

X12SCQ



Embedded High Performance vPro AMT

Key Features

1. 10th Generation Intel® Core™ i9/Core™ i7/Core™ i5/Core™ i3/Pentium®/Celeron® Processor
Single Socket LGA-1200 (Socket H5) supported, CPU TDP supports Up to 125W TDP

2. Intel® Q470E

3. Intel® Q470 controller for 6 RAID 0,1,5,10

4. Single LAN with Intel® PHY I219LM LAN controller
Single LAN with Intel® Ethernet Controller I210-AT

5. Up to 128GB Unbuffered non-ECC UDIMM, DDR4-2933MHz, in 4 DIMM slots

6. 1 PCI-E 3.0 x16 (in x16 slot),
1 PCI-E 3.0 x8,
2 PCI-E 3.0 x4
M.2 Interface: 1 PCI-E 3.0 x4, RAID 0 & 1
M.2 Form Factor: 2242/2280
M.2 Key: M-Key

7. 1 VGA port, 1 HDMI port, 1 DP (DisplayPort) port, 1 DVI - D port

Specifications

Expansion Slots

PCI-E	<ul style="list-style-type: none"> 1 PCI-E 3.0 x16 (in x16 slot), 1 PCI-E 3.0 x8, 2 PCI-E 3.0 x4
M.2	<ul style="list-style-type: none"> M.2 Interface: 1 PCI-E 3.0 x4, RAID 0 & 1 Form Factor: 2242/2280 Key: M-Key

System BIOS

BIOS Type	<ul style="list-style-type: none"> AMI UEFI
BIOS Features	<ul style="list-style-type: none"> ACPI 6.1 SMBIOS 3.0 or later PCI FW 3.0 UEFI 2.7 RTC (Real Time Clock) Wakeup

Management

Software	<ul style="list-style-type: none"> SuperDoctor® 5, <u>SUM</u>, AMT, vPro, Watchdog
Power Configurations	<ul style="list-style-type: none"> ATX Power connector

PC Health Monitoring

Voltage	<ul style="list-style-type: none"> VBAT, 4 fans with tachometer monitoring, 4 -fan status, 1.05 (PCH), +5V standby, +5V, +3.3V, +12V, +1.8V, +1.5V, +1.35V
LED	<ul style="list-style-type: none"> Power LED
Temperature	<ul style="list-style-type: none"> Monitoring for CPU and chassis environment CPU thermal trip support
FAN	<ul style="list-style-type: none"> 4x 4-pin fan headers (up to 4 fans) 4 fans with tachometer monitoring
Other Features	<ul style="list-style-type: none"> RoHS M.2 NGFF connector Chassis intrusion detection ATX Power connector ACPI power management

Operating Environment

Operating Temperature Range	<ul style="list-style-type: none"> 0°C - 60°C (32°F - 140°F)
Non-Operating Temperature Range	<ul style="list-style-type: none"> -40°C - 85°C (-40°F - 185°F)

Product SKUs

MBD-X12SCQ	▪ X12SCQ
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Physical Stats

Form Factor	▪ Micro-ATX
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Dimension	▪ 9.6" x 9.6" (24.38cm x 24.38cm)
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Processor

CPU	<ul style="list-style-type: none"> ▪ 10th Generation Intel® Core™ i9/Core™ i7/Core™ i5/Core™ i3/Pentium®/Celeron® Processor ▪ Single Socket LGA-1200 (Socket H5) supported, CPU TDP supports Up to 125W TDP
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Core	▪ Up to 10 cores
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System Memory

Memory Capacity	<ul style="list-style-type: none"> ▪ 4 DIMM slots ▪ Up to 128GB UDIMM, DDR4-2933MHz
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Memory Type	▪ 2933/2666/2400/2133MHz
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DIMM Sizes	▪ 4GB, 8GB, 16GB, 32GB
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Memory Voltage	▪ 1.2V
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On-Board Devices

Chipset	▪ Intel® Q470E
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SATA	▪ Intel® Q470 controller for 6 ports; RAID 0,1,5,10
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Audio	▪ ALC 888S HD Audio
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Graphics	▪ Intel® HD Graphics
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Network Controllers	<ul style="list-style-type: none"> ▪ Single LAN with Intel® PHY I219LM LAN controller ▪ Single LAN with Intel® Ethernet Controller I210-AT
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Input / Output

SATA	▪ 6 SATA3 (6Gbps) port(s)
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LAN	▪ 2 RJ45 Gigabit Ethernet LAN ports
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USB	<ul style="list-style-type: none"> ▪ 6 USB 3.1 Gen2 port(s) (2 via header; 2 rear type A; 2 rear type C) ▪ 6 USB 2.0 port(s) (4 via header; 2 rear)
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Video Output	▪ 1 VGA port(s), 1 DP (DisplayPort) port(s), 1 HDMI port(s), 1 DVI - D port(s)
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Serial Port	▪ 4 COM Port(s) (4 header)
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TPM	▪ 1 TPM Header & Chip both
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Operating Relative Humidity Range	▪ 10% - 85% (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-X12SCQ	1	X12SCQ Motherboard
I/O Cables	CBL-0044L • eStore	2	57.5 cm SATA FLAT S-S PBF
I/O Shield	MCP-260-00125-1N	1	Standard I/O Shield

Parts List (Retail Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X12SCQ	1	X12SCQ Motherboard
I/O Cables	CBL-0044L • eStore	4	57.5 cm SATA FLAT S-S PBF
I/O Shield	MCP-260-00125-1N	1	Standard I/O Shield for X12SCQ with EMI Gasket
QRG	MNL-2281-QRG	1	Motherboard Quick Reference Guide

Optional Parts List			
Name	Part Number	Qty	Description
COM Cable	CBL-CDAT-0604 • eStore	--	40CM Dual Serial Port Cable with bracket 20CM Dual Serial Port Cable
	CBL-CUSB-0984 • eStore	--	
USB3.1 Cable	CBL-CUSB-0835 • eStore	--	Dual USB3.1 Type A Cable with Bracket