



**Embedded Xeon D SoC**  
**Dual 25GbE LAN**  
**Quad 1GbE LAN**  
**IPMI**

**Key Features**

- System on Chip
- Intel® Xeon® Processor D-1736NT, CPU TDP 67W, Intel Quick Assist Technology
- Up to 256GB Registered ECC RDIMM, DDR4-2667MHz, in 4 DIMM slots
- 1 PCIe 4.0 x16 or 2 PCIe 4.0 x8
- 1 M.2 M-Key 2280 (SATA/PCIe 3.0 x4)
- 1 M.2 B-Key 2280/3042/3052 (USB/SATA/PCIe 3.0 x2)
- 1 M.2 E-Key 2230 (PCIe 3.0 x1)
- 2 PCIe 3.0 NVMe x4 SlimSAS Internal Port (4 SATA/PCIe 3.0 x4)
- Quad 1G RJ45 with Intel® I350-AM2 and i210-IT
- Dual 25G SFP28 with Intel SoC
- SoC controller for 10 SATA3 (6 Gbps) ports; RAID 0,1,5,10
- 12V DC or ATX Power Input

**Optimized Servers**

[SYS-510D-8C-FN6P](#) ([//de/products/system/iot/1u/sys-510d-8c-fn6p](#)) [SYS-E300-12D-8CN6P](#) ([//de/products/system/iot/1u/sys-e300-12d-8cn6p](#)) [SYS-E302-12D-8C](#) ([//de/products/system/iot/1u/sys-e302-12d-8c](#))

**Specifications**

<b>Product SKUs</b> MBD-X12SDV-8C-SP6F	
<b>Physical Stats</b>	
<b>Form Factor</b> FlexATX	
<b>Dimension</b> 9" x 7.25" (22.86cm x 18.42cm)	
<b>Processor</b>	
<b>CPU</b>	Intel® Xeon® Processor D-1736NT Single Socket FC BGA-2227 supported, CPU TDP supports Up to 67W TDP
<b>Core</b>	Up to 8 cores / 15MB Cache
<b>System Memory</b>	
<b>Memory Capacity</b>	4 DIMM slots Up to 256GB ECC RDIMM, DDR4-2666MHz; Up to 256GB ECC/non-ECC, DDR4-2666MHz
<b>Memory Type</b>	2666/2400 MT/s ECC/non-ECC DDR4 RDIMM
<b>DIMM Sizes</b>	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 10 SATA3 (6 Gbps) ports; RAID 0,1,5,10 8 SATA ports via SlimSAS (or 2 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 Quad LAN with 1GbE with Intel® I210 Quad LAN with 1GbE LAN via Intel® I350-AM2	
<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	
<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 DOM / SATADOM ( ) (Disk on Module) power connector support	
<b>TPM</b> 1 TPM Header & Chip both	

<b>Expansion Slots</b>
<b>PCIe</b> 2 PCIe 3.0 x4 (or 4x SATA), via SlimSAS, 1 PCIe 4.0 x16 slots or 1 PCIe 4.0 x8 (N/A or 8/8)
<b>M.2</b> M.2 Interface: 1 SATA/PCIe 3.0 x4; 1 USB3.0/SATA3/PCIe 3.0 x2; 1 PCIe 3.0 x1 Form Factor: 2280, 2280/3042/3052, 2230 Key: M-Key, B-Key, E-Key
<b>System BIOS</b>
<b>BIOS Type</b> AMI 32MB SPI Flash EEPROM
<b>BIOS Features</b> ACPI 6.3 UEFI 1.7 SMBIOS 3.3 Plug and Play (PnP) PCI FW 3.0
<b>Management Software</b> <a href="#">Redfish API</a> <a href="#">(/manuals/other/RedfishRefGuide.pdf)</a> , <a href="#">Supermicro Server Manager (SSM)</a> ( <a href="#">/solutions/SMS_SSM.cfm</a> ), <a href="#">Supermicro Update Manager (SUM)</a> ( <a href="#">/solutions/SMS_SUM.cfm</a> ), <a href="#">SuperDoctor® 5</a> ( <a href="#">/en/solutions/management-software/superdoctor</a> ), <a href="#">Super Diagnostics Offline</a> ( <a href="#">/en/solutions/management-software/super-diagnostics-offline</a> ), <a href="#">KVM with dedicated LAN</a> ( <a href="#">/manuals/other/BMC_IPMI_X13_H13.pdf#page=112</a> ), <a href="#">IPMI 2.0</a> ( <a href="#">/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> 6x 4-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
<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, Intel® QuickAssist Technology
<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 • eStore ( <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 • eStore ( <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-SPBF

### 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 ( <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
QRG	
Part Number	MNL-2362-QRG
Qty	1
Description	Motherboard Quick Reference Guide
SATA cable	
Part Number	CBL-0044L • eStore ( <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
Screw Bag	
Part Number	FST-SCRW-0010
Qty	1
Description	STAND-OFF, H=3MM, 2PCS/BAG
x4 SlimSAS to U.2 Cable	
Part Number	CBL-SAST-1240A-85
Qty	2
Description	40CM Slimline x4 to PCIe SFF-8639

Global SKU ([/de/products/SMC\\_global\\_skus](/de/products/SMC_global_skus))