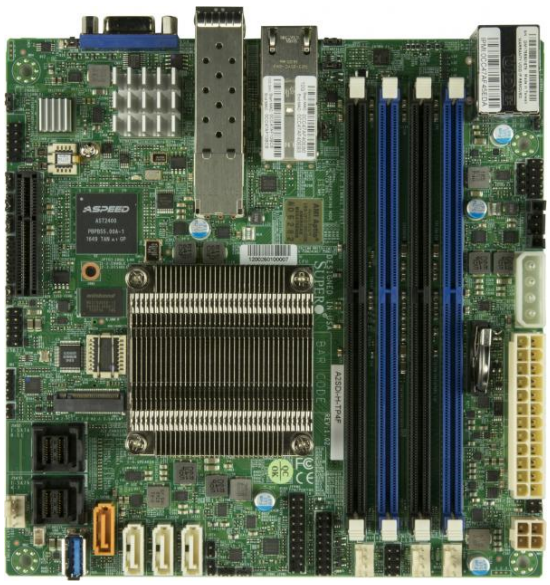
A2SDi-H-TP4F



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 RDIMM, DDR4-2400MHz
   Up to 64GB Unbuffered ECC/non-ECC UDIMM, DDR4-2400MHz, in 4 DIMM slots
4. 1 PCI-E 3.0 x4
   M.2 Interface: PCI-E 3.0 x2 and SATA
   M.2 Form Factor: 2242, 2280
   M.2 Key: M-Key
5. 1 VGA port
6. SoC controller for 12 SATA3 (6 Gbps) ports;
   4 SATA3 ports, 2 MiniSAS HD ports
7. Quad LAN with Intel® C3000 SoC
   2 10GBaseT and 2 10Gb SFP+

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-A2SDi-H-TP4F	A2SDi-H-TP4F

Physical Stats

Form Factor	Mini-ITX
Dimensions	6.7" x 6.7" (17.02cm x 17.02cm)

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, DDR4-2400MHz Up to 64GB Unbuffered ECC/non-ECC UDIMM, DDR4-2400MHz, in 4 DIMM slots
Memory Type	2400/2133/1866/1600MHz DDR4 ECC RDIMM and ECC/Non-ECC UDIMM
DIMM Sizes	4GB, 8GB, 16GB, 32GB, 64GB
Memory Voltage	1.2V
Error Detection	Corrects single-bit errors

On-Board Devices

Chipset	System on Chip
SATA	SoC controller for 12 SATA3 (6 Gbps) ports; 4 SATA3 ports, 2 MiniSAS HD ports
IPMI	ASPEED AST2400 BMC
Network Controllers	Quad LAN with Intel® C3000 SoC 2 10GBaseT and 2 10Gb SFP+
Graphics	Aspeed AST2400 BMC

Input / Output

SATA	12 SATA3 (6Gbps) port
LAN	2 RJ45 10GBase-T ports 2 10G SFP+ LAN ports
USB	4 USB 2.0 ports (2 rear + 2 headers), 1 USB 3.0 ports (+ 1 Type A)
Video Output	1 VGA port
Serial Port / Header	1 COM Port (1 header)
TPM	TPM Header

Expansion Slots

PCI-E	1 PCI-E 3.0 x4
M.2	M.2 Interface: PCI-E 3.0 x2 and SATA Form Factor: M-Key 2242, 2280

System BIOS

BIOS Type	AMI UEFI
BIOS Features	UEFI 2.4 SMBIOS 2.7.1

Management

Software	IPMI2.0, KVM with dedicated LAN, NMI, SUM, 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	+1.8V, +12V, +5V, 1.05 (PCH), 1.2V (VDIMM), 4 -fan status, 4 fans with tachometer monitoring, Chassis intrusion header, Monitors CPU voltages, Supports system management utility, System level control, System temperature, VBAT, VCGI
FAN	4x 4-pin fan headers (up to 4 fans), 4 fans with tachometer monitoring, Dual Cooling Zone, Fan speed control, Overheat LED indication, 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, Innovation Engine, 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-A2SDi-H-TP4F	1	A2SDi-H-TP4F Motherboard
SATA Cables	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00098-0N	1	Standard I/O Shield for A2SDi-H-TP4F

Parts List (Retail Package)			
Name	**Part Number**	**Qty**	**Description**
Motherboard	MBD-A2SDi-H-TP4F	1	A2SDi-H-TP4F Motherboard
QRG		1	Motherboard Quick Reference Guide
SATA Cables	CBL-0044L	4	57.5CM SATA FLAT S-S PBF
SATA Cables	CBL-SAST-0616	2	MINI SAS HD-4 SATA, INT, 50CM, 50CM SB, 30AWG
I/O Shield	MCP-260-00098-0N	1	Standard I/O Shield for A2SDi-H-TP4F

Optional Parts List			
Name	**Part Number**	**Qty**	**Description**
1U I/O Shield	MCP-260-00100-0B	--	1U I/O Shield for A2SDi-H-TP4F in SC505/504 Chassis
1U I/O Shield	MCP-260-00099-0N	--	1U I/O Shield for A2SDi-H-TP4F in SC813/512 Chassis

Chassis (Optimized for A2SDi-H-TP4F)

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