SUPERSERVER®
SYS-E100-12T-H/E/L/C

USER'S MANUAL

Revision 1.0a

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Manual Revision 1.0a

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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 server. Installation and maintenance should be performed by experienced technicians only.

Please refer to the SYS-E100-12T-H/E/L/C server specifications page on our website for updates on supported memory, processors and operating systems (http://www.supermicro.com).

Notes

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

• Supermicro product manuals: http://www.supermicro.com/support/manuals/

• Product drivers and utilities: https://www.supermicro.com/wdl/

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

If you have any questions, please contact our support team at:
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This manual may be periodically updated without notice. Please check the Supermicro website for possible updates to the manual revision level.

Secure Data Deletion

A secure data deletion tool designed to fully erase all data from storage devices can be found on our website: https://www.supermicro.com/about/policies/disclaimer.cfm?url=/wdl/utility/Lot9_Secure_Data_Deletion_Utility/

Warnings

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

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

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

Contents

Appendix C UEFI BIOS Recovery

Appendix D System Specifications

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Chapter 1

Introduction

1.1 Overview

This chapter provides a brief outline of the functions and features of the SuperServer SYS-E100-12T-H/E/L/C. It is based on the X12STN-H/E/L/C-WOHS motherboard and the CSE-E101-03 chassis.

The following provides an overview of the specifications and capabilities.

System Overview	
Motherboard	X12STN-H/E/L/C-WOHS
Chassis	CSE-E101-03
Processor Support	11th Generation Intel® Core™ or Celeron® processor (see table below)
Memory	Two DIMM slots support up to 64GB unbuffered, non-ECC SO-DIMM, DDR4-3200
Storage	Three M.2 slots (one B-key, one M-key, one E-key)
I/O Ports	Two 2.5GbE LAN ports Two HDMI ports (one 2.0b port and one 1.4b port) One HD audio header for mic-in, line-out) Four serial ports Three USB 3.2 Gen 1 ports, one USB-C 3.2 port, four USB 2.0 ports
Power	Lockable 12V, 84W DC power adapter
Form Factor	3.5" SBC; 7.68" x 1.73" x 5.94" (195 x 44 x 150mm) (WxHxD)

Note: A Quick Reference Guide can be found on the SYS-E100-12T-H/E/L/C product pages.

Note: The following safety agency or regulatory models associated with the SYS-E100-12T-H/E/L/C have been certified as compliant with UL or CSA: E101-A8X12, E101-84.

System Configurations		
System Model	**Motherboard**	**CPU Support**
SYS-E100-12T-H	X12STN-H-WOHS	11th Generation Intel Core™ i7-1185GRE
SYS-E100-12T-E	X12STN-E-WOHS	11th Generation Intel Core™ i5-1145GRE
SYS-E100-12T-L	X12STN-L-WOHS	11th Generation Intel Core™ i3-1115GRE
SYS-E100-12T-C	X12STN-C-WOHS	11th Generation Intel Celeron® 6305E

1.2 System Features

The following views of the system display the main features. Refer to Appendix D for additional specifications.

Front View
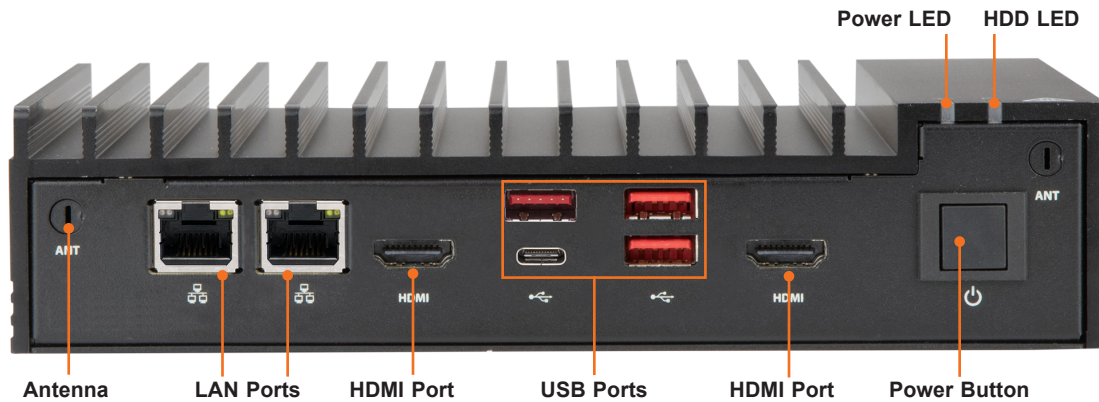
Figure 1-1. Front View

System Features: Front	
Item	**Description**
Antenna	WiFi antenna
LAN Ports	2.5GbE LAN ports (Intel I225-IT)
HDMI Ports	Left port: HDMI 2.0b (4K60Hz), Right port: HDMI 1.4b
USB Ports	USB 3.2 ports, lower left port is USB C port
Power Button	System on/off button
Power LED	Indicates power is being supplied to the system
HDD LED	Indicates data is being written to the storage drives.

Rear View

12V DC Input   **USB Ports**   **Mic-In Line-Out**
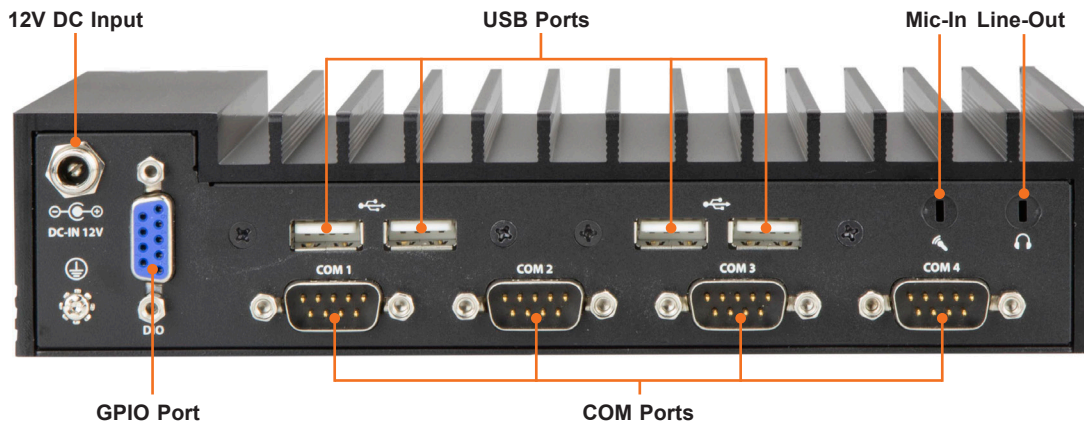
GPIO Port   **COM Ports**

Figure 1-2. Rear View

System Features: Rear	
Item	**Description**
12VDC Input	Power input for system
GPIO Port	General Purpose Digital Input/Output port
COM Ports	COM1 and COM2: RS232/422/485 serial ports COM3 and COM4: RS232 serial ports
USB Ports	USB 2.0 ports
Mic-In	Microphone jack (optional)
Line-Out	Line out jack for audio (optional)

1.3 Motherboard Layout

Below is a layout of the X12STN-H/E/L/C-WOHS motherboard 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
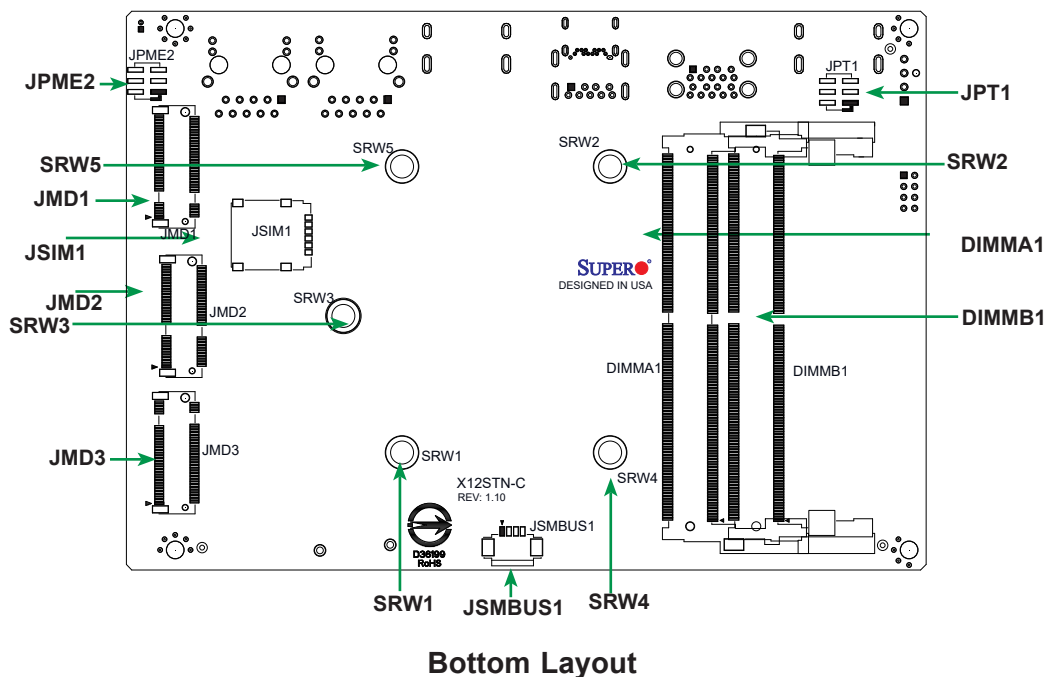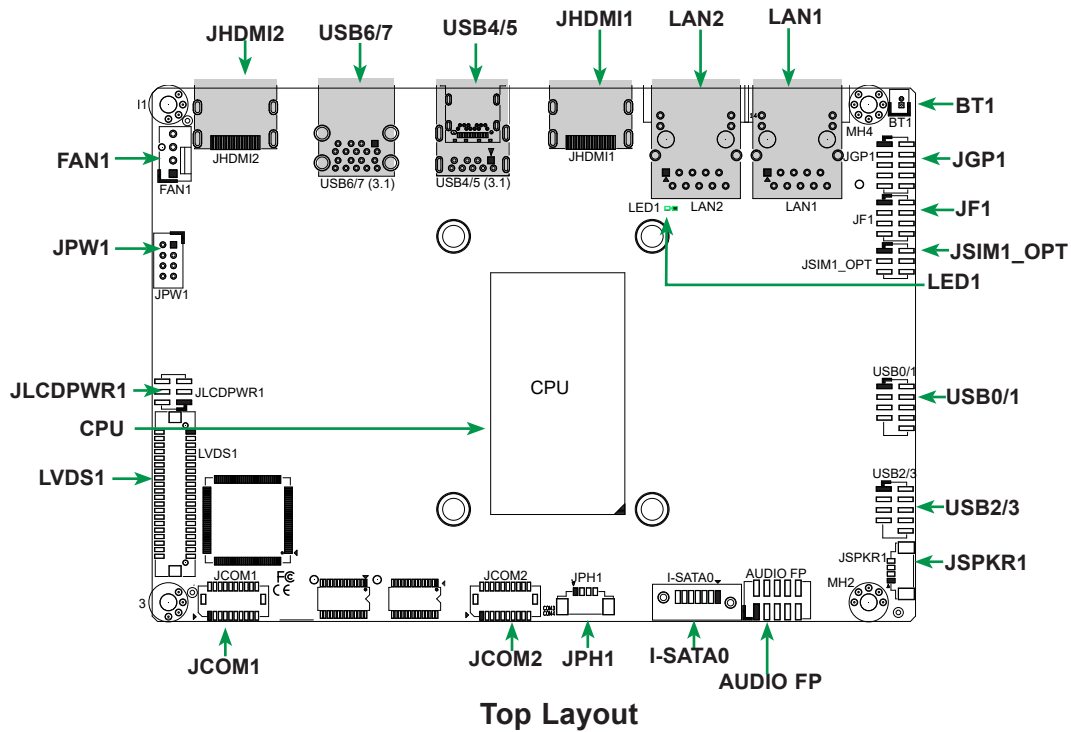
Figure 1-3. Motherboard Layout

Quick Reference Table

Jumper	Description	Default Setting
JLCDPWR1	LVDS Panel VCC Power Source Selection	Pins 1-3 (3.3V)
JPME2	CMOS	Pins 1-3
JPME2	Manufacturing Mode	Pins 4-6 (Normal)
JPT1	TPM Enable	Pins 1-3 (Enable)
JPT1	Force Power On	Pins 2-4 (Force power on)
JSIM1_OPT	SIM Detect Option	Pins 2-4 (Normal)

LED	Description	Status
LED1	Onboard Power LED	Green: System On Red: S5 or main power fail Off: System Off (power cable not connected)

Connector	Description
AUDIO FP	Front Panel Audio Header (Mic-In/Line-Out)
BT1	Battery Connector
FAN1	System Fan Header
I-SATA0	SATA 3.0 Port
JCOM1: COM1/COM2	COM Header (two RS232/RS422/RS485 ports)
JCOM2: COM3/COM4	COM Header (two RS232 ports)
JF1	Front Control Panel Header (Power/HDD LED, Reset, Power button)
JGP1	8-bit General Purpose I/O Header
JHDMI1	Back Panel HDMI 2.0b Port
JHDMI2	Back Panel HDMI 1.4b Port
JMD1	M.2 Slot B-Key 2280/2242/3042 (SATA 3.0 or PCIe / USB 3.1 /USB 2.0)
JMD2	M.2 Slot E-Key 2230 (PCIe / USB 2.0 / CVNi)
JMD3	M.2 Slot M-Key 2280/2242 (Gen4 PCIe x4)
JPH1	4-pin HDD Power Connector
JPW1	8-pin 12-24V Power Connector
JSIM1	JSIM1 Nano SIM Card Slot (bottom side)
JSMBUS1	System Management Bus Header
JSPKR1	Audio Speaker Output with 3W Amplifier
LAN1, LAN2	2.5 GbE Ethernet Ports
LVDS1	Dual Channel 48-bit LVDS Connector
SRW1 ~ SRW5	M.2 Mounting Holes
USB0/1	Front Accessible USB 2.0 Headers
USB2/3	Front Accessible USB 2.0 Headers
USB5	Front Panel USB 3.1 Type C Port (supports DP1.4a with alt. mode)
USB4/6/7	Front Panel USB 3.1 Type A Ports

Motherboard Block Diagram

DUAL CHANNEL
DDR4 3200 MHz

MAX. 64G SO-DIMM Support
Non-ECC SODIMM DDR4 support

HDMI 2.0b HDMI connector — RE_TIMER — DDIB

Intel - UP3

A — DIMMA — DIMMB

HDMI 1.4b HDMI connector — TCP0

B

LVDS Connector — PTN3460 eDP to LVDSBridge — eDP

PCIE4 — PCIe Gen4 x 4 16.0GT/s per lane — PCIe-SSD/NVME M.2 SLOT (M KEY)

TYPE-C USB 3.1 (10G) — 10.0Gb/s — TCP3 USB2.0[1] — PCIE[12] — PCIe Gen3 x 1 8.0GT/s — WLAN+BT M.2 SLOT (E KEY)

480Mb/s — USB2.0[2] — USB2.0[10] — 480Mb/s

Rear USB3.1 connector (USB 1) — 10.0Gb/s — USB3.1[1] — CNVi

CLINK

Rear USB3.1 connector (USB 2) — 10.0Gb/s — USB2.0[3] USB3.1[2]

USB2.0[9] — 480Mb/s — M.2 SLOT (B KEY) — UIM — Nano SIM

Rear USB3.1 connector (USB 3) — 10.0Gb/s — USB2.0[4] USB3.1[3] — USB3.1[4] — USB3.1 Gen2 x 1 10.0GT/s

LOW ACTIVE DETECTOR

SATA[1A] — SATA 6Gb/s

USB2.0 Header (USB 4) — 480Mb/s — USB2.0[5]
USB2.0 Header (USB 5) — 480Mb/s — USB2.0[6]

USB2.0 Header (USB 6) — 480Mb/s — USB2.0[7] — PCIE[7] — PCIe Gen3 x 1 8.0GT/s — GLAN1 INTEL I225IT — RJ45
USB2.0 Header (USB 7) — 480Mb/s — USB2.0[8] — PCIE[8] — PCIe Gen3 x 1 8.0GT/s — GLAN2 INTEL I225IT — RJ45

8-bit GPIO Header — NXP PCA9554 — SMBUS

SATA[0] — SATA 6Gb/s — SATA0 -35 ~ 85

SMBUS Header

Audio — High Definition — REALTEK ALC888S-VD2-GR 0 ~ 70 degree — FRONT AUDIO Header (Mic-in/Line-out)

Debug Header (Port 80) — SPI — SPI — eSPI — AUDIO AMP ALC105-VF

FLASH SPI 256Mbits

SIO NCT6126D — COM 1 / 2 (RS232/422/485)

TPM INFINEON SLB9670V -20 ~ 85 — COM 3 / 4 (RS232)

I/O PANEL LAYOUT

LAN1 LAN2

USB 3.1 TYPE-C   USB 3.1 USB 3.1

1   2   HDMI 2.0b   HDMI 1.4b

Figure 1-4. Motherboard Block Diagram

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.

1. Use the operating system to power down the system.

2. After the system has completely shut down, disconnect the AC adapter power cord from the power source.

3. Disconnect the power cord from the chassis.

2.2 Accessing the System

The CSE-E101-03 features a removable bottom cover to access the inside of the chassis.
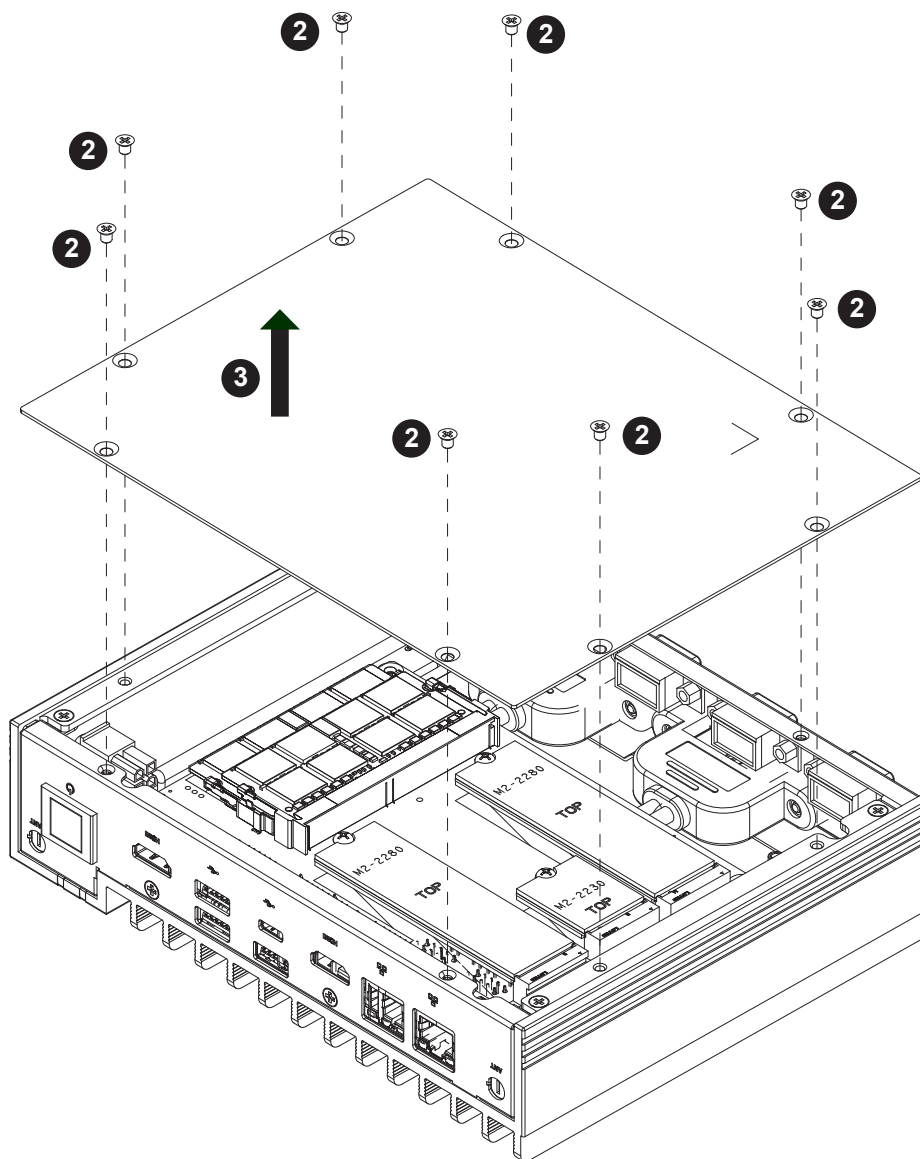
Figure 2-1. Removing the Chassis Cover

Removing the Bottom Cover

1. Remove power from 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 system features an embedded Intel processor as follows:

- SYS-E100-12T-H: 11th Generation Intel Core™ i7-1185GRE processor.

- SYS-E100-12T-E: 11th Generation Intel Core™ i5-1145GRE processor.

- SYS-E100-12T-L 11th Generation Intel Core™ i3-1115GRE processor.

- SYS-E100-12T-C 11th Generation Intel Celeron® 6305E processor.

Memory Support

The X12STN-H/E/L/C-WOHS series motherboards supports up to 64GB unbuffered, non-ECC SO-DIMM, DDR4-3200 in two DIMM 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. Remove the bottom cover as described in the previous section.

2. Position the SO-DIMM module's bottom key so it aligns with the receptive point on the slot.
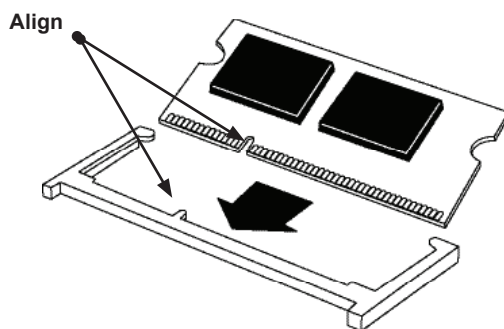
3. Insert the SO-DIMM module vertically at about a 45 degree angle. Press down until the module locks into place.
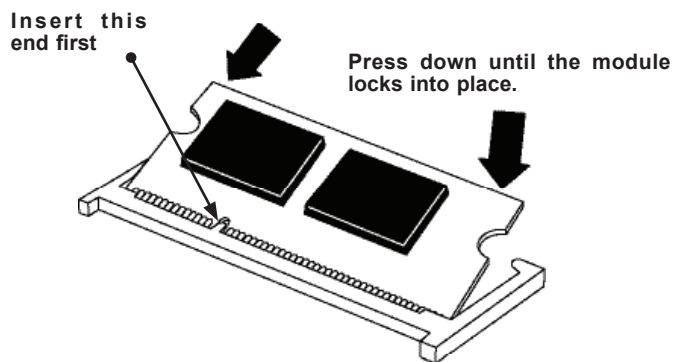
4. The side clips will automatically secure the SO-DIMM module, locking it into place.
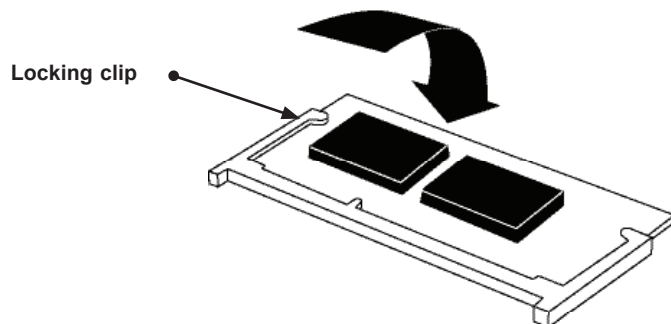
SO-DIMM Removal

1. Push the side clips at the end of the slot to release the SO-DIMM module.

2. Pull the SO-DIMM module up to remove it from the slot.
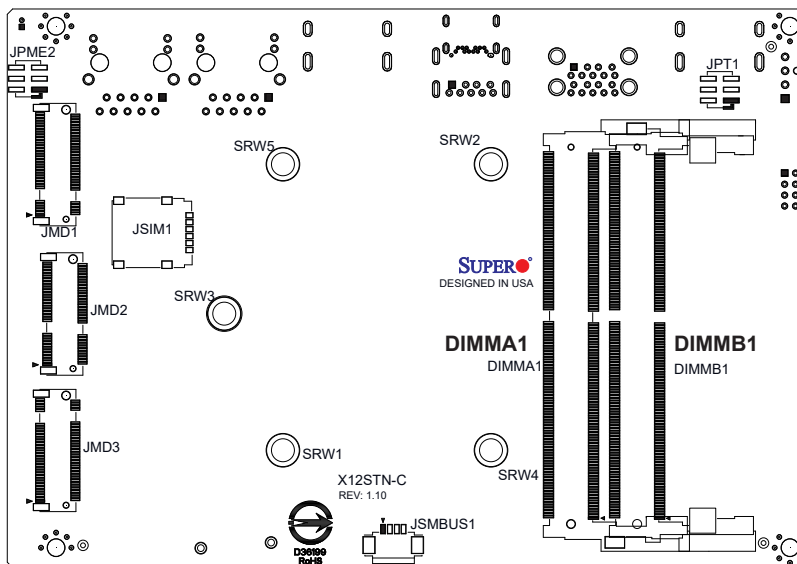
Figure 2-2. SO-DIMM Labels on Bottom of the Motherboard

Solid State Storage

This motherboard supports internally mounted solid state storage cards by means of three M.2 slots. When an M.2 NVMe storage card is installed, an accompanying heatsink (optional) must also be installed to prevent the card from overheating. See Chapter 6 for details.
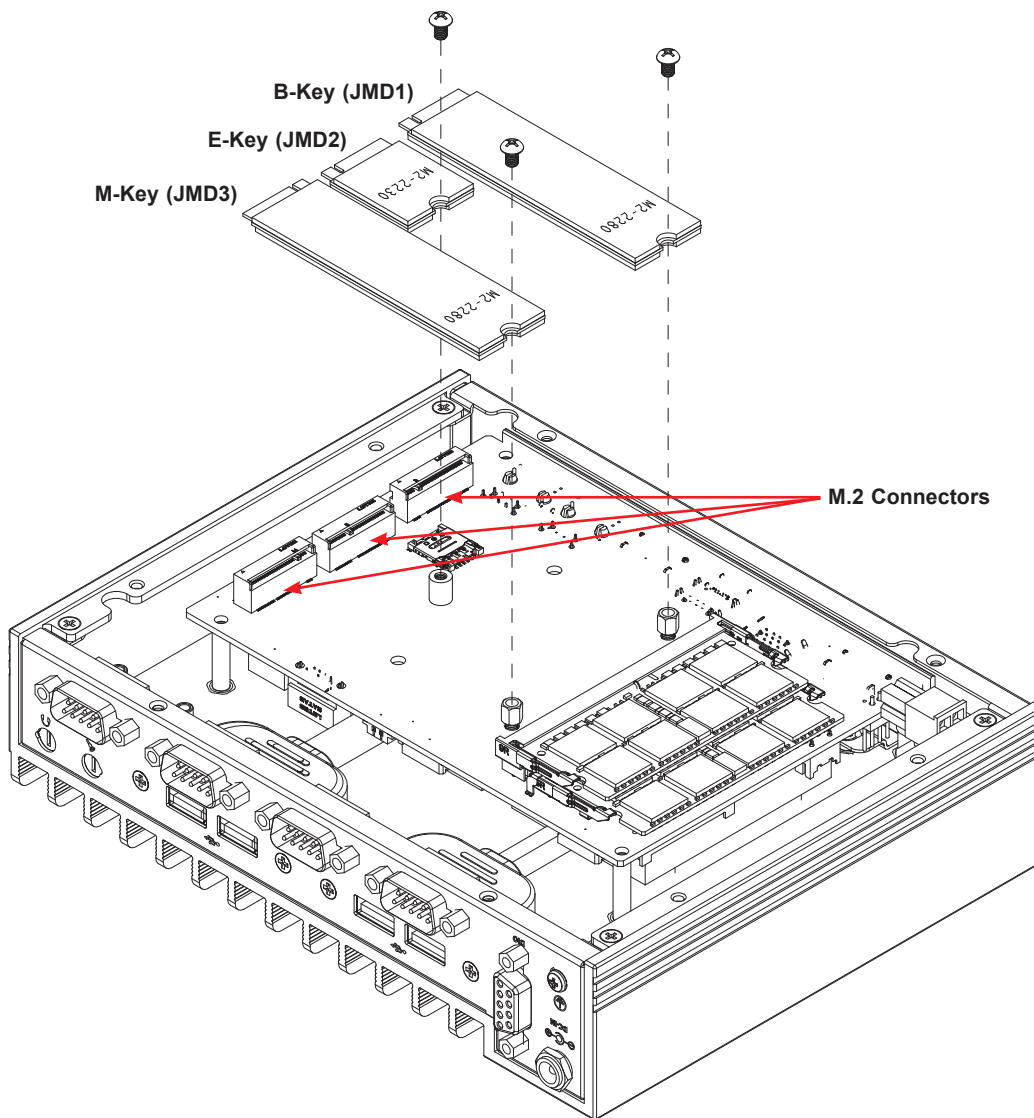
Figure 2-3. Installing M.2 Expansion Cards

Installing an 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 standoff.

2.4 Battery Removal and Installation

Battery Removal

To remove the battery, follow the steps below:

1. Power off your system and remove the cover as described in Sections 2.1 and 2.2.

2. Remove the battery cable at the BT1 connector on the board.

3. Remove the battery.

Proper Battery Disposal

Handle used batteries carefully. Do not damage the battery in any way; a damaged battery may release hazardous materials into the environment. Do not discard a used battery in the garbage or a public landfill. Please comply with the regulations set up by your local hazardous waste management agency to dispose of your used battery properly.

Battery Installation

1. Unplug the power cord.

2. Connect the battery cable into the battery connector (BT1) and push it down until you hear a click to ensure that the cable is securely locked.

The battery is temporarily placed on the heatsink during shipping. Use the foam tape on the back side of the battery to secure the battery to a flat surface on the bottom of the motherboard or a proper location in the system. Do not place the battery on the heatsink during operation.
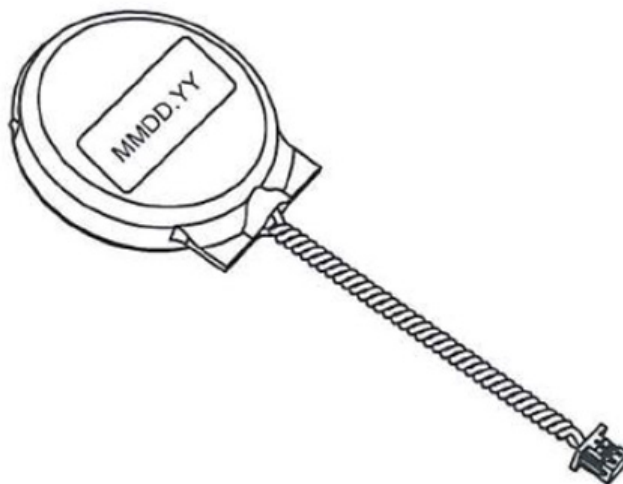
Figure 2-4. Removing the Battery

2.5 Mounting the Chassis

The CSE-E101-03 chassis can be installed in an embedded environment with the mounting brackets and the mounting screws.

Installing the Mounting Brackets

1. Turn the chassis over to the bottom side.

2. Decide whether the bracket mounting holes will face outwards or inwards.

3. The mounting bracket supports two screw alignments. Decide which screw holes will be used.

4. Align the screw holes on the mounting bracket with the screw holes on the chassis.

5. Install two screws.

6. Repeat on the other mounting bracket.
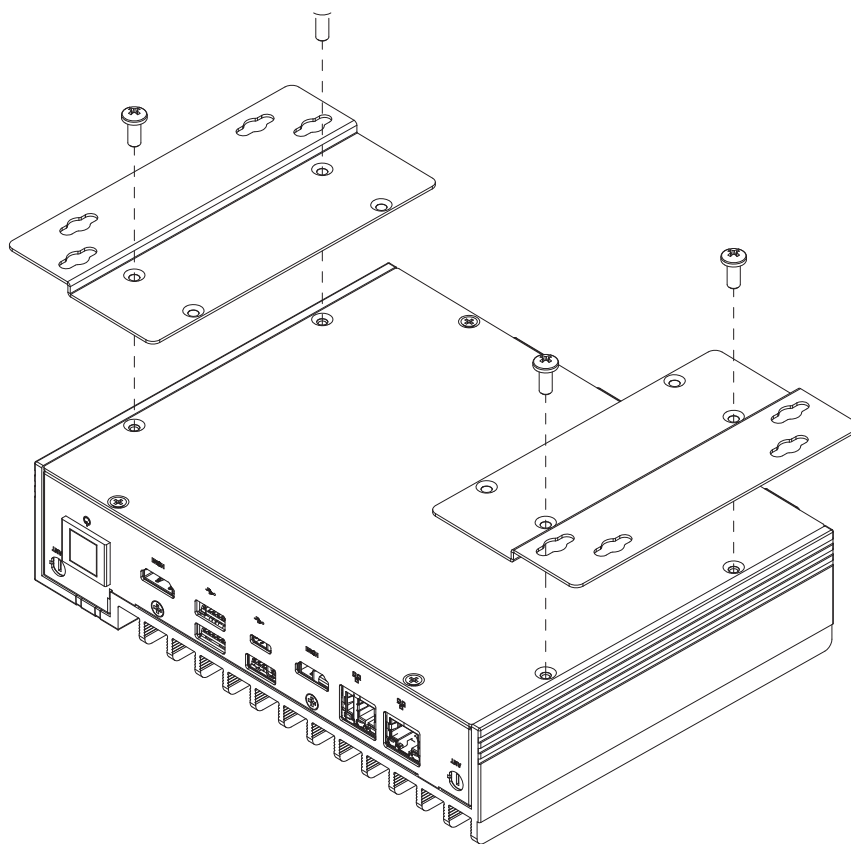
Figure 2-5. Installing Outward-Facing Mounting Brackets (Bottom View)

Chapter 3

Motherboard Connections

This section describes the connections on the motherboard and provides pinout definitions. Note that 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 may be found in Chapter 1. More detail can be found in the Motherboard Manual.

Please review the Safety Precautions in Appendix A before installing or removing components.

3.1 Power Connections

JPW1 is the 12-24V DC power connector that provides power to the motherboard. JPH1 is a 4-pin HDD power connector that provides power to the hard disk drives.

8-pin 12-24V Power Pin Definitions	
Pins	Definition
1 - 4	+12-24V
5 - 8	Ground

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

3.2 Headers and Connectors

Battery Connector

BT1 is a two-pin connector for an external CMOS battery. Refer to section 2.4 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.

Battery Connector Pin Definitions			
Pin#	Definition	Pin#	Definition
1	P3V_BATTERY	2	GND

SATA

There is one SATA 3.0 port (I-SATA0) supported by the chipset. Supermicro SuperDOMs are backward compatible with regular SATA HDDs or SATA DOMs that need external power cables.

Note: For more information on the SATA HostRAID configuration, refer to the Intel SATA HostRAID user's guide posted at https://www.supermicro.com/support/manuals/.

M.2 Slot

M.2 slots (formerly known as Next Generation Form Factor or NGFF) are located at JMD1-JMD3 on the bottom side of the motherboard. The M.2 slots are designed for internal mounting devices.

The X12STN motherboard contains:

- One M.2 B-Key 3042/2242/2280 (PCIe or SATA/USB3/USB2) with nano SIM holder
- One M.2 E-Key 2230 (PCIe /USB2/CNVi)
- One M.2 M-Key 2242/2280 (PCIe x 4)
  (The modules are supported by copper standoffs for M.2 and mounting holes.)

Refer to the M.2 tables on the following pages.

M.2 B-Key Pin Definition (JMD1)			
Pin#	Definition	Pin#	Definition
1	N/C	2	P3V3SB
3	GND	4	P3V3SB
5	GND	6	FULL_CARD_POWER_OFF#(PU TO P1V8SB only)
7	USB_D+	8	W_DISABLE1#(PU to P3V3SB only)
9	USB_D-	10	MD2_B-KEY_LED_N
11	GND	12	KEY B
13	KEY B	14	KEY B
15	KEY B	16	KEY B
17	KEY B	18	KEY B
19	KEY B	20	N/C
21	N/C	22	N/C
23	WAKE_ON_WWAN#(PU TO P1V8SB only)	24	N/C
25	N/C	26	W_DISABLE2#(PU TO P1V8SB only)
27	GND	28	N/C
29	USB3.0-Rx-	30	UIM-RESET
31	USB3.0-Rx+	32	UIM-CLK
33	GND	34	UIM-DATA
35	USB3.0-Tx-	36	UIM-PWR
37	USB3.0-Tx+	38	N/C
39	GND	40	N/C
41	PERN0/SATA-B+	42	N/C
43	PERP0/SATA-B-	44	Alert# (PU to P1V8SB only)
45	GND	46	N/C
47	PETN0/SATA-A-	48	N/C
49	PETP0/SATA-A+	50	PERST# (P3V3SB only)
51	GND	52	CLKREQ#
53	REFCLKn	54	PEWAKE#
55	REFCLKp	56	N/C
57	GND	58	N/C
59	N/C	60	COEX3
61	N/C	62	COEX_RXD
63	N/C	64	COEX_TXD
65	N/C	66	SIM_DETECT
67	RESET# (PU to P1V8SB only)	68	N/C
69	SATA_PCIE_SEL	70	P3V3SB
71	GND	72	P3V3SB
73	GND	74	P3V3SB
75	N/C		

Note: The table above is continued on the next page.

M.2 E-Key Pin Definition (JMD2)			
Pin#	Definition	Pin#	Definition
1	GND	2	P3V3SB
3	USB_D+	4	P3V3SB
5	USB_D-	6	N/C
7	GND	8	CNV_BT_I2S_SCLK
9	CNV_WR_LANE1_DN	10	CNV_RF_RESET_N
11	CNV_WR_LANE1_DP	12	CNV_BT_I2S_SDO
13	GND	14	MODEM_CLKREQ
15	CNV_WR_LANE0_DN	16	N/C
17	CNV_WR_LANE0_DP	18	GND
19	GND	20	UART_BT_WAKE_N
21	CNV_WR_CLK_DN	22	CNV_BRI_RSP
23	CNV_WR_CLK_DP	24	KEY E
25	KEY E	26	KEY E
27	KEY E	28	KEY E
29	KEY E	30	KEY E
31	KEY E	32	CNV_RGI_DT
33	GND	34	CNV_RGI_RSP
35	PETp0	36	CNV_BRI_DT
37	PETn0	38	CLINK_RST_N
39	GND	40	CLINK_DATA
41	PERp0	42	CLINK_CLK
43	PERn0	44	CNV_PA_BLANKING
45	GND	46	CNV_MFUART2_TXD
47	REFCLKp0	48	CNV_MFUART2_RXD
49	REFCLKn0	50	SUSCLK
51	GND	52	PERST0#
53	CLKREQ0#	54	BT_DISABLE2#
55	PEWAKE0#	56	WIFI_DISABLE2#
57	GND	58	N/C
59	CNV_WT_LANE1_DN	60	N/C
61	CNV_WT_LANE1_DP	62	N/C
63	GND	64	NC
65	CNV_WT_LANE0_DN	66	N/C
67	CNV_WT_LANE0_DP	68	N/C
69	GND	70	N/C
71	CNV_WT_CLK_DN	72	P3V3SB
73	CNV_WT_CLK_DP	74	P3V3SB
75	GND		

Note: The table above is continued on the next page.

M.2 M-Key Pin Definition (JMD3)			
Pin#	Definition	Pin#	Definition
1	GND	2	P3V3
3	GND	4	P3V3
5	PERn3	6	N/C
7	PERp3	8	N/C
9	GND	10	MD2_M-KEY_LED_N
11	PETn3	12	P3V3
13	PETp3	14	P3V3
15	GND	16	P3V3
17	PERn2	18	P3V3
19	PERp2	20	N/C
21	GND	22	N/C
23	PETn2	24	N/C
25	PETp2	26	N/C
27	GND	28	N/C
29	PERn1	30	N/C
31	PERp1	32	N/C
33	GND	34	N/C
35	PETn1	36	N/C
37	PETp1	38	N/C
39	GND	40	N/C
41	PERn0	42	N/C
43	PERp0	44	N/C
45	GND	46	N/C
47	PETn0	48	N/C
49	PETp0	50	PERST#
51	GND	52	CLKREQ#
53	REFCLKn	54	PEWAKE#
55	REFCLKp	56	N/C
57	GND	58	N/C
59	KEY M	60	KEY M
61	KEY M	62	KEY M
63	KEY M	64	KEY M
65	KEY M	66	KEY M
67	N/C	68	SUSCLK
69	PEDET	70	P3V3
71	GND	72	P3V3
73	GND	74	P3V3
75	GND		

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_CLK
2	SMB_DATA
3	GND
4	P5V

Nano SIM Slot

The JSIM1 slot supports a Nano SIM card.

Audio Header

A 10-pin header located on the motherboard allows you to use the onboard sound for audio playback. Connect an audio cable to the 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

3.3 Input/Output Ports

Front I/O Ports

See the figure below for the locations and descriptions of the I/O ports on the front of the system.
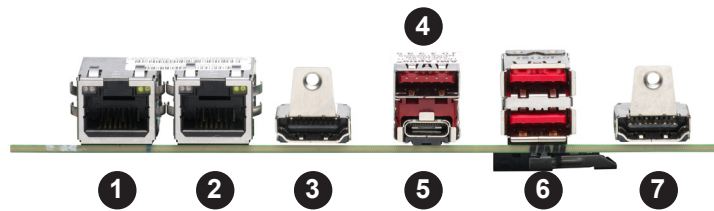
Figure 3-1. Front I/O Ports

Front I/O Ports			
#	Description	#	Description
1.	LAN1	5	USB5 Type C (3.1)
2.	LAN2	6	USB6/7 (3.1)
3	HDMI 2.0 Port	7	HDMI 1.4 Port
4	USB4 (3.1)		

HDMI Ports

There is one High Definition Multimedia Interface (HDMI) 2.0b port and one HDMI 1.4b port on the front I/O panel. These connectors are used to display both high definition video and digital sound through an HDMI-capable display, using a single HDMI cable (not included). HDMI 2.0 allows faster frame rates and is backward compatible with previous HDMI versions. The HDMI 2.0b port provides Intel HD Graphics digital output with resolution up to 4096x2160 at 60Hz Refresh Rate with HDR. The HDMI 1.4b port provides a resolution up to 4096x2160 at 30Hz.

LAN Ports

Two LAN ports (LAN1/LAN2) are located on the I/O panel. These ports accept RJ45 type cables. Refer to the LED Indicator section for LAN LED information.

Universal Serial Bus (USB) Ports

There are three USB 3.1 Type A ports (USB4 and USB6/7) and one USB 3.1 Type C port (USB5) on the front I/O panel. The motherboard also has four rear USB 2.0 headers (USB0/1 and USB2/3) that can be used to provide rear side USB access with a cable. Two USB 2.0 cables for rear panel support are included with the motherboard. USB 3.1 cables are optional.

USB 3.1 Type A (USB6/7) Pin Definitions			
Pin#	Definition	Pin#	Definition
A1	VBUS	B1	VBUS
A2	D6-N	B2	D7-N
A3	D6-P	B3	D7-P
A4	GND	B4	GND
A5	Stda_SSRX6-N	B5	Stda_SSRX7-N
A6	Stda_SSRX6-P	B6	Stda_SSRX7-P
A7	GND	B7	GND
A8	Stda_SSTX6-N	B8	Stda_SSTX7-N
A9	Stda_SSTX6-P	B9	Stda_SSTX7-P

USB 3.1 Type C (USB5) Pin Definitions			
Pin#	Definition	Pin#	Definition
A1	GND	B12	GND
A2	USB31_SW1_TXP	B11	USB31_SW1_RXP
A3	USB31_SW1_TXM	B10	USB31_SW1_RXN
A4	P5VSB_TYPEC	B9	P5VSB_TYPEC
A5	A_CC1	B8	NC
A6	NC	B7	NC
A7	NC	B6	NC
A8	NC	B5	A_CC2
A9	P5VSB_TYPEC	B4	P5VSB_TYPEC
A10	USB31_SW2_RXN	B3	USB31_SW2_TXN
A11	USB31_SW2_RXP	B2	USB31_SW2_TXP
A12	GND	B1	GND

USB 3.1 Headers 0/1 and 2/3 Pin Definitions			
Pin#	Definition	Pin#	Definition
1	P5V_DUAL_F	2	P5V_DUAL_F
3	USBCON_N0/ USBCON_N2	4	USBCON_N1/ USBCON_N3
5	USBCON_P0/ USBCON_P2	6	USBCON_P1/ USBCON_P3
7	Ground	8	Ground
9	Key	10	NC

USB 3.1 Type A (USB4) Pin Definitions			
Pin#	Definition	Pin#	Definition
1	VBUS	2	D4-N
3	D4-P	4	GND
5	SSRXN	6	SSRXP
7	GND	8	SSTXN
9	SSTXP	10	

Control Panel

JF1 contains header pins for various control panel connections. See the figure below for the pin locations and definitions of the control panel buttons and LED indicators.

All JF1 wires have been bundled into a single cable to simplify this connection. Make sure the red wire plugs into pin 1 as marked on the motherboard. The other end connects to the control panel PCB board.
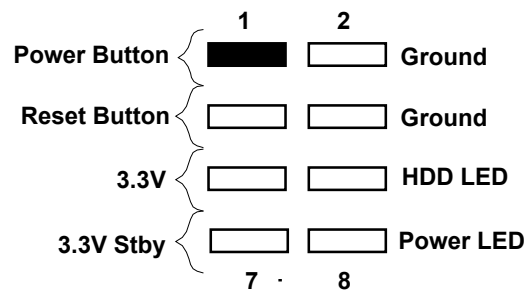
Figure 3-2. JF1 Header Pins

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). 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 Definitions (JF1)	
Pin#	**Definition**
1	Power Button
2	Ground

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 Definitions (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 Definitions (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 Definitions (JF1)	
Pin#	Definition
7	+3.3V Stby
8	Power LED Low

Rear I/O Ports

See the figure below for the locations and descriptions of the I/O ports on the rear of the system.

GPIO D-SUB Connector

The GPIO D-SUB connector is an 8-bit general purpose I/O expander via the SMBus.

GND   GP_P3V3_GP4   GP_P3V3_GP5   GP_P3V3_GP6   GP_P3V3_GP7

GP_P3V3_GP0   GP_P3V3_GP1   GP_P3V3_GP2   GP_P3V3_GP3
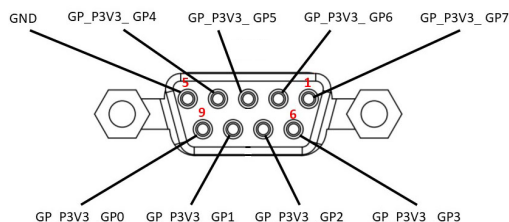
Audio Speaker Output

The Audio Speaker Output (JSPKR1) is used to amplify low-power electronic audio signals to a level that is high enough for current driving of loudspeakers or headphones.

Audio Speaker Output JSPKR1 Pin Definitions	
Pin#	Definition
1	SPEAKER_LN_OUT
2	SPEAKER_LP_OUT
3	SPEAKER_RN_OUT
4	SPEAKER_RP_OUT

COM Ports

There are four COM ports: COM1/COM2 (JCOM1**)** with support for two RS232/RS422/RS485, and COM3/COM4 (JCOM2**)** with support for two RS232.

Below are the pin definition tables for the onboard header and the D-SUB connector for cable CBL-CDAT-0665. Refer to the corresponding table based on design requirements.

COM Port Pin Definitions (JCOM1)			
Pin#	RS-232	RS-422/485 Full Duplex	RS-485 Half Duplex
1	SP_DCD1	TX-1	Data-1
2	SP_DSR1		
3	SP_RXD1	TX+1	Data+1
4	SP_DTR1		
5	SP_TXD1	RX+1	
6	SP_CTS1		
7	SP_DTR1	RX-1	
8	SP_RI1		
9	GND		
10	NC		
11	SP_DCD2	TX-2	Data-2
12	SP_DSR2		
13	SP_RXD2	TX+2	Data+2
14	SP_RTS2		
15	SP_TXD2	RX+2	
16	SP_CTS2		
17	SP_DTR2	RX-2	
18	SP_RI2		
19	GND		

COM Port Pin Definitions (JCOM2)	
Pin#	RS-232
1	SP_DCD3
2	SP_DSR3
3	SP_RXD3
4	SP_RTS3
5	SP_TXD3
6	SP_CTS3
7	SP_DTR3
8	SP_RI3
9	GND
10	NC
11	SP_DCD4
12	SP_DSR4
13	SP_RXD4
14	SP_RTS4
15	SP_TXD4
16	SP_CTS4
17	SP_DTR4
18	SP_RI4
19	GND
20	NC

3.4 Jumpers

Explanation of Jumpers

To modify the operation of the motherboard, jumpers are used to choose between optional settings. Jumpers create shorts between two pins to change the function associated with it. Pin 1 is identified with a square solder pad on the printed circuit board. See the motherboard layout page for jumper locations.

Note: On a two-pin jumper, "Closed" means the jumper is on both pins and "Open" indicates the jumper is either on only one pin or has been completely removed.
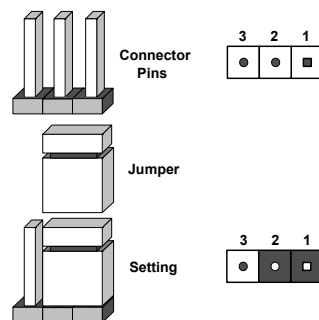
SIM Detection

This jumper is for wireless WAN module detection. Since each wireless WAN module vendor has a different condition of detection, check with the vendor for the correct detection type and set the JSIM1_OPT jumper before installing the module.

SIM Detection Jumper Settings	
Jumper Setting	Definition
Pins 2-4	High Activity (Default)
Pins 3-4	Low Activity

JLCDPWR1

Use this jumper to select the power voltage for the LVDS panel. Make sure that the specifications of the cable are 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

CMOS/Manufacturing Mode Select

Close pins 2-4 of jumper JPME2 to bypass SPI flash security and force the system to operate in the manufacturing mode, which will allow you to flash the system firmware from a host server for system setting modifications. Refer to the table below for jumper settings.

JPME2 is also used to clear CMOS, which clears all passwords. Shut down the system before clearing the CMOS by closing pins 3-5.

Note: Clearing CMOS also clears all passwords.

CMOS Clear/Manufacturing Mode Jumper Settings	
Jumper Setting	Definition
Pins 4-6	Normal (Default)
Pins 2-4	Manufacturing Mode
Pins 1-3	Normal (Default)
Pins 3-5	CMOS Clear

TPM Enable/Force Power On

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

Use JPT1 to select the Force Power On function when the AC power cord is plugged in. When enabling force power on and AC power recovery, the system will boot up automatically without pressing the power button.

TPM Enable/Force Power On Jumper Settings	
Jumper Setting	Definition
Pins 1-3	TPM Enabled (Default)
Pins 3-5	TPM Disabled
Pins 2-4	Force power on (Default) (when AC power cord is plugged in)
Pins 4-6	Power button power on (when AC power cord is plugged in)

3.5 LED Indicators

LAN Port LEDs

There are two LAN ports (LAN1 and LAN2) on the I/O back panel of the motherboard. Each Ethernet LAN port has two LEDs. The yellow 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	100 Mb/s or below
Green	2.5 Gb/s
Amber	1 Gb/s

Onboard Power LED

LED1 is the onboard Power LED. When this LED is on, the system is on. Be sure to turn off the system and unplug the power cord before removing or installing components. Refer to the table below for more information.

Power LED Indicator	
LED1	**Definition**
Green	System On
Red	S5 or main power fail
Off	System Off (power cable not connected)

3.6 Storage Ports

M.2 Slots

M.2 slots (formerly known as Next Generation Form Factor or NGFF) are located at JMD1-JMD3 on the bottom side of the motherboard. The M.2 slots are designed for internal mounting devices.

The X12STN-H/E/L/C-WOHS motherboard contains:

- One M.2 B-Key 3042/2242/2280 (PCIe or SATA/USB3/USB2) with a nano SIM holder
- One M.2 M-Key 2242/2280 (PCIe x4)
  (The modules are supported by copper standoffs and mounting holes.)

Note: if installing M.2 NVMe devices, you <u>must</u> use the optional kit described in Chapter 5 to keep the components at a safe operating temperature.

Chapter 4

Software

After the hardware has been installed, you can install the Operating System (OS), configure RAID settings and install the drivers.

4.1 Microsoft Windows OS Installation

If you will be using RAID, you must configure RAID settings before installing the Windows OS and the RAID driver. Refer to the RAID Configuration User Guides posted on our website at www.supermicro.com/support/manuals.

Installing the OS

1. Create a method to access the MS Windows installation ISO file. That might be a DVD, perhaps using an external USB/SATA DVD drive, or a USB flash drive, or the KVM console.

2. Retrieve the proper RST/RSTe driver. Go to the Supermicro web page for your motherboard and click on "Download the Latest Drivers and Utilities", select the proper driver, and copy it to a USB flash drive.

3. Boot from a bootable device with Windows OS installation. You can see a bootable device list by pressing **F11** during the system startup.
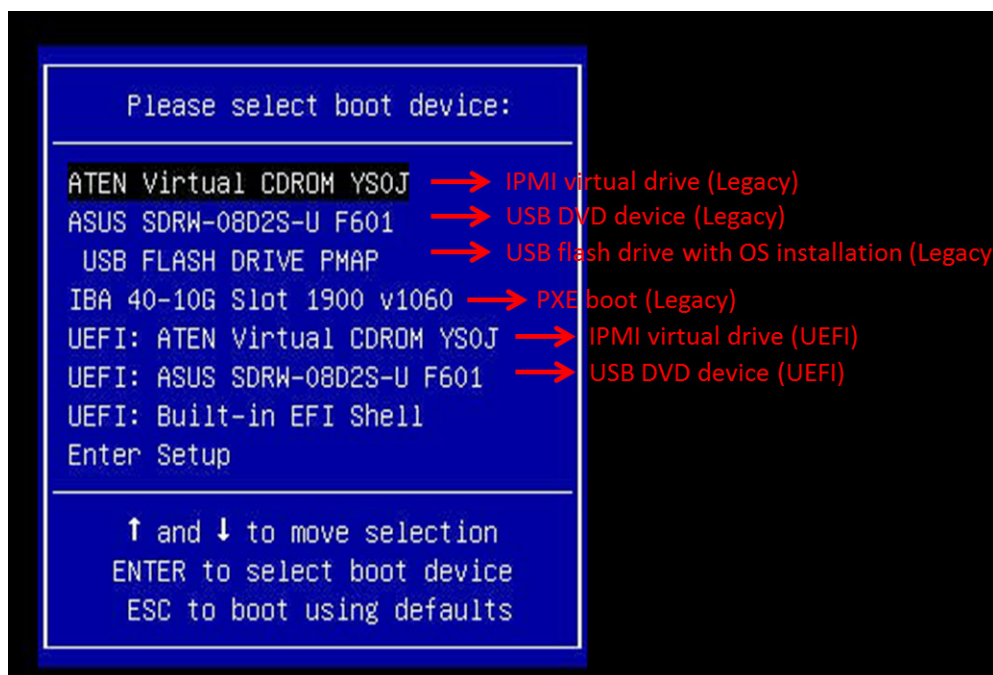

Figure 4-1. Select Boot Device

4. During Windows Setup, continue to the dialog where you select the drives on which to install Windows. If the disk you want to use is not listed, click on "Load driver" link at the bottom left corner.
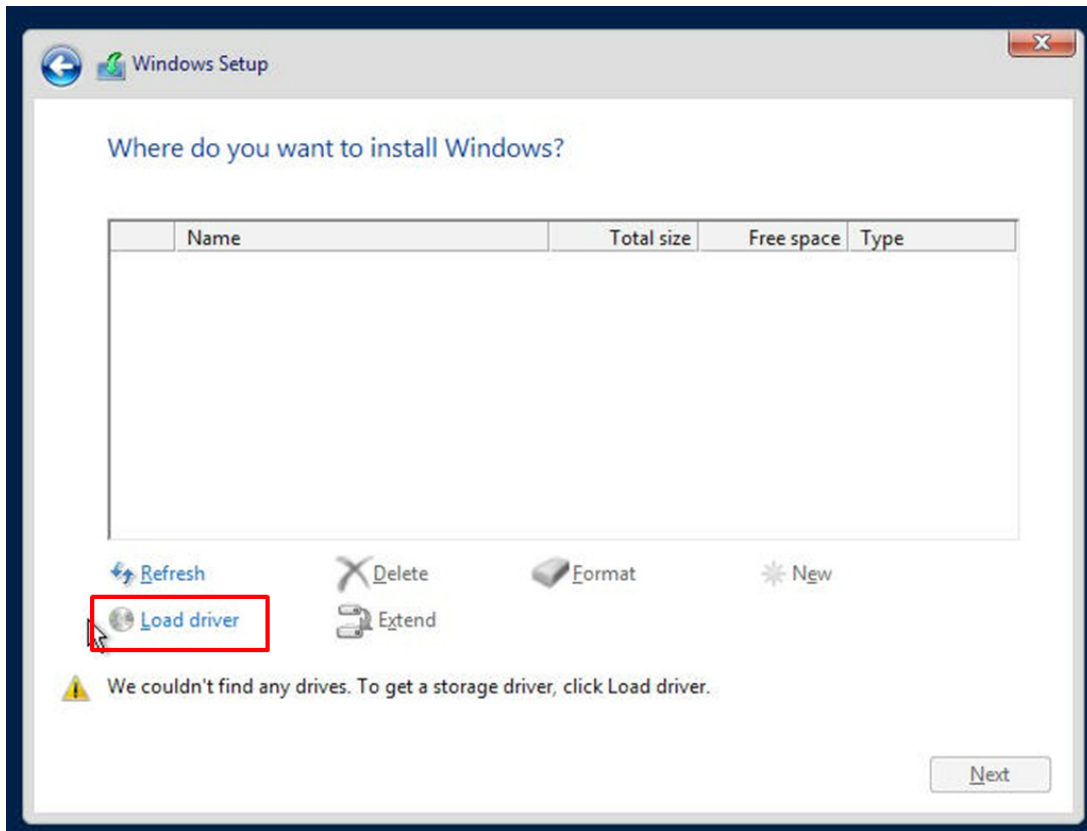
Figure 4-2. Load Driver Link

To load the driver, browse the USB flash drive for the proper driver files.

- For RAID, choose the SATA/sSATA RAID driver indicated then choose the storage drive on which you want to install it.

- For non-RAID, choose the SATA/sSATA AHCI driver indicated then choose the storage drive on which you want to install it.

5. Once all devices are specified, continue with the installation.

6. After the Windows OS installation has completed, the system will automatically reboot multiple times.

4.2 Driver Installation

The Supermicro website contains drivers and utilities for your system at https://www.supermicro.com/wdl/driver. Some of these must be installed, such as the chipset driver.

After accessing the website, go into the CDR_Images (in the parent directory of the above link) and locate the ISO file for your motherboard. Download this file to a USB flash drive or a DVD. (You may also use a utility to extract the ISO file if preferred.)

Another option is to go to the Supermicro website at http://www.supermicro.com/products/. Find the product page for your motherboard, and "Download the Latest Drivers and Utilities".

Insert the flash drive or disk and the screenshot shown below should appear.
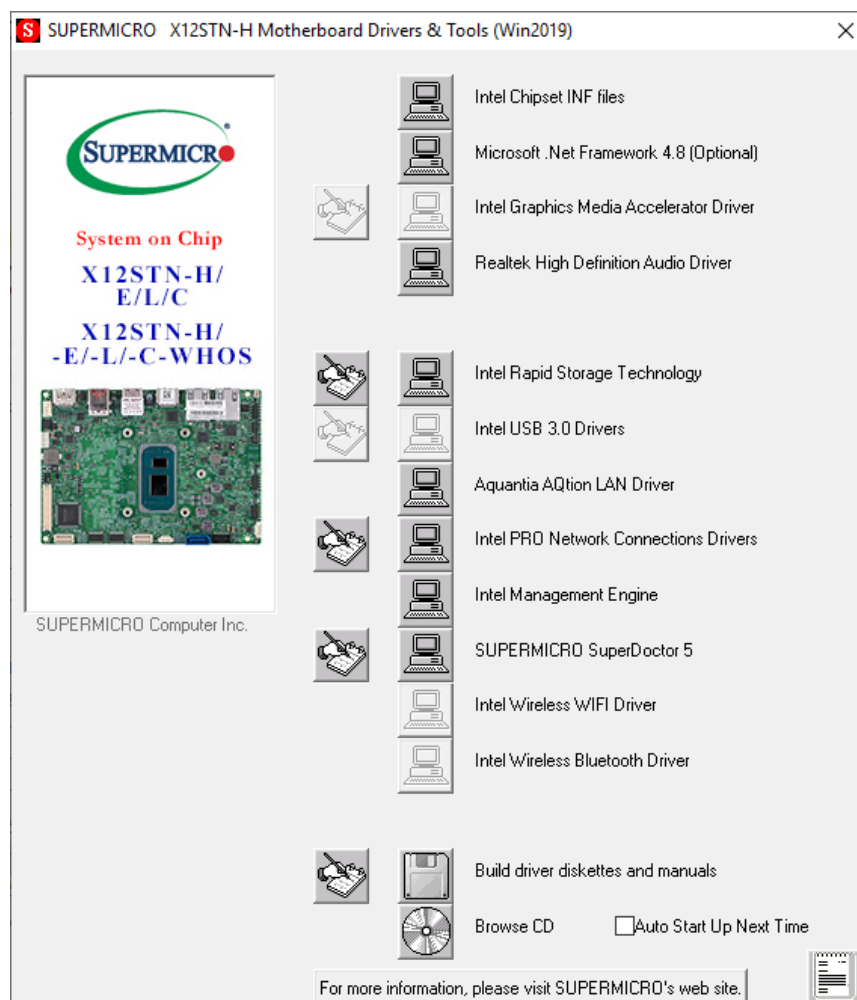
Figure 4-3. Driver & Tool Installation Screen

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.

4.3 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. SD5 Management Server monitors HTTP, FTP, and SMTP services to optimize the efficiency of your operation.
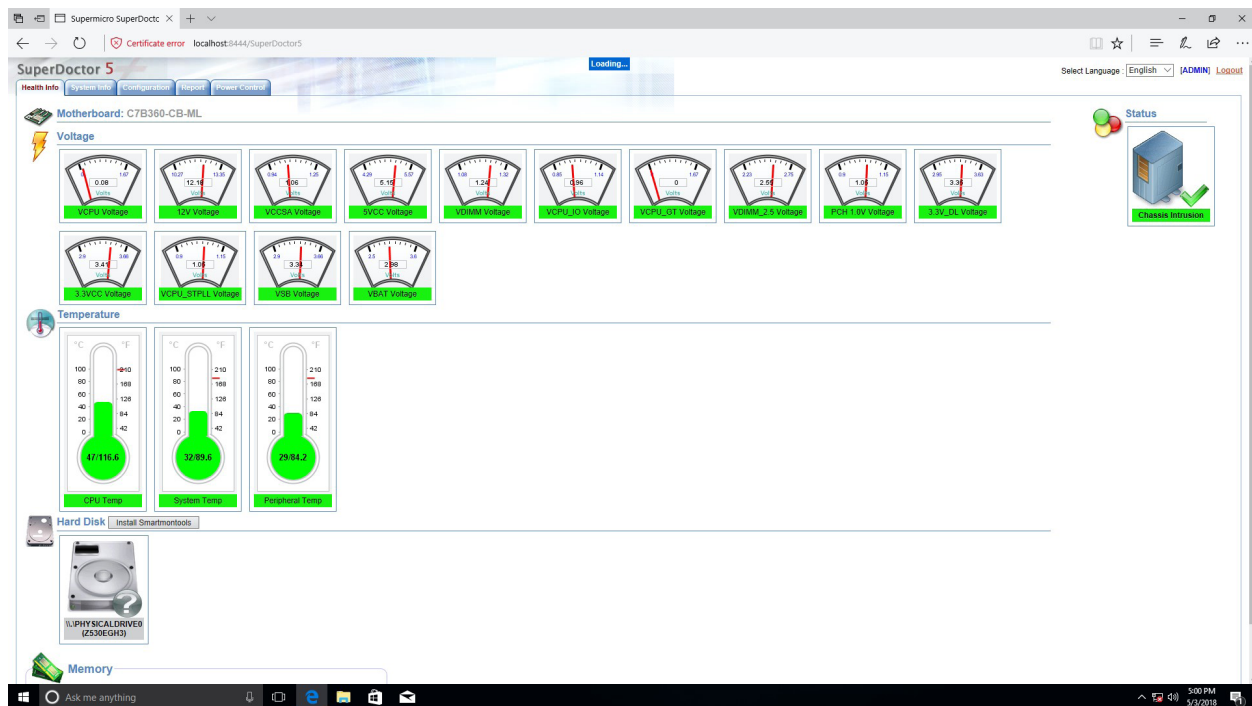

Figure 4-4. SuperDoctor 5 Interface Display Screen (Health Information)

Chapter 5

Optional Components

This chapter describes optional system components and installation procedures.

5.1 Optional Parts List

Optional Parts List		
Description	Part Number	Quantity
Bottom Cover Assembly (for use with M.2 NVMe cards)	MCP-270-10105-0B	1

5.2 M.2 NVMe Bottom Cover Assembly

This optional kit (p/n MCP-270-10105-0B) is required when adding M.2 NVMe cards to prevent them from exceeding the 50º C operating temperature. In addition to a bottom cover that features heat-dissipating fins, the kit includes four thermal pads of various sizes, four long screws, four short screws, and four rubber feet.

1. Power down the system and remove the 12V DC power cord.

2. Remove the bottom cover.

3. Stick one of the included thermal pads on each of the installed M.2 NVMe cards, one between the motherboard PCB and DIMMB1, and one each on the DIMMA1 and DIMMB1 memory modules as follows:

   • Remove both DIMMs from their slots. Attach both a 55 x 23 x 1.5mm pad to the bottom and a 55 x 8 x 1.5mm pad to the top of the DIMMB1 module.

   • Attach a 55 x 20 x 1.5mm pad to the top of the DIMMA1 module.

   • Attach a 70.5 x 23 x 1.5mm pad to the M.2 M-key and B-key cards.

   • Install the memory and M.2 cards back into the system.

4. After all thermal pads have been attached to the DIMMs and the M.2 cards, install the new cover to the bottom of the system. Use the short screws for the holes in the fin section and the long screws and rubber feet for the other four holes as shown in the figure. Be careful not to overtighten the long screws, which may damage the rubber feet.

5. Reconnect the 12V power cord and turn on the system.

Long Screw with Rubber Feet (x4)

Short Screw (x4)

Fin Cover

DIMMB1 Pad

DIMMA1 Pad

M.2 M-Key Pad

M.2 B-Key Pad

Pad between PCB and DIMMB1

M2-2280

M2-2280

M2-2230
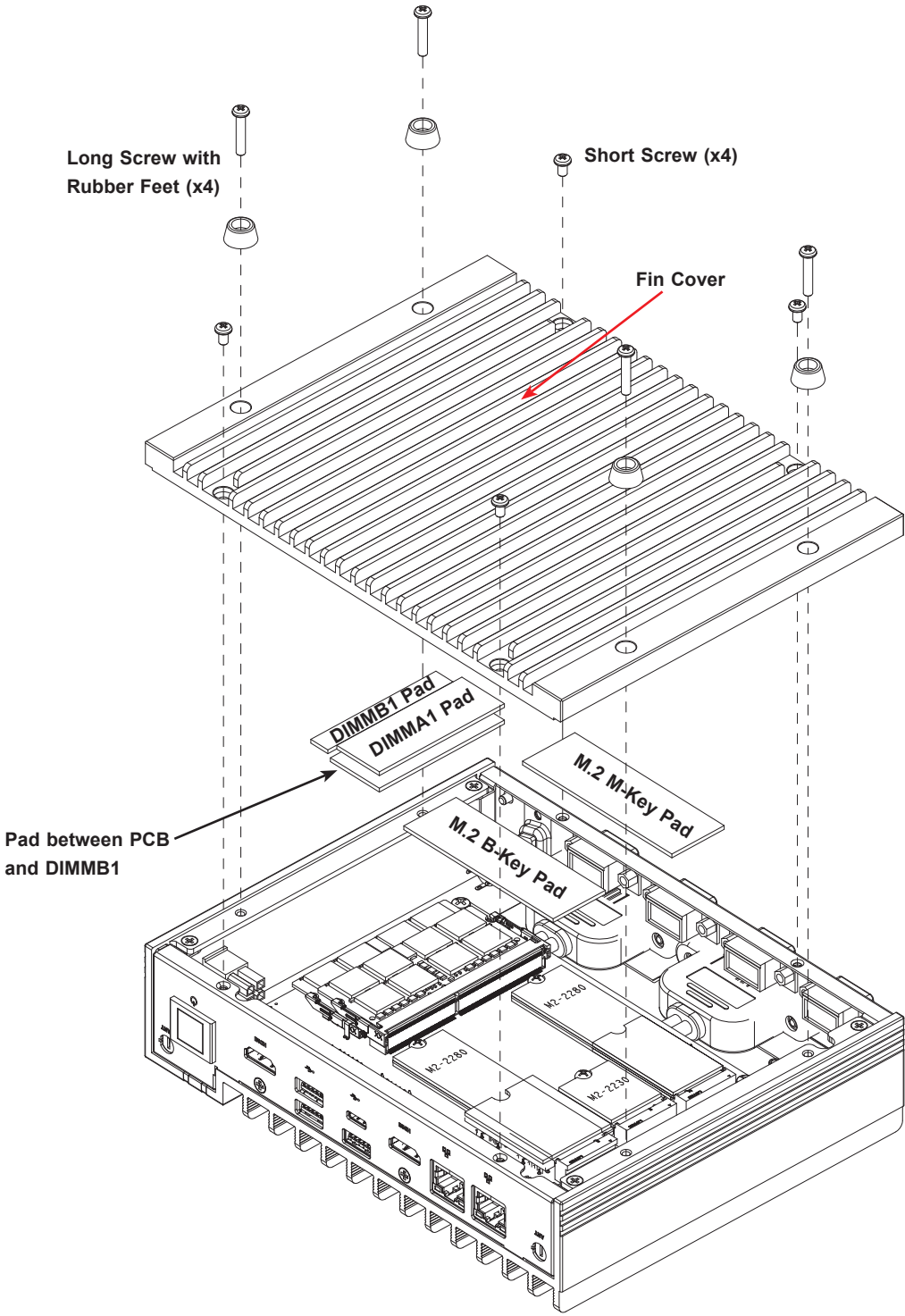
Figure 5-1. Installing the Bottom Cover Assembly and Location of Thermal Pads

Chapter 6

Troubleshooting and Support

6.1 Information Resources

Website

A great deal of information is available on the Supermicro website, supermicro.com.
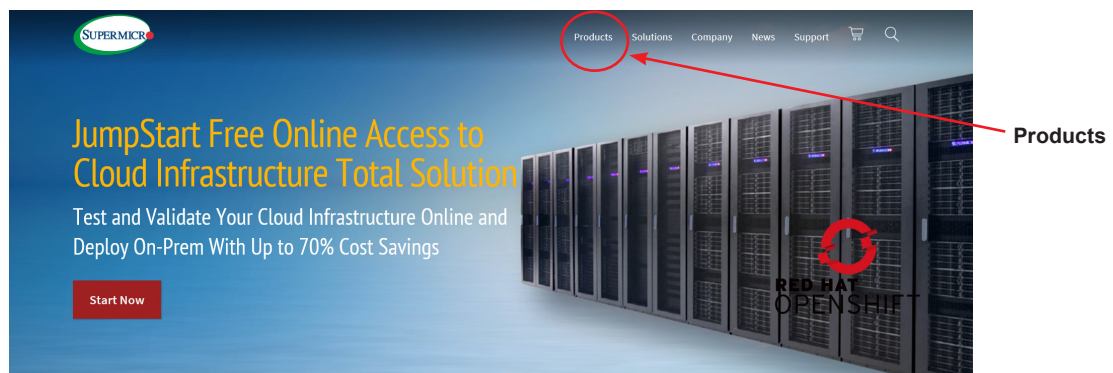
Figure 6-1. Supermicro Website

- Specifications for servers and other hardware are available by clicking on **Products**.

- The **Support** option offers downloads (manuals, BIOS, drivers, etc.), FAQs, RMA, warranty, and other service extensions.

Direct Links for the SYS-E100-12T-H/E/L/C System

Server specifications pages:

SYS-E100-12T-H

SYS-E100-12T-E

SYS-E100-12T-L

SYS-E100-12T-C

Motherboard pages for links to the Quick Reference Guide, User Manual, validated storage drives, etc.:

X12STN-H-WOHS

X12STN-E-WOHS

X12STN-L-WOHS

X12STN-C-WOHS

Direct Links for General Support and Information

Frequently Asked Questions

Add-on card descriptions

TPM User Guide

General Memory Configuration Guide: X12

SuperDoctor5 Large Deployment Guide

For validated memory, use our Product Resources page

Product Matrices page for links to tables summarizing specs for systems, motherboards, power supplies, riser cards, add-on cards, etc.

Security Center for recent security notices

Supermicro Phone and Addresses

6.2 Troubleshooting Procedures

Use the following procedures to troubleshoot your system. If you have followed all of the procedures below and still need assistance, refer to the Technical Support Procedures or Returning Merchandise for Service sections in this chapter. Power down the system before changing any non hot-swap hardware components.

General Technique

If you experience unstable operation or get no boot response, try:

1. With power off, remove all but one DIMM and other added components, such as add-on cards, from the motherboard. Make sure the motherboard is not shorted to the chassis.

2. Set all jumpers to their default positions.

3. Power up. If the system boots, check for memory errors and add-on card problems.

No Power

- Check that the power LED on the motherboard is on.
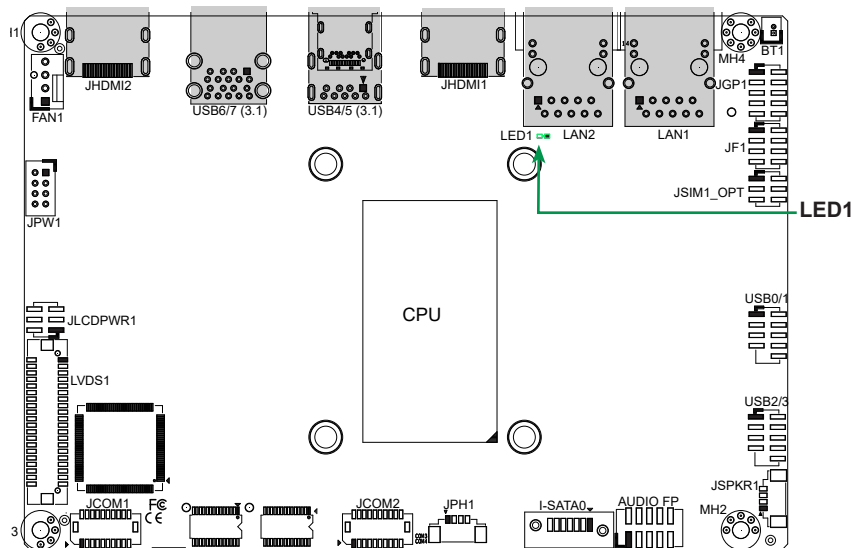
Figure 6-2. Location of the MB Power LED

- Make sure that the power connector is connected to the power supply.

- Check that the motherboard battery still supplies approximately 3VDC. If it does not, replace it.

- Check that the system input voltage is 100-120VAC or 180-240VAC.

- Turn the power switch on and off to test the system

No Video

If the power is on but you have no video, remove all add-on cards and cables.

System Boot Failure

If the system does not display Power-On-Self-Test (POST) or does not respond after the power is turned on, try the following:

- Turn on the system with only one DIMM module installed. If the system boots, check for bad DIMM modules or slots by following the Memory Errors Troubleshooting procedure below.

Memory Errors

- Make sure that the DIMM modules are properly and fully installed.

- Confirm that you are using the correct memory. Also, it is recommended that you use the same memory type and speed for all DIMMs in the system. See Section 2.3 for memory details.

- Check for bad DIMM modules or slots by swapping modules between slots and noting the results.

Losing the System Setup Configuration

- Always replace power supplies with the exact same model that came with the system. A poor quality power supply may cause the system to lose the CMOS setup configuration.

- Check that the motherboard battery still supplies approximately 3VDC. If it does not, replace it.

If the above steps do not fix the setup configuration problem, contact your vendor for repairs.

When the System Becomes Unstable

If the system becomes unstable during or after OS installation, check the following:

- CPU/BIOS support: Make sure that your CPU is supported and that you have the latest BIOS installed in your system.

- Memory: Make sure that the memory modules are supported. Refer to the product page on our website at www.supermicro.com. Test the modules using **memtest86** or a similar utility.

- Storage drives: Make sure that all drives work properly. Replace if necessary.

- System cooling: Check that all heatsink fans and system fans work properly. Check the hardware monitoring settings in the BMC to make sure that the CPU and system temperatures are within the normal range. Also check the Control panel Overheat LED.

- Adequate power supply: Make sure that the power supply provides adequate power to the system. Make sure that all power connectors are connected. Refer to the Supermicro website for the minimum power requirements.

- Proper software support: Make sure that the correct drivers are used.

If the system becomes unstable before or during OS installation, check the following:

- Source of installation: Make sure that the devices used for installation are working properly, including boot devices.

- Cable connection: Check to make sure that all cables are connected and working properly.

- Use the minimum configuration for troubleshooting: Remove all unnecessary components (starting with add-on cards first), and use the minimum configuration (but with a CPU and a memory module installed) to identify the trouble areas.

- Identify a bad component by isolating it. Check and change one component at a time.

  - Remove a component in question from the chassis, and test it in isolation. Replace it if necessary.

  - Or swap in a new component for the suspect one.

  - Or install the possibly defective component into a known good system. If the new system works, the component is likely not the cause or the problem.

6.3 CMOS Clear

JBT1 is used to clear CMOS, which will also clear any passwords. Instead of pins, this jumper consists of contact pads to prevent accidentally clearing the contents of CMOS.

To Clear CMOS

1. First power down the system completely.

2. Remove the cover of the chassis to access the motherboard.

3. Remove the onboard battery from the motherboard.

4. Short the CMOS pads with a metal object such as a small screwdriver for at least four seconds.

5. Remove the screwdriver or shorting device.

6. Replace the cover, reconnect the power cords and power on the system.

Notes: Clearing CMOS will also clear all passwords.

Do not use the PW_ON connector to clear CMOS.

JBT1 contact pads

6.4 Where to Get Replacement Components

If you need replacement parts for your system, to ensure the highest level of professional service and technical support, purchase exclusively from our Supermicro Authorized Distributors/System Integrators/Resellers. A list can be found at: http://www.supermicro.com. Click the "Where to Buy" tab.

6.5 Reporting an Issue

Technical Support Procedures

Before contacting Technical Support, please take the following steps. If your system was purchased through a distributor or reseller, please contact them for troubleshooting services. They have the best knowledge of your specific system configuration.

1. Please review the Troubleshooting Procedures in this manual and Frequently Asked Questions on our website before contacting Technical Support.

2. BIOS upgrades can be downloaded from our website. **Note**: Not all BIOS can be flashed depending on the modifications to the boot block code.

3. If you still cannot resolve the problem, include the following information when contacting us for technical support:

   • System, motherboard, and chassis model numbers and PCB revision number

   • BIOS release date/version (this can be seen on the initial display when your system first boots up)

   • System configuration

An example of a Technical Support form is posted on our website. Distributors: For immediate assistance, please have your account number ready when contacting our technical support department by email.

Returning Merchandise for Service

A receipt or copy of your invoice marked with the date of purchase is required before any warranty service will be rendered. You can obtain service by calling your vendor for a Returned Merchandise Authorization (RMA) number. When returning to the manufacturer, the RMA number should be prominently displayed on the outside of the shipping carton, and mailed prepaid or hand-carried. Shipping and handling charges will be applied for all orders that must be mailed when service is complete.

For faster service, RMA authorizations may be requested online (http://www.supermicro.com/support/rma/).

Whenever possible, repack the chassis in the original Supermicro carton, using the original packaging material. If these are no longer available, be sure to pack the chassis securely, using packaging material to surround the chassis so that it does not shift within the carton and become damaged during shipping.

This warranty only covers normal consumer use and does not cover damages incurred in shipping or from failure due to the alteration, misuse, abuse or improper maintenance of products.

During the warranty period, contact your distributor first for any product problems.

Vendor Support Filing System

For issues related to Intel, use the Intel IPS filing system:

https://www.intel.com/content/www/us/en/design/support/ips/training/welcome.html

For issues related to Red Hat Enterprise Linux, since it is a subscription based OS, contact your account representative.

6.6 Feedback

Supermicro values your feedback as we strive to improve our customer experience in all facets of our business. Please email us at techwriterteam@supermicro.com to provide feedback on our manuals.

6.7 Contacting Supermicro

Headquarters

Address: Super Micro Computer, Inc.

980 Rock Ave.

San Jose, CA 95131 U.S.A.

Tel: +1 (408) 503-8000

Fax: +1 (408) 503-8008

Email: marketing@supermicro.com (General Information)

support@supermicro.com (Technical Support)

Website: www.supermicro.com

Europe

Address: Super Micro Computer B.V.

Het Sterrenbeeld 28, 5215 ML

's-Hertogenbosch, The Netherlands

Tel: +31 (0) 73-6400390

Fax: +31 (0) 73-6416525

Email: sales@supermicro.nl (General Information)

support@supermicro.nl (Technical Support)

rma@supermicro.nl (Customer Support)

Website: www.supermicro.nl

Asia-Pacific

Address: Super Micro Computer, Inc.

3F, No. 150, Jian 1st Rd.

Zhonghe Dist., New Taipei City 235

Taiwan (R.O.C)

Tel: +886-(2) 8226-3990

Fax: +886-(2) 8226-3992

Email: support@supermicro.com.tw

Website: www.supermicro.com.tw

Appendix A

BIOS Codes

A.1 BIOS Error POST Codes

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

Non-fatal errors, in most cases, allow the system to continue the bootup process. The error messages normally appear on the screen.

Fatal errors will not allow the system to continue the bootup procedure. If a fatal error occurs, consult with your system manufacturer for possible repairs.

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, 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 كَ ف حالة وُي أى تتسبب ف اصابة جسد ةٌ هذا الزهز عٌ خطز !تحذ زٌ .

قبل أى تعول على أي هعذات،كي على علن بالوخاطز ال اُجوة عي الذوائز

الكهزبائئ ةٍ

وكي على درا ةٌ بالووارسات النقائ ةٍ لو عٌ وقع أي حادث

استخذم رقن الب إى الو صُص 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60VDC、20A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60VDC,20A。

警告
此產品的短路(過載電流)保護由建築物的供電系統提供,確保短路保護設備的額定電流不大於60VDC,20A。

Warnung

Dieses Produkt ist darauf angewiesen, dass im Gebäude ein Kurzschluss- bzw. Überstromschutz installiert ist. Stellen Sie sicher, dass der Nennwert der Schutzvorrichtung nicht mehr als: 60VDC, 20A 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: 60VDC, 20A.

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 :60VDC, 20A.

מוצר זה מסתמך על הגנה המותקנת במבנים למניעת קצר חשמלי. יש לוודא כי המכשיר המגן מפני הקצר החשמלי הוא לא יותר מ-60VDC, 20A

هذا المنتج يعتمد على معداث الحمايت مه الدوائرالقصيرة التي تم تثبيتها في المبنى
تأكد من أن تقييم الجهاز الوقائي ليس أكثر من : 60VDC, 20A

경고!
이 제품은 전원의 단락(과전류)방지에 대해서 전적으로 건물의 관련 설비에 의존합니다. 보호장치의 정격이 반드시 60VDC(볼트), 20A(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 60VDC, 20A.

Power Disconnection Warning

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

電源切断の警告

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 اننظاو من جميع مصادر انطاقت وإزانت سهك انكهرباء من وحدة امداد
انطاقت قبم
انصل إنى امناطق 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 للمنظفيه 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 خطز مه التيار الكهزبائي أوالطاقة المجددة على اللحة
عندما يكنن 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 للقواويه المحلية والطبية المتعلقة
بالكهرباء

경고!
현 지역 및 국가의 전기 규정에 따라 장비를 설치해야 합니다.

Waarschuwing

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

Product Disposal

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

製品の廃棄

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

警告
本产品的废弃处理应根据所有国家的法律和规章进行。

警告
本產品的廢棄處理應根據所有國家的法律和規章進行。

Warnung

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

¡Advertencia!

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

Attention

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

סילוק המוצר

אזהרה!

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

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

경고!

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

Waarschuwing

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

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 مطلوباً الأسلاك الذي تقطعن السبل، بهم تقطعت الأسلاك، واستخدام الأسلاك إنهاء المواقفة عليها، مثل حلقة مغلقة أو نوع يجب للأسلاك كالسلاك المجم يكون إنهاءات لهذه ينبغي ويكون مقبولة. وينبغي يكون أحجامها الحقيقية مع نوع العارض مقبولة. حبك 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 הבאת, ודא כי אספקת החשמל למעגל הזרם הישר DC הינה מנותקת.

تحذير

عندما يكون مطلوبا الأسلاك الذين تقطعت بهم السبل، واستخدام الأسلاك إنهاء عليها، مثل حلقة مغلقة أو بجيو للأسلاك بسبانها حجم الحجم يكون الإنهاء لهذه ينبغي ويو. مقلوبة العراوت نوع مع الحقيقية بأسماء الأشياء .لصومو لزعلا من لك حبك

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 يحدث الخطر أو الطاقة تكون موجودة على محطات الطاقة العامصة. استبدال غطاء دائما عندما
المحطات ليست في الخدمة. مما لا شك فيه الموصلات غير معزول لا يمكن الوصول إليها عندما الغطاء
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

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.

C.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 allows 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.

C.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 recovery block contains critical BIOS codes, including memory detection and recovery codes for the user to flash a healthy 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 continues 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 block crashes.

Note 2: When the BIOS recovery block crashes, you must follow the procedures to make a Returned Merchandise Authorization (RMA) request. (For a RMA request, see section 6.7 for more information).

C.3 Recovering the BIOS Block with a USB Device

This feature allows the user to recover the main 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 the recovery block 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 1: If you cannot locate the "Super.ROM" file in your driver disk, visit our website at www.supermicro.com to download the BIOS package. Extract the BIOS binary image into a USB flash device and rename it "Super.ROM" for the BIOS recovery use.

   Note 2: Before recovering the main BIOS image, confirm that the "Super.ROM" binary image file you download is the same version or a close version meant for your motherboard.

2. Insert the USB device that contains the new BIOS image ("Super.ROM") into your USB port and reset the system until the following screen appears:

3. After locating the new BIOS binary image, the system enters the BIOS Recovery menu as shown below:

```
                    Aptio Setup Utility – Copyright (C) 2017 American Megatrends, Inc.
        Main  Advanced  Event Logs  IPMI  Recovery  Security  Boot  Save & Exit

      Please select blocks you want to update              Set this option to reset
      Reset NVRAM                          [Enabled]        NVRAM to default values
      Boot Block Update                    [Enabled]

    ▶ Proceed with flash update




                                                           →←: Select Screen
                                                           ↑↓: Select Item
                                                           Enter: Select
                                                           +/–: Change Opt.
                                                           F1: General Help
                                                           F2: Previous Values
                                                           F3: Optimized Defaults
                                                           F4: Save & Exit
                                                           ESC: Exit

                    Version 2.19.1266. Copyright (C) 2017 American Megatrends, Inc.
```

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.

4. 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 should see the BIOS recovery progress as shown in the screen below:

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

```
                    Aptio Setup Utility – Copyright (C) 2017 American Megatrends, Inc.
                                          Recovery

      WARNING! System firmware is being updated.
      Keyboard is locked.
      DO NOT TURN THE POWER OFF !!!
      Once firmware update is completed
      press any key to reboot the system



                    ┌──────────── Program new data ────────────┐
                    │                                           │
                    │          Write new boot block...          │
                    │                                           │
                    │                 ─17%─                     │
                    │  ████                                     │
                    └───────────────────────────────────────────┘

                                                           →←: Select Screen
                                                           ↑↓: Select Item
                                                           Enter: Select
                                                           +/–: Change Opt.
                                                           F1: General Help
                                                           F2: Previous Values
                                                           F3: Optimized Defaults
                                                           F4: Save & Exit
                                                           ESC: Exit

                    Version 2.19.1266. Copyright (C) 2017 American Megatrends, Inc.
```
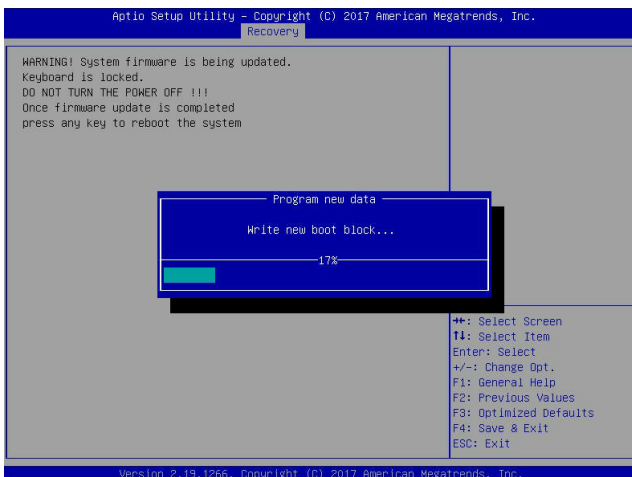
5. After the BIOS recovery process is completed, press any key to reboot the system.

```
        Aptio Setup Utility — Copyright (C) 2017 American Megatrends, Inc.
                              Recovery

  WARNING! System firmware is being updated.
  Keyboard is locked.
  DO NOT TURN THE POWER OFF !!!
  Once firmware update is completed
  press any key to reboot the system


                          ┌──────── Flash update ────────┐
                          │ Flash update completed. Press any key to │
                          │         reset the system                 │
                          └──────────────────────────────┘



                                                    →←: Select Screen
                                                    ↑↓: Select Item
                                                    Enter: Select
                                                    +/-: Change Opt.
                                                    F1: General Help
                                                    F2: Previous Values
                                                    F3: Optimized Defaults
                                                    F4: Save & Exit
                                                    ESC: Exit

          Version 2.19.1266. Copyright (C) 2017 American Megatrends, Inc.
```

6. Using a different system, extract the BIOS package into a USB flash drive.

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

```
        Aptio Setup Utility — Copyright (C) 2017 American Megatrends, Inc.
    Main  Advanced  Event Logs  IPMI  Security  Boot  Save & Exit

  Boot Configuration                              ▲  Sets the system boot order

  Boot mode select                [DUAL]
  LEGACY to EFI support           [Disabled]

  FIXED BOOT ORDER Priorities
  Boot Option #1                  [UEFI AP:UEFI: Bui...]
  Boot Option #2                  [CD/DVD]
  Boot Option #3                  [USB Hard Disk]
  Boot Option #4                  [USB CD/DVD]
  Boot Option #5                  [USB Key:SanDisk]
  Boot Option #6                  [USB Floppy]
  Boot Option #7                  [USB Lan]
  Boot Option #8                  [Network:IBA GE S1...]
  Boot Option #9                  [UEFI Hard Disk]
  Boot Option #10                 [UEFI CD/DVD]
  Boot Option #11                 [UEFI USB Hard Disk]
  Boot Option #12                 [UEFI USB CD/DVD]       →←: Select Screen
  Boot Option #13                 [UEFI USB Key:UEFI...]  ↑↓: Select Item
  Boot Option #14                 [UEFI USB Floppy]       Enter: Select
  Boot Option #15                 [UEFI USB Lan]          +/-: Change Opt.
  Boot Option #16                 [UEFI Network]          F1: General Help
  Boot Option #17                 [Hard Disk]             F2: Previous Values
                                                          F3: Optimized Defaults
  ▶ Add New Boot Option                          ▼        F4: Save & Exit
                                                          ESC: Exit

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```

8. 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 6. 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.

9. The screen above indicates that the BIOS update process is complete. 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.

10. Press <Del> continuously to enter the BIOS Setup utility.

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

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

Appendix D

System Specifications

Processors

SYS-E100-12T-H: 11th Generation Intel Core™ i7-1185GRE
SYS-E100-12T-E: 11th Generation Intel Core™ i5-1145GRE
SYS-E100-12T-L: 11th Generation Intel Core™ i3-1115GRE
SYS-E100-12T-C: 11th Generation Intel Celeron® 6305E
Note: Refer to the motherboard specifications pages on our website for updates to supported processors.

Chipset

System on Chip

BIOS

256Mb SPI AMI BIOS

Memory

Two DIMM slots support up to 64GB unbuffered, non-ECC SO-DIMM, DDR4-3200

Storage

M.2 slots:
   M.2 slot B-Key 2280/2242/3042 (SATA 3.0 or PCIe / USB 3.1 /USB 2.0)
   M.2 slot M-Key 2280/2242 (Gen4 PCIe x4)

Input/Output

Network: Two 2.5GbE LAN ports
Video: Two HDMI ports (one 2.0b port and one 1.4b port)
Audio: One HD audio header for mic-in, line-out)
Serial: Four serial (COM) ports
USB: Three USB 3.2 Gen 1 ports and one USB-C 3.2 port (front), and four USB 2.0 ports (rear)

Motherboard

SYS-E100-12T-H: X12STN-H-WOHS
SYS-E100-12T-E: X12STN-E-WOHS
SYS-E100-12T-L: X12STN-L-WOHS
SYS-E100-12T-C: X12STN-C-WOHS
Dimensions (all): 5.7" x 4" (146 x 101.6 mm)

Chassis

CSE-E101-03; 1U Rackmount, 7.68" x 1.73" x 5.94" (195 x 44 x 150mm) (WxHxD)

System Cooling

Fanless design

Power

Lockable 12V, 84W DC power adapter

Operating Environment

Operating Temperature: -30º to 50º C (-22º to 122º F)*
   SYS-E100-12T-C (only): -0º to 50º C (32º to 122º F)*
Non-operating Temperature: -40º to 70º C (-40º to 158º F)
Operating Relative Humidity: 8% to 90% (non-condensing)
Non-operating Relative Humidity: 5% to 95% (non-condensing)
Operational Vibration, IEC 60068-2-64, 5 Grms, random, 5~500 Hz, 1hr/axis
Operational Shock, IEC 60068-2-27, 30G, half sine, 11ms
*The use of industrial grade wide-temperature peripherals is required to meet the 50°C operating temperature.

Regulatory Compliance

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

Applied Directives, Standards

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

Electromagnetic Compatibility Regulations 2016

FCC Part 15 Subpart B

ICES-003

VCCI-CISPR 32

AS/NZS CISPR 32

EN/BS 55032

EN/BS 55035

CISPR 32

CISPR 35

EN/BS 61000-3-2

EN/BS 61000-3-3

EN/BS 61000-4-2

EN/BS 61000-4-3

EN/BS 61000-4-4

EN/BS 61000-4-5

EN/BS 61000-4-6

EN/BS 61000-4-8

EN/BS 61000-4-11

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

UL/CSA 62368-1 (USA and Canada)

Electrical Equipment (Safety) Regulations 2016

IEC/EN/BS 62368-1

Environment: 2011/65/EU (RoHS Directive)

EC 1907/2006 (REACH)

2012/19/EU (WEEE Directive)

California Proposition 65

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"

この装置は、クラスＡ機器です。この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

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