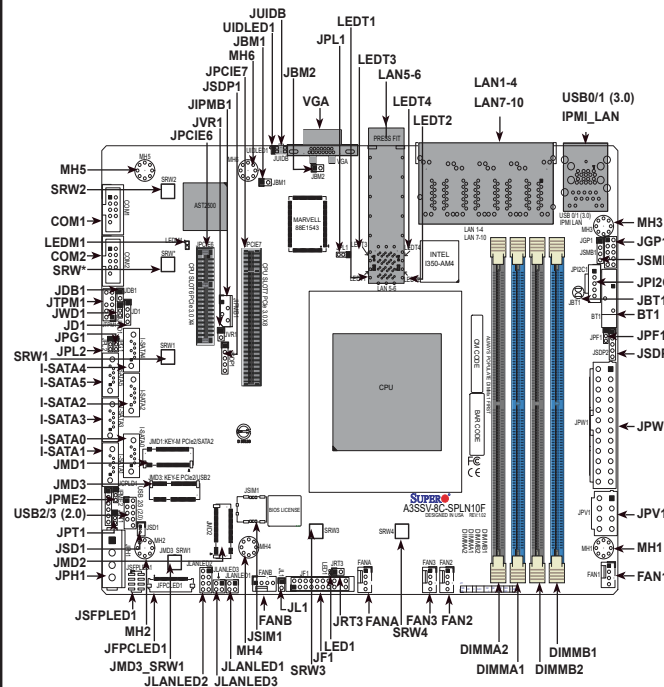


SUPERMICRO® SuperServer 110A-16C/24C-RN10SP Quick Reference Guide

Board Layout



Jumper	Description	Default Setting
JBM1	Disable IPMI Share LAN	Pins 1-2 Open: Enable
JBM2	Disable IPMI Dedicated LAN	Pins 1-2 Open: Enabled
JBT1	CMOS Clear	Open: Normal
JPF1	Power Force On	Pins 1-2: ATX mode Pins 2-3: Force PS-ON mode (Default)
JPG1	Onboard VGA Enable/Disable	Pins 1-2: (Enabled)
JPL1	LAN1-LAN4 Enable/Disable	Pins 1-2: (Enabled)
JPME2	ME Manufacturing Mode	Pins 1-2: (Normal)
JWD1	Watch Dog Timer	Pins 1-2: (Reset by BMC)
LED	Description	Status
LED1	Power LED	Solid Green: Power On
LEDM1	BMC Heartbeat	Blinking Green: BMC Normal
UIDLED1	UID LED	Solid Blue: Unit Identified
Connector	Description	
BT1	Onboard Battery	
COM1, COM2	COM Headers	
FAN1 - FAN3, FANA, FANB	CPU/System Fan Headers (FAN1: CPU Fan)	
IPMI_LAN	IPMI LAN Port	
I-SATA0 - I-SATA5	Intel® SoC SATA 2.0 Ports (I-SATA0: SuperDOM)	
JD1	Speaker/Buzzer Header (Pins 1-4)	
JF1	Front Control Panel Header	
JFPCLED1	LED Board Cable Connector for FPB-FPE300-LED10 (Reserved for FPB-FPE300-LED10 on E300 chassis use)	
JGP1	General Purpose I/O Header	
JIPMB1	System Management Bus Header (for IPMI card)	
JL1	Chassis Intrusion Header	
JLANLED1	LAN3-LAN4 Port Activity LED Header	
JLANLED2	LAN5-LAN8 Port Activity LED Header	
JLANLED3	LAN9-LAN10 Port Activity LED Header	
JMD1	M.2 M-Key 2242/2280/22110 (supports PCIe 2.0 x4/SATA 2.0/USB 2.0) Slot	
JMD2	M.2 B-Key 2242/3042/2280 (supports PCIe 2.0 x2/SATA 2.0/USB 3.0) Slot	
JMD3	M.2 E-Key 2230 (supports PCIe 2.0 x1/USB 2.0) Slot	
JMD3_SRW1	JMD3 M.2 Holding Screw	
JPCIE6	CPU PCIe 3.0 x4 Slot	
JPCIE7	CPU PCIe 3.0 x8 Slot	
Connector	Description	
JPH1	4-pin Power Connector (for one HDD system)	
JPPC1	Power Supply SMBus PC Header	
JPV1	8-pin 12V DC Power Connector	
JPW1	24-pin ATX Power Connector	
JRT3	Thermal Diode 1	
JSD1	SATA DOM Power Connector	
JSDP1	Software-Defined Pins for LAN5-LAN6	
JSDP2	Software-Defined Pins LAN1-LAN4	
JSFPLED1	SFP LAN LED Board Cable Connector for FPB-FPE300-LED10	
JSIM1	Nano SIM Card Slot	
JSMB1	System Management Bus Header	
JTPM1	Trusted Platform Module (TPM)Port 80 Header	
JUIDB	Unit Identifier Switch	
JVR1	VRM PC SMBus to CPU Header	
LAN1-4, LAN7-10	Eight LAN 1G Base-T (Intel i350-AM4 & Marvell 88E1543) Ports	
LAN5-6	Two LAN SFP28 25G Ports	
MH1-MH6	Mounting Holes	
SRW1-SRW4, SRW*	M.2 Holding Screws	
USB0/1	Back Panel USB 3.0 Ports	
USB2/3	Front Accessible USB 2.0 Header	
VGA	VGA Port	

System Overview

This chapter provides a brief outline of the functions and features of the SuperServer SYS-110A-16C/24C-RN10SP. This system is based on the A3SSV-16C/24C-SPLN10F motherboard and the CSE-506TS-R000NP chassis. The following provides an overview of the specifications and capabilities.

System Overview	
Motherboard	A3SSV-16C-SPLN10F: SYS-110A-16C-RN10SP A3SSV-24C-SPLN10F: SYS-110A-24C-RN10SP
Chassis	CSE-506TS-R000NP
Processor Support	Single Intel® Atom® P5000 series processor, with up to 24 cores at a 83W TDP
Memory	Four DIMM slots 2933MHz ECC DDR4 RDIMM/UDIMM with speed of up to 256Gb
Drive Support	Two 2.5" hot-swap SATA/PCIe drive bays One M.2 M-Key 2242/2280/22110 (PCIe 2.0 x4/SATA 2.0/USB 2.0) One M.2 B-Key 2242/3042/2280 (PCIe 2.0 x2/SATA 2.0/USB 3.0) One M.2 E-Key 2230 (PCIe 2.0 x1/USB 2.0)
Expansion Slots	One PCIe 3.0 x8
I/O Ports	Two SATA 3.0 connectors One VGA port Two rear USB 3.0 ports Eight RJ45 1GbE LAN ports Two 25G SFP28 LAN ports One RJ45 dedicated IPMI LAN port
System Cooling	Three internal fixed 40 x 28mm fans
Power	300W AC Redundant 80Plus Gold power supply
Form Factor	1U (W x H x D) 17.2 x 1.7 x 9.8in (437 x 43 x 249mm)

Note: A Quick Reference Guide can be found on the product page of the Supermicro website. The following safety models associated with SYS-110A-16C/24C-RN10SP have been certified as compliant with UL or CSA: 211M-R8X13(AC) and 211M-6D(DC).

Rear View



System Features: Rear		
Item	Feature	Description
1	Power Supplies	300W AC redundant power supplies
2	I/O Rear Panel	Rear panel for I/O devices supported on the motherboard
3	PCIe Slot	One HHHL PCIe expansion slot
4	Security slot	Kensington® Security Lock

System Features



System Features: Front		
Item	Feature	Description
1	Rack Ear Brackets	Secures the server to the rack
2	Solid-State Drive	Two hot-swap 2.5" drives with LEDs (highlighted in orange, table below)
3	Control Panel	Front control panel with LEDs and buttons (see the previous page) and unique BMC password label
4	Fans	Three internal fixed 40 x 28mm fans



Solid-State Drive LEDs		
Item	Feature	Description
1	SSD LED	Indicates drive activity when flashing
2	Fail/Locate LED	Indicates drive failure when solid, locates the drive when blinking

Control Panel



Control Panel Features		
Item	Feature	Description
1	Power button	The main power switch applies or removes primary power from the power supply to the server but maintains standby power.
2	Reset button	System reset
3	Power LED	Indicates power is being supplied to the system power supply units. This LED is illuminated when the system is operating normally.
4	HDD	Indicates activity on the storage drives when flashing.
5	NIC (LAN1) LED	Indicates network activity on LAN1 when flashing.
6	Information LED	Alerts operator to several states, as noted in the table below.
7	Overheat LED	If this indicator is continuously on and red, an overheat condition has occurred.

Information LED		
Color, Status	Description	
Red, solid	An overheat condition has occurred.	
Red, blinking at 1Hz	Fan failure, check for an inoperative fan.	
Red, blinking at 0.25Hz	Power failure, check for a non-operational power supply.	
Red, solid, with Power LED blinking green	Fault detected	
Blue and red, blinking at 10 Hz	Recovery mode	
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 BMC to locate the server in a rack environment.	
Blue, blinking at 2Hz	BMC is resetting	
Blue, blinking at 4Hz	BMC is setting factory defaults	
Blue, blinking at 10Hz with Power LED blinking green	BMC/BIOS firmware is updating	

Memory

The A3SSV-16C/24C-SPLN10F motherboard supports up to 256GB of ECC RDIMM or 64GB of Non-ECC/ECC UDIMM DDR4 memory in four memory slots. Refer to the tables below for the recommended DIMM population order and additional memory information.

DIMM Module Population Configuration

For optimal memory performance, follow the table below when populating memory.

Memory Population (Balanced)				
DIMMA1	DIMMB1	DIMMA2	DIMMB2	Total System Memory
4GB	4GB			8GB
4GB	4GB	4GB	4GB	16GB
8GB	8GB			16GB
8GB	8GB	8GB	8GB	32GB
16GB	16GB			32GB
16GB	16GB	16GB	16GB	64GB
32GB	32GB			64GB
32GB	32GB	32GB	32GB	128GB
64GB	64GB			128GB
64GB	64GB	64GB	64GB	256GB

BMC Password Label

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

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>

