X9DRG-QF

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: 4 PCI-E 3.0 x16 (double-width), 2 PCI-E 3.0 x8 (1 in x16 slot), 1 PCI-E 2.0 x4 (in x8 slot)
5. Intel® i350 Dual port GbE LAN
6. 8x SATA2 and 2x SATA3 ports
7. Integrated IPMI 2.0 and KVM with Dedicated LAN
8. 10x USB 2.0 ports (4 rear, 4 via header + 2 Type A)

Links & Resources

- Tested Memory List
- Tested HDD / SSD List
- Motherboard Manual
- Update Your BIOS
- IPMI Firmware
- Download the Latest Drivers and Utilities
- Download Driver CD
- Heat Sink Compatibility
- OS Compatibility

Specifications

Product SKUs	
MBD-X9DRG-QF - B	▪ X9DRG-QF (Bulk Pack)

Physical Stats	
Form Factor	▪ Proprietary
Dimensions	▪ 15.2" x 13.2" (38.6cm x 33.5cm)

Processor/Cache	
CPU	▪ **Intel® Xeon® processor E5-2600 and E5-2600 v2 family† (up to 150W 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)

On-Board Devices	
Chipset	▪ Intel® C602 chipset
AHCI SATA	▪ SATA 2.0 3Gbps with RAID 0, 1, 5, 10 ▪ SATA 3.0 6Gbps with RAID 0, 1, 5, 10
SCU SATA	▪ SATA 2.0 3Gbps with RAID 0, 1, 5, 10
IPMI	▪ Support for Intelligent Platform Management Interface v.2.0 ▪ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support ▪ Renesas SH7757 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 RTL8201N PHY (dedicated IPMI)
Video	▪ G200 (Renesas SH7757 BMC)

Input / Output	
AHCI SATA	▪ 2x SATA 3.0 ports (6Gbps) ▪ 4x SATA 2.0 ports (3Gbps)
SCU SATA	▪ 4x SATA 2.0 ports (3Gbps)
LAN	▪ 2 RJ45 Gigabit Ethernet LAN ports ▪ 1 RJ45 Dedicated IPMI LAN port
USB	▪ 10 USB 2.0 ports total (4 rear + 4 via header + 2 Type A)
Video	▪ 1 VGA port
Serial Port / Header	▪ 1 Fast UART 16550 port / 1 Header
DOM	▪ 1 DOM (Disk on Module) power connector
TPM	▪ 1 TPM 1.2 20-pin Header

Chassis (Optimized for X9DRG-QF)	
Tower / 4U Rackmount	▪ CSE-747BTQ-R1K62B ▪ CSE-747TQ-R1620B
Important Chassis Notes	▪ To support the new generation Intel® Xeon® processor-based motherboards, **Revision M** chassis is recommended. Please talk to your sales representative for details.

SuperServer(s) with X9DRG-QF	
Model(s)	▪ SYS-7047GR-TPRF ▪ SYS-7047GR-TPRF-FM409 ▪ SYS-7047GR-TPRF-FM475 ▪ SYS-7047GR-TRF ▪ SYS-7047GR-TRF-FC475

Expansion Slots	
PCI-Express	▪ 4x PCI-E 3.0 x16 (double-width) slots ▪ 2x PCI-E 3.0 x8 (1 in x16) slot ▪ 1x PCI-E 2.0 x4 (in x8) slot (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 ▪ BIOS rescue hot keys ▪ USB Keyboard support ▪ SMBIOS 2.7.1 ▪ UEFI 2.3.1

Management	
Software	▪ SuperDoctor® III ▪ Watch Dog ▪ NMI ▪ Optional IPMI 1.5 / 2.0
Power Configurations	▪ ACPI / APM Power Management ▪ CPU Fan auto-off in sleep mode ▪ Power-on mode for AC power recovery

PC Health Monitoring	
Voltage	▪ Monitors for CPU Cores, +1.1V, +1.5V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory Voltages. ▪ 5+1 Phase-switching voltage regulator
FAN	▪ 10x 4-pin fan headers (up to 10 fans) ▪ 10x fans with tachometer monitoring ▪ Status monitor for speed control ▪ Status monitor for on/off control ▪ Low noise fan speed control ▪ Pulse Width Modulated (PWM) fan connectors
Temperature	▪ Monitoring for CPU and chassis environment ▪ CPU thermal trip support ▪ Thermal Control for 8x Fan Connectors ▪ Thermal Monitor 2 (TM2) support ▪ PECI
LED	▪ CPU / System Overheat LED ▪ Suspend static indicator LED ▪ UID/Remote UID
Other Features	▪ Chassis intrusion detection ▪ Chassis intrusion header ▪ SDDC Support ▪ RoHS ▪ Dual Cooling Zones

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 pack)

	Part Number	Qty	Description
X9DRG-QF	MBD-X9DRG-QF	1	X9DRG-QF Motherboard
I/O Cables	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket

Optional Parts List

	Part Number	Qty	Description
Heat Sink (optional, not included)	-	-	CPU Heat Sink reference
TPM security module (optional, not included)	AOM-TPM-9655V AOM-TPM-9655H	-	TPM module with Infineon 9655, RoHS/REACH,PBF; Vertical or Horizontal depends on the server
SuperDOM	-	-	Supermicro SATA DOM Solutions [Details]

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