SUPERMICRO® SuperServer 5019C-MHN2 Quick Reference Guide

Board Layout

X11SCZ-Q
REV:1.10
DESIGNED IN USA
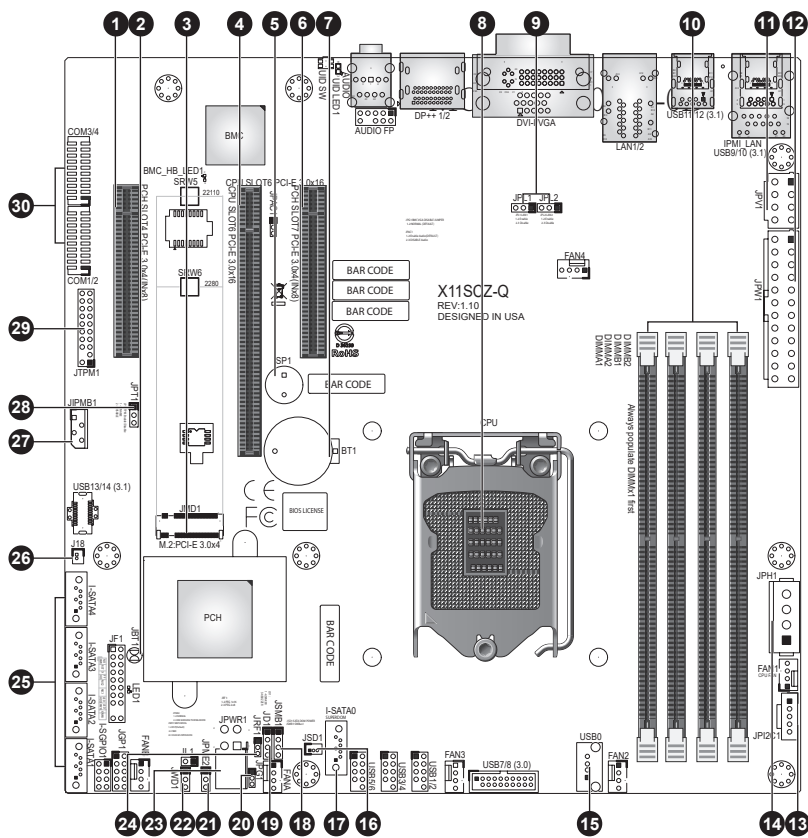
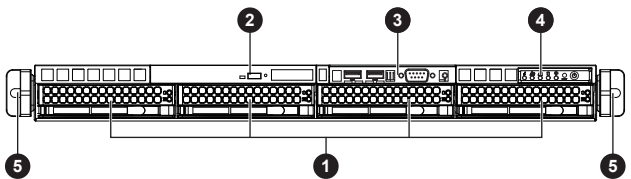| No.	Description
1	CPCH PCI-E 3.0 x4 Slots (in x8)
2	CMOS Clear
3	M.2 M-Key PCI-E 3.0 x4 or SATA 3 Connector
4	CPU PCI-E 3.0 x16 Slot
5	Speaker/Buzzer
6	PCH PCI-E 3.0 x4 Slots (in x8)
7	Onboard Battery
8	CPU
9	LAN1/LAN2 Enable/Disable
10	DIMMA1~DIMMA2, DIMMB1~DIMMB2,
11	8-pin CPU Power Connector for ATX Power
12	24-pin ATX Power Connector
13	Power Supply SMBus I²C Header
14	4-pin Power Connector for HDD
15	USB 2.0 Type-A Header
16	SATA Disk On Module (DOM) Power Connector
17	SATA 3.0 Port
18	PCH SMBus Header
19	Speaker/Buzzer Pins (1-4: Speaker, 3-4 Buzzer)
20	BMC Video Enable/Disable
21	Manufacturing Mode
22	Watch Dog Timer
23	4-pin Connector for GPU card requiring extra 12V power up to 75W
24	PCI-E Slot 6x16/x8x8 Bifurcation
25	SATA 3.0 Port
26	Extended CMOS Battery Connector
27	System Management Bus Header for an IPMI card
28	Onboard TPM2.0 Enable/Disable
29	Trusted Platform Module (TPM) Header
30	RS-232 Serial COM Headers

Rear I/O Ports
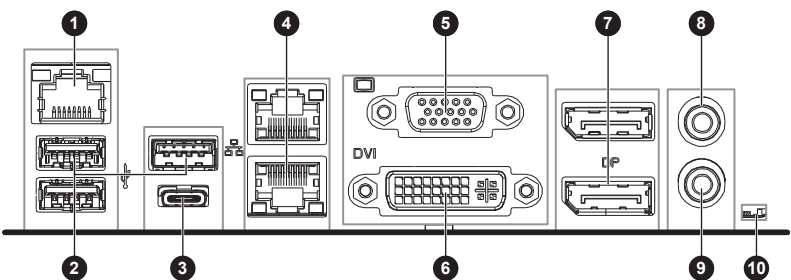
No.	Description	No.	Description
1	IPMI LAN	6	DVI-I
2	USB Ports (3.1 Type A)	7	DisplayPort 1 and 2
3	USB Ports (3.1 Type C)	8	Line Out
4	LAN Ports	9	Mic In
5	VGA	10	UID Switch

System Features

Motherboard	Chassis
X11SCZ-F	SC813MFTQC-350CB2

CPU

Supports Intel® Xeon® E-2100, 8th/9th Gen. Intel® Core™ i9/i7/i5 processors, Intel® Celeron®, Intel® Pentium® processors

Socket Type	Chipset
Socket LGA1151	Intel PCH C246

Memory

Up to 64GB of DDR4 ECC/Non-ECC UDIMM with speeds of up to 2666 MHz four memory slots.
Note: Memory speed support depends on the processors used in the system.

Hard Drives

Four hot-swap 3.5" SATA hard drives

Expansion Slots

One PCI-E 3.0 x16 slot (CPU SLOT7)
Two PCI-E 3.0 x4 (x8) slots (PCH SLOT4, PCH SLOT6)
One M.2 M-Key for SATA or PCI-E 3.0 x4 in the 2280 and 22110 form factors

Input/Output Ports

COM: four COM ports on two headers
SATA: five SATA 3.0 ports supporting RAID 0, 1, 5, 10
Display: one VGA D-Sub, one DVI-I, two DisplayPorts
Networking: two RJ45 Gigabit Ethernet, one RJ45 dedicated IPMI port
Audio: one Line Out port and one Mic In port on the rear I/O back panel, one audio header

Peripherals

USB 3.1 Gen 2: two ports on one internal header, three Type-A ports, one Type-C port on the rear I/O back panel
USB 3.1 Gen 1 (equivalent to USB 3.0): two ports on one internal header
USB 2.0: one type A port, six ports on three internal headers
TPM: one onboard TPM chip and header

Power	Form Factor
One 350W power supply (PWS-350-1H)	1U rackmount

Cooling

Five 40 x 40 x 28 mm PWM fans plus one additional fan housing space

Dimensions

(WxHxD) 17.2 x 1.7 x 19.85 in. (437 x 43 x 504 mm)

Front View & Interface

No.	Feature	Description
1	SATA HDD	Hot-swap 3.5" SATA hard disk drive
2	DVD Drive	Front access DVD drive bay (optional)
3	Two USB 3.0 and COM Port	A front control panel (optional)
4	Control Panel	Front control panel with LEDs and buttons
5	Rack Ear Brackets	Attaches server chassis to the rack

Serial ATA Drive Installation

Mounting a Drive in a Drive Carrier

The SATA drives are mounted in drive carriers to simplify their installation and removal from the chassis. These carriers also help promote proper airflow for the system. For this reason, even empty carriers without drives installed must remain in the chassis.

1. Install a new drive into the carrier with the printed circuit baord side facing down so that the mounting holes align with those in the carrier.
2. Secure the drive to the carrier with six screws, as shown.
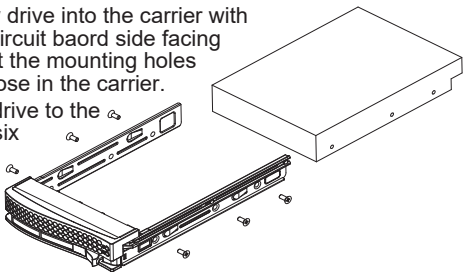

Installing/Removing SATA Drives

1. To remove a carrier, push the release button located beside the drive LEDs.
2. Swing the colored handle fully and use it to pull the unit straight out.
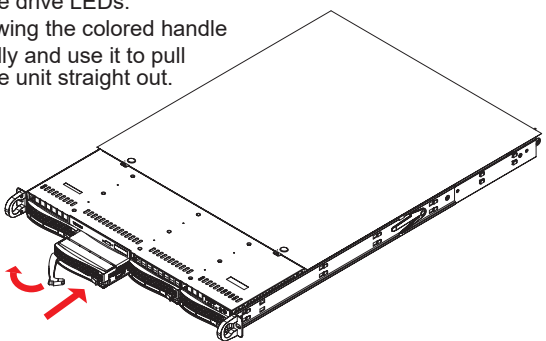

Beep Code

BIOS Beep (POST) Codes

| Beep Code	Description
1 beep	Circuits have been reset (Ready to power up)
5 short, 1 long	No memory detected in system
5 long, 2 short	Video adapter missing or with faulty memory
1 long continuous	System overheat condition

Rear View
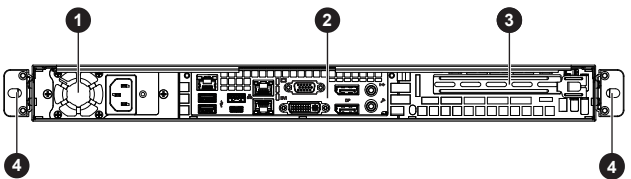
No.	Feature	Description
1	Power Supply	Single 350W Platinum Level power supply
2	I/O Backpanel	Rear I/O ports
3	Expansion Card Slot	Slot for one expansion card (requires pre-installed riser card)
4	Rack Ear Brackets	Attaches server chassis to the rack

CPU Installation

CPU properly installed

Load lever locked into place.
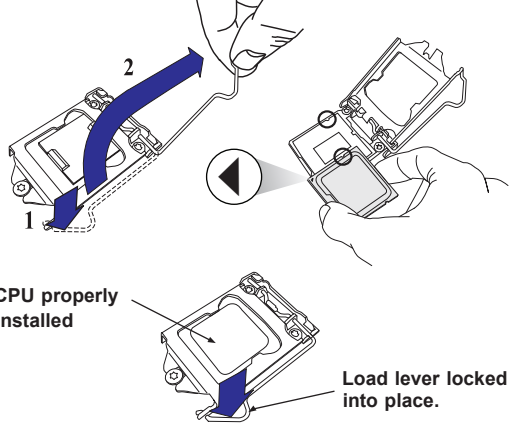
Heatsink Installation

1. Place heatsink on top of installed CPU.
2. Line up the four screws to socket.
3. Push down heatsink and screw down as shown (cross pattern, in order: A, C, B, D)
4. NOTE: Only use 6-8 lb/f of torque; otherwise, hand-tighten each screw, to avoid damaging the system.

Screw #C
Screw #A
Screw #D
Screw #B
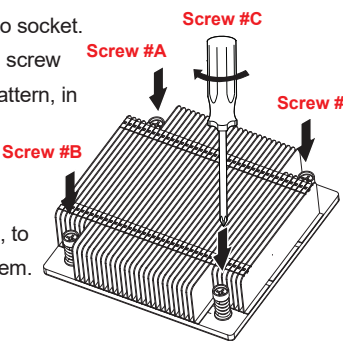
Caution

⚠ **SAFETY INFORMATION**
IMPORTANT: See installation instructions and safety warning before connecting system to power supply.
http://www.supermicro.com/about/policies/safety_information.cfm

⚠ **WARNING:**
To reduce risk of electric shock/damage to equipment, disconnect power from server by disconnecting all power cords from electrical outlets. If any CPU socket empty, install protective plastic CPU cap.

⚠ **WARNING:**
Always be sure all power supplies for this system have the same power output. If mixed power supplies are installed, the system will not operate.

For more information go to: http://www.supermicro.com/support