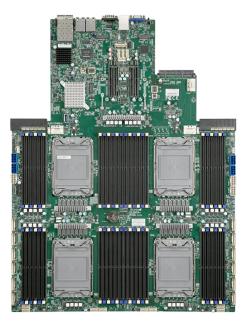# X12QCH+ (For SuperServer Only)

MP Solutions

Key Features

3rd Generation Intel® Xeon® Scalable processors

Quad Socket LGA-4189 (Socket P+) supported, CPU TDP support Up to 250W TDP, 6 UPI up to 10.4 GT/s

Intel® C621A

Up to 12TB 3DS ECC LRDIMM/ RDIMM, DDR4-3200MHz; Up to 18TB 3DS ECC DDR4-3200:LRDIMM/RDIMM/Intel®
DCPMM , in 48 DIMM slots

3 PCIe 3.0 x32 Left Riser Slot,

3 PCIe 3.0 x32 Right Riser Slot

M.2 Interface: 2 SATA/PCIe 3.0 x4

M.2 Form Factor: 2280/22110

M.2 Key: M-Key

U.2 Interface: 8 PCIe 3.0 x4 and 8 PCIe 3.0 x4 and 8 PCIe 3.0 x4 and 8 PCIe 3.0 x4

1 PCIe 3.0 x32 Left Riser Slot, Riser card PN: RSC-D2-668G4

1 PCIe 3.0 x32 Right Riser Slot, Riser card PN: RSC-D2R-668G4

Intel® C621A controller for 12 SATA3 (6 Gbps) ports; RAID 0,1,5,10

Quad LAN with

2x 10G BaseT with Intel® X710-TM4; 2x 10G SFP+ with Intel® X710-TM4,

(Optional) AIOM up to 100G QSFP 28

1 VGA port

Optimized Servers

SYS-240P-TNRT

SYS-440P-TNRT

Specifications

Product SKUs
MBD-X12QCH+

Physical Stats
Form Factor
Proprietary
Dimension
17" x 21.9" (43.18cm x 55.63cm)

Processor
CPU
3rd Gen Intel® Xeon® Scalable processors
Quad Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 250W TDP, 6 UPI up to 10.4 GT/s
Core
Up to 28 cores

System Memory
Memory Capacity
48 DIMM slots
Up to 12TB 3DS ECC LRDIMM, DDR4-3200MHz; Up to 12TB 3DS ECC RDIMM, DDR4-3200MHz
Memory Type
3200/2933/2666 MT/s ECC DDR4 LRDIMM (3DS), RDIMM (3DS)
DIMM Sizes
16GB, 32GB, 64GB, 128GB
LRDIMM: 16GB, 32GB, 64GB, 128GB, 256GB
RDIMM: 16GB, 32GB, 64GB, 128GB, 256GB
Memory Voltage
1.2V
Error Detection
Corrects single-bit errors
Detects double-bit errors (using ECC memory)

On-Board Devices
Chipset
Intel® C621A
SATA
Intel® C621A controller for 12 SATA3 (6 Gbps) ports; RAID 0,1,5,10
IPMI
ASPEED AST2500 BMC
Network Controllers
Quad LAN, 2x 10G BaseT with Intel® X710-TM4; 2x 10G SFP+ with Intel® X710-TM4,(Optional) AIOM up to 100G QSFP 28

Input / Output
SATA
12 SATA3 (6Gbps) port(s)
LAN
4
USB
2 USB 3.2 Gen1 port(s) (2 rear type A)
Video Output
1 VGA port(s)
Serial Port
1 COM Port(s) (1 rear)
TPM
1 TPM Header

Expansion Slots
PCIe
1 PCIe 3.0 x32 Left Riser Slot AIOM, Riser card PN: RSC-D2-668G4,
1 PCIe 3.0 x32 Right Riser Slot AIOM, Riser card PN: RSC-D2R-668G4,
3 PCIe 3.0 x32 Left Riser Slot,
3 PCIe 3.0 x32 Right Riser Slot
M.2
M.2 Interface: 2 SATA/PCIe 3.0 x4
Form Factor: 2280/22110
Key: M-Key

System BIOS
BIOS Type
AMI UEFI

Management
Software
Redfish API, Supermicro Server Manager (SSM), Supermicro Power Manager (SPM), Supermicro Update Manager (SUM), SuperDoctor® 5, Super Diagnostics Offline , KVM with dedicated LAN , IPMI 2.0

Security
Hardware
Trusted Platform Module (TPM) 2.0

PC Health Monitoring
Voltage
VBAT, Supports system management utility, Monitors CPU voltages, Chassis intrusion header, 3.3V standby, +5V standby, +5V, +3.3V, +12V
LED
UID/Remote UID
CPU / System Overheat LED
FAN
12x 6-pin fan headers (up to 12 fans)
Fan speed control
Other Features
UID
RoHS
CPU thermal trip support for processor protection
ACPI power management
RoT

Parts List