



**Embedded
16-Core Snow Ridge
Intel QAT
8x 1GbE LAN
2x 25G SFP28, IPMI 2.0**

Key Features

- System on Chip
- Intel Atom Processor P5342,
- Single Socket FCBGA-2106 supported,
- CPU TDP support 71 W
- Intel Quick Assist Technology
- Up to 256GB ECC RDIMM DDR4-2667MHz, in 4 DIMM slots
- 2x 25G SFP28 ports and 8 GbE RJ45 LAN ports
- Supports 12V DC power input
- 2 USB 3.0 (Type-A on rear)
- 2 USB 2.0 (via headers)

M.2 Interface:

- 1x M.2 B-Key 2242/3042/2280 w/PCIe 2.0 x2/SATA 2.0/USB 3.0
- 1x M.2 M-Key 2242/2280/22110 w/PCIe 2.0 x4/SATA 2.0/USB 2.0
- 1x M.2 E-Key 2230 w/PCIe 2.0 x1/USB 2.0

Expansion slots:

- 1 PCIe 3.0 x8
- 1 PCIe 3.0 x4
- Up to 6 SATA 2.0 ports
- I/O: 1 VGA, 2 COM, TPM 2.0 onboard and header both

Optimized Servers

[SYS-110A-16C-RN10SP / \(en/products/system/iot/1u/sys-110a-16c-rn10sp\)](#)

Specifications

Product SKUs	MBD-A3SSV-16C-SPLN10F
Physical Stats	
Form Factor	Flex ATX
Dimension	9" x 7.25" (22.86cm x 18.42cm)
Processor	
CPU	Intel® Atom® Processor P5342 Single Socket FCBGA-2106 supported, CPU TDP supports Up to 71W TDP
Core	Up to 16 cores / 18MB Cache
Note	
System Memory	
Memory Capacity	4 DIMM slots Up to 256GB ECC, DDR4-2666MHz
Memory Type	2666 MT/s
DIMM Sizes	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 6 SATA2 (3 Gbps) ports
IPMI	ASPEED AST2500
Graphics	1 ASPEED AST2500 BMC port(s)
Network Controllers	Quad LAN with Marvell® Altek® 88E1543 Quad LAN with Intel® I350 Gigabit Ethernet Controller Dual LAN with SoC
Input / Output	
LAN	2 SFP28 25 Gigabit Ethernet LAN ports 1 RJ45 Dedicated IPMI LAN port 8 RJ45 Gigabit Ethernet LAN ports
USB	2 USB 2.0 port(s) (2 via header) 2 USB 3.1 Gen1 port(s) (2 rear type A)
Video Output	1 VGA D-Sub Connector port(s)
Serial Port	2 COM Port(s) (2 header)
DOM	1 SuperDOM (/SATADOM /) (Disk on Module) power connector
TPM	1 TPM Header & Chip both

Expansion Slots

- PCIe**
- 1 PCIe 3.0 x8
- 1 PCIe 3.0 x4
- M.2**
- M.2 Interface: 1 PCIe 2.0 x2/SATA 2.0/USB 3.0, 1 PCIe 2.0 x4/USB 2.0, 1 PCIe 2.0 x4/SATA 2.0/USB 2.0
- Form Factor: 2242/3042/2280, 2230, 2242/2280/22110
- Key: B-Key, E-Key, M-Key

System BIOS

BIOS Type

32MB AMI UEFI

BIOS Features

UEFI 2.7

SM BIOS 3.0 or later

ACPI 6.0 or later

Management Software

Redfish API

[/manuals/other/RedfishRefGuide.pdf](#), [Supermicro Server Manager \(SSM\) / \(solutions/SMS_SSM.cfm\)](#), [Supermicro Update Manager \(SUM\) / \(solutions/SMS_SUM.cfm\)](#), [SuperDoctor™ 3](#)

Diagnosics

[/en/solutions/management-software/superdoctor/](#), [Super](#)

Diagnosics Offline

[/en/solutions/management-software/super-diagnostics-offline/](#), [KVM with dedicated LAN](#)

[/manuals/other/BMC_IPMI_X13_H13.pdf#page=112](#), [IPMI 2.0](#)

[/solutions/IPMI.cfm](#)

System Management Software

IPMI (Intelligent Platform Management Interface) v1.5 / 2.0 with KVM support

Power Configurations

Power-on mode for AC power recovery, ATX Power connector, +12V DC Power Input, CPU thermal trip support for processor protection

Security

Hardware

Trusted Platform Module (TPM) 2.0

Features

Cryptographically Signed Firmware

Secure Boot

Secure Firmware Updates

System Lockdown

PC Health Monitoring

Voltage

VBAT, System level control, Supports system management utility, Monitors CPU voltages, Memory temperature, Chassis intrusion header, 5-fan status, 3.3V standby, 1.2V (VDDIMM), 1.05 (PCH), +5V standby, +5V, +3.3V, +12V

LED

UID/Remote UID

Power LED

BMC/IPMI Heartbeat LED

Temperature

Thermal Control for 5 Fan Connectors

CPU thermal trip support

FAN

5x 4-pin fan headers (up to 5 fans)

Fan speed control, Dual Cooling Zone, 5 Fans with tachometer status monitoring, Status monitoring for speed control, Pulse Width Modulated (PWM) fan connectors, Support 3-pin fans (w/o speed control)

Other Features

UID, RoHS, Node Manager Support, M.2 NGFF connector, Dual Cooling Zones, Chassis intrusion header, ATX Power connector, ACPI power management, 8-pin 12V DC power connector, 12V DC or ATX Power Source, Intel® QuickAssist Technology

Operating Environment

Operating Temperature Range
0°C - 65°C (32°F - 147°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

Standard Parts (Bulk Package)

I/O Shield	
Part Number	MCP-260-00133-0N
Qty	1
Description	STANDARD I/O SHIELD FOR A2SDV-LN10PF

SATA cable	
Part Number	CBL-0044L • eStore /https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html
Qty	2
Description	57.5CM SATA FLAT S-S PBF

Standard Parts (Retail Package)

I/O Shield	
Part Number	MCP-260-00133-0N
Qty	1
Description	STANDARD I/O SHIELD FOR A2SDV-LN10PF

Quick Installation Guide	
Part Number	MNL-2258-QRG
Qty	1
Description	A3SSV-8C/16C/24C-SPLN10F QUICK REFERENCE GUIDE

SATA cable	
Part Number	CBL-0044L • eStore /https://store.supermicro.com/supermicro-sata-flat-straight-straight-57-5cm-cable-cbl-0044l.html
Qty	6
Description	57.5CM SATA FLAT S-S PBF

Global SKU (/en/products/SMC_global_sku)