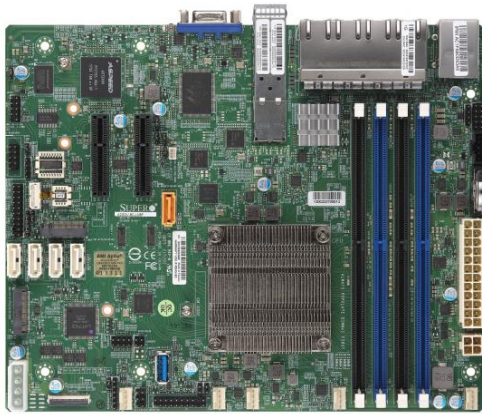




**8-Core Denverton**  
**Eight 1GbE RJ45**  
**Dual 1GbE SFP**  
**Intel® Quick Assist Technology**

**Key Features**

1. Intel® Atom® Processor C3758,  
Single Socket FCBGA1310 supported,  
CPU TDP support 25W
2. System on Chip
3. Up to 256GB Registered ECC DDR4-2400MHz,  
Up to 64GB Unbuffered ECC/Non-ECC DDR4-2400MHz; in 4 DIMM slots
4. Expansion slots:  
1 PCI-E 3.0 x4 (Slot 6 or 7 option)
5. M.2 Interfaces:  
1 M-Key 2242/80 supports PCI-E 3.0 x2/SATA  
1 B-Key 3042/2280 supports PCI-E 3.0 x2/SATA/USB
6. 8x 1GbE RJ45 LAN ports  
2x 1GbE SFP LAN ports
7. 5 SATA3 (6 Gbps) ports
8. I/O: 1 VGA, 1 COM (1 via header), TPM header
9. 3 USB 3.0 (2 rear, Type-A)  
2 USB 2.0 (2 via headers)
10. Intel Quick Assist Technology
11. Supports 12V DC power input

**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](#)

[Tested M.2 List](#)

[Optimization](#)

# Specifications

## Product SKUs

|                            |                   |
|----------------------------|-------------------|
| <b>MBD-A2SDV-8C-LN10PF</b> | ■ A2SDV-8C-LN10PF |
|----------------------------|-------------------|

## Physical Stats

|                    |                                  |
|--------------------|----------------------------------|
| <b>Form Factor</b> | ■ Flex ATX                       |
| <b>Dimensions</b>  | ■ 9" x 7.25" (22.86cm x 18.42cm) |

## Processor/Cache

|                      |                                                                                             |
|----------------------|---------------------------------------------------------------------------------------------|
| <b>CPU</b>           | ■ Intel® Atom® Processor C3758.<br>■ Single Socket FCBGA1310 supported, CPU TDP support 25W |
| <b>Cores / Cache</b> | ■ 8 cores, 8 threads / 16MB cache                                                           |

## System Memory

|                        |                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Memory Capacity</b> | ■ Up to 256GB Registered ECC RDIMM, DDR4-2400MHz<br>■ Up to 64GB Unbuffered ECC/non-ECC UDIMM, DDR4-2400MHz, in 4 DIMM slots |
| <b>Memory Type</b>     | ■ 2400/2133/1866/1600MHz                                                                                                     |
| <b>DIMM Sizes</b>      | ■ 4GB, 8GB, 16GB, 32GB, 64GB                                                                                                 |
| <b>Memory Voltage</b>  | ■ 1.2V                                                                                                                       |
| <b>Error Detection</b> | ■ Corrects single-bit errors<br>■ Detects double-bit errors (using ECC memory)                                               |

## On-Board Devices

|                            |                                                                                                                                     |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Chipset</b>             | ■ System on Chip                                                                                                                    |
| <b>SATA</b>                | ■ SoC controller for 5 SATA3 (6 Gbps) ports;                                                                                        |
| <b>IPMI</b>                | ■ ASPEED AST2400 BMC                                                                                                                |
| <b>Network Controllers</b> | ■ Quad LAN w ith Intel® C3000 SoC<br>■ Quad LAN w ith Intel® Ethernet Controller I350-AM4<br>■ Dual LAN w ith Intel® I210-IS 1G SFP |
| <b>Graphics</b>            | ■ Aspeed AST2400 BMC                                                                                                                |

## Input / Output

|                             |                                                                                                 |
|-----------------------------|-------------------------------------------------------------------------------------------------|
| <b>LAN</b>                  | ■ 8 RJ45 Gigabit Ethernet LAN ports<br>■ 2 1G SFP LAN ports<br>■ 1 RJ45 Dedicated IPMI LAN port |
| <b>USB</b>                  | ■ 2 USB 2.0 ports (2 headers),<br>■ 3 USB 3.0 ports (2 rear + 1 Type A)                         |
| <b>Video Output</b>         | ■ 1 VGA port                                                                                    |
| <b>Serial Port / Header</b> | ■ 1 COM Port (1 header)                                                                         |
| <b>TPM</b>                  | ■ TPM Header                                                                                    |

## Expansion Slots

|              |                                                                                                  |
|--------------|--------------------------------------------------------------------------------------------------|
| <b>PCI-E</b> | ■ 1 PCI-E 3.0 x4<br>■ Option for Slot 6 or Slot 7                                                |
| <b>M.2</b>   | ■ 1 M.2 M-Key SATA/PCI-E 3.0 x2, 2242/2280<br>■ 1 M.2 B-Key SATA/PCI-E 3.0 x2/USB 3.0, 3042/2280 |

## System BIOS

|                      |                              |
|----------------------|------------------------------|
| <b>BIOS Type</b>     | ■ AMI UEFI                   |
| <b>BIOS Features</b> | ■ UEFI 2.4<br>■ SMBIOS 2.7.1 |

## Management

|                             |                                                                                                                                                    |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software</b>             | ■ IPMI2.0, NMI, SuperDoctor® 5, Watchdog                                                                                                           |
| <b>Power Configurations</b> | ■ ATX Pow er connector<br>■ +12V DC Pow er Input<br>■ CPU thermal trip support for processor protection<br>■ Pow er-on mode for AC pow er recovery |

## PC Health Monitoring

|                       |                                                                                                                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Voltage</b>        | ■ +12V, +3.3V, +5V, +5V standby, 1.05 (PCH), 1.2V (VDIMM), 3.3V standby, 5 -fan status, Chassis intrusion header, VBAT                                                                     |
| <b>FAN</b>            | ■ 5x 4-pin fan headers (up to 5 fans), 5 fans w ith tachometer status monitoring, Dual Cooling Zone, Fan speed control                                                                     |
| <b>Temperature</b>    | ■ CPU thermal trip support                                                                                                                                                                 |
| <b>LED</b>            | ■ UID/Remote UID                                                                                                                                                                           |
| <b>Other Features</b> | ■ 4-pin 12v DC pow er connector, ACPI pow er management, ATX Pow er connector, Chassis intrusion header, Dual Cooling Zones, Intel® QuickAssist Technology , M.2 NGFF connector, RoHS, UID |

## Operating Environment

|                                              |                                |
|----------------------------------------------|--------------------------------|
| <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

| Parts List (Bulk Package) |                     |     |                                           |
|---------------------------|---------------------|-----|-------------------------------------------|
| Name                      | Part Number         | Qty | Description                               |
| Motherboard               | MBD-A2SDV-8C-LN10PF | 1   | A2SDV-8C-LN10PF Motherboard               |
| SATA Cables               | CBL-0044L           | 2   | 57.5CM SATA FLAT S-S PBF                  |
| I/O Shield                | MCP-260-00133-0N    | 1   | Standard I/O Shield for A2SDV-LN8F/LN10PF |

| Parts List (Retail Package) |                     |     |                                           |
|-----------------------------|---------------------|-----|-------------------------------------------|
| Name                        | Part Number         | Qty | Description                               |
| Motherboard                 | MBD-A2SDV-8C-LN10PF | 1   | A2SDV-8C-LN10PF Motherboard               |
| QRG                         | MNL-2113-QRG        | 1   | Motherboard Quick Reference Guide         |
| SATA Cables                 | CBL-0044L           | 5   | 57.5CM SATA FLAT S-S PBF                  |
| I/O Shield                  | MCP-260-00133-0N    | 1   | Standard I/O Shield for A2SDV-LN8F/LN10PF |
| Plastic Standoff            | FST-SCRW-0010       | 1   | Stand Off, H=3MM                          |

| Optional Parts List |                  |     |                                                              |
|---------------------|------------------|-----|--------------------------------------------------------------|
| Name                | Part Number      | Qty | Description                                                  |
| 1U I/O Shield       | MCP-260-00135-0B | --  | 1U I/O Shield for A2SDV-LN8F/LN10PF in SC510/505/504 Chassis |
| 1U I/O Shield       | MCP-260-00134-0N | --  | 1U I/O Shield for A2SDV-LN8F/LN10PF in SC813/512 Chassis     |

## Chassis (Optimized for A2SDV-8C-LN10PF)

| Embedded Compact | 1U                                                                            | 2U | 3U | Mid/Mini-Tower | 4U/Tower |
|------------------|-------------------------------------------------------------------------------|----|----|----------------|----------|
|                  | <div><div></div>SCE300-LED+<br/><u>SC505-203B</u><br/><u>SC504-203B</u></div> |    |    |                |          |

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

## Server (Optimized for A2SDV-8C-LN10PF)

| Server Name               |
|---------------------------|
| <u>SYS-E300-9A-8CN10P</u> |
| <u>SYS-5019A-FTN10P</u>   |