



Workstation Key Features

1. Single socket H4 (LGA 1151) supports Intel® Xeon® processor E3-1200 v5/v6, Intel® 6th/7th Gen. Core™ i7/i5/i3 series, Intel® Celeron® and Intel® Pentium®
2. Intel® C236 chipset
3. Up to 64GB Unbuffered ECC/non-ECC UDIMM DDR4 2400MHz; 4 DIMM slots
4. 1 PCI-E 3.0 x16, 1 PCI-E 3.0 x4, and 1x 5V PCI 32-bit slots
5. Single GbE LAN with Intel® i210-AT, Single GbE LAN with Intel® i219LM
6. 8 SATA3 (6Gbps) via C236; RAID 0, 1, 5, 10 + 1 PCI-E M.2 (support PCI-E x4 only, 2242/2260/2280/22110)
7. 6 USB 3.0 (2 rear + 4 via header(s))
6 USB 2.0 (2 rear + 4 via header(s))
2 USB 3.1 (10Gbps, rear)

Links & Resources

- [Tested Memory List](#)
- [Tested HDD / SSD List](#)
- [Tested M.2 List](#)
- [Tested AOC List](#)
- [Motherboard Manual](#)
- [Quick Reference Guide](#)
- [Update Your BIOS](#)
- [Download the Latest Drivers and Utilities](#)
- [Download Drivers CD](#)
- [OS Compatibility](#)
- [Guide to enable Keyboard and Mouse under Windows 7 Installation Optimization](#)

Specifications

Product SKUs

- MBD-X11SAE-M ■ X11SAE-M

Physical Stats

- Form Factor ■ Micro-ATX

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

Processor/Cache

- CPU ■ Intel® 6th/7th Generation Core™ i3 series, Intel® 6th/7th Generation Core™ i5 series, Intel® 6th/7th Generation Core™ i7 series, Intel® Xeon® processor E3-1200 v6/v5.
- Socket H4 (LGA 1151) supported, CPU TDP support Up to 95W TDP
- A Graphic Integrated CPU is required to have the on-board video functioned. Examples: E3-1265L v3, E3-1275 v3

- Note ■ BIOS version 2.0 or above is required to support 7th Generation Intel® Core™ i3 Processors and Intel® Xeon® Processor E3-1200 v6 series

System Memory

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

- Memory Type ■ 2400/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit, 288-pin (UDIMM) gold-plated DIMMs

- DIMM Sizes ■ 4GB, 8GB, 16GB

- Memory Voltage ■ 1.2V

- Error Detection ■ Corrects single-bit errors
- Detects double-bit errors (using ECC memory)

On-Board Devices

- Chipset ■ Intel® C236

- SATA ■ Intel® C236 controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10
- + 1 PCI-E M.2 (PCI-E x4, 2242/2260/2280/22110) (No Raid Support)

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

- Audio ■ ALC 888S HD Audio

- Graphics ■ ***DP support up to DP1.2, HDMI support up to HDMI1.4***

Input / Output

- LAN ■ 2 RJ45 Gigabit Ethernet LAN ports

- USB ■ 6 USB 2.0 ports (2 rear + 4 via headers)
- 6 USB 3.1 Gen1 ports (2 rears, 4 via headers)
- 2 USB 3.1 Gen2 ports, 2 Type A); 2 USB 3.1 (10 Gb/s) ports (2 Rear)

- Video Output ■ 1 DVI-D port, 1 DP (DisplayPort) port, 1 HDMI port,
- ***DP support up to DP1.2, HDMI support up to HDMI1.4***

- Serial Port / Header ■ 1 COM Port (1 header)

- TPM ■ 1 TPM Header

Expansion Slots

- PCI-E ■ 1 PCI-E 3.0 x16,
- 1 PCI-E 3.0 x41 - 5V PCI 32bit

- M.2 ■ M.2 Interface: 1 PCI-E 3.0 x4
- Form Factor: 2242/2260/2280
- Key: M-Key

System BIOS

- BIOS Type ■ AMI UEFI

- BIOS Features ■ Plug and Play (PhP)
- DMI 2.3
- PCI 3.0
- ACPI 5.0
- USB Keyboard support
- Hardware BIOS Virus protection
- SMBIOS 3.0
- UEFI 2.3.1
- RTC (Real Time Clock) Wakeup

Management

- Software ■ AMT, SuperDoctor® 5, vPro, Watchdog

- Power Configurations ■ ACPI Power Management
- Keyboard Wakeup from Soft-Off
- CPU Fan auto-off in sleep mode
- Power-on mode for AC power recovery

PC Health Monitoring

- Voltage ■ +12V, +3.3V, +5V, +5V standby, Chassis intrusion header, Monitors CPU voltages, VBAT

- FAN ■ 5x 4-pin fan headers (up to 5 fans), Fan speed control, Overheat LED indication

- Temperature ■ CPU thermal trip support, I2C temperature sensing logic, PECEI, Thermal Monitor 2 (TM2) support

- LED ■ CPU / System Overheat LED, Suspend static indicator LED, UID/Remote UID

- Other Features ■ 8-pin 12v DC power connector, ATX Power connector, Control of power-on for recovery from AC power loss, CPU thermal trip support for processor protection, Intel Smart Response Technology, WOL

Operating Environment

- Operating Temperature Range ■ 0°C ~ 50°C (32°F ~ 122°F)

Parts List

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SAE-M	1	X11SAE-M Motherboard
SATA cable	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
IO shield	MCP-260-00063-1N	1	X11SAE-M I/O Shield

Parts List (Retail Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SAE-M	1	X11SAE-M Motherboard
Quick Reference Guide	MNL-1819-QRG	1	X11SAE-M Quick Reference Guide
SATA cable	CBL-0044L	4	57.5CM SATA FLAT S-S PBF
IO shield	MCP-260-00063-1N	1	X11SAE-M I/O Shield

Chassis (Optimized for X11SAE-M)

Embedded Compact	1U	2U	3U	Mid/Mini-Tower	4U/Tower
				<ul style="list-style-type: none"> ● SC731i-300B ● SC732D4-500B ● SC731i-403B ● SCDS3A-261B SC731D-300B SC732I-500B SC732i-865B SC732i-R500B SC732D2-903B SC732D2-865B SC732D2-500B SC732D3-1200B SC732D3-903B SC732D4-865B SC732D4-903B SC732D4F-903B SC732D4F-865B SC732D4F-500B SC733TQ-668B SC733E-500B SC733I-500B SC733T-500B SC733TQ-500B 2U Heatsink:SNK-P0046A4 	<ul style="list-style-type: none"> ● SC745BAC-R1K28B2 SC743AC-1200B-SQ SC743AC-668B SC743TQ-865B SC743TQ-865B-SQ SC743TQ-903B SC743TQ-1200B-SQ SC743TQ-1200B SC745BTQ-R1K28B SC745BTQ-R1K28B-SQ SC745BTQ-R1K28B-SQ SC745TQ-800B SC745TQ-920B SC745TQ-R1200B SC745TQ-R920B SC745TQ-R800B 2U Heatsink:SNK-P0046A4

● = Most optimized Chassis for SuperServer Configuration

Blue color = Compatible

Green color = Global SKU & Compatible

Red dot & green color = Optimized + Global SKU