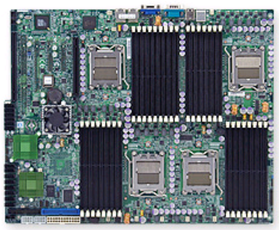
H8QM3-2+



Key Features

1. Four Six-Core / Quad-Core / Dual-Core AMD Opteron™ 8000 Series (Socket F) support; HT3.0 Link support ^
2. nVidia MCP55 Pro / NEC uPD720400 Chipset
3. Up to 256GB 32 DIMMS DDR2 800/667/533 SDRAM
4. Intel 82546GB Dual-port Gigabit LAN/Ethernet Controller
5. 8-port LSI 1068E SAS Controller
6. 1 (x16) PCI-Express
7. SIMLC(+) / SIM1U(+) IPMI 2.0 Support
8. 9 Fan Support with Speed Control

Links & Resources

- Tested Memory List
- Tested HDD List
- Motherboard Manual
- Update Your BIOS
- Download the Latest Drivers and Utilities

RoHS 5/6 — OPTERON PROCESSOR AMD

Specifications

Product SKUs

MBD-H8QM3-2+-O	▪ H8QM3-2+ (Standard Retail Pack)
MBD-H8QM3-2+-B	▪ H8QM3-2+ (Bulk Pack)

Physical Stats

Form Factor	▪ Proprietary
Dimensions	▪ 16.4" x 13" (41.7cm x 33.0cm)

Processor/Chipset

CPU	▪ Quad 1207-pin Socket F ▪ Supports up to four **Six-Core / Quad-Core / Dual-Core AMD Opteron™ 8000 Series** processors ▪ HT3.0 Link support ^
Chipset	▪ nVidia MCP55 Pro ▪ NEC uPD720400

System Memory

Memory Capacity	▪ 32x 240-pin DIMM sockets support up to 256GB DDR2 800/667/533 MHz memory * ▪ Single or Dual (recommended) channel memory support ▪ For Quad CPUs: Recommended that memory be populated equally in adjacent memory banks
Memory Type	▪ DDR2 800/667/533MHz buffered (registered) ECC SDRAM 72-bit, 240-pin gold-plated DIMMs
DIMM Sizes	▪ 256MB, 512MB, 1GB, 2GB, 4GB, 8GB
Memory Voltage	▪ 1.8V only
Error Detection	▪ Corrects single-bit errors ▪ Detects double-bit errors (using ECC memory)

On-Board Devices

SATA	▪ nVidia MCP55 Pro SATA2 3.0Gbps Controller ▪ 6 SATA2 Ports ▪ nVidia RAID 2.0 ▪ SATA RAID 0, 1, 0+1, 5 JBOD Support
SAS	▪ LSI SAS1068E ** ▪ RAID 0, 1, 10 support ▪ (**Optional: AOC-IButton68**) RAID 5 support
IPMI	▪ Support for Intelligent Platform Management Interface v.2.0 ▪ 200-pin IPMI slot ▪ (**Optional: AOC-SIM1U(+) R 3.00**) ▪ (**Optional: AOC-SIMLC(+) R 3.00**) ▪ RMM (Remote Management Module) (Card not included) ▪ **Note:** KVM-over-LAN is available on AOC-SIM1U+ only and dedicated LAN is required
Network Controllers	▪ Intel® 82546GB Dual Port Gigabit Ethernet Controller ▪ Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output
Super I/O	▪ Winbond 83627HG
VGA	▪ ATI ES1000 Graphics Controller 16MB Graphics & VGA port

System BIOS

BIOS Type	▪ 8Mb Flash EEPROM with AMI® BIOS ▪ SST 49LF080A BIOS Chip
BIOS Features	▪ Plug and Play (PnP) ▪ DMI 2.3 ▪ PCI 2.2 ▪ ACPI 2.0/1.0 ▪ USB Keyboard Support ▪ SMBIOS 2.3

Expansion Slots

PCI-Express	▪ 1 x16 PCI-e Slot

Chassis (Optimized for H8QM3-2+)

1U Chassis	▪ CSE-818TQ+-1000LPB ▪ CPU Heatsink SNK-P0022+ is required (Heatsink sold separately)
Important Chassis Notes	▪ To ensure system stability, a 1000W (minimum) ATX power supply [8-pin & 8-pin (+12V) and 24-pin are required]

Input / Output

SAS	▪ 8 SAS / SATA ports
SATA	▪ 6 SATA2 ports
IDE	▪ Single EIDE channel support up to two UDMA IDE devices ▪ Supports UDMA Mode 5 ▪ Supports PIO Mode 4 ▪ Supports ATA 100 / 133
Floppy	▪ 1 Floppy port; 1.44 MB support
LAN	▪ 2 RJ45 LAN ports
USB	▪ Up to 4 USB Ports 2.0/1.1 Compliant ▪ 2 Rear Ports ▪ 2 Internal Headers
Keyboard / Mouse	▪ PS/2 keyboard and mouse ports
Serial Ports	▪ 1 Fast UART 16550 serial port ▪ 1 Header
VGA	▪ 1 VGA port

Management

Software	▪ Optional IPMI (Intelligent Platform Management Interface) 2.0 ▪ Super Doctor III ▪ Watch Dog
Power Configurations	▪ ACPI Power Management ▪ Main Switch Override Mechanism ▪ Wake-On-Ring (WOR) headert ▪ Wake-On-LAN (WOL) header ▪ Keyboard Wakeup from Soft-Off ▪ Power-on mode control for AC power loss recovery ▪ Internal/External modem remote ring-on

PC Health Monitoring

CPU	▪ Monitors CPU Core Voltages, +3.3V, +5V, +12V, +5V Standby, VBAT. ▪ CPU switching voltage regulator
FAN	▪ Total up to 9-fan status tachometer monitoring ▪ Up to nine 3-pin fan headers ▪ Status monitor for speed control ▪ Support 3-pin fans with fan-speed control ▪ Low noise fan speed control
Temperature	▪ Monitoring for CPU and chassis environment ▪ CPU Thermal Trip Support ▪ PC Temperature Sensing Logic
LED	▪ CPU / System Overheat LED ▪ +5V Standby Alert LED
Other Features	▪ Chassis Intrusion Detection ▪ Chassis Intrusion Header

Operating Environment / Compliance

RoHS	RoHS 5/6 ▪ RoHS Compliant 5/6, Server Exemption
Environmental Specifications	▪ Operating Temperature: 10°C to 35°C (50°F to 95°F) ▪ Non-operating Temperature: -40°C to 70°C (-40°F to 158°F) ▪ Operating Relative Humidity: 8% to 90% (non-condensing) ▪ Non-operating Relative Humidity: 5% to 95% (non-condensing)

OS Compatibility

▪ Please see our **OS Compatibility Chart**

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

Parts List

Retail Pack List

	Part Number	Qty	Description
H8QM3-2+	MBD-H8QM3-2+ -O	1	H8QM3-2+ Motherboard
I/O Cable 1	CBL-022L	1	ATX FLOPPY CABLE 3 HEADERS PB FREE
I/O Cable 2	CBL-036L-03	1	18" ATA 133/100/66 3-DROP TPE CABLE, PBF
Driver Disk	CDR-A+NVDA2	1	DRIVER CD FOR MCP55 CHIPSET A+ MB

* Fully populated DDR2 667 or 800 will be downgraded to DDR2 533.
** The onboard LSI 1068E supported SR and IT mode but not IR mode.
^ HT Link speed supporting depends on AMD Opteron processor spec.

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