



**Embedded
Xeon D SoC
Dual 25GbE LAN
Dual 10GbBase-T LAN
Quad 1GbE LAN
IPMI**

Key Features

- System on Chip
- Intel® Xeon® Processor D-2733NT, CPU TDP 80W, Intel Quick Assist Technology
- Up to 256GB Registered ECC RDIMM, DDR4-2667MHz; Up to 512GB LRDIMM LRDIMM, DDR4-2667MHz, in 4 DIMM slots
- 1 PCIe 4.0 x16
- 2 PCIe 4.0 NVMe x8 SlimSAS Internal Port
- 1 OCuLink Connector (4 SATA/PCIe 3.0 x4)
- 1 M.2 M-Key 2242/2280 (SATA/PCIe 3.0 x4)
- Quad 1G RJ45 with Intel® I350-AM4
- Dual 25G SFP28 with Intel SoC
- Dual 10GbBase-T RJ-45 with Intel® Ethernet Controller X550-AT2
- SoC controller for 2 SATA3 (6 Gbps) ports; RAID 0,1
- 12V DC or ATX Power Input (Use at least 5Vsb/4A PSU)

Optimized Servers

[SYS-110D-8C-FRAN8TP \(/de/products/system/iot/1u/sys-110d-8c-fran8tp\)](#) [SYS-110D-8C-FRDN8TP \(/de/products/system/iot/1u/sys-110d-8c-frdn8tp\)](#)

Specifications

Product SKUs MBD-X12SDV-8C-SPT8F
Physical Stats Form Factor Micro-ATX Dimension 7.5" x 8.5" (19.05cm x 21.59cm)
Processor CPU Intel® Xeon® Processor D-2733NT Single Socket FCBGA-2579 supported, CPU TDP supports Up to 80W TDP Core Up to 8 cores / 15MB Cache
System Memory Memory Capacity 4 DIMM slots Up to 512GB ECC LRDIMM, DDR4-2666MHz; Up to 256GB ECC RDIMM, DDR4-2666MHz; Up to 512GB ECC/non-ECC, DDR4-2666MHz Memory Type 2666/2400 MT/s ECC/non-ECC DDR4 LRDIMM, RDIMM DIMM Sizes LRDIMM: 64GB, 128GB 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 6 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 Intel® X550 10GbBase-T Ethernet Controller Quad LAN with Intel® I350 Gigabit Ethernet Controller
Input / Output SATA 2 SATA3 (6Gbps) port(s) LAN 4 RJ45 Gigabit Ethernet LAN ports 2 SFP28 25 Gigabit Ethernet LAN ports 2 RJ45 10GbBase-T ports USB 4 USB 2 port(s) (4 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) DOM 1 SATA DOM (/SATADOM/), (disk on Module) power connector support TPM 1 TPM Header & Chip both

Expansion Slots PCIe 1 PCIe 4.0 x16, 1 PCIe 3.0 x4 (or 4x SATA), via Oculink, 2 PCIe 4.0 x8, via SlimSAS M.2 M.2 Interface: 1 SATA/PCIe 3.0 x4 Form Factor: 2242/2280 Key: M-Key
System BIOS BIOS Type AMI z2MB 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
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 6x4-pin fan headers (up to 6 fans) System level control, PWM fan speed control, Fan speed control, 6 fans with tachometer/status monitoring, Overheat LED indication, Dual Cooling Zones 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)

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
SATA cable	
Part Number	CBL-0044L • eStore (https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html)
Qty	2
Description	57.5CM SATA FLAT S-S PBF

Standard Parts (Retail Package)

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-2440-QRG
Qty	1
Description	Motherboard Quick Reference Guide
SATA cable	
Part Number	CBL-0044L • eStore (https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html)
Qty	2
Description	57.5CM SATA FLAT S-S PBF