



X11SSN-H



**Embedded
Low Power**

Key Features

1. 7th Generation Intel® Core™ i7-7600U Processor
2. Up to 32GB Unbuffered Non-ECC SO-DIMM DDR4 2133MHz; 2 DIMM slots
3. Dual GbE LAN w/ Intel i219LM + i210IT
4. 1 M.2 B-Key 2280, 1 Full size Mini-PCI-E, 1 SATA 3.0
5. 1 HDMI, 1 DP, 1 LVDS, Intel HD Graphics 3 independent displays
6. 1 USB 3.1 Gen2 Type-C port, 2 USB 3.0 ports, 4 USB 2.0 ports, 4 COM ports, 1 SATA 3.0, 8-bit GPIO, SMBus
7. Supports on board TPM 2.0
8. Support 12V DC power input (R/A Type Connector)
9. Support HDMI 2.0

Links & Resources

- ▶ [Tested Memory List](#)
- ▶ [Tested HDD / SSD List](#)
- ▶ [Motherboard Manual](#)
- ▶ [Quick Reference Guide](#)
- ▶ [Update Your BIOS](#)
- ▶ [Download the Latest Drivers and Utilities](#)
- ▶ [Download Driver CD](#)
- ▶ [OS Compatibility](#)
- ▶ [Tested M.2 List](#)

Specifications

Product SKUs

MBD-X11SSN-H	• X11SSN-H
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Physical Stats

Form Factor	• 3.5" SBC
Dimensions	• 5.7" x 4.0" (14.6cm x 10.16cm)

Processor/Cache

CPU	<ul style="list-style-type: none"> • 7th Generation Intel® Core™ i7-7600U Processor. • Single Socket FCBGA1356 supported, CPU TDP support 15W
Cores / Cache	• 2 cores, 4 threads / 4MB cache

System Memory

Memory Capacity	• Up to 32GB Unbuffered non-ECC SO-DIMM, DDR4-2133MHz, in 2 DIMM slots
Memory Type	• 2133MHz Non-ECC DDR4 SDRAM 72-bit, 260-pin gold-plated SODIMMs
DIMM Sizes	• 4GB, 8GB, 16GB

Expansion Slots

PCI-E	<ul style="list-style-type: none"> • 1 Full size Mini-PCI-E with mSATA(USB2.0 x 1,PCI-E Gen3 x 1,SATA Gen3 x 1)
M.2	<ul style="list-style-type: none"> • M.2 Interface: SATA and PCI-E 3.0 x2 and USB 2.0 • Form Factor: 2242, 2280, 3042 • Key: B-Key • M.2 2242/3042/2280 B-Key (USB2.0 x 1,PCI-E Gen3 x 2,SATA Gen3 x 1)

System BIOS

BIOS Type	• AMI UEFI
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Management

Software	<ul style="list-style-type: none"> • AMT, SuperDoctor® 5, vPro, Watchdog
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Power Configurations	<ul style="list-style-type: none"> • +12V DC Power Input R/A Type Connector • ACPI Power Management • Control of power-on for recovery from AC power loss • Force Power On by Jumper • CPU thermal trip support for processor protection
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Memory Voltage	<ul style="list-style-type: none"> 1.2V
On-Board Devices	
Chipset	<ul style="list-style-type: none"> System on Chip
Network Controllers	<ul style="list-style-type: none"> Single LAN with Intel® Ethernet Controller I210IT Single LAN with Intel® PHY I219LM LAN controller
Audio	<ul style="list-style-type: none"> ALC 888S HD Audio
Graphics	<ul style="list-style-type: none"> Intel® HD Graphics Dual channel 48-bit LVDS(max. resolution up to 1920x1200@60Hz), HDMI 2.0 (max. resolution up to 4096x2160@60Hz), DP++ (max. resolution up to 4096x2304@60Hz)
Input / Output	
SATA	<ul style="list-style-type: none"> 1 SATA3 (6Gbps) port
LAN	<ul style="list-style-type: none"> 2 RJ45 Gigabit Ethernet LAN ports
USB	<ul style="list-style-type: none"> 4 USB 2.0 ports (4 headers), 2 USB 3.0 ports (2 rear), 1 USB 3.1 ports (+ 1 Type C); 1 USB3.0 OTG Header
Video Output	<ul style="list-style-type: none"> 1 DP (DisplayPort) port, 1 48-bit LVDS port, 1 HDMI port, Dual channel 48-bit LVDS(max. resolution up to 1920x1200@60Hz), HDMI 2.0 (max. resolution up to 4096x2160@60Hz), DP++ (max. resolution up to 4096x2304@60Hz)
Serial Port / Header	<ul style="list-style-type: none"> 4 COM Ports (4 headers), (2 x RS232, 2 RS232/422/485, RS-485 supports Auto flow control)
TPM	<ul style="list-style-type: none"> 1 TPM Chip
Others	<ul style="list-style-type: none"> 1 HD Audio header Mic-in/Headphone-out (Audio only support at 0~60C) 1 8-bit GPIO header 1 SMBus header 1 Speaker header 1 System Fan

PC Health Monitoring	
Voltage	<ul style="list-style-type: none"> +12V, +3.3V, +5V, 1.2V (VDIMM), 3.3V standby, Monitors for CPU Cores, System level control, System temperature, VBAT
FAN	<ul style="list-style-type: none"> 1x 4-pin fan header (up to 1 fan), Fan speed control, Low noise fan speed control, PWM fan speed control, System level control, Thermal control tachometer fan connectors
Temperature	<ul style="list-style-type: none"> CPU thermal trip support
LED	<ul style="list-style-type: none"> Standby alert LED
Other Features	<ul style="list-style-type: none"> 4-pin 12v R/A Type DC Power Connector, ACPI power management, Control of power-on for recovery from AC power loss, CPU thermal trip support for processor protection, M.2 NGFF connector, RoHS, System level control, WOL

Operating Environment	
Operating Temperature Range	<ul style="list-style-type: none"> 0°C ~ 70°C (32°F ~ 158°F)
Non-Operating Temperature Range	<ul style="list-style-type: none"> -40°C - 85°C (-40°F - 185°F)
Operating Relative Humidity Range	<ul style="list-style-type: none"> 8% - 90% (non-condensing)
Non-Operating Relative Humidity Range	<ul style="list-style-type: none"> 10% ~ 95% (non-condensing)

Note: For optimized or compatible chassis, additional parts may be required, please check with Supermicro sales rep

Parts List

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SSN-H	1	X11SSN-H Motherboard
SATA Power Cable	CBL-PWEX-0982	1	SATA Power Cable 25cm
SATA cable	CBL-SAST-0538	1	SATA Data cable 29CM
Passive heatsink	SNK-C0108PL	1	X11SSN-H passive heatsink with height 29mm

Parts List (Retail Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SSN-H	1	X11SSN-H Motherboard
Audio Cable	CBL-OTHR-0986	1	Audio Cable 20cm
COM Cable	CBL-CUSB-0984	1	COM Cable 20cm
SATA Power Cable	CBL-PWEX-0982	1	SATA Power Cable 25cm
USB Cable	CBL-CUSB-0983	1	USB2.0 cable 20cm
SATA cable	CBL-SAST-0538	1	SATA Data cable 29CM
QRG	MNL-1995-QRG	1	Motherboard Quick Reference

			Guide
Passive heatsink	SNK-C0108PL	1	X11SSN-H passive heatsink with height 29mm

Optional Parts List

Name	Part Number	Qty	Description
Spare part with copper stand off for M.2 and mounting holes	MCP-110-00098-0N	1	Copper standoff & screw for 2242/3042 M.2 card, copper standoff w/16mm height for mounting hole x 4 and M3 screw for mounting hole x 4
Mini PCIe extended bracket	MCP-110-00097-0N	1	Mini PCIe extended bracket to extend half size to full size
USB3.0 OTG cable for connecting to host device	CBL-CUSB-0827	1	USB3.0 OTG cable for connecting to host device, 15CM
USB3.0 OTG cable for connecting to client device	CBL-CUSB-0826	1	USB3.0 OTG cable for connecting to client device, 15CM
Spare part with copper stand off for M.2	MCP-110-00100-0N	1	Copper standoff x 1 and M.2 screw x 1 for 2242/3042 M.2 card
