



vPro AMT Embedded IPMI

Key Features

1. Single socket H4 (LGA 1151) supports Intel® 7th/6th Gen. Core i7/i5/i3 series, Intel® Celeron® and Intel® Pentium®
2. Intel® Q170 Express chipset
3. Up to 64GB DDR4 2400MHz Non-ECC Unbuffered UDIMM; 4 DIMM slots
4. 1 PCIe 3.0 x16
2 PCIe 3.0 x4 (in x8 slot)
5. Dual GbE LAN w / Intel i219LM + i210AT
6. 2 DP, 1 DVI-I, 3 independent displays via Intel HD Graphics, VGA port for BMC
7. 4 SATA3 (6Gbps) via Q170; RAID 0, 1, 5, 10
8. I/O: 1 SATA DOM, 2 COM, TPM 1.2 header, ALC 888S HD Audio
9. IPMI, AMT vPro
10. 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](#)
- [Optimization](#)

Specifications

Product SKUs

- MBD-X11SSZ-QF
- X11SSZ-QF

Physical Stats

- **Form Factor** Micro-ATX

- **Dimensions** 9.6" x 9.6" (24.38cm x 24.38cm)

Processor/Cache

- **CPU**
 - Intel® 6th Generation Core™ i3 series
 - Intel® 6th Generation Core™ i5 series
 - Intel® 6th Generation Core™ i7 series
 - Intel® 7th Generation Core™ i3 series
 - Intel® 7th Generation Core™ i5 series
 - Intel® 7th Generation Core™ i7 series
 - Intel® Celeron®
 - Intel® Pentium®
 - Single Socket H4 (LGA 1151) supported; CPU TDP support Up to 91W

- **Note** BIOS version 2.0 or above is required to support 7th Generation Intel® Core™ Processors

System Memory

- **Memory Capacity** Up to 64GB Unbuffered non-ECC UDIMM, DDR4-2400MHz, in 4 DIMM slots

- **Memory Type** 2400/2133/1866MHz Non-ECC DDR4 SDRAM 72-bit, 288-pin (UDIMM) gold-plated DIMMs

- **DIMM Sizes** 4GB, 8GB, 16GB

- **Memory Voltage** 1.2V

On-Board Devices

- **Chipset** Intel® Q170 Express

- **SATA** Intel® Q170 Express controller for 4 SATA3 (6 Gbps) ports; RAID 0,1,5,10

- **Network Controllers** Single Intel® PHY I219LM LAN controller
Single Intel® Ethernet Controller I210-AT

- **Audio** ALC 888S HD Audio

- **Graphics** Intel® HD Graphics, Aspeed AST2400 BMC
3 Independent Displays, VGA is from BMC.

Input / Output

- **SATA** 4 SATA3 (6Gbps) port

- **LAN**
 - 2 RJ45 Gigabit Ethernet LAN ports
 - 1 RJ45 Dedicated IPMI LAN port

- **USB**
 - 9 USB 2.0 ports (2 rear, 6 via header(s), 1 Type A)
 - 4 USB 3.0 ports (2 rear, 2 via header(s))

- **Video Output** 2 DP (DisplayPort) port(s), 1 DVI-I port(s), 1 VGA port(s)

- **Serial Port / Header** 2 COM Ports (2 header(s))

- **TPM** 1 TPM 2.0 Header

Expansion Slots

- **PCI-E**
 - 1 PCI-E 3.0 x16 (in x16 slot)
 - 2 PCI-E 3.0 x4 (in x8 slot)

System BIOS

- **BIOS Type** AMI UEFI

- **BIOS Features**
 - DMI 2.3
 - PCI 3.0
 - Plug and Play (PnP)
 - ACPI 5.0
 - USB Keyboard support
 - Hardware BIOS Virus protection
 - SMBIOS 3.0
 - UEFI 2.3.1

Management

- **Software**
 - AMT
 - IPMI2.0
 - KVM with dedicated LAN
 - NMI
 - SuperDoctor® 5
 - vPro
 - Watchdog

- **Power Configurations**
 - ACPI Power Management
 - Power-on mode for AC power recovery

PC Health Monitoring

- **Voltage** +1.8V, +12V, +3.3V, +5V, +5V standby, 1.2V (VDIMM), 6-fan status, Chassis intrusion header, Monitors CPU voltages, Supports system management utility, System level control, VBAT

- **FAN**
 - 6x 4-pin fan headers (up to 6 fans)
 - 6 fans with tachometer status monitoring
 - Fan speed control
 - Overheat LED indication
 - Pulse Width Modulated (PWM) fan connectors
 - PWM fan speed control
 - System level control
 - Thermal control tachometer fan connectors

- **Temperature**
 - Monitoring for CPU and chassis environment
 - CPU thermal trip support
 - I2C temperature sensing logic
 - Thermal Monitor 2 (TM2) support
 - PECI

- **LED**
 - CPU / System Overheat LED
 - UID/Remote UID
 - +5V Standby alert LED

- **Other Features**
 - 8-pin 12v DC power connector
 - ACPI power management
 - ATX Power connector
 - Chassis intrusion header
 - Control of power-on for recovery from AC power loss
 - CPU thermal trip support for processor protection
 - Intel Smart Response Technology
 - RoHS
 - System level control
 - UID
 - WOL

Operating Environment

- **Operating Temperature Range** 0°C ~ 60°C (32°F ~ 140°F)

- **Non-Operating Temperature Range** -20°C ~ 60°C (-4°F ~ 140°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-X11SSZ-QF	1	X11SSZ-QF Motherboard
I/O Cables	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00093-0N	1	Standard I/O Shield for X11SSZ with EMI Gasket

Parts List (Retail Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SSZ-QF	1	X11SSZ-QF Motherboard
QRG	MNL-1744-QRG	1	Motherboard Quick Reference Guide
I/O Cables	CBL-0044L	4	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00093-0N	1	Standard I/O Shield for X11SSZ with EMI Gasket

Optional Parts List			
Name	Part Number	Qty	Description
1U I/O Shield	MCP-260-00094-0N	--	1U I/O Shield for X11SSZ with EMI Gasket in CSE-512/813
TPM security module	AOM-TPM-9655V AOM-TPM-9655H	--	TPM Module with Infineon 9655, RoHS/REACH,PBF; Vertical or Horizontal

Chassis (Optimized for X11SSZ-QF)

Embedded Compact	1U	2U	3U	Mid/Mini-Tower	4U/Tower
	<u>SC512-203B</u> <u>SC512F-350B</u> <u>SC514-R400C</u> <u>SC515-505</u> <u>SC515-505</u> <u>SC813MTQ-350CB</u> ● <u>SC813MFTQC-350CB</u> 1U Heatsink:SNK-P0046P	<u>SC825MTQ-R700LPB</u> <u>SC823MTQ-R700LPB</u> 2U Heatsink:SNK-P0046A4		<u>SC731i-300B</u> <u>SC731D-300B</u> <u>SC731i-403B</u> <u>SC732D3-1200B</u> <u>SC733TQ-668B</u> 2U Heatsink:SNK-P0046A4	<u>SC743AC-1200B-SQ</u> <u>SC745BAC-R1K28B2</u> <u>SC842i-500B</u> 2U Heatsink:SNK-P0046A4

- = Most optimized Chassis for SuperServer Configuration
- = Compatible
- = Global SKU & Compatible
- & — = Optimized + Global SKU

Server (Optimized for X11SSZ-QF)

Server Name
<u>SYS-1019S-M2</u>