

X9DRFF-7G+

Products ▶ Motherboards ▶ Xeon® Boards ▶ [X9DRFF-7G+]



Optimized for GPU

Key Features

1. Dual socket R (LGA 2011) supports Intel® Xeon® processor E5-2600 and E5-2600 v2 family†
2. Intel® C602 chipset; QPI up to 8.0GT/s
3. Up to 1TB ECC DDR3, up to 1866MHz; 16x DIMM slots
4. Expansion slots: 1 PCI-E 2.0 x4 (in x8)
1 PCI-E x16, 2 PCI-E x8
Riser card support: PCI-E 3.0 x32 (rear)
5. Intel® i350 Dual port GbE LAN
6. 4x SATA2 and 2x SATA3 ports
7. 8x SAS2 (6Gb/s) ports via LSI 2308
8. Integrated IPMI 2.0 and KVM with Dedicated LAN
9. 3x USB 2.0 ports (2 rear, 1 Type A)

Links & Resources

- ▶ [Tested Memory List](#)
- ▶ [Tested HDD / SSD List](#)
- ▶ [Motherboard Manual](#)
- ▶ [Update Your BIOS](#)
- ▶ [BMC/IPMI Firmware](#)
- ▶ [Download the Latest Drivers and Utilities](#)
- ▶ [Download Driver CD](#)
- ▶ [Heat Sink Compatibility](#)
- ▶ [OS Compatibility](#)

Specifications

Product SKUs

- **MBD-X9DRFF-7G+-B** ■ X9DRFF-7G+ (Bulk Pack)

Physical Stats

- **Form Factor** ■ Proprietary
- **Dimensions** ■ 8.54" x 18.72" (21.7cm x 47.5cm)

Processor/Cache

- **CPU** ■ Intel® Xeon® processor E5-2600 and E5-2600 v2 family† (up to 130W TDP **) ■ Dual Socket R (LGA 2011)
- **Cache** ■ Up to 30MB
- **System Bus** ■ QPI up to 8 GT/s
- **Note** † BIOS version 3.0 or above is required
- **Note** ** Motherboard supports this maximum TDP. Please verify your system can thermally support

System Memory

- **Memory Capacity** ■ 16x 240-pin DDR3 DIMM slots ■ Up to 1TB DDR3 ECC LRDIMM ■ Up to 512GB DDR3 ECC RDIMM ■ Up to 128GB DDR3 ECC/non-ECC UDIMM
- **Memory Type** ■ 1866/1600/1333/1066/800MHz* ECC DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs ■ Support ECC and non-ECC UDIMMs
* Maximum memory speed may be capped by CPU. Please verify that the chosen CPU can support desired memory speed.
- **DIMM Sizes** ■ 32GB, 16GB, 8GB, 4GB, 2GB, 1GB, 64GB LRDIMM
- **Memory Voltage** ■ 1.5 V, 1.35 V
- **Error Detection** ■ Corrects single-bit errors ■ Detects double-bit errors (using ECC memory)

Chassis (Optimized for X9DRFF-7G+)

- **1U Chassis** ■ CSE-816LT-655B
- **Tower / 4U Rackmount** ■ CSE-F414IS-R1K62B ■ CSE-F424AG-R1K62B ■ CSE-F424BG-R1K62B
- **Important Chassis Notes** ■ This motherboard is designed only for FatTwin™ chassis

SuperServer(s) with X9DRFF-7G+

- **Model(s)** ■ SYS-F627G3-F73+ ■ SYS-F627G2-F73+ ■ SYS-F617H6-FTL+ ■ SYS-F647G2-F73+ ■ SYS-6017R-73HDP+

Expansion Slots

- 1 PCI-E 3.0 x16 slot (requires riser card)
- 2 PCI-E 3.0 x8 slots
- 1 PCI-E 2.0 x4 (in x8) slot
- Riser card support: PCI-E 3.0 x32 (rear)

PCI-Express

(Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram for details.)

System BIOS

- **BIOS Type** ■ 128Mb SPI Flash EEPROM with AMI BIOS
- **BIOS Features** ■ Plug and Play (PnP) ■ APM 1.2 ■ PCI 2.3 ■ ACPI 1.0 / 2.0 / 3.0 / 4.0 ■ USB Keyboard support ■ SMBIOS 2.7.1 ■ UEFI 2.3.1

Management

- **Software** ■ SuperDoctor® III ■ Watch Dog ■ NMI ■ IPMI 1.5 / 2.0
- **Power** ■ ACPI / APM Power Management

On-Board Devices

Chipset	■ Intel® C602 chipset
AHCI SATA	■ SATA 2.0 3Gb/s with RAID 0, 1, 5, 10 ■ SATA 3.0 6Gb/s with RAID 0, 1, 5, 10
SAS	■ SAS2 (6Gb/s) via LSI 2308 ■ SW RAID 0, 1, 10 support
IPMI	■ Support for Intelligent Platform Management Interface v.2.0 ■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support ■ Nuvoton WPCM450 BMC
Network Controllers	■ Intel® i350 Dual Port Gigabit Ethernet ■ Virtual Machine Device Queues reduce I/O overhead ■ Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output ■ 1x Realtek RTL8201F PHY (dedicated IPMI)
Video	■ Matrox G200eW

Input / Output

AHCI SATA	■ 2 SATA 3.0 ports (6Gb/s) ■ 4 SATA 2.0 ports (3Gb/s)
SAS	■ 8 SAS2 ports (6Gb/s)
LAN	■ 2 RJ45 Gigabit Ethernet LAN ports ■ 1 RJ45 Dedicated IPMI LAN port
USB	■ 3 USB 2.0 ports (2 rear + 1 Type A)
Video	■ 1 VGA port
DOM	■ 1 DOM (Disk on Module) power connector
TPM	■ 1 TPM 1.2 20-pin Header

Configurations

- Power-on mode for AC power recovery

PC Health Monitoring

Voltage	■ Monitors for CPU Cores, +1.1V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory Voltages. ■ 5+1 Phase-switching voltage regulator
FAN	■ 8x 4-pin fan headers ■ Status monitor for speed control ■ Pulse Width Modulated (PWM) fan connectors
Temperature	■ Monitoring for CPU and chassis environment ■ CPU thermal trip support ■ Thermal Monitor 2 (TM2) support ■ PECI
LED	■ Suspend Static indicator LED ■ UID/Remote UID
Other Features	■ RoHS

Operating Environment

Operating Temperature Range	■ 10°C - 35°C (50°F - 95°F)
Non-Operating Temperature Range	■ -40°C - 70°C (-40°F - 158°F)
Operating Relative Humidity Range	■ 8% - 90% (non-condensing)
Non-Operating Relative Humidity Range	■ 5% - 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)

	Part Number	Qty	Description
Motherboard	MBD-X9DRFF-7G+	1	X9DRFF-7G+ Motherboard (only comes with server)

Optional Parts List

	Part Number	Qty	Description
Heat Sink (optional, not included)	-	-	CPU Heat Sink reference

Note: X9DRFF-7G+ is for server SKUs ([FatTwin™](#)) only, please contact Supermicro sales for more details.

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