



**Embedded
Xeon D SoC
Dual 25GbE LAN
Dual 10GBase-T LAN
IPMI**

Key Features

- System on Chip
- Intel® Xeon® Processor D-1749NT, CPU TDP 90W, Intel Quick Assist Technology
- Up to 128GB Registered ECC RDIMM, DDR4-2667MHz, in 2 DIMM slots
- 1 PCIe 4.0 x8
- 1 OCuLink Connector (4 SATA/PCIe 3.0 x4)
- 1 M.2 M-Key 2280 (SATA/PCIe 4.0 x4)
- Dual 25G SFP28 with Intel SoC
- Dual 10Gbase-T RJ-45 with Intel® Ethernet Controller X550-AT2
- 12V DC or ATX Power Input

Optimized Servers

[SYS-E200-12D-10C \(/en/products/system/iiot/mini-itx/sys-e200-12d-10c\)](#)

Specifications

Product SKUs MBD-X12SDV-10C-SPT4F
Physical Stats Form Factor Mini-ITX Dimension 6.75" x 6.75" (17.15cm x 17.15cm)
Processor CPU Intel® Xeon® Processor D-1749NT Single Socket FCBGA-2227 supported, CPU TDP supports Up to 90W TDP
Core Up to 10 cores / 15MB Cache
System Memory Memory Capacity 2 DIMM slots Up to 128GB ECC RDIMM, DDR4-2666MHz; Up to 128GB ECC/non-ECC, DDR4-2666MHz
Memory Type 2666/2400 MT/s ECC/non-ECC DDR4 RDIMM
DIMM Sizes RDIMM: 8GB, 16GB, 32GB, 64GB UDIMM: 4GB, 8GB, 16GB, 32GB
Memory Voltage 1.2V
Error Detection Corrects single-bit errors Detects double-bit errors (using ECC memory)
On-Board Devices Chipset System on Chip SATA SoC controller for 4 SATA3 (6 Gbps) ports; RAID 0,1,5,10 4 SATA ports via OCuLink (or PCIe3.0 x4 for NVMe)
IPMI ASPEED AST2600 BMC
Graphics 1 Aspeed AST2600 BMC port(s)
Network Controllers Dual LAN with 25G SFP28 LAN via SoC Dual LAN with 10GBase-T with Intel® X550
Input / Output LAN 2 SFP28 25 Gigabit Ethernet LAN ports 2 RJ45 10GBase-T ports USB 2 USB 2 port(s) (2 via header) 2 USB 3 port(s) (2 rear type A) Video Output 1 VGA D-Sub Connector port(s) Serial Port 1 COM Port(s) (1 header) TPM 1 TPM Header & Chip both

Expansion Slots PCIe 1 PCIe 4.0 x8, 1 PCIe 3.0 x4 (or 4x SATA), via Oculink M.2 M.2 Interface: 1 SATA/PCIe 4.0 x4 Form Factor: 2280 Key: M-Key
System BIOS BIOS Type AMI 32MB SPI Flash EEPROM BIOS Features ACPI 6.3 UEFI 2.7 SMBIOS 3.3 Plug and Play (PnP) PCI FW 3.0
Management Software Redfish API (/manuals/other/RedfishRefGuide.pdf) , Supermicro Server Manager (SSM) (/solutions/SMS_SSM.cfm) , Supermicro Update Manager (SUM) (/solutions/SMS_SUM.cfm) , SuperDoctor® 5 (/en/solutions/management-software/superdoctor) , Super Diagnostics Offline (/en/solutions/management-software/super-diagnostics-offline) , KVM with dedicated LAN (/manuals/other/BMC_IPMI_X13_H13.pdf#page=112) , IPMI 2.0 (/solutions/IPMI.cfm)
Power Configurations ATX Power connector, +12V DC Power Input, CPU thermal trip support for processor protection, Power-on mode for AC power recovery
Security Hardware Trusted Platform Module (TPM) 2.0
PC Health Monitoring Voltage 3.3V standby, +5V standby, +5V, +3.3V, +12V, Memory Voltages, Monitors CPU Core Voltages LED UID/Remote UID BMC/IPMI Heartbeat LED Overheat/Fan Fail/PWR Fail LED Power Indicator LED LAN temperature
Temperature CPU thermal trip support peripheral temperature System temperature Memory temperature NVMe temperature Platform Environment Control Interface (PECI)/TSI
FAN 3x 4-pin fan headers (up to 3 fans) System level control PWM fan speed control Fan speed control 3 fans with tachometer monitoring Overheat LED indication
Other Features UID, RoHS, Node Manager Support, Chassis Intrusion header, ATX Power connector, ACPI power management, 8-pin 12v DC power connector, 12V DC or ATX Power Source, Intel® QuickAssist Technology
Operating Environment Operating Temperature Range 0°C - 60°C (32°F - 140°F) Non-Operating Temperature Range -40°C - 85°C (-40°F - 185°F) Operating Relative Humidity Range 10% - 85% (non-condensing) Non Operating Relative Humidity Range 10% - 95% (non-condensing)

Parts List

Standard Parts (Bulk Package)

ATX Power Cable

Part Number	CBL-PWEX-1063 - eStore (https://store.supermicro.com/supermicro-4-pin-to-atx-6cm-power-converter-cable-cbl-pwex-1063.html)
Qty	1
Description	6CM ATX Power Signal Cable

I/O Shield

Part Number	MCP-260-00098-0N - eStore (https://store.supermicro.com/mcp-260-00098-0n.html)
Qty	1
Description	Standard I/O Shield

Standard Parts (Retail Package)

ATX Power Cable

Part Number	CBL-PWEX-1063 - eStore (https://store.supermicro.com/supermicro-4-pin-to-atx-6cm-power-converter-cable-cbl-pwex-1063.html)
Qty	1
Description	6CM ATX Power Signal Cable

COM Cable

Part Number	CBL-CDAT-0605
Qty	1
Description	COM Cable 20cm

I/O Shield

Part Number	MCP-260-00098-0N - eStore (https://store.supermicro.com/mcp-260-00098-0n.html)
Qty	1
Description	Standard I/O Shield

OCuLink to 4x SATA Cable

Part Number	CBL-SAST-0933 - eStore (https://store.supermicro.com/supermicro-50cm-oculink-to-4-sata-cable-cbl-sast-0933.html)
Qty	1
Description	50CM OCuLink to 4x SATA Cable

OCuLink to U.2 Cable

Part Number	CBL-SAST-0956 - eStore (https://store.supermicro.com/supermicro-55cm-oculink-to-u-2-pcie-with-power-cable-cbl-sast-0956.html)
Qty	1
Description	55CM OCuLink to U.2 Cable with Molex Power Header

QRG

Part Number	MNL-2478-QRG
Qty	1
Description	Motherboard Quick Reference Guide