

SUPERMICR[®] A+ Server AS -2125HS-TNR Quick Reference Guide

Board Layout

Item	Description	Item	Description
1	SATA2-15 Hybrid MCO Select	25	JPW11*
2	AIO M1 Sideband Signal Header	26	System Cooling Fan Header 1
3	Processor 1 NVMe Ports 6/7	27	DIMM J19-J24
4	Front IPMI and Onboard VGS/USB/NC Module Connector	28	System Cooling Fan Header 2
5	Supermicro® Advanced I/O Module (AIO M) Slot	29	System Cooling Fan Header 3
6	BMC Heartbeat LED	30	System Cooling Fan Header 4
7	NC/SI Connector	31	DIMM J13-J18
8	JPW3*	32	JPW5*
9	Processor 2 NVMe Ports 01, Processor 2 SATA Ports 0/7	33	JPW6*
10	Processor 2 NVMe Ports 2/3, Processor 2 SATA Ports 8-15	34	System Cooling Fan Header 5
11	CPU2 PCIe 5.0 x16 Slot	35	DIMM J7-J12
12	JPW2: 24-Pin ATX Main Power Connector	36	System Cooling Fan Header 6
13	CPU2 M.2 PCIe Interface (NVMe only)	37	System Cooling Fan Header 7
14	JPW4*	38	System Cooling Fan Header 8
15	JPW5*	39	DIMM J1-J6
16	Serverboard Main Power Supply Connector 2	40	Front VGA Connector
17	Processor 2 NVMe Ports 4/5	41	Front Panel Connector
18	Processor 2 NVMe Ports 6/7	42	JPW11*
19	Processor 2 NVMe Ports 8/9	43	JPW12*
20	JPW6*	44	Processor 1 NVMe Ports 01, Processor 1 SATA Ports 8-15
21	JPW7*	45	Processor 1 NVMe Ports 2/3, Processor 1 SATA Ports 0/7
22	Serverboard Main Power Supply Connector 1	46	JSA2A Hybrid MCO Select
23	Processor 2 NVMe Ports 10/11	47	CPU1 PCIe 5.0 x16 Slot
24	JPW10*	48	Processor 1 NVMe Ports 4/5

*12V 8-Pin Power Connector

Memory Support

24 Slots CPU 1 DIMM Population Order												
Type	1 DIMM Per Channel											L1
	F1	E1	D1	C1	B1	A1	G1	H1	I1	J1	K1	
CPU1 & 1 DIMM *						V						
CPU1 & 2 DIMMs *						V						
CPU1 & 4 DIMMs *					V	V						
CPU1 & 6 DIMMs *					V	V	V					
CPU1 & 8 DIMMs **		V			V	V	V				V	
CPU1 & 10 DIMMs ***		V	V		V	V	V			V	V	
CPU1 & 12 DIMMs ***	V	V	V		V	V	V			V	V	V

24 Slots CPU 2 DIMM Population Order												
Type	1 DIMM Per Channel											L1
	F1	E1	D1	C1	B1	A1	G1	H1	I1	J1	K1	
CPU2 & 1 DIMM *						V						
CPU2 & 2 DIMMs *						V						
CPU2 & 4 DIMMs *					V	V						
CPU2 & 6 DIMMs **					V	V	V					
CPU2 & 8 DIMMs **		V			V	V	V				V	
CPU2 & 10 DIMMs ***		V	V		V	V	V			V	V	
CPU2 & 12 DIMMs ***	V	V	V		V	V	V			V	V	V

Note: Recommend populating all memory DIMM channels for optimal performance.
 * AMD does not recommend installing 1, 2, 4, or 6 DIMMs per CPU socket, as it may impact performance.
 ** Recommended for 16-64 Core CPUs
 *** Preferred for 84-Core or higher CPUs, and recommended for all other CPUs

System Information

Pull-out tag with BMC unique 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 and Product Resources

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

CAUTION:
 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.

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.

PRODUCT RESOURCES:
 For more information go to: <http://www.supermicro.com/support>

CPU Installation

- Remove the Processor Force Frame**
Unscrew Screw #1 holding down the force frame.
- Raise the Force Frame**
- Lift the Rail Frame**
- Remove the External Cap**
- Align the Carrier Frame / CPU Package and Slide Down**
- Remove the PnP Cover Cap**
- Lower the Force Frame**
- Secure the Force Frame**
Using a Torx T20 screwdriver set to 12.5-15.0 kgfcm (10.85-13.01 lbf-in), tighten the screw securing the force frame.

Front View & Interface

Item	Description	Item	Description
1	Power Button	5	Power Fail LED
2	UID Button	6	HDD LED
3	Power LED	7	NIC1 LED
4	NIC2 LED	8	Information LED

Rear View

Item	Description	Slot	Description
1	Power Supply 1	1	CPU 1
2	Power Supply 2	2	CPU 2
3	BMC LAN Port	A1	PCI-E 5.0 x16 AIO M Slot (NC/SI)
4	USB Ports		
5	VGA Port		

Slot	Description	Option 1	Description	Option 2	Description	Option 3
1	PCI-E 5.0 x16 (FH, 10.5" L)	Not available	PCI-E 5.0 x8 (FH, 10.5" L)	Not available	PCI-E 5.0 x8 (FH, 10.5" L)	Not available
2	Not available	Not available	PCI-E 5.0 x8 (FH, 10.5" L)	Not available	PCI-E 5.0 x8 (FH, 10.5" L)	Not available
3	PCI-E 5.0 x16 (FH, 10.5" L)	Not available	PCI-E 5.0 x16 (FH, 10.5" L)	Not available	PCI-E 5.0 x8 (FH, 10.5" L)	Not available
4	Not available	Not available	PCI-E 5.0 x16 (FH, 10.5" L)	Not available	PCI-E 5.0 x8 (FH, 10.5" L)	Not available
5	PCI-E 5.0 x8 (FH, 10.5" L)	Not available	Not available	Not available	PCI-E 5.0 x8 (FH, 10.5" L)	Not available
6	Not available	Not available	Not available	Not available	PCI-E 5.0 x8 (FH, 10.5" L)	Not available
7	PCI-E 5.0 x16 (FH, 10.5" L)	Not available	Not available	Not available	PCI-E 5.0 x8 (FH, 10.5" L)	Not available
8	PCI-E 5.0 x8 (FH, 10.5" L)	Not available	Not available	Not available	PCI-E 5.0 x8 (FH, 10.5" L)	Not available

* Slots 1, 2, 5, 6, 7, 8 are not available with 24 NVMe Configuration
 Power Supply full redundancy based on configuration and application load

LBL-2581-T-QRG Rev. 1.0a

NVMe Drive Cable Routing

24 NVMe

Connector on Board/Card	Backplane/Riser and Port	Drive Bay	SMC Cable P/N
JMC01 (MBD-H130SH)	NVMe01	0/1	CBL-MCO-12376E-2
JMC02 (MBD-H130SH)	NVMe03	3/3	CBL-MCO-1245M5
JMC07 (MBD-H130SH)	NVMe16/17	16-17	CBL-MCO-1255M5
JMC08 (MBD-H130SH)	NVMe18/19	18-19	CBL-MCO-1245M5
JMC09 (MBD-H130SH)	NVMe20/21	20-21	CBL-MCO-1245M5
JMC10 (MBD-H130SH)	NVMe22/23	22-23	CBL-MCO-12376E-2
JMC11 (MBD-H130SH)	NVMe12/13	12-13	CBL-MCO-12376E-2
JMC12 (MBD-H130SH)	NVMe14/15	14-15	CBL-MCO-1245M5
JPC1E1 (MBD-H130SH)	NVMe4/5	4-5	CBL-GN24-1255M5Y
JMC14 (MBD-H130SH)	NVMe6/7	6-7	CBL-MCO-1245M5
JMC15 (MBD-H130SH)	NVMe8/9	8-9	CBL-MCO-1245M5
JMC13 (MBD-H130SH)	NVMe10/11	10-11	CBL-MCO-1245M5

20 NVMe

Connector on Board/Card	Backplane/Riser and Port	Drive Bay	SMC Cable P/N
JMC01 (MBD-H130SH)	NVMe01	0/1	CBL-MCO-12376E-2
JMC02 (MBD-H130SH)	NVMe03	3/3	CBL-MCO-1245M5
JMC07 (MBD-H130SH)	NVMe16/17	16-17	CBL-MCO-1255M5
JMC08 (MBD-H130SH)	NVMe18/19	18-19	CBL-MCO-1245M5
JMC09 (MBD-H130SH)	NVMe20/21	20-21	CBL-MCO-12376E-2
JMC10 (MBD-H130SH)	NVMe14/15	14-15	CBL-MCO-1245M5
JPC1E1 (MBD-H130SH)	NVMe4/5	4-5	CBL-GN24-1255M5Y
JMC14 (MBD-H130SH)	NVMe6/7	6-7	CBL-MCO-1245M5
JMC15 (MBD-H130SH)	NVMe8/9	8-9	CBL-MCO-1245M5
JMC13 (MBD-H130SH)	NVMe10/11	10-11	CBL-MCO-1245M5

SATA Drive Cable Routing

24 SATA

Connector on Board/Card	Backplane/Riser and Port	Drive Bay	SMC Cable P/N
JMC01 (MBD-H130SH)	SAS 0-3/4-7	0-7	CBL-MCO-1265A5Y
JMC01 (MBD-H130SH)	SAS 8-11/12-15	8-15	CBL-MCO-1265A5Y
JMC05 (MBD-H130SH)	SAS 16-19/20-23	16-23	CBL-MCO-1265A5Y

Storage AOC Drive Cable Routing

24 SAS

Connector on Board/Card	Backplane/Riser and Port	Drive Bay	SMC Cable P/N
SAS AOC CN1	SAS 0-3/4-7	0-7	CBL-SAST-1266F-100
SAS AOC CN2	SAS 8-11/12-15	8-15	CBL-SAST-1276F-100
SAS AOC CN1	SAS 16-19/20-23	16-23	CBL-SAST-1266F-100

16 SAS

Connector on Board/Card	Backplane/Riser and Port	Drive Bay	SMC Cable P/N
SAS AOC CN1	SAS 0-3/4-7	0-7	CBL-SAST-1266F-100
SAS AOC CN2	SAS 8-11/12-15	8-15	CBL-SAST-1276F-100

4 SAS

Connector on Board/Card	Backplane/Riser and Port	Drive Bay	SMC Cable P/N
SAS AOC CN1	SAS 20-23	20-23	CBL-SAST-1266F-100