



**Skylake-D  
8-Core  
NVMe  
Dual 10GbE  
Key Features**

## Links & Resources

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1. Intel® Xeon® Processor D-2141I, 8-Core, 16 Threads, 65W
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 10GBase-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-8C-TLN2F
- X11SDV-8C-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-2141L
  - Single Socket FCBGA-2518 supported, CPU TDP support 65W TDP
- **Cores / Cache** 8 cores, 16 threads / 11MB 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, Overheat LED indication, Pulse Width Modulated (PWM) fan connectors, Support 3-pin fans (w/o speed control), System level control, Thermal control tachometer fan connectors
- **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 - 70°C (-40°F - 158°F)
- **Operating Relative Humidity Range** 8% - 90% (non-condensing)
- **Non-Operating Relative Humidity Range** 5% - 95% (non-condensing)

# Parts List

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SDV-8C-TLN2F	1	X11SDV-8C-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-8C-TLN2F	1	X11SDV-8C-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
Oculink to NVMe + power cable	CBL-SAST-0955		OcuLink to PCIe, w/ Power, 45CM,
SATA Power Cable	CBL-SAST-0886		SATA 15pin x2 to 4pin 40CM

## Chassis (Optimized for X11SDV-8C-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