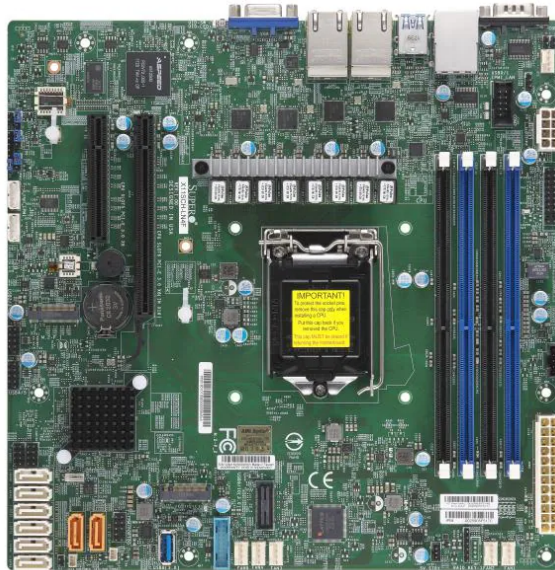


# X11SCH-LN4F

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## Key Features

1. 8th/9th Generation Intel® Core™i3/Pentium®/Celeron® Processor, Intel® Xeon® E-2100 Processor, Intel® Xeon® E-2200 Processor, Single Socket LGA-1151 (Socket H4) supported, CPU TDP supports Up to 95W TDP
2. Intel® C246 chipset
3. Up to 128GB DDR4 2666MHz ECC UDIMM; 4 DIMM slots
4. Expansion slots: 1 PCI-E 3.0 x8 (in x16) and 1 PCI-E 3.0 x8 slots
5. 2x M.2 NGFF connectors  
**M.2 Interface:** PCI-E 3.0 x4  
Form Factor: 2280, 22110  
Key: M-Key
6. 8 SATA3 (6Gbps) via C246; RAID 0, 1, 5, 10
7. 2 USB 3.1 Gen 2 (rear); 3 USB 3.1 Gen 1 (1 Type A, 2 via header(s)); 6 USB 2.0 (2 rear, 4 via header(s))
8. Quad GbE LAN ports via Intel® i210
9. 2 SuperDOM with built-in power
10. I/O: 1 VGA, 2 COM, 1 TPM header

# Specifications

## Product SKUs

<b>MBD-X11SCH-LN4F</b>	<ul style="list-style-type: none"> <li>X11SCH-LN4F</li> </ul>
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## Physical Stats

<b>Form Factor</b>	<ul style="list-style-type: none"> <li>Micro-ATX</li> </ul>
<b>Dimension</b>	<ul style="list-style-type: none"> <li>9.6" x 9.6" (24.38cm x 24.38cm)</li> </ul>

## Processor

<b>CPU</b>	<ul style="list-style-type: none"> <li>8th/9th Generation Intel® Core™ i3/Pentium®/Celeron® Processor, Intel® Xeon® E-2100 Processor, Intel® Xeon® E-2200 Processor</li> <li>Single Socket LGA-1151 (Socket H4) supported, CPU TDP supports Up to 95W TDP</li> </ul>
<b>Core</b>	<ul style="list-style-type: none"> <li>Up to 8 cores, 16 threads</li> </ul>

## System Memory

<b>Memory Capacity</b>	<ul style="list-style-type: none"> <li>4 DIMM slots</li> <li>Up to 128GB ECC , DDR4-2666MHz</li> </ul>
<b>Memory Type</b>	<ul style="list-style-type: none"> <li>2666/2400/2133MHz SDRAM 72-bit,</li> </ul>
<b>DIMM Sizes</b>	<ul style="list-style-type: none"> <li>4GB, 8GB, 16GB, 32GB</li> </ul>
<b>Memory Voltage</b>	<ul style="list-style-type: none"> <li>1.2V</li> </ul>
<b>Error Detection</b>	<ul style="list-style-type: none"> <li>Corrects single-bit errors</li> </ul>

## On-Board Devices

<b>Chipset</b>	<ul style="list-style-type: none"> <li>Intel® C246</li> </ul>
<b>SATA</b>	<ul style="list-style-type: none"> <li>Intel® C246 controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10</li> </ul>
<b>IPMI</b>	<ul style="list-style-type: none"> <li>ASPEED AST2500</li> </ul>
<b>Graphics</b>	<ul style="list-style-type: none"> <li>ASPEED AST2500 BMC</li> </ul>
<b>Network Controllers</b>	<ul style="list-style-type: none"> <li>Quad LAN with Intel® Ethernet Controller I210</li> </ul>

## Input / Output

<b>SATA</b>	<ul style="list-style-type: none"> <li>8 SATA3 (6Gbps) port(s)</li> </ul>
<b>LAN</b>	<ul style="list-style-type: none"> <li>4 RJ45 Gigabit Ethernet LAN ports</li> </ul>
<b>USB</b>	<ul style="list-style-type: none"> <li>6 USB 2.0 port(s) (4 via header; 2 rear)</li> <li>3 USB 3.1 Gen1 port(s) (2 via header; 1 type A)</li> <li>2 USB 3.1 Gen2 port(s) (2 rear)</li> </ul>
<b>Video Output</b>	<ul style="list-style-type: none"> <li>1 VGA port(s)</li> </ul>
<b>Serial Port</b>	<ul style="list-style-type: none"> <li>2 COM Port(s) (1 header; 1 rear)</li> </ul>
<b>TPM</b>	<ul style="list-style-type: none"> <li>1 TPM Header</li> </ul>

## Expansion Slots

<b>PCI-E</b>	<ul style="list-style-type: none"> <li>1 PCI-E 3.0 x8 (in x16 slot),</li> <li>1 PCI-E 3.0 x8</li> </ul>
<b>M.2</b>	<ul style="list-style-type: none"> <li>M.2 Interface: PCI-E 3.0 x4</li> <li>Form Factor: 22110, 2280</li> <li>Key: M-Key</li> </ul>

## System BIOS

<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>256MB UEFI</li> </ul>
<b>BIOS Features</b>	<ul style="list-style-type: none"> <li>ACPI 6.0</li> <li>SMBIOS 2.7</li> <li>Plug and Play (PnP)</li> <li>RTC (Real Time Clock) Wakeup</li> <li>UEFI 2.7</li> <li>USB Keyboard support</li> <li>PCI 3.0</li> </ul>

## Management

<b>Software</b>	<ul style="list-style-type: none"> <li>SuperDoctor® 5, NMI, <a href="#">SUM</a>, <a href="#">SPM</a>, Intel® Node Manager, <a href="#">SSM</a>, <a href="#">IPMI2.0</a>, Watchdog</li> </ul>
<b>System Management Software</b>	<ul style="list-style-type: none"> <li>IPMI (Intelligent Platform Management Interface) v1.5 / 2.0 with KVM support</li> </ul>
<b>Power Configurations</b>	<ul style="list-style-type: none"> <li>Power-on mode for AC power recovery, ACPI Power Management</li> </ul>

## PC Health Monitoring

<b>Voltage</b>	<ul style="list-style-type: none"> <li>VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, 6 -fan status, +5V standby, +5V, +3.3V, +12V, Memory Voltages</li> </ul>
<b>LED</b>	<ul style="list-style-type: none"> <li>UID/Remote UID</li> <li>CPU / System Overheat LED</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>6x 4-pin fan headers (up to 6 fans)</li> <li>Thermal control tachometer fan connectors</li> <li>Fan speed control</li> <li>6 fans with tachometer status monitoring</li> <li>Overheat LED indication</li> </ul>

<b>Other Features</b>	<ul style="list-style-type: none"> <li>WOL, UID, Node Manager Support, M.2 NGFF connector, Dual Cooling Zones, CPU thermal trip support for processor protection, Control of power-on for recovery from AC power loss, Chassis intrusion header, Chassis intrusion detection, ACPI power management</li> </ul>
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## Operating Environment

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

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**Non-Operating Temperature Range** ■ -40°C - 70°C (-40°F - 158°F)

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**Operating Relative Humidity Range** ■ 8% - 90% (non-condensing)

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**Non Operating Relative Humidity Range** ■ 5% - 95% (non-condensing)

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## Parts List

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SCH-LN4F	1	X11SCH-LN4F Motherboard
I/O Cables	CBL-0044L • <a href="#">eStore</a>	2	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00042-0N • <a href="#">eStore</a>	1	STD I/O Shield for X11SCH-LN4F with EMI Gasket

Parts List (Retail Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X11SCH-LN4F	1	X11SCH-LN4F Motherboard
I/O Cables	CBL-0044L • <a href="#">eStore</a>	6	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00042-0N • <a href="#">eStore</a>	1	STD I/O Shield for X11SCH-LN4F with EMI Gasket
QRG	MNL-2105-QRG	1	Motherboard Quick Reference Guide

Optional Parts List			
Name	Part Number	Qty	Description
TPM security module	<a href="#">AOM-TPM-9671V</a>	--	SPI capable TPM 1.2 with Infineon 9670 controller with vertical form factor SPI capable TPM 2.0 with Infineon 9670 controller with vertical form factor SPI capable TPM 1.2 with Infineon 9670 controller with horizontal form factor SPI capable TPM 2.0 with Infineon 9670 controller with horizontal form factor
	<a href="#">AOM-TPM-9670V</a>	--	
	<a href="#">AOM-TPM-9671H</a>	--	
	<a href="#">AOM-TPM-9670H</a>	--	

### Chassis (Optimized for X11SCH-LN4F)

Embedded Compact	1U	2U	3U	Mid/Mini-Tower	4U/Tower
	<a href="#">SC813MFTQC-R407CB</a> <a href="#">SC515-R407</a> <a href="#">SC514-R407C</a>				

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