.0 cables for front panel support are included with the motherboard.

Back Panel USB 3.0 Pin Definitions

Pin#	Definition	Pin#	Definition
A1	VBUS	B1	VBUS
A2	D1-N	B2	D2-N
A3	D1-P	B3	D2-P
A4	GND	B4	GND
A5	Stda_SSRX1-N	B5	Stda_SSRX2-N
A6	Stda_SSRX1-P	B6	Stda_SSRX2-P
A7	GND_DRAIN	B7	GND_DRAIN
A8	Stda_SSTX1-N	B8	Stda_SSTX2-N
A9	Stda_SSTX1-P	B9	Stda_SSTX2-P

Front Panel USB 2.0 Ports 2/3 Header Pin Definitions

Pin#	Definition	Pin#	Definition
1	P5V_DUAL_F	2	P5V_DUAL_F
3	USBCON_N4	4	USBCON_N5
5	USBCON_P4	6	USBCON_P5
7	Ground	8	Ground
9	N/A	10	N/A

DP++

DisplayPort, developed by the VESA consortium, delivers digital display and fast refresh rate. It can connect to virtually any display device using a DisplayPort adapter for devices such as VGA, DVI, or HDMI.

3.2 LED Indicators

LAN Port LEDs

There are two LAN ports (JLAN1 and JLAN2) on the I/O back panel of the motherboard. Each Ethernet LAN port has two LEDs. The green LED indicates activity, while the other Link LED may be green, amber, or off to indicate the speed of the connection.

LAN1/2 LED (Connection Speed Indicator)

LED Color	Definition
Off	10 Mb/s
Green	100 Mb/s
Amber	1 Gb/s

3.3 Headers and Connectors

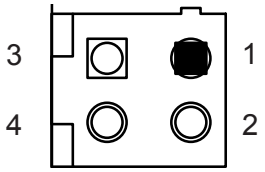
SATA Power Connector

The 4-pin SATA power connector JPH1 provides power to onboard HDD devices. Refer to the table below for pin definitions.

4-pin HDD Power Pin Definitions	
Pin#	**Definition**
1	12V
2-3	Ground
4	5V

12V Vertical Type Power Connector

JPW2 is the 12V DC power source for the X11SSN-H-WOHS/-E-WOHS/-L-WOHS motherboard.

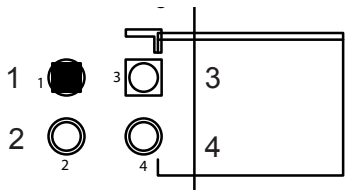


+12V Vertical Type Power Pin Definitions	
Pin#	**Definition**
1	GND
2	GND
3	+12VSB
4	+12VSB

Required Connection

4-pin 12V R/A Type Power Connector

The R/A type power connector is located at JPW1 on the bottom side of the X11SSN-H-WOHS/-E-WOHS/-L-WOHS motherboard. Refer to the table below for pin definitions.



+12V R/A Type Power Pin Definitions	
Pin#	**Definition**
1	GND
2	GND
3	+12VSB
4	+12VSB

Required Connection

Front Panel Audio Header

A 10-pin front panel audio header located on the motherboard allows you to use the onboard sound for audio playback. Connect an audio cable to the this header to use this feature. Refer to the table below for pin definitions.

Audio Header Pin Definitions

Pin#	Definition	Pin#	Definition
1	Microphone_Left	2	Audio_Ground
3	Microphone_Right	4	Audio_Detect
5	Line_2_Right	6	Ground
7	Jack_Detect	8	Key
9	Line_2_Left	10	Ground

COM Ports

There are four COM ports (JCOM1: COM1/COM2 supports two RS232/RS422/RS485 and JCOM2: COM3/COM4 supports two RS232) on the motherboard. Refer to the table below for pin definitions.

Serial COM Ports (JCOM1) Pin Definitions

Pin#	Definition	Pin#	Definition
1	DCD1 or RS-485/422_COM1_TX- (Full Duplex) or RS-485_COM1_Data- (Half Duplex)	2	DSR1
3	RXD1 or RS-485/422_COM1_TX+ (Full Duplex) or RS-485_COM1_Data+ (Half Duplex)	4	RTS1
5	TXD1 or RS-485/422_COM1_RX+ (Full Duplex)	6	CTS1
7	DTR1 or RS-485/422_COM1_RX- (Full Duplex)	8	RI1_N
9	GND	10	N/A
11	DCD2 or RS-485/422_COM2_TX- (Full Duplex) or RS-485_COM2_Data- (Half Duplex)	12	DSR2
13	RXD2 or RS-485/422_COM2_TX+ (Full Duplex) or RS-485_COM2_Data+ (Half Duplex)	14	RTS2
15	TXD2 or RS-485/422_COM2_RX+ (Full Duplex)	16	CTS2
17	DTR2 or RS-485/422_COM2_RX- (Full Duplex)	18	RI_N2
19	GND	20	N/A

Serial COM Ports (JCOM2) Pin Definitions

Pin#	Definition	Pin#	Definition
1	DCD3	2	DSR3
3	RXD3	4	RTS3
5	TXD3	6	CTS3
7	DTR3	8	RI3_N
9	GND	10	N/A
11	DCD4	12	DSR4
13	RXD4	14	RTS4
15	TXD4	16	CTS4
17	DTR4	18	RI4_N
19	GND	20	N/A

SATA Port

The X11SSN-H-WOHS/-E-WOHS/-L-WOHS has one SATA 3.0 port (I-SATA1).

Battery Connector

BT1 is a two-pin connector for an external CMOS battery. Refer to section 3.4 for battery installation instructions. This connector is also used to clear the CMOS. To clear the CMOS, remove the battery, short pins 1-2 for more than 10 seconds and then install the battery.

General Purpose I/O Header

The JGP1 (General Purpose Input/Output) header is an 8-bit general purpose I/O expander on a pin header via the SMBus. Refer to the table below for pin definitions.

GPIO Header Pin Definitions

Pin#	Definition	Pin#	Definition
1	P3V3SB	2	GND
3	GP_P3V3_GP0	4	GP_P3V3_GP4
5	GP_P3V3_GP1	6	GP_P3V3_GP5
7	GP_P3V3_GP2	8	GP_P3V3_GP6
9	GP_P3V3_GP3	10	GP_P3V3_GP7

Speaker

Connect a cable to pins 1-4 on the JD1 header to use an external speaker. Refer to the table below for pin definitions.

Speaker Connector Pin Definitions

Pin#	Signal
1	P5V
2	NC
3	NC
4	R_SPKPIN

M.2 Slot

M.2 is formerly known as Next Generation Form Factor (NGFF) and is located at JMD1 on the bottom side of the motherboard. The M.2 slot is designed for internal mounting devices. The X11SSN-H-WOHS/-E-WOHS/-L-WOHS motherboard deploys a B-KEY for SATA/PCIe SSD devices or USB/PCIe WWAN or GNSS card. The X11SSN-H-WOHS/-E-WOHS/-L-WOHS deploys a 2280 screw hole location for an M.2 module.

System Management Bus Header

A System Management Bus header for additional slave devices or sensors is located at JSMBUS1 on the bottom side of the motherboard. Refer to the table below for pin definitions.

SMBus Header Pin Definitions

Pin#	Definition
1	SMB_DATA
2	GND
3	SMB_CLK
4	NC

Mini PCI-E Slot

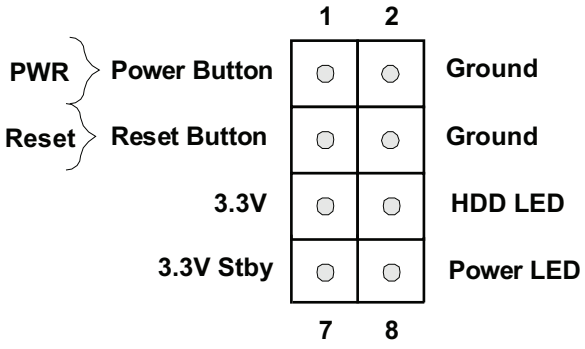
The Mini PCI-E slot, located at JMP1 on the bottom side of the motherboard, is used to install compatible Mini PCI-E and mSATA devices. The Mini PCI-E slot supports USB, one PCI-E, SATA devices, mSATA SSD, and wireless devices such as GNSS and Bluetooth modules. See the table below for pin definitions.

Mini PCI-E Pin Definitions

Pin#	Definition	Pin#	Definition
52	+3.3Vaux	51	NC
50	GND	49	NC
48	+1.5V	47	NC
46	NC	45	NC
44	NC	43	NC
42	NC	41	+3.3Vaux
40	GND	39	NC
38	USB_D+	37	GND
36	USB_D-	35	GND
34	GND	33	PETp0
32	SMB_DATA	31	PETn0
30	SMB_CLK	29	GND
28	+1.5V	27	GND
26	GND	25	PERp0
24	+3.3Vaux	23	PERn0
22	PERST#	21	DET_CARD_ PLUG
20	NC	19	NC
18	GND	17	NC
16	NC	15	GND
14	NC	13	REFCLK+
12	NC	11	REFCLK-
10	NC	9	GND
8	NC	7	CLKREQ#
6	1.5V	5	NC
4	GND	3	NC
2	3.3Vaux	1	WAKE#

Control Panel

JF1 contains header pins for various buttons and indicators that are normally located on a control panel at the front of the chassis. These connectors are designed specifically for use with Supermicro chassis. Refer to the figure below for the descriptions of the front control panel buttons and LED indicators.



Power Button

The Power Button connection is located on pins 1 and 2 of JF1. Momentarily contacting both pins will power on/off the system. This button can also be configured to function as a suspend button with a setting in the BIOS (see Chapter 4). To turn off the power in the suspend mode, press the button for at least 4 seconds. Refer to the table below for pin definitions.

Power Button Pin Definition (JF1)	
Pin#	Definition
1	Power Button
2	GND

Reset Button

The Reset Button connection is located on pins 3 and 4 of JF1. Attach it to a hardware reset switch on the computer case to reset the system. Refer to the table below for pin definitions.

Reset Button Pin Definition (JF1)	
Pin#	Definition
3	Reset
4	Ground

HDD LED

The HDD LED connection is located on pins 5 and 6 of JF1. Attach a cable here to indicate the status of HDD-related activities, including SATA activities. Refer to the table below for pin definitions.

HDD LED Pin Definition (JF1)	
Pin#	Definition
5	+3.3V
6	HDD Active LOW

Power LED

The Power LED connection is located on pins 7 and 8 of JF1. Refer to the table below for pin definitions.

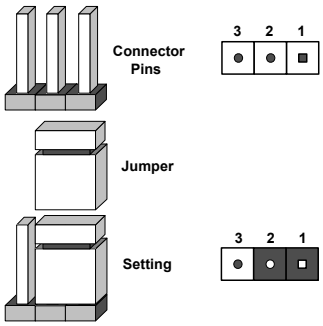
Power LED Pin Definition (JF1)	
Pin#	Definition
7	+3.3VSB
8	Power LED LOW

3.4 Jumper Settings

How Jumpers Work

To modify the operation of the motherboard, jumpers can be used to choose between optional settings. Jumpers create shorts between two pins to change the function of the connector. Pin 1 is identified with a square solder pad on the printed circuit board. See the diagram below for an example of jumping pins 1 and 2. Refer to the motherboard layout page for jumper locations.

Note: On two-pin jumpers, Closed means the jumper is on and Open means the jumper is off the pins.



JLCDPWR1

Use this jumper to select the power voltage for the LVDS panel. Make sure that the specifications of the cable is compatible with the panel to prevent damage.

LVDS Panel Power Source Selection Jumper Settings	
Jumper Setting	**Definition**
Pins 1-3	3.3V (Default)
Pins 3-5	5V
Pins 3-4	12V

Force Power On

Use jumper JLCDPWR1 (Pins 1-2) to select the FORCE POWER ON function. The system will boot up automatically without pressing the power button. See the table below for jumper setting information.

Force Power On Jumper Settings	
Jumper Setting	**Definition**
Pins 1-2	Force Power On (Default)
Pins 2-3	PWR BTN Power On

Manufacturing Mode Select

Close JPME2 to bypass SPI flash security and force the system to use the Manufacturing Mode, which will allow you to flash the system firmware from a host server to modify system settings. Refer to the table below for jumper settings.

Manufacturing Mode Jumper Settings	
Jumper Setting	**Definition**
Pins 1-2	Normal (Default)
Pins 2-3	Manufacturing Mode

TPM Enable/Disable

Use the JPT1 jumper to enable or disable the TPM feature. Refer to the table below for jumper settings.

TPM Enable/Disable Jumper Settings	
Jumper Setting	**Definition**
Pins 1-2	Enable (Default)
Pins 2-3	Disable

Chapter 4

Software Installation

This section describes the installation of drivers and management programs for the system.

4.1 Driver Installation

The Supermicro FTP site contains drivers and utilities for your system at ftp://ftp.supermicro.com. Some of these must be installed, such as the chipset driver.

After accessing the FTP site, go into the CDR_Images directory and locate the ISO file for your motherboard. Download this file to create a DVD of the drivers and utilities it contains. (You may also use a utility to extract the ISO file if preferred.)

After creating a DVD with the ISO files, insert the disk into the DVD drive on your system and the display shown in Figure 4-1 should appear.

Another option is to go to the Supermicro website at http://www.supermicro.com/products/. Find the product page for your motherboard here, where you may download individual drivers and utilities to your hard drive or a USB flash drive and install from there.

Note: To install the Windows OS, please refer to the instructions posted on our website at http://www.supermicro.com/support/manuals/.

Figure 4-1. Driver & Tool Installation Screen

Note: Click the icons showing a hand writing on paper to view the readme files for each item. Click the computer icons to the right of these items to install each item (from top to the bottom) one at a time. After installing each item, you must re-boot the system before moving on to the next item on the list. The bottom icon with a CD on it allows you to view the entire contents.

4.2 SuperDoctor® 5

The Supermicro SuperDoctor 5 is a hardware monitoring program that functions in a command-line or web-based interface in Windows and Linux operating systems. The program monitors system health information such as CPU temperature, system voltages, system power consumption, fan speed, and provides alerts via email or Simple Network Management Protocol (SNMP).

SuperDoctor 5 comes in local and remote management versions and can be used with Nagios to maximize your system monitoring needs. With SuperDoctor 5 Management Server (SSM Server), you can remotely control power on/off and reset chassis intrusion for multiple systems with SuperDoctor 5 or IPMI. SD5 Management Server monitors HTTP, FTP, and SMTP services to optimize the efficiency of your operation.

Note: The default User Name and Password for SuperDoctor 5 is ADMIN / ADMIN.

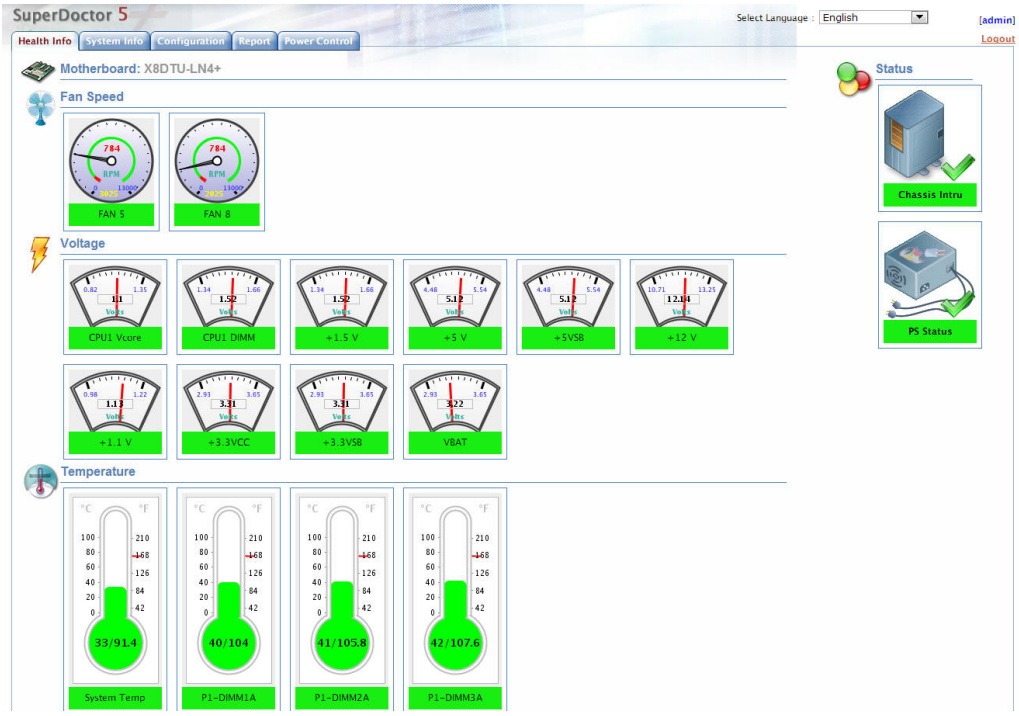


Figure 4-2. SuperDoctor 5 Interface Display Screen (Health Information)

Chapter 5

BIOS

5.1 Introduction

This chapter describes the AMI BIOS setup utility for the X11SSN-H-WOHS/-E-WOHS/-L-WOHS motherboard. It also provides the instructions on how to navigate the AMI BIOS setup utility screens. The AMI ROM BIOS is stored in a Flash EEPROM and can be easily updated.

Note: 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 Manual Download area of our website for any changes to BIOS that may not be reflected in this manual.

Starting the Setup Utility

To enter the BIOS Setup Utility, hit the <Delete> key while the system is booting-up. (In most cases, the <Delete> key is used to invoke the BIOS setup screen. There are a few cases when other keys are used, such as <F1>, <F2>, etc.) Each main BIOS menu option is described in this manual.

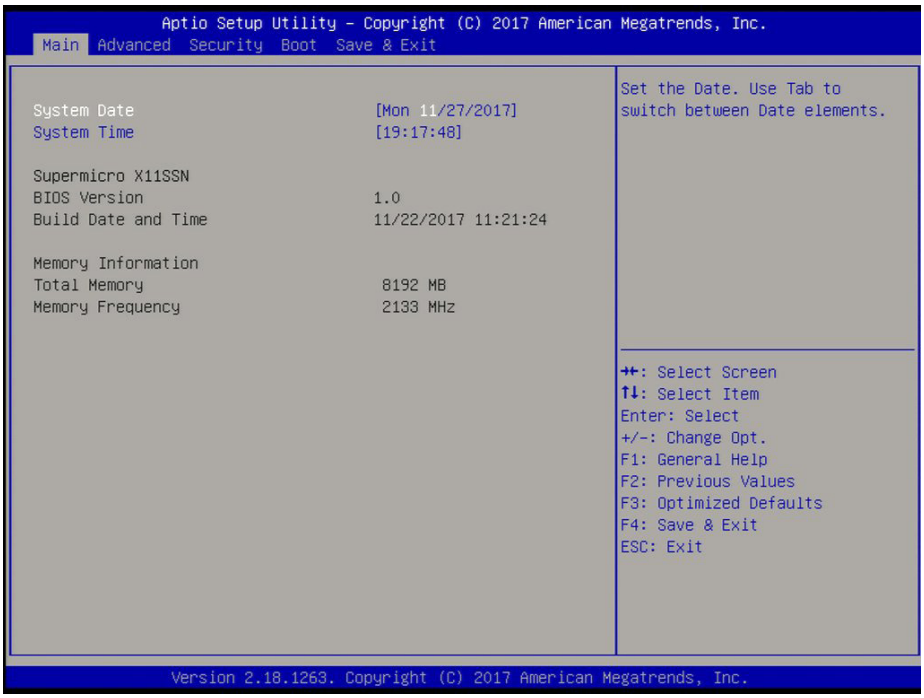
The Main BIOS screen has two main frames. The left frame displays all the options that can be configured. “Grayed-out” options cannot be configured. The right frame displays the key legend. Above the key legend is an area reserved for a text message. When an option is selected in the left frame, it is highlighted in white. Often a text message will accompany it. (Note that BIOS has default text messages built in. We retain the option to include, omit, or change any of these text messages.) Settings printed in **Bold** are the default values.

A " ▶" indicates a submenu. Highlighting such an item and pressing the <Enter> key will open the list of settings within that submenu.

The BIOS setup utility uses a key-based navigation system called hotkeys. Most of these hotkeys (<F1>, <F10>, <Enter>, <ESC>, <Arrow> keys, etc.) can be used at any time during the setup navigation process.

5.2 Main Page

When you first enter the AMI BIOS setup utility, you will enter the Main setup screen. You can always return to the Main setup screen by selecting the Main tab on the top of the screen. The Main BIOS setup screen is shown below. The following Main menu items are displayed:



System Date/System Time

Use this option to change the system date and time. Highlight *System Date* or *System Time* using the arrow keys. Enter new values using the keyboard. Press the <Tab> key or the arrow keys to move between fields. The date must be entered in Day MM/DD/YYYY format. The time is entered in HH:MM:SS format.

Note: The time is in the 24-hour format. For example, 5:30 P.M. appears as 17:30:00.

Supermicro X11SSN-H-WOHS/-E-WOHS/-L-WOHS

BIOS Version; Build Date and Time

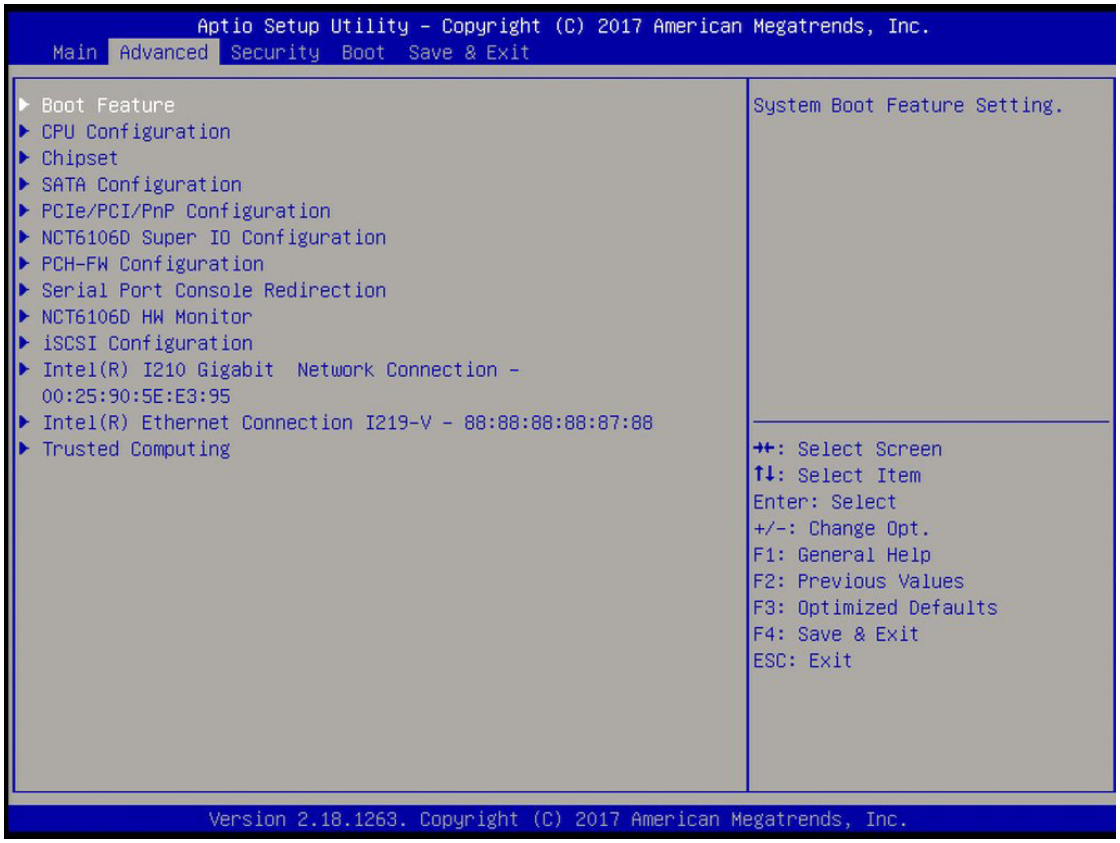
Memory Information

Total Memory: This displays the total size of memory available in the system.

Memory Frequency: This displays the memory speed.

5.3 Advanced Page

Use this tab page to set some boot, power, CPU, SATA, server ME, and input/output settings.



Warning: Take caution when changing the Advanced settings. An incorrect value, a very high DRAM frequency or an incorrect BIOS timing setting may cause the system to malfunction. When this occurs, restore the setting to the manufacture default setting.

▶Boot Feature

Fast Boot

Enable this feature to reduce the time the computer takes to boot up. The computer will boot with a minimal set of required devices. This feature does not have an effect on BBS boot options in the Boot tab. The options are **Disabled** and Enabled.

Quiet Boot

Use this feature to select the screen display between POST messages or the OEM logo at bootup. Select Disabled to display the POST messages. Select Enabled to display the OEM logo instead of the normal POST messages. The options are Disabled and **Enabled**.

Bootup Num-Lock

This feature selects the Power-on state for the Numlock key. The options are Off and **On**.

Wait For "F1" If Error

This feature forces the system to wait until the F1 key is pressed if an error occurs. The options are Disabled and **Enabled**.

Re-try Boot

If this feature is enabled, the BIOS will automatically reboot the system from a specified boot device after its initial boot failure. The options are **Disabled,** Legacy Boot, and EFI Boot.

Watch Dog Function

If this feature is enabled, the Watch Dog timer will allow the system to reboot when it is inactive for more than five minutes. The options are **Disabled** and Enabled.

Power Button Function

This feature controls how the system shuts down when the power button is pressed. Select 4 Seconds Override for the user to power off the system after pressing and holding the power button for 4 seconds or longer. Select Instant Off to instantly power off the system as soon as the user presses the power button. The options are **Instant Off** and 4 Seconds Override.

AC Loss Policy Depend on

Use this feature to set the power state after a power outage. Select Power Off for the system power to remain off after a power loss. Select Power On for the system power to be turned on after a power loss. Select Last State to allow the system to resume its last power state before a power loss. The options are Stay Off, Power on**,** and **Last State**.

EuP Support

EuP, Energy Using Product, is a European energy-saving specification that sets a standard on the maximum total power consumption on electrical products. The options are **Disabled** and Enabled.

▶CPU Configuration

The following CPU information will display:

- Displays the CPU model
- ID
- Speed
- L1 Data Cache
- L1 Instruction Cache
- L2 Cache
- L3 Cache
- L4 Cache
- VMX
- SMX/TXT

SW Guard Extentions (SGX)

Use this feature to enable or disable Intel Software Guard Extensions (SGX). SGX is a set of CPU instructions that increases software security. The options are **Software Controlled**, Enabled, and Disabled.

Select Owner EPOCH input type

Use this feature to select an Intel Software Guard Extensions EPOCH mode. Each mode has different values, which can be entered manually. The options are **No Change in Owner EPOCHs**, Change to New Random Owner EPOCHs, and Manual User Defined Owner EPOCHs.

PRMRR Size

The BIOS must reserve a contiguous region of Processor Reserved Memory (PRM) in the Processor Reserved Memory Range Register (PRMRR). This feature appears if SW Guard Extensions is set to Enabled. The options are INVALID PRMRR, 32MB, 64MB, and **128MB**.

Hardware Prefetcher

If this feature is set to Enable, the hardware prefetcher will prefetch streams of data and instructions from the main memory to the Level 2 (L2) cache to improve CPU performance. The options are Disabled and **Enabled**.

Adjacent Cache Line Prefetch

Select Enabled for the CPU to prefetch both cache lines for 128 bytes as comprised. Select Disable for the CPU to prefetch both cache lines for 64 bytes. The options are Disabled and **Enabled**.

Intel® (VMX) Virtualization Technology

Select Enabled to use Intel Virtualization Technology to allow one platform to run multiple operating systems and applications in independent partitions, creating multiple virtual systems in one physical computer. The options are Disabled and **Enabled**.Active Processor Cores

This feature determines how many CPU cores will be activated for each CPU. When All is selected, all cores in the CPU will be activated. Please refer to Intel's website for more information. The options are **All** and 1.

Hyper-Threading

Select Enabled to support Intel Hyper-threading Technology to enhance CPU performance. The options are Disabled and **Enabled**.

BIST

Use this feature to enable or disable the built-in self test (BIST) after a reset. The options are **Disabled** and Enabled.

AES

Select Enable to use the Intel Advanced Encryption Standard (AES) to ensure data security. The options are Disabled and **Enabled**.

MachineCheck

Use this feature to enable or disable Machine Check. The options are Disabled and **Enabled**.

MonitorMwait

Select Enabled to enable the Monitor/Mwait instructions. The Monitor instructions monitors a region of memory for writes, and MWait instructions instruct the CPU to stop until the monitored region begins to write. The options are **Disabled** and Enabled.

Reset AUX Content

Use this feature to reset the TPM Aux content. Txt may not be functional after a reset. The options are yes and **no**.

FCLK Frequency for Early Power On

FCLK stands for F Clock, which controls the data transfer between the CPU and GPU. The options are Normal (800MHz), **1GHz**, and 400MHz.

▶Chipset

Warning: Setting the wrong values in the following sections may cause the system to malfunction.

▶System Agent (SA) Configuration

- SA PCIe Code Version
- VT-d

▶Memory Configuration

- Memory RC Version
- Memory Frequency
- Memory Timings (tCL-tRCD-tRP-tRAS)
- Channel 0 Slot 0
    - Size
    - Number of Ranks
    - Manufacturer
- Channel 1 Slot 0

Maximum Memory Frequency

Use this feature to select the memory frequency. The options are **Auto**, 1067, 1333, 1600, 1867, 2133, 2400, 2667, 2933, 3200, 3467, 3733, 4000, and 4133.

▶Graphics Configuration

LVDS Panel Support

Use this feature to select the supported IGFX graphics device ouput to the LVDS panel. The options are **Disabled** and Enabled.

If LVDS Panel Support is enabled, the five features below are available for configuration:

Panel select

Use this feature to select the panel resolution. The options are **Disable**, 800x600, 1024x768, 1280x1024, 1366x768, 1680x1050, and 1920x1080.

Panel Channel Type

Use this feature to select the Panel Channel Type. The options are **Disabled**, Odd Channel, Even Channel, and Both Channel.

Dual LVDS Mode

Use this feature to select a single or dual mode bus for the LVDS display. The options are **Disabled**, Single LVDS Bus Mode, and Dual LVDS Bus Mode,

Panel Color Depth

Use this feature to select the panel color depth. The options are **Disabled**, VESA and JEIDA18 bpp, VESA 24 bbp, and JEIDA 24 bpp.

Backlight Brightness

Use this feature to select the backlight brightness for the panel display. Select a range from 1 to 16.

▶LCD Control

Primary IGFX Boot Display

Use this feature to select the type of device that will be activated during POST. The selection will have no effect if an external device is present. The options are **VBIOS Default**, EFP, LFP, EFP3, EFP2, and EFP4.

LCD Panel Type

Use this feature to select the LCD panel resolution. The options are **VBIOS Default**, 640x480 LVDS, 800x600 LVDS, 1024x768 LVDS, 1280x1024 LVDS, 1400x1050 LVDS1, 1400x1050 LVDS2, 1600x1200 LVDS, 1280x768 LVDS, 1680x1050 LVDS, 1920x1200 LVDS, 1600x900 LVDS, 1280x800 LVDS, 1280x600 LVDS, 2048x1536 LVDS, and 1366x768 LVDS.

Panel Scaling

Use this feature to select the LCD panel scaling. The options are **Auto**, Off, and Force Scaling.

Backlight Control

Use this feature to select the type of backlight for the LCD panel. The options are PWM Inverted and **PWM Normal**.

Active LFP

Use this feature to select the LFP configuration. The options are No eDP and **eDP Port-A**.

Panel Color Depth

Use this feature to select the LCD panel color depth. The options are **18 Bit** and 24 Bit.

▶PCH-IO Configuration

PCH-IO Configuration

- USB Module Version
- USB Controllers
- USB Devices

Legacy USB Support

Select Enabled to support onboard legacy USB devices. Select Auto to disable legacy support if there are no legacy USB devices present. Select Disable to have all USB devices available for EFI applications only. The options are **Enabled,** Disabled, and Auto.

XHCI Hand-off

This is a work-around solution for operating systems that do not support XHCI (Extensible Host Controller Interface) hand-off. The XHCI ownership change should be claimed by the XHCI driver. The settings are **Enabled** and Disabled.

USB Mass Storage Driver Support

Select Enabled for USB mass storage device support. The options are Disabled and **Enabled**.

Port 60/64 Emulation

Select Enabled for I/O port 60h/64h emulation support, which in turn, will provide complete legacy USB keyboard support for the operating systems that do not support legacy USB devices. The options are **Disabled** and Enabled.

USB hardware delays and time-outs:

USB transfer time-out

Use this feature to set the timeout value for Control, Bulk, and Interrupt transfers. The options are 1 sec, 5 sec, 10 sec, and **20 sec**.

Device reset time-out

Use this feature to set the timeout value for a USB mass storage device. The options are 10 sec, **20 sec**, 30 sec, and 40 sec.

Device power-up delay

Use this feature to set the maximum time a device takes to report itself to the host controller. The options are **Auto** and Manual.

Mass Storage Devices:

Sony Storage Media 0100

Enable this feature for mass storage device emulation support. Select Auto to enumerate devices according to their media format. The options are **Auto**, Floppy, Forced FDD, Hard Disk, and CD-ROM.

xDCI Support

Use this feature to enable or disable the Extensible Device Controller Interface. This feature provides support for USB OTG devices. The options are **Disabled** and Enabled.

▶SATA Configuration

SATA Controller(s)

Use this feature to enable or disable the onboard SATA controller supported by the SoC. The options are **Enabled** and Disabled.

If the feature above is enabled, the following features are available for configuration:

SATA Mode Selection

Use this feature to select the mode for the installed SATA drives. The option is **AHCI**.

SATA Port 0

This feature displays the information detected on the installed SATA drive on the particular SATA port.

- Model number of drive and capacity
- Software Preserve Support

Port 0

Use this feature to enable or disable the specified SATA port. The options are Disabled and **Enabled**.

Hot Plug

Set this feature to Enabled for hot plug support, which will allow the user to replace a SATA drive without shutting down the system The options are Disabled and **Enabled**.

Spin Up Device

When the value of an edge detect or the value of an image binary (pixel) of a device is from 0 to 1, select Enabled to allow the PCH to start a COMRESET initialization sequence on this device. The options are **Disabled** and Enabled.

SATA Device Type

Use this item to specify if the SATA port specified by the user should be connected to a Solid State drive or a Hard Disk Drive. The options are **Hard Disk Drive** and Solid State Drive.

▶PCIe/PCI/PnP Configuration

Option ROM execution

Video

Use this feature to select which firmware type to be loaded for the add-on card in this slot. The options are Do not launch, EFI, and **Legacy**.

Above 4G MMIO BIOS assignment

Use this feature to enable or disable the above 4GB Memory Mapped IO BIOS assignment. The options are Enabled and **Disabled**.

PCIe/PCI/PnP Configuration

Mini-PCIe Slot OPROM

Use this feature to select which firmware type to be loaded for the add-on card in this slot. The options are Disabled, **Legacy**, and EFI.

M.2 SLOT (B KEY) OPROM

Use this feature to select which firmware type to be loaded for the add-on card in this slot. The options are Disabled, **Legacy**, and EFI.

Onboard LAN1 Controller

Use this feature to enable or disable LAN port 1. The options are **Enabled** and Disabled.

Onboard LAN2 Controller

Use this feature to enable or disable LAN port 2. The options are **Enabled** and Disabled.

Onboard LAN Option ROM Type

Use this feature to select which firmware type to be loaded for onboard LAN ports. The options are **Legacy** and EFI.

Onboard LAN1 Option ROM

Use this feature to select which firmware function to be loaded for LAN port 1 used for system boot. The options are **Disabled** and PXE.

Onboard LAN2 Option ROM

Use this feature to select which firmware function to be loaded for LAN port 2 used for system boot. The options are **Disabled** and PXE.

▶NCT6106D Super IO Configuration

NCT6106D Super IO Configuration

Super IO Chip NCT6106D

▶Serial Port 1 Configuration

Serial Port

Select Enabled to enable the onboard serial port specified by the user. The options are Disabled and **Enabled**.

Device Settings

This feature displays the base I/O port address and the Interrupt Request address 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 Serial Port 1. Select Auto to allow the BIOS to automatically assign the base I/O and IRQ address to a serial port specified. The options 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).

COM1 Port Mode

Use this feature to select the COM port mode. The options are **RS232 Mode**, RS422 Mode, and RS485 Mode.

▶Serial Port 2 Configuration

Serial Port

Select Enabled to enable the onboard serial port specified by the user. The options are Disabled and **Enabled**

Device Settings

This feature displays the base I/O port address and the Interrupt Request address of a serial port specified by the user.

Change Port Settings

This feature specifies the base I/O port address and the Interrupt Request address of Serial Port 2. Select Auto to allow the BIOS to automatically assign the base I/O and IRQ address to a serial port specified. The options 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).

COM2 Port Mode

Use this feature to select the COM port mode. The options are **RS232 Mode**, RS422 Mode, and RS485 Mode.

▶Serial Port 3 Configuration

Serial Port

Select Enabled to enable the onboard serial port specified by the user. The options are Disabled and **Enabled**

Device Settings

This feature displays the base I/O port address and the Interrupt Request address 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 Serial Port 3. Select Auto to allow the BIOS to automatically assign the base I/O and IRQ address to a serial port specified. The options are **Auto**, (IO=3E8h; IRQ=7), (IO=3E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12), (IO=2E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12), (IO=2F0h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12), and (IO=2E0h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12).

▶Serial Port 4 Configuration

Serial Port

Select Enabled to enable the onboard serial port specified by the user. The options are Disabled and **Enabled**

Device Settings

This feature displays the base I/O port address and the Interrupt Request address 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 Serial Port 4. Select Auto to allow the BIOS to automatically assign the base I/O and IRQ address to a serial port specified. The options are **Auto**, (IO=3E8h; IRQ=7), (IO=3E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12), (IO=2E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12), (IO=2F0h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12), and (IO=2E0h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12).

▶PCH-FW Configuration

The following firmware information will display:

- ME Firmware Version
- ME Firmware Mode

- ME Firmware SKU
- ME File System Intergrity Value
- ME Firmware Status 1
- ME Firmware Status 2
- NFC Support

▶Firmware Update Configuration

Me FW Image Re-Flash

Use this feature to update the Management Engine firmware. The options are **Disabled** and Enabled.

Local FW Update

Use this feature to enable or disable the local firmware update function. When enabled is selected, the firmware can be updated locally. The options are Disabled and **Enabled**.

▶Serial Port Console Redirection

COM1

Console Redirection

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

If the feature above is enabled, the following items are available for configuration:

▶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 VT100, VT100+, VT-UTF8, and **ANSI**.

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 and **8**.

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 Disabled and **Enabled**.

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.

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.

COM2

Console Redirection

Select Enabled to use the SOL port for Console Redirection. The options are Disabled and **Enabled.**

If the feature above is enabled, the following items are available for configuration:

▶Console Redirection Settings

Use this feature to specify how the host computer will exchange data with the client computer, which is the remote computer used by the user. The options are Enabled and **Disabled**.

Terminal Type

Use this feature 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 VT100, VT100+, VT-UTF8, and **ANSI**.

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 and **8**.

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 Disabled and **Enabled.**

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**.

Putty KeyPad

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

COM3

Console Redirection

Select Enabled to use the SOL port for Console Redirection. The options are Disabled and **Enabled.**

If the feature above is enabled, the following items are available for configuration:

▶Console Redirection Settings

Use this feature to specify how the host computer will exchange data with the client computer, which is the remote computer used by the user. The options are Enabled and **Disabled**.

Terminal Type

Use this feature 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 VT100, VT100+, VT-UTF8, and **ANSI**.

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 and **8**.

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 Disabled and **Enabled.**

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**.

Putty KeyPad

Use this feature to select Function Keys and KeyPad settings for Putty, which is a terminal emulator designed for the Windows OS. The options are **VT100**, LINUX, XTERMR6, SCO, ESCN, and VT400.

COM4

Console Redirection

Select Enabled to use the SOL port for Console Redirection. The options are Disabled and **Enabled.**

If the feature above is enabled, the following items are available for configuration:

▶Console Redirection Settings

Use this feature to specify how the host computer will exchange data with the client computer, which is the remote computer used by the user. The options are Enabled and **Disabled**.

Terminal Type

Use this feature 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 VT100, VT100+, VT-UTF8, and **ANSI**.

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 and **8**.

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 Disabled and **Enabled.**

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**.

Putty KeyPad

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

Legacy Console Redirection

▶Legacy Console Redirection Settings

Redirection COM Port

Use this feature to select the COM port for Console Redirection. The options are **COM1**, COM2, COM3, and COM4.

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.

Redirect After 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.

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

The submenu allows the user to configure Console Redirection settings to support Out-of-Band Serial Port management.

Console Redirection

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

If the feature above is enabled, the following items are available for configuration:

▶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.

Out-of-Band Mgmt Port

The feature selects a serial port in a client server to be used by the Microsoft Windows Emergency Management Services (EMS) to communicate with a remote host server. The options are **COM1,** COM2, COM3, and COM4.

Terminal Type

Use this feature 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 VT100, VT100+, **VT-UTF8,** and ANSI.

Bits Per Second

This feature 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

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,** Hardware RTS/CTS, and Software Xon/Xoff.

▶NCT6106D HW Monitor

The following PC Health Status information will display:

- System temperature
- CPU temperature

Fan Speed Control Mode

Use this feature to select the fan speed mode. The options are **Standard** and Full Speed.

- CPU Fan Speed
- VCORE
- VDIMM
- 12V
- 5V
- AVSB
- 3VSB
- 3VCC
- VBAT

▶iSCSi Configuration

iSCSI Initiator Name

This feature allows the user to enter the unique name of the iSCSI Initiator in IQN format. Once the name of the iSCSI Initiator is entered into the system, configure the proper settings for the following items.

▶Add an Attempt

▶Delete Attempts

▶Change Attempt Order

▶Trusted Computing

The following TPM information is displayed:

TPM2.0 Device Found

Vendor: IFX

Firmware Version: 5.51

Security Device Support

If this feature and the TPM jumper on the motherboard are both set to Enabled, onboard security devices will be enabled for TPM (Trusted Platform Module) support to enhance data integrity and network security. Please reboot the system for a change on this setting to take effect. The options are Disable and **Enable**.

If the feature above is enabled, the following items are available for configuration:

The following Platform Configuration Register information is displayed:

Active PCR banks

Available PCR banks

SHA-1 PCR Bank

Use this feature to disable or enable the SHA-1 Platform Configuration Register (PCR) bank for the installed TPM device. The options are Disabled and **Enabled**.

SHA256 PCR Bank

Use this feature to disable or enable the SHA256 Platform Configuration Register (PCR) bank for the installed TPM device. The options are Disabled and **Enabled**.

Pending operation

Use this feature to schedule a TPM-related operation to be performed by a security device for system data integrity. Your system will reboot to carry out a pending TPM operation. The options are **None** and TPM Clear.

Platform Hierarchy

Use this feature to disable or enable platform hierarchy for platform protection. The options are Disabled and **Enabled**.

Endorsement Hierarchy

Use this feature to disable or enable endorsement hierarchy for privacy control. The options are Disabled and **Enabled**.

TPM2.0 UEFI Spec Version

Use this feature to select the Trusted Computing Group (TCG) specification version. Version TCG_1_2 is compatible with Windows 8 and 10. Version TCG_2 is compatible with Windows 10 or later. The options are TCG_1_2 and **TCG_2**.

Physical Presence Spec Version

Use this feature to select the Physical Presence Interface version. This interace uses the ACPI and allows the operating system and BIOS to work together to provide a platform for users to administer the TPM. The options are **1.2** and 1.3.

Device Select

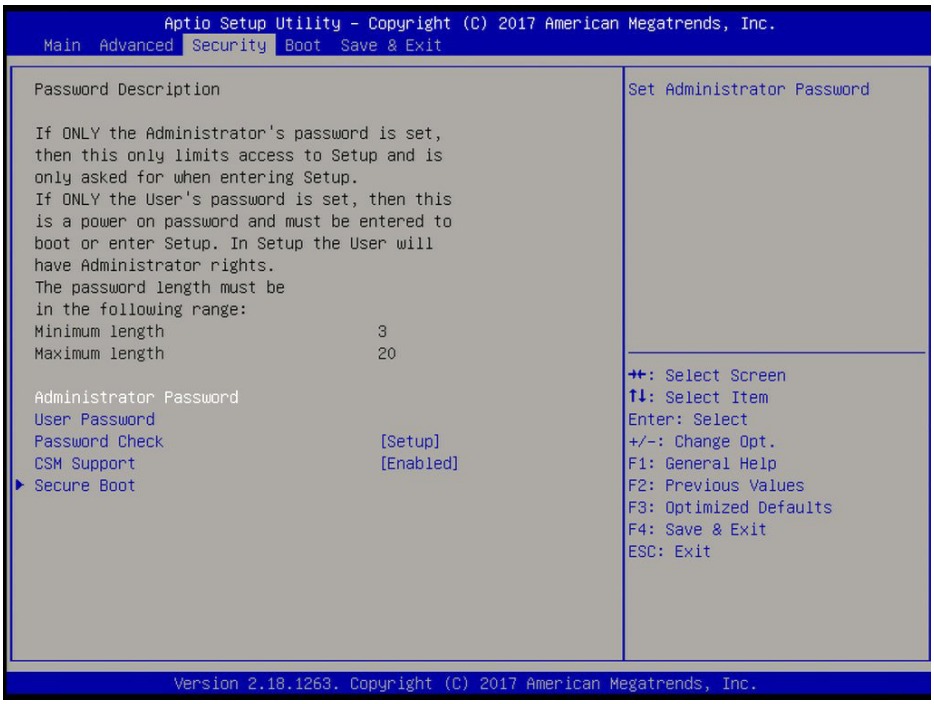
Use this feature to select the TPM version. TPM 1.2 will restrict support to TPM 1.2 devices. TPM 2.0 will restrict support for TPM 2.0 devices. Select Auto to enable support for both versions. The default setting is **Auto**.

Txt Support

Intel Trusted Execution Technology (Txt) helps protect against software-based attacks and ensures protection, confidentiality, and integrity of data stored or created on the system. The options are **Disabled** and Enabled.

5.4 Security

Use this menu to configure Security settings.



Administrator Password

Use this feature to set the administrator password which is required to enter the BIOS setup utility. The length of the password should be from 3 to 20 characters long.

User Password

Use this feature to set a user password which is required to log into the system and to enter the BIOS setup utility. The length of the password should be from 3 characters to 20 characters long.

Password Check

Use this feature to determine when a password entry is required. Select Setup to require the password only when entering setup. Select Always to require the password when entering setup and at each bootup. The options are **Setup** and Always.

CSM Support

Select Enabled to support the EFI Compatibility Support Module (CSM), which provides compatibility support for traditional legacy BIOS for system boot. The options are Enabled and **Disabled**.

▶Secure Boot

Secure Boot Enable

Select Enable for secure boot support to ensure system security at bootup. The options are Enabled and **Disabled**.

Secure Boot Mode

This feature allows the user to select the desired secure boot mode for the system. The options are Standard and **Custom**.

If Secure Boot Mode is set to Custom, Key Management features are available for configuration:

▶Restore Factory Keys

Select Yes to restore all factory keys to the default settings. The options are Yes and No.

▶Key Management

This submenu allows the user to configure the following Key Management settings.

Factory Key Provision

Select Enabled to install the default Secure Boot keys set by the manufacturer. The options are **Disabled** and Enabled.

****If the feature above is enabled, the following items are available for configuration:***

▶Reset to Setup Mode

Select Yes to delete NVRAM content from all of UEFI Secure Boot key databases. The options are Yes and No.

▶Restore Factory Keys

Select Yes to restore Secure Boot keys to factory default. The options are Yes and No.

▶Export Secure Boot variables

Select Yes to copy NVRAM content to a file in the root folder. The options are Yes and No.

▶Enroll Efi Image

This feature allows the image to run in Secure Boot mode.

Device Guard Ready

▶Remove 'UEFI CA' from DB

Select Yes to remove UEFI CA from the list of Microsoft Certified DB database. The options are Yes and No.

▶Restore DB defaults

Select Yes to restore DB variables to facotry default. The options are Yes and No.

Secure Boot variable I Size I Keys I Key Source

▶Platform Key (PK)

Use this feature to configure the setting for platform keys.

Details

Select this feature to view PK information.

Export

Select this feature to export the PK from a file system.

Update

Select Yes to load the PK from factory default or No to load from a file or external media.

Delete

Select ok to remove the PK. Reset the system for it to enter Setup/Audit Mode.

▶Key Exchange Keys

Use this feature to configure the setting for key exchange keys.

Details

Select this feature to view KEK information.

Export

Select this feature to export the KEK from a file system.

Update

Select Yes to load the KEK from factory default or No to load from a file or external media.

Append

Select Yes to load the KEK from factory default or No to load from a file or external media.

Delete

Select Yes to delete the variable or No to delete a ceritifcate from the key database.

▶Authorized Signatures

Use this feature to configure the setting for db keys.

Details

Select this feature to view authorized signatures information.

Export

Select this feature to export the db from a file system.

Update

Select Yes to load the db from factory default or No to load from a file or external media.

Append

Select Yes to load the db from factory default or No to load from a file or external media.

Delete

Select Yes to delete the variable or No to delete a ceritifcate from the key database.

▶Forbidden Signatures

Use this feature to configure the setting for dbx keys.

Details

Select this feature to view forbidden signatures information.

Export

Select this feature to export the dbx from a file system.

Update

Select Yes to load the dbx from factory default or No to load from a file or external media.

Append

Select Yes to load the dbx from factory default or No to load from a file or external media.

Delete

Select Yes to delete the variable or No to delete a ceritifcate from the key database.

▶Authorized TimeStamps

Use this feature to configure the setting for dbt keys.

Details

Select this feature to view authorized time stamp information.

Export

Select this feature to export the dbt from a file system.

Update

Select Yes to load the dbt from factory default or No to load from a file or external media.

Append

Select Yes to load the dbt from factory default or No to load from a file or external media.

Delete

Select Yes to delete the variable or No to delete a ceritifcate from the key database.

▶OsRecovery Signature

Use this feature to configure the setting for dbr keys.

Details

Select this feature to view authorized time stamp information.

Export

Select this feature to export the dbr from a file system.

Update

Select Yes to load the dbr from factory default or No to load from a file or external media.

Append

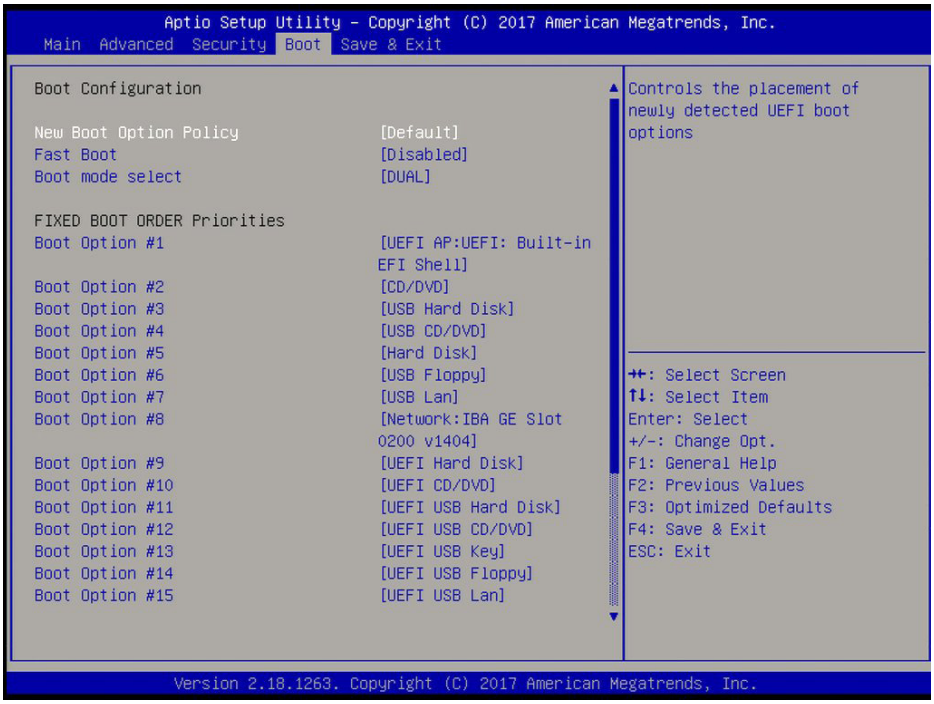
Select Yes to load the dbr from factory default or No to load from a file or external media.

Delete

Select Yes to delete the variable or No to delete a ceritifcate from the key database.

5.5 Boot

Use this menu to configure Boot settings:



Boot Configuration

New Boot Option Policy

Use this feature to select the boot order for a newly detected device. The options are **Default**, Place First, and Place Last.

Fast Boot

Enable this feature to reduce the time the computer takes to boot up. The computer will boot with a minimal set of required devices. This feature does not have an effect on BBS boot options in the Boot tab. The options are **Disabled** and Enabled.

If the feature above is enabled, the next five features are available for configuration:

SATA Support

If Last Boot HDD Only is selected, only hard disk drives will be available during the boot up POST. If All Sata Devices is selected, all SATA devices will be available during the boot up POST. The options are Last Boot HDD Only and **All Sata Devices**.

VGA Support

Sue this feature to select which VGA drivers are installed during POST. Select Auto to install Legacy OpRom. The options are Auto and **EFI Driver**.

USB Support

Select Disabled for all USB devices to be unavailable until after the operating system boots, Parital Initial for all USB devices to be unavailable before the operating system boots, and Full Initial for all USB ports to be enabled during the POST. The options are Disabled, Full Initial, and **Partial Initial**.

PS2 Device Support

Use this feature to disable or enable PS2 device support during boot up. The options are Disabled and **Enabled**.

Network Stack Driver Support

Use this feature to disable or enable network stack driver support during boot up. The options are **Disabled** and Enabled.

Redirection Support

Use this feature to disable or enable redirection support. The options are **Disabled** and Enabled.

Boot mode select

Use this feature to select the boot mode for bootable devices in the system. The options are LEGACY, UEFI, and **DUAL**.

Fixed Boot Order Priorities

This feature prioritizes the order of bootable devices that the system can boot from. Press <Enter> on each entry from top to bottom to select devices.

- Boot Option #1
- Boot Option #2
- Boot Option #3
- Boot Option #4
- Boot Option #5
- Boot Option #6
- Boot Option #7
- Boot Option #8
- Boot Option #9
- Boot Option #10

- Boot Option #11
- Boot Option #12
- Boot Option #13
- Boot Option #14
- Boot Option #15

▶Add New Driver Option

Use this feature to add a new EFI driver option from the driver order.

▶Delete Driver Option

Use this feature to remove an EFI driver option from the driver order.

▶UEFI Application Boot Priorities

This feature allows the user to specify which UEFI application devices are boot devices.

- Boot Option #1

▶UEFI USB Key Drive BBS Priorities

This feature allows the user to specify which UEFI USB key drive devices are boot devices.

- Boot Option #1

▶USB Key Drive BBS Priorities

This feature allows the user to specify which USB key drive devices are boot devices.

- Boot Option #1

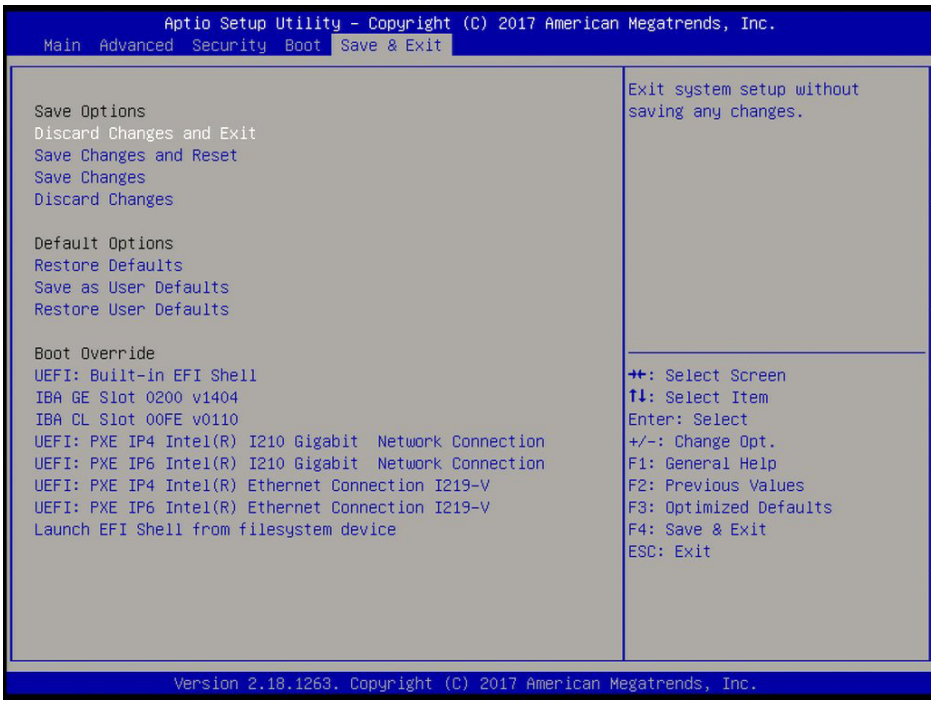
▶NETWORK Drive BBS Priorities

This feature allows the user to specify which network drives are boot devices.

- Boot Option #1
- Boot Option #2

5.6 Save & Exit

Select the Exit tab from the BIOS setup utility screen to enter the Exit BIOS Setup screen.



Save Options

Discard Changes and Exit

Select this feature to exit the BIOS without saving any changes.

Save Changes and Reset

When you have completed the system configuration changes, select this option to save all changes made and reset the system.

Save Changes

When you have completed the system configuration changes, select this option to save all changes made. This will not reset (reboot) the system.

Discard Changes

Select this feature and press <Enter> to discard all the changes and return to the AMI BIOS Utility Program.

Default Options

Restore Defaults

To set this feature, select Restore Defaults from the Exit menu and press <Enter>. These are factory settings designed for maximum system performance but not for maximum stability.

Save as User Defaults

To set this feature, select Save as User Defaults from the Exit menu and press <Enter>. This enables the user to save any changes to the BIOS setup for future use.

Restore User Defaults

To set this feature, select Restore User Defaults from the Exit menu and press <Enter>. Use this feature to retrieve user-defined settings that were saved previously.

Boot Override

Sony Storage Media 0100

IBA GE Slot 0200 v1404

IBA CL Slot 00FE v0110

UEFI: Sony Storage Media 0100, Partition 1

UEFI: Built-in EFI Shell

Launch EFI Shell from filesystem device

Appendix A

BIOS Error Codes

A.1 BIOS Error Beep (POST) Codes

During the POST (Power-On Self-Test) routines, which are performed each time the system is powered on, errors may occur.

Non-fatal errors are those which, in most cases, allow the system to continue the boot-up process. The error messages normally appear on the screen.

Fatal errors are those which will not allow the system to continue the boot-up procedure. If a fatal error occurs, you should consult with your system manufacturer for possible repairs.

These fatal errors are usually communicated through a series of audible beeps. The table below lists some common errors and their corresponding beep codes encountered by users.

BIOS Beep (POST) Codes		
Beep Code	**Error Message**	**Description**
1 beep	Refresh	Circuits have been reset (Ready to power up)
5 short, 1 long	Memory error	No memory detected in system
5 long, 2 short	Display memory read/write error	Video adapter missing or with faulty memory
1 long continuous	System OH	System overheat condition

A.2 Additional BIOS POST Codes

The AMI BIOS supplies additional checkpoint codes, which are documented online at http://www.supermicro.com/support/manuals/ ("AMI BIOS POST Codes User's Guide").

When BIOS performs the Power-On Self-Test, it writes checkpoint codes to I/O port 0080h. If the computer cannot complete the boot process, a diagnostic card can be attached to the computer to read I/O port 0080h (Supermicro p/n AOC-LPC80-20).

For information on AMI updates, please refer to http://www.ami.com/products/.

Appendix B

Standardized Warning Statements for DC 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。

此警告符号代表危险。

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。

您目前所處的工作環境可能讓您受傷。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 הצהרות אזהרה

הצהרות 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.

ا كً ف حالة وٌكي أى تتسبب ف اصابة جسد ةٌ هذا الزهز عٌ خطز !تحذ زٌ .
قبل أى تعول على أي هعذات،كي على علن بالوخاطز ال ٱجوة عي الذوائز
الكهزبائ ةٍ
وكي على درا ةٌ بالووارسات البقائ ةٍ لو عٌ وقع أي حادث
استخذم رقن الب إٍى الو صٌص ف هًا ةٌ كل تحذ زٌ للعشر تزجوتها

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.

اقر 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: 60VDC, 20A.

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12VDC、5A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12VDC,5A。

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12VDC,5A。

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: 12VDC, 5A 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: 12VDC, 5A.

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 :12VDC, 5A.

מוצר זה מסתמך על הגנה המותקנת במבנים למניעת קצר חשמלי. יש לוודא כי
המכשיר המגן מפני הקצר החשמלי הוא לא יותר מ-12VDC, 5A

هذا المنتج يعتمد على معداث الحمايت مه الدوائرالقصيرة التي تم تثبيتها في
المبنى
تأكد من أن تقييم الجهاز الوقائي ليس أكثر من : 5A, 12VDC

경고!

이 제품은 전원의 단락(과전류)방지에 대해서 전적으로 건물의 관련 설비에 의존합니다.
보호장치의 정격이 반드시 12VDC(볼트), 5A(암페어)를 초과하지 않도록 해야 합니다.

Waarschuwing

Dit product is afhankelijk van de kortsluitbeveiliging (overspanning) van uw electrische installatie. Controleer of het beveiligde aparaat niet groter gedimensioneerd is dan 12VDC, 5A.

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.

電源切断の警告

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、シャーシー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断され、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 systéme.

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 فصم انتظاو من جميع مصادر انطاقت وإزانت سهك انكهرباء من وحدة امداد
انطاقت قبم
انصل إنى اثماطق انداخهيت نههيكم نتثبيج أو إزانت مكناث الجهاز

경고!

시스템에 부품들을 장착하거나 제거하기 위해서는 섀시 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 الجهاس يجب أن يسمح فقط للمظفيه 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 installée 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 انحذة نترك بُها ف مناطق محظورة تم .
،مَكن انصبل إن منطقت محظورة فقط من خلال استخذاو أداة خاصت
أو أ وس هُت أخري نلالأمما قفم 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

电池更换不当会有爆炸危险。请只使用同类电池或制造商推荐的功能相当的电池更换原有电池。请按制造商的说明处理废旧电池。

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 فعليل
اسحبذال البطارية
فقط بنفس النع أو ما يعادلها مما أوصث به الشرمة المصنعة
جخلص من البطاريات المسحعملة وفقا لحعليمات الشرمة 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 ontploffingsgevaar 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 trom 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!
ליחדה 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

当系统正在进行时，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 مه التيار الكهزبائي أوالطاقة المجبدة على اللحة
عندما يكن النظام يعمل كه حذرا عند خدمة هذا الجهاس

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 يمتثل للقاويه 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 القانين واللائح البطنية 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
危險的可移動性零件。請務必與轉動的風扇葉片保持距離。 當您從機架移除風扇裝置，風扇可能仍在轉動。小心不要將手指、螺絲起子和其他物品太靠近風扇。

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 ell montaje del ventilador del chasis. Mandtenga los dedos, los destornilladores y todos los objetos lejos de las aberturas del ventilador

Attention

Pieces mobiles dangereuses. Se tenir a l'ecart 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 בפעולהכאשר מסירים את חלקי המאוורר מהמארז, יתכן והמאוררים עדיין עובדים. יש להרחיק למרחק בטוח את האצבעות וכלי עבודה שונים מהפתחים בתוך המאוורר

تحذير! أجزاء متحركة خطرة. ابتعد عن شفرات المروحة المتحركة.من الممكن أن
المراوح لا تزال تدورعند 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. 섀시로부터 팬 조립품을 제거할 때 팬은 여전히 회전하고 있을 수 있습니다. 팬 조림품 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.

DC Power Supply

Warning! When stranded wiring is required, use approved wiring terminations, such as closedloop or spade-type with upturned lugs. These terminations should be the appropriate size for the wires and should clamp both the insulation and conductor.

警告

より線が必要な場合、承認済みのケーブル終端（上向きの端子を備えたクローズループ型またはU字型の終端など）を使用してください。使用するワイヤーに適したサイズで、絶縁体および導体が両方ともクランプされている終端でなければなりません。

警告

需要多股佈線時，請使用經核准的佈線終端，例如閉環或鏟型接線片。 這些終端的大小應適合線路，並且可以同時夾住絕緣體和導體。

警告

需要使用 接时， 使用 可的 接端子，如 环端子或具有接 柱的 形端子。这些端子的大小 与 相吻合，并且可以将 部分和 体 固定。

Warnung

Wenn Litzenverdrahtung erforderlich ist, sind zugelassene Verdrahtungsabschlüsse, z.B. für einen geschlossenen Regelkreis oder gabelförmig, mit nach oben gerichteten Kabelschuhen zu verwenden. Diese Abschlüsse sollten die angemessene Größe für die Drähte haben und sowohl die Isolierung als auch den Leiter festklemmen.

¡Advertencia!

Cuando se necesite hilo trenzado, utilizar terminales para cables homologados, tales como las de tipo "bucle cerrado" o "espada", con las lengüetas de conexión vueltas hacia arriba. Estos terminales deberán ser del tamaño apropiado para los cables que se utilicen, y tendrán que sujetar tanto el aislante como el conductor.

Attention

Quand des fils torsadés sont nécessaires, utiliser des douilles terminales homologuées telles que celles à circuit fermé ou du type à plage ouverte avec cosses rebroussées. Ces douilles terminales doivent être de la taille qui convient aux fils et doivent être refermées sur la gaine isolante et sur le conducteur.

תקנון הצהרות אזהרה

הצהרות 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.

تحذير

عندما يكون مطلوبا الأسلاك الذين تقطعت بهم السبل، واستخدام الأسلاك إنهاء الموافقة عليها، مثل حلقة مغلقة أو الأشياء بأسمائها الحقيقية النوع مع العروات مقلوبة. وينبغي هذه الإنهاءات يكون الحجم المناسب للأسلاك ويجب كبح كل من العزل وموصل.

주의!

꼬인 배선이 요구 될 때에는 폐회로나 돌출부가 위로 튀어 나온 Spade형태의 승인된 배선 터미네이션들을 사용하세요.

이 터미네이션들은 배선들을 위해 적절한 크기여야 하고, 절연체와 도체 모두를 고정시킬 수 있어야 합니다.

Waarschuwing

Wanneer geslagen bedrading vereist is, dient u bedrading te gebruiken die voorzien is van goedgekeurde aansluitingspunten, zoals het gesloten-lus type of het grijperschop type waarbij de aansluitpunten omhoog wijzen. Deze aansluitpunten dienen de juiste maat voor de draden te hebben en dienen zowel de isolatie als de geleider vast te klemmen.

DC Power Disconnection

Warning! Before performing any of the following procedures, ensure that power is removed from the DC circuit.

警告

次の手順を開始する前に、DC回路から電源が切断されていることを確認してください。

警告

進行以下任一操作程序前，請確保直流電路已斷電。

警告

在 行以下任一操作程序前，确保直流 路的 源已 断 。

Warnung

Vor Ausführung der folgenden Vorgänge ist sicherzustellen, daß die Gleichstromschaltung keinen Strom erhält.

¡Advertencia!

Antes de proceder con los siguientes pasos, comprobar que la alimentación del circuito de corriente continua (CC) esté cortada (OFF).

Attention

Avant de pratiquer l'une quelconque des procédures ci-dessous, vérifier que le circuit en courant continu n'est plus sous tension.

אזהרה !

לפני ביצוע אחת הפעולות הבאות, ודא כי אספקת החשמל למעגל הזרם הישר
DC הינה מנותקת.

تحذير

عندما يكون مطلوبا الأسلاك الذين تقطعت بهم السبل، واستخدام الأسلاك إنهاء الموافقة عليها، مثل حلقة مغلقة أو الأشياء بأسمائها الحقيقية النوع مع العروات مقلوبة. وينبغي لهذه الإنهاءات يكون الحجم المناسب للأسلاك ويجب كبح كل من العزل وموصل.

주의!

다음 절차들을 수행하기 전에, 전원이 DC회로로부터 제거되었는지를 확인해 주십시오.

Waarshuwing

Wanneer geslagen bedrading vereist is, dient u bedrading te gebruiken die voorzien is van goedgekeurde aansluitingspunten, zoals het gesloten-lus type of het grijperschop type waarbij de aansluitpunten omhoog wijzen. Deze aansluitpunten dienen de juiste maat voor de draden te hebben en dienen zowel de isolatie als de geleider vast te klemmen.

Hazardous Voltage or Energy Present on DC Power Terminals

Warning! Hazardous voltage or energy may be present on DC power terminals. Always replace cover when terminals are not in service. Be sure uninsulated conductors are not accessible when cover is in place.

警告

直接電力端子に危険な電圧やエネルギーが発生している可能性があります。使用していない端子には常にカバーをつけてください。カバーがついているときは非絶縁形コンダクターに接触していないことを確認してください。

警告

直流電源終端可能產生危險的電壓或能量。終端不使用時，請務必蓋上機蓋。當蓋上機蓋，確認不絕緣導體無法使用。

警告

直流 源 端可能会 生危 的 压或能量。 端不使用时， 必盖上机盖。机盖盖上后，
确保 体未 部分无法使用。

Warnung

In mit Gleichstrom betriebenen Terminals kann es zu gefählicher Spannung kommen. Die Terminals müssen abgedeckt werden, wenn sie nicht in Betrieb sind. Stellen Sie bei Benutzung der Abdeckung sicher, dass alle nicht isolierten, stromführenden Kabel abgedeckt sind.

¡Advertencia!

Puede haber energía o voltaje peligrosos en los terminales eléctricos de CC. Reemplace siempre la cubierta cuando no estén utilizándose los terminales. Asegúrese de que no haya acceso a conductores descubiertos cuando la cubierta esté colocada.

Attention

Le voltage ou l'énergie électrique des terminaux à courant continu peuvent être dangereux. Veillez à toujours replacer le couvercle lors les terminaux ne sont pas en service. Assurez-vous que les conducteurs non isolés ne sont pas accessibles lorsque le couvercle est en place.

אזהרה !

מקור מתח מסוכן עלול להיות נוכח על הקטבים של זרם ה-DC. החלף תמיד
את המכסה כאשר הקטבים לא בשימוש. ודא כי המוליכים הלא מבודדים
אינם נגישים כאשר המכסה נמצא במקומו.

تحذير

قد الجهد الخطرة أو الطاقة تكون موجودة على محطات الطاقة العاصمة. استبدال غطاء دائما عندما الغطاء عندما إليها الوصول يمكن ال غير معزول ال الموصلات فيه شك ال مما. المحطات ليست في الخدمة. في مكانه.

주의!

DC전원 단자들에 위험한 전압이나 에너지가 발생할 수 있습니다.

단말기들을 운영하지 않을 때에는 덮개로 다시 덮어 놓아 주십시오. 덮개가 제자리에 있어야만 절연되지 않은 도체들의 접근을 막을 수 있습니다.

Waarshuwing

Op DC-aansluitingspunten kunnen zich gevaarlijke voltages of energieën voordoen. Plaats altijd de afsluiting wanneer de aansluitingspunten niet worden gebruikt Zorg ervoor dat blootliggende contactpunten niet toegankelijk zijn wanneer de afsluiting is geplaatst.

Appendix C

System Specifications

Processors

E100-9S: 7th Generation Intel® Core i7-7600U Processor (System on Chip) Socket FCBGA 1356
E100-9S-E: 7th Generation Intel® Core i5-7300U Processor (System on Chip) Socket FCBGA 1356
E100-9S-L: 7th Generation Intel® Core i3-7100U Processor (System on Chip) Socket FCBGA 1356
Note: Please refer to the motherboard specifications pages on our website for updates to supported processors.

BIOS

AMI® UEFI BIOS

Memory

Supports up to 32 GB non-ECC SODIMM; Memory Type DDR4 2133 MHz; 2 DIMM slots

Hard Drives

Supports one M.2 SATA SSD B-Key 2280

Expansion Slots

One full-size Mini-PCIe slot
One M.2 B-key 2280 (SATA/PCI-E or WWAN/GNSS) slot

Motherboard

X11SSN-H-WOHS/-E-WOHS/-L-WOHS

Chassis

SCE-101-01 (3.5" SBC), (WxHxD) 7.68" x 5.94" x 1.73" (195 x 44 x 151 mm)

Power Supply

Lockable 60W Power Adapter for 12V DC

Operating Environment

Operating Temperature: 0°C to 50°C (32°F to 122°F)
Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)
Operating Relative Humidity: 8% to 90% (non-condensing)
Non-operating Relative Humidity: 5% to 95% (non-condensing)

Regulatory Compliance

Electromagnetic Emissions: FCC Class B, EN 55032 Class B, EN 61000-3-2/3-3, CISPR 32/22 Class B
Electromagnetic Immunity: EN 55024/CISPR 24, (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)
Safety: CSA/EN/IEC/UL 60950-1 Compliant, UL or CSA Listed (USA and Canada), CE Marking (Europe),
The Bureau of Standards, Metrology and Inspection (BSMI)

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”

Appendix D

Traditional Chinese Version Safety Warnings

Additional Traditional Chinese Version warning statements are included here in this appendix.

安全警告 (注意這些警告標誌)

以下的警告標誌對於安全使用本設備非常重要，可以避免操作人員遭遇危險，以及財產受到任何損失。

錯誤使用本機器或忽視這本手冊，所引起的傷害或損失等級分類如下：

Warning! （警告）此注意標誌提醒未能依照正確指示使用機器，可能導致生命危險 或造成嚴重傷害。

Caution（注意）此注意標誌提醒未能依照正確指示使用機器，可能導致受傷或財產損失。

此標誌提示絕對不可做的動作。

此標誌提示一般性務必要採取的行為。

Warnings: （警告）

本機器必須用接地線與地面確實連接。 否則受到電擊或閃電時，將對您造成危險。 如果電源插座沒有接地端子，或是有無法接地情況，請務必洽詢 專業技術人員，妥善安裝這些設施。

1. 電源必須在 12V 10%之間

2. 使用額定合格開關來提供電源迴路。

3. 機器安裝愈接近電源插座愈好。

4. 移動機器必須由維護工程師來處理。

1. 勿使用多孔插座或延長線，否則可能造成溫度過高而引起火災。

2. 勿在電源線放置重物，否則可能引起火災或受到電擊。

3. 勿踏在電源線上，及勿損傷或任意處理電源線，
否則可能引起火災或 受到電擊。

4. 勿綁住或紮緊電源線，否則可能引起火災或受到電擊。

5. 勿將花瓶、花盆或盛水容器放在機器上，如果水滴濺出，可能引起火 災或受到電擊

1. 機器如果產生怪味或不正常聲響，必需立即關閉機器電源開關，然後 從插座取下插頭

2. 絕對不可以沾濕的手插拔插頭，否則可能受到電擊。

3. 插頭必須確實插妥在插座上，如果未能妥善插好，可能會引起火災。

4. 僅可使用機器所附電源插頭。

拔取電源線時，確實抓住插頭部位，否則導致插頭破裂可能引起火 災或受到電擊。

不可企圖拆解或擅自修改機器，否則可能引起火災或受到電擊。

不可將機器安裝在下列場所：

1. 濕氣高及多灰塵的地方。

2. 地板不穩的地方。如果機器傾倒，可能造成傷害。

關閉上機蓋時，千萬不可將手放在上機蓋與主機體之間。

1. 移動機器前，必須記住拔下插頭，
否則插頭可能受損而引起火災 或受到電擊。

2. 為安全起見，夜晚無人使用伺服器時，必須確實將它的電源關閉。

3. 連續假日長期無人使用伺服器時，必須確實將它的電源關閉。

4. 插座周圍必須淨空，以便隨時可以很輕易的拔下插頭。

警告使用者： 這是乙類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策

Table C-1. Declaration of the Presence Condition of the Restricted Substances Marking (限用物質含有情況標示聲明書**)**

限用物質含有情況標示聲明書

Declaration of the Presence Condition of the Restricted Substances Marking

設備名稱：伺服器， 型號（型式）：適用於 **E100-9S/-9S-E/-9S-L** 及其所有系列機種 Type designation (Type): E100-9S/-9S-E/-9S-L and all its series models

Equipment name: Server

單元 Unit	限用物質及其化學符號 **Restricted Substances and its Chemical Symbols**					
	鉛 **Lead (Pb)**	汞 **Mercury (Hg)**	鎘 **Cadmium (Cd)**	六價鉻 **Hexavalent Chromium (Cr+6)**	多溴聯苯 **Polybrominated Biphenyls (PBB)**	多溴二苯醚 **Polybrominated Diphenyl Ethers (PBDE)**
機殼 **Chassis**	○	○	○	○	○	○
機殼風扇 **Chassis Fan**	—	○	○	○	○	○
線材 **Cable**	○	○	○	○	○	○
主機板 **Motherboard**	—	○	○	○	○	○
電源供應器 **Power Supply**	—	○	○	○	○	○
電源背板 **PDB**	—	○	○	○	○	○
附加卡 **Add-on Card**	—	○	○	○	○	○

備考1. 〝超出0.1 wt %〞及〝超出0.01 wt %〞係指限用物質之百分比含量超出百分比含量基準值。
Note 1: “Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

備考2. 〝○〞係指該項限用物質之百分比含量未超出百分比含量基準值。
Note 2: “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考3. 〝—〞係指該項限用物質為排除項目。
Note 3: The “–” indicates that the restricted substance corresponds to the exemption.

Appendix E

UEFI BIOS Recovery

Warning: Do not upgrade the BIOS unless your system has a BIOS-related issue. Flashing the wrong BIOS can cause irreparable damage to the system. In no event shall Supermicro be liable for direct, indirect, special, incidental, or consequential damages arising from a BIOS update. If you need to update the BIOS, do not shut down or reset the system while the BIOS is updating to avoid possible boot failure.

D.1 Overview

The Unified Extensible Firmware Interface (UEFI) provides a software-based interface between the operating system and the platform firmware in the pre-boot environment. The UEFI specification supports an architecture-independent mechanism that will allow the UEFI OS loader stored in an add-on card to boot the system. The UEFI offers clean, hands-off management to a computer during system boot.

D.2 Recovering the UEFI BIOS Image

A UEFI BIOS flash chip consists of a recovery BIOS block and a main BIOS block (a main BIOS image). The boot block contains critical BIOS codes, including memory detection and recovery codes for the user to flash a new BIOS image if the original main BIOS image is corrupted. When the system power is first turned on, the boot block codes execute first. Once this process is completed, the main BIOS code will continue with system initialization and the remaining POST (Power-On Self-Test) routines.

Note 1: Follow the BIOS recovery instructions below for BIOS recovery when the main BIOS boot crashes.

Note 2: When the BIOS boot block crashes, you will need to follow the procedures to make a Returned Merchandise Authorization (RMA) request. (For a RMA request, please see section 3.5 for more information). Also, you may use the Supermicro Update Manager (SUM) Out-of-Band (OOB) (https://www.supermicro.com.tw/products/nfo/SMS_SUM.cfm) to reflash the BIOS.

D.3 Recovering the BIOS Block with a USB Device

This feature allows the user to recover a BIOS image using a USB-attached device without additional utilities used. A USB flash device such as a USB Flash Drive, or a USB CD/DVD ROM/RW device can be used for this purpose. However, a USB Hard Disk drive cannot be used for BIOS recovery at this time.

The file system supported by UEFI is FAT (including FAT12, FAT16, and FAT32) which is installed on a bootable or non-bootable USB-attached device. However, the BIOS might need several minutes to locate the SUPER.ROM file if the media size becomes too large due to the huge volumes of folders and files stored in the device.

To perform UEFI BIOS recovery using a USB-attached device, follow the instructions below.

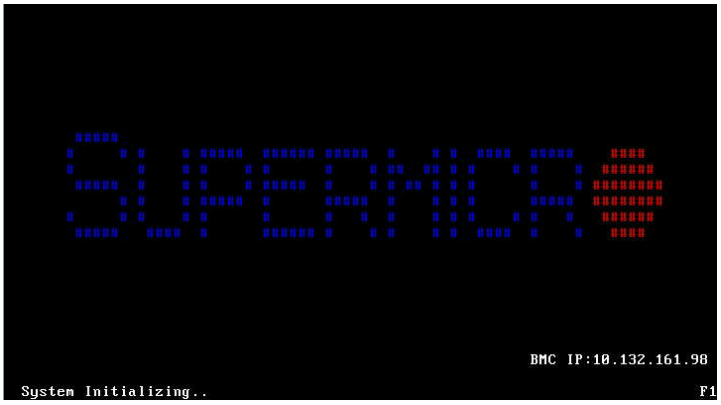
1. Using a different machine, copy the "Super.ROM" binary image file into the disc Root "\" directory of a USB device or a writable CD/DVD.

Note: If you cannot locate the "Super.ROM" file in your driver disk, visit our website at www.supermicro.com to download the BIOS image into a USB flash device and rename it "Super.ROM" for BIOS recovery use.

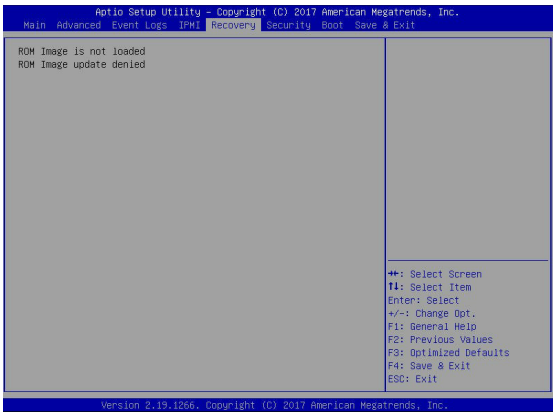
2. Insert the USB device that contains the new BIOS image ("Super.ROM") into your USB drive and power on the system

3. While powering on the system, keep pressing <Ctrl> and <Home> simultaneously on your keyboard *until the following screen (or a screen similar to the one below) displays*.

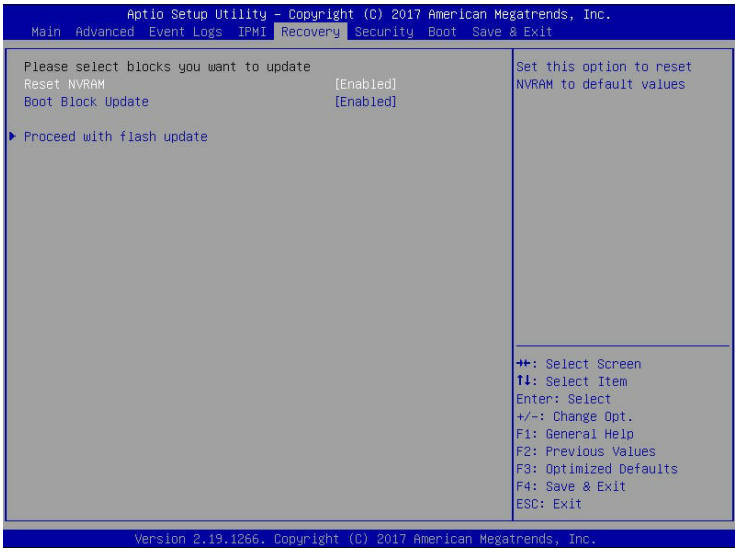
Warning: Please **stop** pressing the <Ctrl> and <Home> keys immediately when you see the screen (or a similar screen) below; otherwise, it will trigger a system reboot.



Note: On the other hand, if the following screen displays, please load the "Super.ROM" file to the root folder and connect this folder to the system. (You can do so by inserting a USB device that contains the new "Super.ROM" image to your machine for BIOS recovery.)

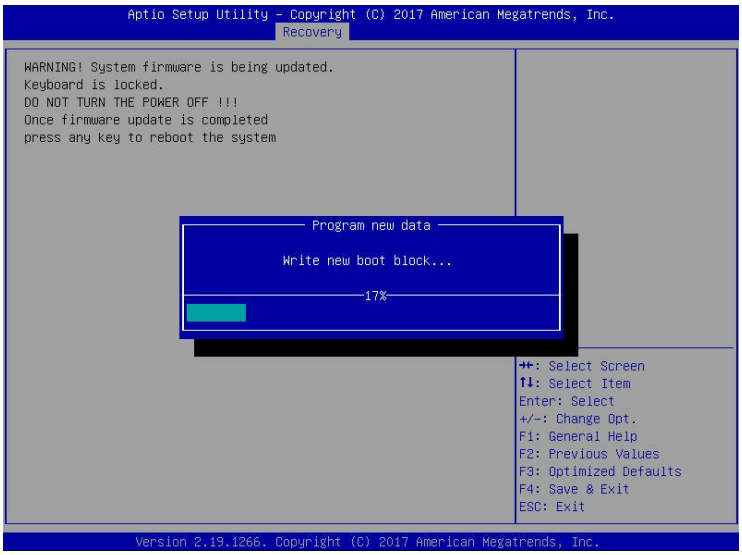


4. After locating the new BIOS binary image, the system will enter the BIOS Recovery menu as shown below.

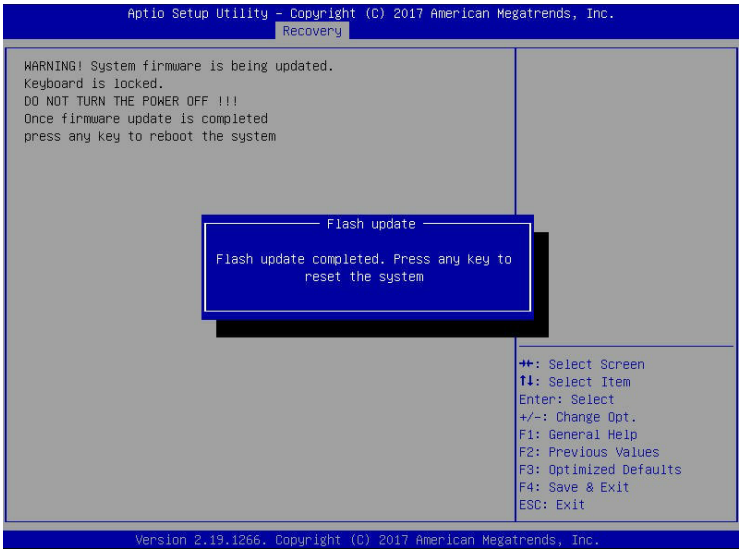


Note: At this point, you may decide if you want to start the BIOS recovery. If you decide to proceed with BIOS recovery, follow the procedures below.

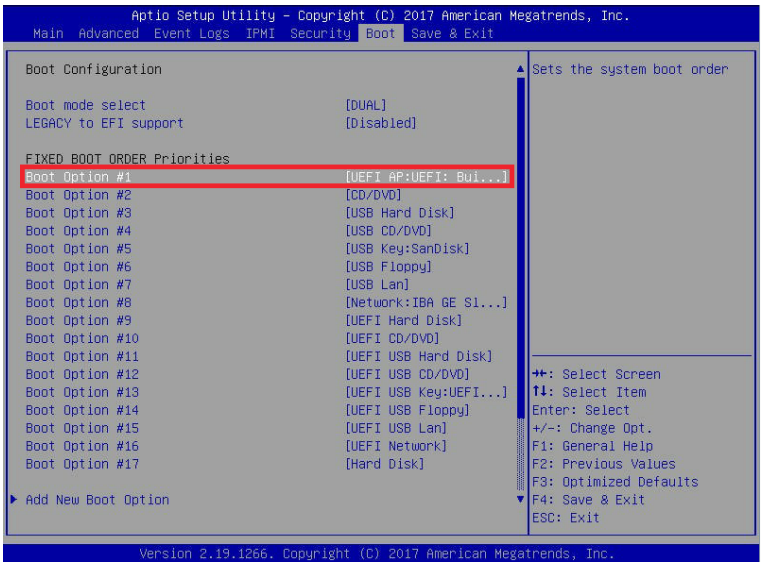
5. When the screen as shown above displays, use the arrow keys to select the item "Proceed with flash update" and press the <Enter> key. You will see the BIOS recovery progress as shown in the screen below.



Note: *Do not interrupt the BIOS flashing process until it has completed*.

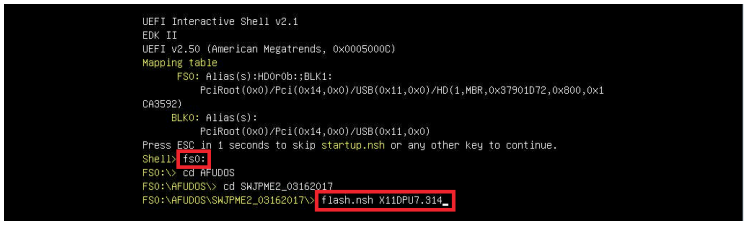


6. After the BIOS recovery process is completed, press any key to reboot the system.
7. Using a different system, extract the BIOS package into a USB flash drive.

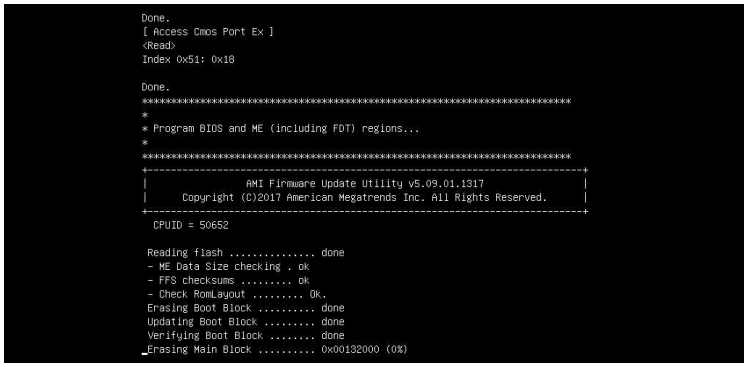


8. Press <Del> continuously during system boot to enter the BIOS setup utility. From the top of the tool bar, click on Boot and press <Enter> to enter the submenu. From the submenu list, select Boot Option #1 as shown below. Then, boot Option #1 to [UEFI AP:UEFI: Built-in EFI Shell]. Press <F4> to save the settings and exit the BIOS setup utility.

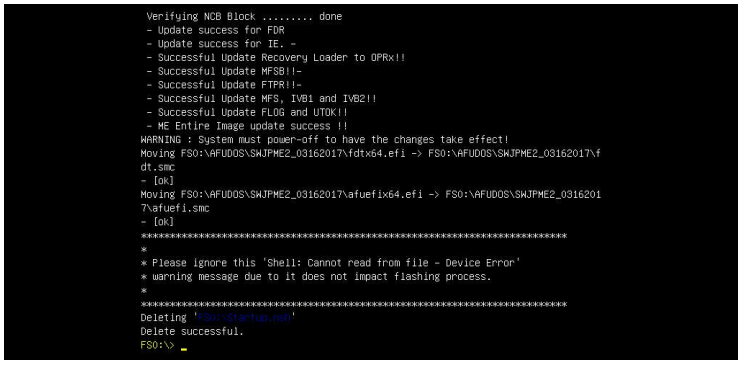
9. When the UEFI Shell prompt appears, type fs# to change the device directory path. Go to the directory that contains the BIOS package you extracted earlier from Step 7. Enter flash.nsh BIOSname.### at the prompt to start the BIOS update process.



Note: *Do not interrupt this process* until the BIOS flashing is complete.



10. The screen above indicates that the BIOS update process is completed. When you see the screen above, unplug the AC power cable from the power supply, clear CMOS, and plug the AC power cable in the power supply again to power on the system.



11. Press <Del> continuously to enter the BIOS setup utility.

12. Press <F3> to load the default settings.

13. After loading the default settings, press <F4> to save the settings and exit the BIOS setup utility.