

# X11SDV-8C+-TLN2F

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**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.<br>■ 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<br>■ (Operating speed up to 2133MHz)                         |
| DIMM Sizes      | ■ RDIMM: 4GB, 8GB, 16GB, 32GB, 64GB<br>■ LRDIMM: 16GB, 32GB, 64GB, 128GB                                |
| Memory Voltage  | ■ 1.2V                                                                                                  |
| Error Detection | ■ Corrects single-bit errors<br>■ 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<br>■ 4 SATA ports via OCuLink (or PCIe3.0 x4 for NVMe) |
| IPMI                | ■ ASPEED AST2500                                                                                                  |
| Network Controllers | ■ Dual LAN w ith 10Gbase-T                                                                                        |
| Graphics            | ■ Aspeed AST2500 BMC                                                                                              |

## Input / Output

|              |                                                                          |
|--------------|--------------------------------------------------------------------------|
| LAN          | ■ 2 RJ45 10GBase-T ports<br>■ 1 RJ45 Dedicated IPMI LAN port             |
| USB          | ■ 2 USB 2.0 ports (2 via headers, Type A))<br>■ 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<br>■ 1 PCI-E 3.0 x4 NVMe Internal Port via OCuLink |
|-------|---------------------------------------------------------------------|

## System BIOS

|               |                                                          |
|---------------|----------------------------------------------------------|
| BIOS Type     | ■ AMI UEFI                                               |
| BIOS Features | ■ ACPI 6.1<br>■ SMBIOS 3.1<br>■ UEFI 2.6<br>■ PCI FW 3.2 |

## Management

|                      |                                                                                                                                         |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Software             | ■ Intel® Node Manager, IPMI (Intelligent Platform Management Interface) v2.0 w ith KVM support, SPM, SSM, SUM, SuperDoctor® 5, Watchdog |
| Power Configurations | ■ +12V DC Pow er Input<br>■ ACPI Pow er 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 w ith 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, Pow er LED                                                                                                                                                |
| Other Features | ■ 12V DC or ATX Pow er Source, 8-pin 12v DC pow er connector, ACPI pow er management, ATX Pow er 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-8C+-TLN2F | 1   | X11SDV-8C+-TLN2F<br>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<br>X11SDV-TLN2F |

| Parts List (Retail Package) |                      |     |                                                      |
|-----------------------------|----------------------|-----|------------------------------------------------------|
| Name                        | Part Number          | Qty | Description                                          |
| Motherboard                 | MBD-X11SDV-8C+-TLN2F | 1   | X11SDV-8C+-TLN2F<br>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<br>Molex Power Header |
| ATX Power Cable             | CBL-PWEX-1063        | 1   | 6CM ATX Power Signal Cable                           |
| QRG                         | MNL-2019-QRG         | 1   | Motherboard Quick Reference<br>Guide                 |
| I/O Shield                  | MCP-260-00084-0N     | 1   | Standard I/O Shield for<br>X11SDV-TLN2F              |

| Optional Parts List           |               |     |                                     |
|-------------------------------|---------------|-----|-------------------------------------|
| Name                          | Part Number   | Qty | Description                         |
| 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,<br>45CM, |
| SATA Power Cable              | CBL-SAST-0886 | --  | SATA 15pin x2 to 4pin 40CM          |
|                               |               | --  |                                     |

Chassis (Optimized for X11SDV-8C+-TLN2F)

| Embedded<br>Compact | 1U | 2U | 3U | Mid/Mini-Tower | 4U/Tower |
|---------------------|----|----|----|----------------|----------|
|                     |    |    |    |                |          |

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