



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

Key Features

- System on Chip
- Intel® Xeon® Processor D-1736NT, CPU TDP 67W, 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-8C](#) ([/en/products/system/iot/mini-itx/sys:e200-12d-8c](#))

Specifications

Product SKUs	MBD-X12SDV-8C-SPT4F
Physical Stats	
Form Factor	Mini-ITX
Dimension	6.75" x 6.75" (17.15cm x 17.15cm)
Processor	
CPU	Intel® Xeon® Processor D-1736NT Single Socket FCBGA-2227 supported, CPU TDP supports Up to 67W TDP
Core	Up to 8 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	Monitoring for CPU and chassis environment CPU thermal trip support PECI 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-COAT-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-oculinkto-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-oculinkto-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