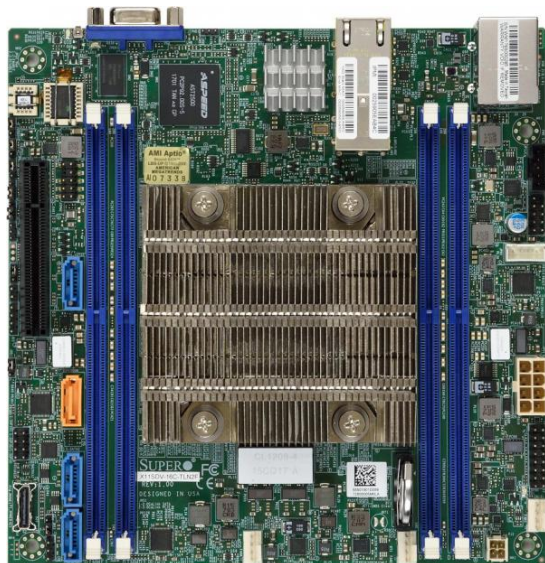


X11SDV-12C-TLN2F



**Skylake-D
12-Core**

NVMe

Dual 10GbE

Intel® Quick Assist Technology

Key Features

Links & Resources

[Tested Memory List](#)

[Tested HDD / SSD List](#)

[Tested AOC List](#)

[Motherboard Manual](#)

[Quick Reference Guide](#)

[Update Your BIOS](#)

[BMC/IPMI Firmware](#)

[Download the Latest Drivers and Utilities](#)

[Download Driver CD](#)

[OS Compatibility](#)

[Optimization](#)

1. Intel® Xeon® Processor D-2166NT,
12-Core, 24 Threads, 85W
2. System on Chip
3. Up to 256GB Registered ECC RDIMM or 512GB ECC LRDIMM, DDR4-2133MHz in 4 DIMM slots
4. 1 PCI-E 3.0 x8
1 PCI-E 3.0 x4 NVMe Internal Port via OCuLink
5. Dual LAN with 10GbBase-T via Intel® SoC
6. Up to 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10
4 SATA ports via OCuLink (or PCI-E 3.0 x4 for NVMe)
7. 2 USB 3.0 ports (rear)
2 USB 2.0 ports (via header)
8. 12V DC or ATX Power Input

Specifications

Product SKUs

MBD-X11SDV-12C-TLN2F	■ X11SDV-12C-TLN2F
-----------------------------	--------------------

Physical Stats

Form Factor	■ Mini-ITX
Dimensions	■ 6.75" x 6.75" (17.15cm x 17.15cm)

Processor/Cache

CPU	■ Intel® Xeon® Processor D-2166NT, CPU TDP support 85W TDP
Cores / Cache	■ 12 cores, 24 threads / 17MB cache

System Memory

Memory Capacity	■ Up to 256GB Registered ECC RDIMM, DDR4-2133MHz; Up to 512GB ECC LRDIMM, DDR4-2133MHz, in 4 DIMM slots
Memory Type	■ 2666/2400/2133MHz ECC DDR4 RDIMM, LRDIMM ■ (Operating speed up to 2133MHz)
DIMM Sizes	■ RDIMM: 4GB, 8GB, 16GB, 32GB, 64GB ■ LRDIMM: 16GB, 32GB, 64GB, 128GB
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 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10 ■ 4 SATA ports via OCuLink (or PCIe3.0 x4 for NVMe)
IPMI	■ ASPEED AST2500
Network Controllers	■ Dual LAN with 10Gbase-T
Graphics	■ Aspeed AST2500 BMC

Input / Output

LAN	■ 2 RJ45 10GBase-T ports ■ 1 RJ45 Dedicated IPMI LAN port
USB	■ 2 USB 2.0 ports (2 via headers, Type A)) ■ 2 USB 3.0 ports (2 rear)
Video Output	■ 1 VGA port
TPM	■ TPM Header

Expansion Slots

PCI-E	■ 1 PCI-E 3.0 x8 ■ 1 PCI-E 3.0 x4 NVMe Internal Port via OCuLink
--------------	---

System BIOS

BIOS Type	■ AMI UEFI
BIOS Features	■ ACPI 6.1 ■ SMBIOS 3.1 ■ UEFI 2.6 ■ PCI FW 3.2

Management

Software	■ Intel® Node Manager, IPMI (Intelligent Platform Management Interface) v2.0 with KVM support, SPM, SSM, SUM, SuperDoctor® 5, Watchdog
Power Configurations	■ +12V DC Power Input ■ ACPI Power Management

PC Health Monitoring

Voltage	■ +1.5V, +12V, +3.3V, +5V, +5V standby, 1.05 (PCH), 1.2V (VDIMM), 3 -fan status, Memory Voltages, Monitors CPU voltages, Supports system management utility, VBAT
FAN	■ 3x 4-pin fan headers (up to 3 fans), 3 fans with tachometer monitoring, Dual Cooling Zone, Fan speed control, Pulse Width Modulated (PWM) fan connectors, Support 3-pin fans (w/o speed control)
Temperature	■ Thermal Control for 3 Fan Connectors
LED	■ UID/Remote UID, BMC/IPMI Heartbeat LED, Power LED
Other Features	■ 12V DC or ATX Power Source, 8-pin 12v DC power connector, ACPI power management, ATX Power connector, Chassis intrusion header, Dual Cooling Zones, Node Manager Support, RoHS, UID

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

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SDV-12C-TLN2F	1	X11SDV-12C-TLN2F Motherboard
SATA Cables	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
ATX Power Cable	CBL-PWEX-1063	1	6CM ATX Power Signal Cable
I/O Shield	MCP-260-00084-0N	1	Standard I/O Shield for X11SDV-TLN2F

Parts List (Retail Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SDV-12C-TLN2F	1	X11SDV-12C-TLN2F Motherboard
SATA Cables	CBL-0044L	4	57.5CM SATA FLAT S-S PBF
U.2 Cable	CBL-SAST-0956	1	55CM OCuLink to U.2 Cable with Molex Power Header
ATX Power Cable	CBL-PWEX-1063	1	6CM ATX Power Signal Cable
QRG	MNL-2019-QRG	1	Motherboard Quick Reference Guide
I/O Shield	MCP-260-00084-0N	1	Standard I/O Shield for X11SDV-TLN2F

Optional Parts List			
Name	Part Number	Qty	Description
1U I/O Shield	MCP-260-00085-0B	--	1U I/O Shield for X11SDV-TLN2F in CSE-505/504
OCuLink to 4x SATA Cable	CBL-SAST-0933	--	50CM OCuLink to 4x SATA Cable
SATA Power Cable	CBL-SAST-0886	--	SATA 15pin x2 to 4pin 40CM
Oculink to NVMe + power cable	CBL-SAST-0955	--	OcuLink to PCIe, w/ Power, 45CM,

Chassis (Optimized for X11SDV-12C-TLN2F)

Embedded Compact	1U	2U	3U	Mid/Mini-Tower	4U/Tower
	<u>SCE300</u>				

 = Most optimized Chassis for SuperServer Configuration
Blue color = Compatible
Green color = Global SKU & Compatible
Red dot & green color = Optimized + Global SKU