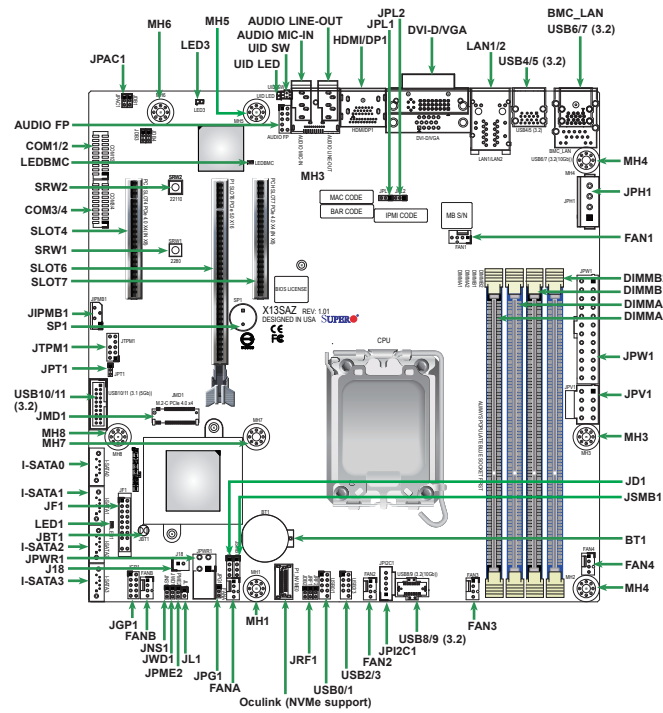


# SUPERMICR<sup>®</sup> SuperServer 111AD-HN2 Quick Reference Guide

## Board Layout



**Quick Reference Table**

Jumper	Description	Default Setting (*)
JBT1	CMOS Clear	Open (Normal)
JNS1	NVMe/SATA Mode Select	Pins 1-2: SATA (Customized BIOS Needed) Pins 2-3: NVMe (Default)
JPAC1	Audio Enable	Pins 1-2 (Enabled)
JPG1	VGA Enable/Disable	Pins 1-2 (Enabled)
JPL1	LAN1 Enable/Disable	Pins 1-2 (Enabled)
JPL2	LAN2 Enable/Disable	Pins 1-2 (Enabled)
JPME2	ME Manufacturing Mode	Pins 1-2 (Normal)
JPT1	Onboard TPM Module Enable/Disable	Pins 2-3 (Disabled)
JRF1	Slot6 PCIe Bifurcation	JRF1: Pins 1-2/Pins 2-3 JRF2: Pins 1-3/Pins 1-2 PEG: x16, x8x8
JWD1	Watch Dog Timer	Pins 1-2 (Reset)
LED	Description	Status
LED1	Power LED	Solid Green: Power On Blinking Green: S3 Status
LED3	BMC Power/Fan LED	Solid Red: PWR Fail or Fan Fail
LED BMC	BMC Heartbeat LED	Blinking Green: BMC Normal
UID LED	Unit Identifier (UID) LED	Solid Blue: Unit Identified
Connector	Description	
AUDIO FP	Audio Front Panel Connector	
AUDIO LINE-OUT	Back panel Audio Line Out Port	
AUDIO MIC-IN	Back panel Audio Mic In Port	
BT1	Extended CMOS Battery	
BMC_LAN	Dedicated BMC LAN Port	
COM1/2, COM3/4	COM Headers (COM1/2 support RS-232/422/485, COM3/4 support RS-232)	
DVI-D/VGA	Digital Visual Interface/VGA Port (VGA via the BMC)	
FAN1 - FAN4, FANA, FANB	Fan Headers	
HDMI/DP1	High Definition Multimedia Interface and DisplayPort	
I-SATA0-3	SATA 3.0 Ports	
J18	Extended CMOS Battery Connector	
JD1	Speaker Header (Pins 1-4: Speaker, Pins 3-4: Buzzer)	
JF1	Front Control Panel Header	
JGP1	General Purpose I/O Header	
JIPMB1	4-pin BMC External PC Header (for an IPMI card)	
JL1	Chassis Intrusion Header	
Connector	Description	
JMD1	M.2 M-Key PCIe 4.0 x4 Slot (2280/22110 form factor)	
JPH1	4-pin HDD Power Connector	
JPI2C1	Power System Management Bus (SMB) PC Header	
JPV1	8-pin 12V DC Power Connector for CPU (Required) or alternative single power for special enclosure when the 24-pin ATX power is not in use	
JPW1	24-pin Power Connector	
JPWR1	4-pin GPU Power Connector	
JSMB1	System Management Bus Header	
JTPM1	Trusted Platform Module/Port 80 Connector	
LAN1, LAN2	LAN Ports	
MH1 - MH8	Mounting Holes	
P1_NVME0	Oculink (NVMe Support)	
SLOT4, SLOT7	PCIe 4.0 x4 (IN x8) Slots	
SLOT6	PCIe 5.0 x16 Slot	
SP1	Internal Buzzer/Speaker	
UID SW	Unit Identifier Switch	
USB0/1, USB2/3	Front Accessible USB 2.0 Header	
USB4/5, USB6/7	Back Panel USB 3.2 (10Gb) Ports	
USB8/9	Front Accessible USB 3.2 (10Gb) Header	
USB10/11	Front Accessible USB 3.1 (5Gb) Header	

## System Overview

This chapter provides a brief outline of the functions and features of the SuperServer<sup>®</sup> SYS-111AD-HN2. This system is based on the X13SAZ-F motherboard and the CSE-510FT-203B chassis. The following provides an overview of the specifications and capabilities.

System Overview	
<b>Motherboard</b>	X13SAZ-F
<b>Chassis</b>	CSE-510FT-203B
<b>Processor Support</b>	Single 12th/13th Generation Core™ i9/i7/i5/i3 processor (LGA1700), up to 80W
<b>Memory</b>	Four DIMM slots, up to 128GB unbuffered ECC/Non-ECC DDR5 UDIMM with speeds up to 4000 MHz
<b>Drive Support</b>	Two 2.5" hot-swap SATA3 drive bays
<b>Expansion Slots</b>	One PCIe 5.0 x16 slot (HHHL) One M.2 M-Key PCIe 4.0 x4 (2280/22110)
<b>I/O Ports</b>	Two 2.5 GbE LAN ports One dedicated IPMI LAN port Four USB 3.2 Gen2 ports Two DisplayPort 1.4 One DVI-D port One HDMI 2.0b port One VGA port One Audio Connection (Mic-in/Line-out) Onboard TPM 2.0
<b>System Cooling</b>	Three internal fixed 40 x 28mm fans
<b>Power</b>	One power supply, default: 200 W (80Plus Gold Level)
<b>Form Factor</b>	1U (W x H x D) 17.2 x 1.7 x 11.3in (437 x 43 x 287mm)

**Note:** A Quick Reference Guide can be found on the product page of the Supermicro website. The following safety models associated with SYS-111AD-HN2 have been certified as compliant with UL or CSA: 510-2 · 510F-S2X13.

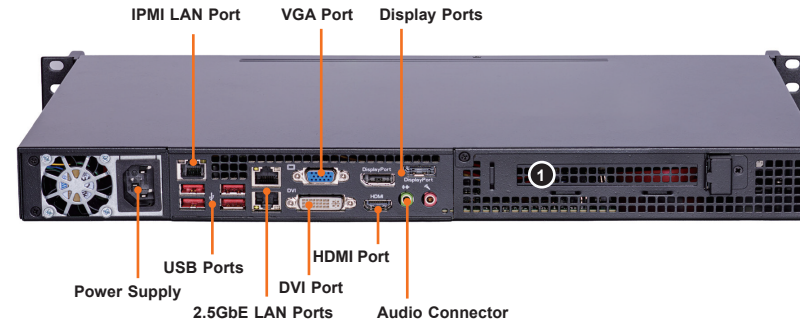
## Front View



System Features: Front	
<b>Feature</b>	<b>Description</b>
Control Panel	One control panel
System Fans	Three front internal fans

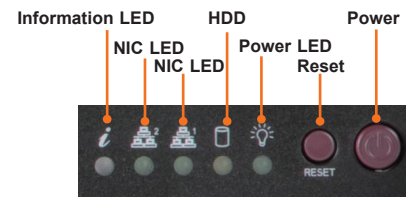
Logical Storage Drive Numbers	
<b>Item</b>	<b>Description</b>
0 - 1	Two hot-swap 2.5" SATA3 drive bays

## Rear View



System Features: Rear	
<b>Feature</b>	<b>Description</b>
Power Supply	One power supply module
USB	Four USB 3.2 ports
IPMI LAN Port	One RJ45 dedicated IPMI LAN port
2.5GbE LAN Ports	Two RJ45 2.5GbE LAN ports
DVI Port	One DVI-D port for digital connection
VGA Port	One VGA port
HDMI Port	One HDMI 2.0b Port
Display Ports	Two display 1.4 ports
Audio Connector	One audio connector
1	One PCIe 5.0 x16 slot (HHHL)

## Control Panel



Control Panel Features	
<b>Feature</b>	<b>Description</b>
Information LED	Alerts operator to several states, as noted in the table below.
NIC LED	Indicates network activity on LANs when flashing.
NIC LED	Indicates network activity on LANs when flashing.
HDD	Indicates activity on the storage drives when flashing.
Power LED	Steady on-Power on Blinking at 4Hz-Checking BIOS/BMC integrity Blinking at 4Hz and "I" LED is blue-BIOS firmware updating Two blinks at 4Hz, one pause 2hz and "I" LED blue-BMC firmware updating Blinking at 1Hz and "I" LED red-Fault detected
Reset	This button is used to reset the system.
Power button	The main power switch applies or removes primary power from the power supply to the server but maintains standby power. Hold for four seconds to force a shut-down.

Information LED	
<b>Color, Status</b>	<b>Description</b>
Red, solid	An overheat condition has occurred.
Red, blinking at 1Hz	Fan failure, check for an inoperative fan.
Blue, solid	UID has been activated locally to locate the server in a rack environment.
Blue, blinking at 1Hz	UID has been activated using the IPMI to locate the server in a rack environment.

## Memory

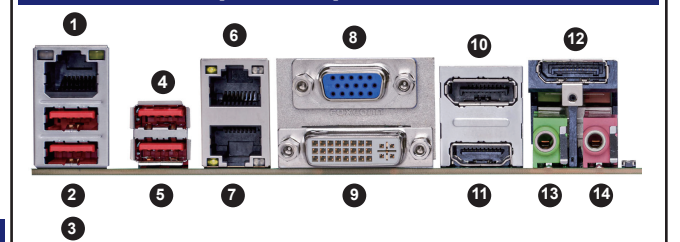
The X13SAZ-F has four DIMM slots to support up to 128GB unbuffered ECC/Non-ECC UDIMM, ECC DDR5 UDIMM with speeds up to 4000MHz.

- Be sure to use the memory modules of the same type and speed on the motherboard. Mixing of memory modules of different types and speeds is not allowed.
- Using unbalanced memory topology such as populating two DIMMs in one channel while populating one DIMM in another channel will result in the reduced memory performance.
- Populating memory slots with a pair of DIMM modules of the same type and size will result in interleaved memory, which will improve memory performance.

## Four DIMM Slots

Number of DIMMs	Memory Population Sequence
1	DIMMA2
2	DIMMA2 / DIMMB2
4	DIMMA2 / DIMMB2 / DIMMA1 / DIMMB1

## Input/Output Ports



Rear I/O Ports			
#	Description	#	Description
1	BMC LAN (F SKU)	6	LAN2
2	USB7 (3.2)	7	LAN1
3	USB6 (3.2)	8	VGA
4	USB5 (3.2)	9	DVI-D
5	USB4 (3.2)	10	DisplayPort++1
		11	HDMI 2.0b
		12	DisplayPort++2
		13	LINE_OUT
		14	MIC_IN

## BMC ADMIN User Password

Each system comes with a unique default password for the ADMIN user. This can be found on a sticker on the motherboard and a sticker underneath the service tag on chassis. If necessary, the password can be reset by the Supermicro IPMICFG tool. For more information, please visit: <https://www.supermicro.com/en/solutions/management-software/bmc-resources>



## 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](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>

