



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

Key Features

- System on Chip
- Intel® Xeon® Processor D-2775TE, CPU TDP 100W
- Up to 256GB Registered ECC RDIMM, DDR4-2933MHz; Up to 512GB LRDIMM LRDIMM, DDR4-2933MHz, 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-16C-FRAN8TP \(/de/products/system/iot/1u/sys-110d-16c-fran8tp\)](#) [SYS-110D-16C-FRDN8TP \(/de/products/system/iot/1u/sys-110d-16c-frdn8tp\)](#)

Specifications

<b>Product SKUs</b> <b>MBD-X12SDV-16C-SPT8F</b>
<b>Physical Stats</b> <b>Form Factor</b> Micro-ATX <b>Dimension</b> 7.5" x 8.5" (19.05cm x 21.59cm)
<b>Processor</b> <b>CPU</b> Intel® Xeon® Processor D-2775TE Single Socket FCBGA-2579 supported, CPU TDP supports Up to 100W TDP <b>Core</b> Up to 16 cores / 25MB Cache
<b>System Memory</b> <b>Memory Capacity</b> 4 DIMM slots Up to 512GB ECC LRDIMM, DDR4-2933MHz; Up to 256GB ECC RDIMM, DDR4-2933MHz; Up to 512GB ECC/non-ECC, DDR4-2933MHz <b>Memory Type</b> 2933/2666/2400 MT/s ECC/non-ECC DDR4 LRDIMM, RDIMM <b>DIMM Sizes</b> LRDIMM: 64GB, 128GB RDIMM: 8GB, 16GB, 32GB, 64GB UDIMM: 4GB, 8GB, 16GB, 32GB <b>Memory Voltage</b> 1.2V <b>Error Detection</b> Corrects single-bit errors Detects double-bit errors (using ECC memory)
<b>On-Board Devices</b> <b>Chipset</b> System on Chip <b>SATA</b> SoC controller for 6 SATA3 (6 Gbps) ports; RAID 0,1,5,10 4 SATA ports via OCuLink (or PCIe3.0 x4 for NVMe) <b>IPMI</b> ASPEED AST2600 BMC <b>Graphics</b> 1 Aspeed AST2600 BMC port(s) <b>Network Controllers</b> 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
<b>Input / Output</b> <b>SATA</b> 2 SATA3 (6Gbps) port(s) <b>LAN</b> 4 RJ45 Gigabit Ethernet LAN ports 2 SFP28 25 Gigabit Ethernet LAN ports 2 RJ45 10GbBase-T ports <b>USB</b> 4 USB 2 port(s) (4 via header) 2 USB 3 port(s) (2 rear type A) <b>Video Output</b> 1 VGA D-Sub Connector port(s) <b>Serial Port</b> 1 COM Port(s) (1 header) <b>DOM</b> 1 SATA <b>DOM</b> (/SATADOM/), (Disk on Module) power connector support <b>TPM</b> 1 TPM Header & Chip both

<b>Expansion Slots</b> <b>PCIe</b> 1 PCIe 4.0 x16, 1 PCIe 3.0 x4 (or 4x SATA), via Oculink, 2 PCIe 4.0 x8, via SlimSAS <b>M.2</b> M.2 Interface: 1 SATA/PCIe 3.0 x4 Form Factor: 2242/2280 Key: M-Key
<b>System BIOS</b> <b>BIOS Type</b> AMI 32MB SPI Flash EEPROM <b>BIOS Features</b> ACPI 6.3 UEFI 2.7 SMBIOS 3.3 Plug and Play (PnP) PCI FW 3.0
<b>Management Software</b> <b>Redfish API</b> <a href="#">(/manuals/other/RedfishRefGuide.pdf)</a> , <a href="#">Supermicro Server Manager (SSM) (/solutions/SMS_SSM.cfm)</a> , <a href="#">Supermicro Update Manager (SUM) (/solutions/SMS_SUM.cfm)</a> , <a href="#">SuperDoctor® 5 (/en/solutions/management-software/superdoctor)</a> , <a href="#">Super Diagnostics Offline (/en/solutions/management-software/super-diagnostics-offline)</a> , <a href="#">KVM with dedicated LAN (/manuals/other/BMC_IPMI_X13_H13.pdf#page=112)</a> , <a href="#">IPMI 2.0 (/solutions/IPMI.cfm)</a>
<b>Power Configurations</b> ATX Power connector, +12V DC Power Input, CPU thermal trip support for processor protection, Power-on mode for AC power recovery
<b>Security Hardware</b> Trusted Platform Module (TPM) 2.0
<b>PC Health Monitoring Voltage</b> 3.3V standby, +5V standby, +5V, +3.3V, +12V, Memory Voltages, Monitors CPU Core Voltages <b>LED</b> UID/Remote UID BMC/IPMI Heartbeat LED Overheat/Fan Fail/PWR Fail LED Power Indicator LED LAN temperature <b>Temperature</b> CPU thermal trip support peripheral temperature System temperature Memory temperature NVMe temperature Platform Environment Control Interface (PECI)/TSI <b>FAN</b> 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 <b>Other Features</b> 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
<b>Operating Environment</b> <b>Operating Temperature Range</b> 0°C - 60°C (32°F - 140°F) <b>Non-Operating Temperature Range</b> -40°C - 85°C (-40°F - 185°F) <b>Operating Relative Humidity Range</b> 10% - 85% (non-condensing) <b>Non Operating Relative Humidity Range</b> 10% - 95% (non-condensing)

Parts List

Standard Parts (Bulk Package)

I/O Shield	
Part Number	MCP-260-00098-0N • <a href="#">e\$Store</a> ( <a href="https://store.supermicro.com/mcp-260-00098-0n.html">https://store.supermicro.com/mcp-260-00098-0n.html</a> ).
Qty	1
Description	Standard I/O Shield
SATA cable	
Part Number	CBL-0044L • <a href="#">e\$Store</a> ( <a href="https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html">https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html</a> ).
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 • <a href="#">e\$Store</a> ( <a href="https://store.supermicro.com/mcp-260-00098-0n.html">https://store.supermicro.com/mcp-260-00098-0n.html</a> ).
Qty	1
Description	Standard I/O Shield
OCuLink to 4x SATA Cable	
Part Number	CBL-SAST-0933 • <a href="#">e\$Store</a> ( <a href="https://store.supermicro.com/supermicro-50cm-oculink-to-4-sata-cable-cbl-sast-0933.html">https://store.supermicro.com/supermicro-50cm-oculink-to-4-sata-cable-cbl-sast-0933.html</a> ).
Qty	1
Description	50CM OCuLink to 4x SATA Cable
OCuLink to U.2 Cable	
Part Number	CBL-SAST-0956 • <a href="#">e\$Store</a> ( <a href="https://store.supermicro.com/supermicro-55cm-oculink-to-u-2-pcie-with-power-cable-cbl-sast-0956.html">https://store.supermicro.com/supermicro-55cm-oculink-to-u-2-pcie-with-power-cable-cbl-sast-0956.html</a> ).
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 • <a href="#">e\$Store</a> ( <a href="https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html">https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html</a> ).
Qty	2
Description	57.5CM SATA FLAT S-S PBF