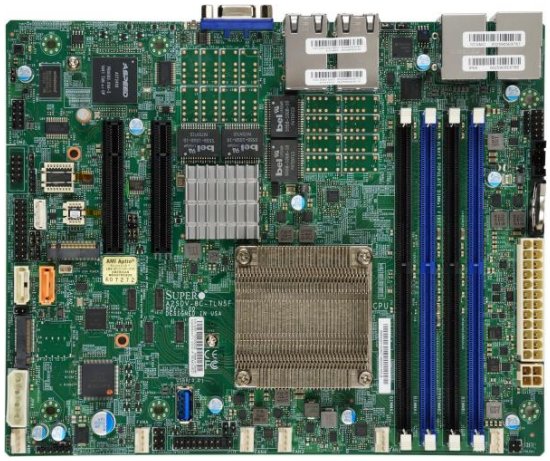
A2SDV-16C-TLN5F



16-Core Denverton
Quad 10GbE LAN
Intel® Quick Assist Technology
IPMI

Key Features

1. Intel Atom Processor C3958,
   Single Socket FCBGA1310 supported,
   CPU TDP support 31W
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 x8 (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. 4x 10GbE LAN ports,
   1x 1GbE LAN port (IPMI shared LAN)
7. 2 SATA3 (6 Gbps) ports
8. I/O: 1 VGA, 2 COM (1 via header, 1 rear RJ45), TPM header
9. 5 USB 3.0 (4 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

MBD-A2SDV-16C-TLN5F	A2SDV-16C-TLN5F

Physical Stats

Form Factor	Flex ATX
Dimensions	9" x 7.25" (22.86cm x 18.42cm)

Processor/Cache

CPU	Intel® Atom□ Processor C3958. Single Socket FCBGA1310 supported, CPU TDP support 31W
Cores / Cache	16 cores, 16 threads / 16MB cache

System Memory

Memory Capacity	Up to 256GB Registered ECC RDIMM and DDR4-2400MHz Up to 64GB Unbuffered ECC/non-ECC UDIMM, DDR4-2400MHz, in 4 DIMM slots
Memory Type	2400/2133/1866/1600MHz
DIMM Sizes	4GB, 8GB, 16GB, 32GB, 64GB
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 2 SATA3 (6 Gbps) ports;
IPMI	ASPEED AST2400 BMC
Network Controllers	Quad LAN with 10GBase-T with Intel® X557 Single LAN with Intel® i210 Gigabit Ethernet Controller
Graphics	Aspeed AST2400 BMC

Input / Output

LAN	4 RJ45 10GBase-T ports 1 RJ45 GbE port (IPMI Shared LAN)
USB	2 USB 2.0 ports (2 headers), 5 USB 3.0 ports (4 rear + 1 Type A)
Video Output	1 VGA port
Serial Port / Header	1 COM Port (1 header) 1 COM Port in RJ45 Socket
TPM	TPM Header

Expansion Slots

PCI-E	1 PCI-E 3.0 x8 Option for Slot 6 or Slot 7
M.2	1 M-Key and 1 B-Key M-Key Form Factor: 2242/2280 M-Key Interface: PCI-E3.0 x2/SATA B-Key Form Factor: 3042/2280 B-Key Interface: PCI-E3.0 x2/SATA/USB3

System BIOS

BIOS Type	AMI UEFI
BIOS Features	UEFI 2.4 SMBIOS 2.7.1

Management

Software	IPMI2.0, NMI, SuperDoctor® 5, Watchdog
Power Configurations	ATX Power connector +12V DC Power Input CPU thermal trip support for processor protection Power-on mode for AC power recovery

PC Health Monitoring

Voltage	+12V, +3.3V, +5V, +5V standby, 1.05 (PCH), 1.2V (VDIMM), 3.3V standby, 6 -fan status, Chassis intrusion header, Monitors CPU voltages, Supports system management utility, System level control, System temperature, VBAT
FAN	6x 4-pin fan headers (up to 6 fans), 6 fans with tachometer status monitoring, Dual Cooling Zone, Fan speed control, Pulse Width Modulated (PWM) fan connectors, Status monitoring for speed control, Support 3-pin fans (w/o speed control), System level control, Thermal control tachometer fan connectors
Temperature	CPU thermal trip support
LED	UID/Remote UID
Other Features	12V DC or ATX Power Source, 4-pin 12v DC power connector, ATX Power connector, Chassis intrusion detection, Chassis intrusion header, Control of power-on for recovery from AC power loss, CPU thermal trip support for processor protection, Dual Cooling Zones, Innovation Engine, Intel® QuickAssist Technology , M.2 NGFF connector, RoHS, SDDC, System level control, UID, WOL

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-A2SDV-16C-TLN5F	1	A2SDV-16C-TLN5F Motherboard
SATA Cables	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00084-0N	1	Standard I/O Shield for A2SDV-TLN5F

Parts List (Retail Package)			
Name	**Part Number**	**Qty**	**Description**
Motherboard	MBD-A2SDV-16C-TLN5F	1	A2SDV-16C-TLN5F Motherboard
QRG	MNL-2015-QRG	1	Motherboard Quick Reference Guide
SATA Cables	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00084-0N	1	Standard I/O Shield for A2SDV-TLN5F

Optional Parts List			
Name	**Part Number**	**Qty**	**Description**
1U I/O Shield	MCP-260-00085-0B	--	1U I/O Shield for A2SDV-TLN5F in SC510/505/504 Chassis
1U I/O Shield	MCP-260-00079-0N	--	1U I/O Shield for A2SDV-TLN5F in SC813/512 Chassis

Chassis (Optimized for A2SDV-16C-TLN5F)

Embedded Compact	1U	2U	3U	Mid/Mini-Tower	4U/Tower
	SCE300 SC504-203B SC505-203B				

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