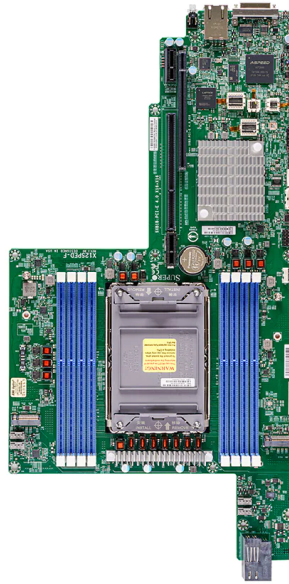# X12SPED-F

SuperEdge 2U/3Node
Short Depth
3 PCIe Slots

Key Features

3rd Gen Intel® Xeon® Scalable processors, Single Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP

Intel® C621A

Up to 2TB 3DS ECC RDIMM, DDR4-3200MHz; Up to 2TB 3DS ECC LRDIMM, DDR4-3200MHz

Up to 2TB Intel® Optane™ Persistent Memory 200 Series, in 8 DIMM slots

1 PCIe 4.0 x16 (LP)

2 PCIe 4.0 x16 (FHHL)

1 VGA Port;2 USB 2.0 Ports; 1 Serial Port via KVM Connector.

M.2 Interface: 2 PCIe 4.0 x4,**M.2 Form Factor:** 2280/22110

1 RJ-45 GbE dedicated IPMI LAN with Intel® Ethernet Controller I210-AT

Optimized Servers

SYS-210SE-31D

SYS-210SE-31A

Specifications

Product SKUs
MBD-X12SPED-F

Physical Stats
Form Factor
Proprietary
Dimension
16.36" x 8.526" (415.57cm x 216.56cm)

Processor
CPU
3rd Gen Intel® Xeon® Scalable processors
Single Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP
Core
Up to 40 cores

System Memory
Memory Capacity
8 DIMM slots
Up to 2TB Intel® Optane™ Persistent Memory 200 Series
Up to 2TB 3DS ECC LRDIMM, DDR4-3200MHz; Up to 2TB 3DS ECC RDIMM, DDR4-3200MHz
Memory Type
3200/2933/2666 MT/s ECC , DDR4 LRDIMM (3DS), RDIMM (3DS)
DIMM Sizes
DCPMM: 64GB, 128GB, 256GB
LRDIMM: 64GB, 128GB, 256GB
RDIMM: 8GB, 16GB, 32GB, 64GB, 128GB, 256GB
Memory Voltage
1.2V
Error Detection
Corrects single-bit errors

On-Board Devices
Chipset
Intel® C621A
IPMI
ASPEED AST2600 BMC
Network Controllers
Single LAN with Intel® Ethernet Controller I210-AT

Input / Output
USB
2 USB 2.0 port(s) (2 type A Via KVM connector)
Video Output
1 VGA port(s) Via KVM connector
Serial Port
1 COM Port(s) (1 Serial Port Via KVM connector)
TPM
1 TPM Header & Chip both

Expansion Slots
PCIe
1 PCIe 4.0 x16 (LP),
2 PCIe 4.0 x16 (FHHL)
M.2
M.2 Interface: 2 PCIe 4.0 x4
Form Factor: 2280/22110
Key: M-Key

System BIOS
BIOS Type
32MB SPI Flash with AMI BIOS
BIOS Features
ACPI 6.2
UEFI 2.8
SMBIOS 2.8
SMBIOS 3.3 or later
Plug and Play (PnP)
PCI FW 3.2

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
System Management Software
IPMI (Intelligent Platform Management Interface) v1.5 / 2.0 with KVM support
Power Configurations
Power-on mode for AC power recovery, ACPI Power Management

Security
Hardware
Trusted Platform Module (TPM) 2.0

PC Health Monitoring
Voltage
VBAT, Supports system management utility, Monitors CPU voltages, Chassis intrusion header, 4 -fan status, 3.3V standby, +5V standby, +5V, +3.3V, +12V, +1.8V
LED
UID/Remote UID
Power LED
BMC/IPMI Heartbeat LED
Power fail / Fan fail / Overheat LED Indication
Temperature
CPU thermal trip support
FAN
4x 4-pin fan headers (up to 4 fans)
System level control
PWM fan speed control
4 fans with tachometer monitoring
Other Features
RoHS, Node Manager Support, M.2 NGFF connector, CPU thermal trip support for processor protection, Control of power-on for recovery from AC power loss, ACPI power management

Operating Environment
Operating Temperature Range
0°C - 55°C (32°F - 131°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