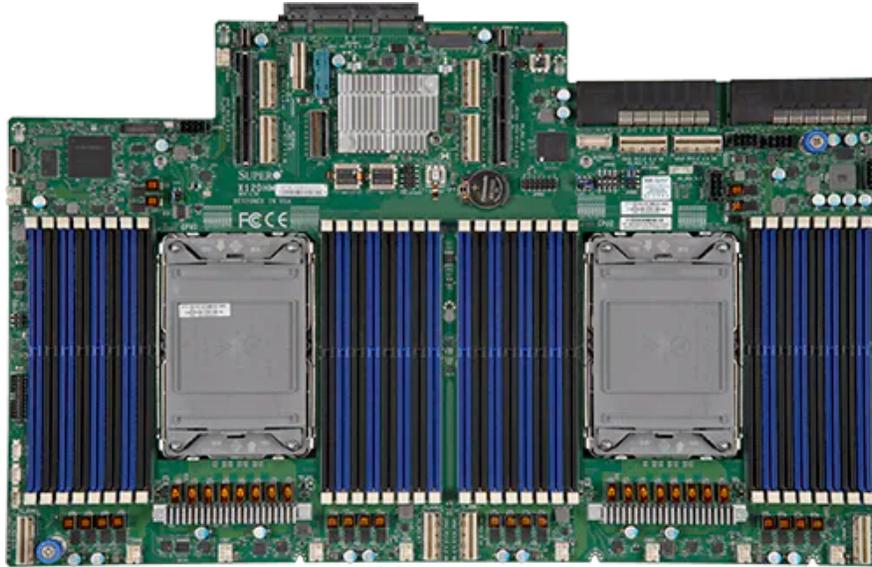# X12DHM-6 (For SuperServer Only)

Hyper Series

Key Features

3rd Gen Intel® Xeon® Scalable processors

Dual Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP, 3 UPI up to 11.2 GT/s

Intel® C621A

Up to 8TB 3DS ECC RDIMM, DDR4-3200MHz; Up to 8TB 3DS ECC LRDIMM, DDR4-3200MHz

Up to 8TB Intel® Optane™ Persistent Memory, DDR4-3200MHz, in 32 DIMM slots

5 PCIe 4.0 x16,

8 PCIe 4.0 NVMe x4

M.2 Interface: 2 SATA/PCIe 3.0 x2, RAID 0 & 1

M.2 Form Factor: 2280/22110

1 PCIe 4.0 x16, AIOM (OCP3.0 Compliant)

Intel® C621A controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10

1 VGA D-Sub Connector port

Optimized Servers

SYS-120H-TNR

SYS-220HE-FTNR

SYS-220HE-FTNRD

SYS-620H-TN12R

SYS-220H-TN24R

SYS-220HE-FTNR-US

SYS-220HE-FTNR-NEBS

SYS-220HE-FTNRD-NEBS

SYS-220HE-TNR

SYS-220HE-TNRD

Specifications

Product SKUs
MBD-X12DHM-6

Physical Stats
Form Factor
Proprietary
Dimension
17" x 10.7" (43.18cm x 27.18cm)

Processor
CPU
3rd Gen Intel® Xeon® Scalable processors
Dual Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP, 3 UPI up to 11.2 GT/s
Core
Up to 40 cores

System Memory
Memory Capacity
32 DIMM slots
Up to 8TB Intel® Optane™ Persistent Memory 200 Series, DDR4-3200MHz
Up to 8TB 3DS ECC LRDIMM, DDR4-3200MHz; Up to 8TB 3DS ECC RDIMM, DDR4-3200MHz
Memory Type
ECC DDR4 LRDIMM (3DS), RDIMM (3DS)
DIMM Sizes
LRDIMM: 16GB, 32GB, 64GB, 128GB, 256GB
RDIMM: 16GB, 32GB, 64GB, 128GB, 256GB
Memory Voltage
1.2V
Error Detection
Corrects single-bit errors
Detects double-bit errors (using ECC memory)

On-Board Devices
Chipset
Intel® C621A
SATA
Intel® C621A controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10
IPMI
ASPEED AST2600 BMC
Graphics
1 ASPEED AST2600 BMC port(s)
Network Controllers
N/A

Input / Output
LAN
1 RJ45 Dedicated IPMI LAN port
USB
4 USB 3.2 Gen1 port(s) (4 via header)
Video Output
1 VGA D-Sub Connector port(s)
Serial Port
1 COM Port(s) (1 header)
TPM
1 TPM Header

Expansion Slots
PCIe
1 PCIe 4.0 x16, AIOM (OCP3.0 Compliant),
5 PCIe 4.0 x16
M.2
M.2 Interface: 2 SATA/PCIe 3.0 x2, RAID 0 & 1
Form Factor: 2280/22110

System BIOS
BIOS Type
AMI UEFI

Management
Software
Redfish API, Supermicro Server Manager (SSM), Supermicro Power Manager (SPM), Supermicro Update Manager (SUM), SuperDoctor® 5, Super Diagnostics Offline , KVM with dedicated LAN , IPMI 2.0

Security
Hardware
Trusted Platform Module (TPM) 2.0

PC Health Monitoring
Voltage
PCH temperature, Monitors CPU voltages, Memory temperature, CPU temperature, Chassis intrusion header, 3.3V standby, +5V standby, +12V, VRM temperature, Monitors for CPU Cores, Memory Voltages, 10 -fan status, +1.8V PCH
LED
UID/Remote UID
BMC/IPMI Heartbeat LED
FAN
10x 6-pin fan headers (up to 10 fans)
10x fans with tachometer monitoring
Other Features
WOL, UID, Node Manager Support, CPU thermal trip support for processor protection, Control of power-on for recovery from AC power loss, Chassis intrusion header, Chassis intrusion detection, ACPI power management, RoT, RoHS, Halogen Free, NCSI header

Operating Environment
Operating Temperature Range
10°C - 35°C (50°F - 95°F)
Non-Operating Temperature Range
-40°C - 70°C (-40°F - 158°F)
Operating Relative Humidity Range
8% - 90% (non-condensing)
Non Operating Relative Humidity Range
5% - 95% (non-condensing)

Parts List

Optional Parts

TPM security module

Part Number	AOM-TPM-9670H	AOM-TPM-9670V
Qty	1	1

| Description | SPI capable TPM 2.0 with Infineon 9670 controller with horizontal form factor | SPI capable TPM 2.0 with Infineon 9670 controller with vertical form factor |