# SuperServer 6037R-72RFT+

**Rackmount GPU/MIC Server:** 2x GPU/MIC Supported (Optional)

### Key Features
1. Intel® Xeon® processor E5-2600 family; QPI up to 8GT/s
2. Up to 768GB DDR3 1600MHz* ECC Registered DIMM; 24x DIMM sockets
   * Depends on memory configuration
3. Expansion slots: (support 2 GPU/MIC)
   2 PCI-E 3.0 x16 and 4 PCI-E 3.0 x8
4. Intel® X540 Dual port 10GBase-T
5. I/O ports: 2x 10Gb LAN, 1x Dedicated LAN for IPMI Remote Management, 1x VGA, 1x COM port, 2x USB 2.0
6. 8x 3.5” Hot-swap Drive Bays and 2x 5.25” Peripheral Drive Bays
7. 4x middle fans & 2x rear exhaust fans
8. 1280W Redundant Power Supplies 80 PLUS, Platinum Level (94%)
9. Battery Backup Power (optional, PWS-1K03B-1R)

### Product SKUs
- **SYS-6037R-72RFT+**
  - SuperServer 6037R-72RFT+ (Black)

### Motherboard
- **Super X9DR7-TF+**

### Processor/Cache
- **CPU**
  - Intel® Xeon® processor E5-2600 (up to 135W TDP *)
  - Dual Socket R (LGA 2011)
  * Please contact your Supermicro sales representative for additional details

### System Memory
- **Memory Capacity**
  - 24x 240-pin DDR3 DIMM sockets
  - Supports up to 768 GB DDR3 ECC Registered memory (RDIMM) in 24 DIMM sockets

### Expansion Slots
- **PCI-Express**
  - 2x PCI-E 3.0 x16 Full-height Full-length (support 2x GPU cards)
  - 4x PCI-E 3.0 x8 slots
  - Without GPU installed, can support 5x Full-height Full-length, and 1x half length PCI-E card
  - With 2x GPU installed, can support 1x Full-height Full-length and 1x Half-length PCI-E cards (both CPUs need to be installed for full access to PCI-E slots. See manual for details)

### Drive Bays
- **Hot-swap**
  - 8x 3.5” Hot-swap SAS/SATA HDD trays
  - SAS or enterprise SATA HDD only recommended

### Peripheral Bays
- **2x 5.25” Peripheral Drive Bay**

### Chassis
- **Form Factor**
  - 3U Rackmount
- **Model**
  - CSE-835BTQ-R1K28B

### Dimensions
- **Width**
  - 17.2” (437mm)
- **Height**
  - 5.2” (132mm)
- **Depth**
  - 25.5” (648mm)
- **Weight**
  - Gross: 74.8lbs (34kg) / Net: 48lbs (21.8kg)

### Front Panel
- **Buttons**
  - Power On/Off button
  - System Reset button
- **LEDs**
  - Power status LED
  - Hard drive activity LED
  - 2x Network activity LEDs
  - System Overheat LED
  - Power fail LED

### System Memory
- **Memory Capacity**
  - 24x 240-pin DDR3 DIMM sockets
  - Supports up to 768 GB DDR3 ECC Registered memory (RDIMM) in 24 DIMM sockets

### Memory Type
- **Memory Size**
  - 32GB, 16GB, 8GB, 4GB, 2GB, 1GB

### 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® C602J Chipset

**SATA**
- SATA 2.0 3Gbps with RAID 0, 1, 5, 10
- SATA 3.0 6Gbps with RAID 0, 1, 5, 10

**SAS**
- SAS2 via LSI 2208
- HW RAID 0, 1, 5, 10, 50, 60 support
- Support for Intelligent Platform Management Interface v2.0
- IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
- Nuvoton WPCM450 BMC

**Network Controllers**
- Intel® X540 Dual Port 10GBase-T
- Virtual Machine Device Queues reduce I/O overhead
- Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output
- 1x Realtek RTL8201N PHY (dedicated IPMI)

**Graphics**
- Nuvoton W83527HG

**Input / Output**

<table>
<thead>
<tr>
<th>Port Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial ATA</td>
<td>2x SATA 3.0 ports (6Gbps) / 4x SATA 2.0 ports (3Gbps) / 8x SAS2 ports (6Gbps)</td>
</tr>
<tr>
<td>LAN</td>
<td>2x RJ45 10GBase-T ports / 1x RJ45 Dedicated IPMI LAN port</td>
</tr>
<tr>
<td>USB</td>
<td>9x USB 2.0 ports total (4x rear + 4x via header + 1x Type A)</td>
</tr>
<tr>
<td>VGA</td>
<td>1x VGA port</td>
</tr>
<tr>
<td>Serial Port / Header</td>
<td>2x Fast UART 16550 ports: 1 rear and 1 header</td>
</tr>
</tbody>
</table>

### Power Supply

- 1280W Redundant High-efficiency Digital Power Supplies w/ PMBus 1.2

### AC Input
- 1000W Output @ 100-140V, 12-8A, 50-60Hz
- 1280W Output @ 180-240V, 8-6A, 50-60Hz

### DC Output
- 1000W: +12V/83A; +5Vsb/4A
- 1280W: +12V/106.7A, +5Vsb/4A

### Certification
- 80 PLUS Platinum
- [Test Report](#)

### System BIOS

**BIOS Type**
- 12Mb SPI Flash EEPROM with AMI BIOS

**BIOS Features**
- Plug and Play (PnP)
- APM 1.2
- PCI 2.2
- ACPI 1.0 / 2.0
- USB Keyboard support
- SMBIOS 2.3
- UEFI

### Operating Environment / Compliance

- RoHS Compliant

### Environmental Spec.

- **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)

### Parts List

#### Motherboard / Chassis

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Qty</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBD-X9DR7-TF+</td>
<td>1</td>
<td>Super X9DR7-TF+ Motherboard</td>
</tr>
<tr>
<td>CSE-835BTQ-R1K28B</td>
<td>1</td>
<td>3U Chassis</td>
</tr>
</tbody>
</table>

#### Backplane

<table>
<thead>
<tr>
<th>Part Number</th>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE-SAS-8337TQ-O-P</td>
<td>1</td>
<td>SAS33 BACK PANEL WITH AMI MG9072</td>
</tr>
</tbody>
</table>

#### Cable

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Qty</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBL-0116L-03</td>
<td>2</td>
<td>23CM, W / 25.5cm SB, S, 30AWG Ip ass to 4 SATA cable</td>
</tr>
<tr>
<td>SNK-P0048P</td>
<td>2</td>
<td>2U Passive CPU Heat Sink for X9 Generation Motherboards w/ Square ILM</td>
</tr>
<tr>
<td>PW5-1K28P-SQ</td>
<td>2</td>
<td>1U 1280W, redundant single output power supply</td>
</tr>
</tbody>
</table>

#### I/O Shield

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Qty</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP-260-00042-0N</td>
<td>1</td>
<td>STD I/O shield for X9 socket R server MB with Gasket</td>
</tr>
</tbody>
</table>

#### Optional Parts List

<table>
<thead>
<tr>
<th>Part Number</th>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBL-0341L</td>
<td>-</td>
<td>1CH internal 10P to 4P USB 2.0 cable for LCD,DVD, 70cm</td>
</tr>
<tr>
<td>CBL-0210L</td>
<td>-</td>
<td>FDD, DVD, 4-pin power adapter cable, L=8cm</td>
</tr>
<tr>
<td>CDMD-USATA-G-O-P</td>
<td>-</td>
<td>Mini-SATA to USB adapter for slim DVD</td>
</tr>
<tr>
<td>DVM-PNSC-DVD-SBT2</td>
<td>-</td>
<td>BLACK PANASONIC SLIM DVD ROM SATA DRIVE ROHS</td>
</tr>
<tr>
<td>DVM-TEAC-DVD-SBT1</td>
<td>-</td>
<td>BLACK TEAC SLIM DVD ROM SATA DRIVE ROHS</td>
</tr>
<tr>
<td>DVM-TEAC-DVD-SBT2</td>
<td>-</td>
<td>BLACK TEAC SLIM DVD ROM SATA DRIVE ROHS</td>
</tr>
<tr>
<td>PW5-1K03B-1R</td>
<td>-</td>
<td>Power Battery Pack, QTY 1; DC 1KW battery back up power supply size same PWS-1K41P-1R with 23pair pin out.</td>
</tr>
<tr>
<td>MCP-240-00096-0N</td>
<td>-</td>
<td>If only one GPU installed, use one dummy for thermal SC747B GPU / Add-on Card Dummy Assembly (2 Slots)-Single Pack</td>
</tr>
</tbody>
</table>

#### Optional Parts List (Complete Kit For GPU/MIC Support)

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<thead>
<tr>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP-420-83502-0N</td>
<td>-</td>
<td>GPU complete Kit that includes GPU 1x air shroud, 1x GPU Fan Kit, 2x Extension cables</td>
</tr>
<tr>
<td>CBL-0424L</td>
<td>-</td>
<td>Optional Power cable GPU support, QTY 2 8+6pin GPU power extension from PDB regular 8pin, 40cm</td>
</tr>
<tr>
<td>MCP-310-83503-0B</td>
<td>-</td>
<td>Optional GPU air shroud, QTY 1</td>
</tr>
<tr>
<td>MCP-320-00046-0N-KIT</td>
<td>-</td>
<td>Optional rear Exhaust Fan for GPU, QTY 1, plugged into fan header FanC after MB enables this Fan header; Rear fan kit (8.2K RPM fan) for SC747B, 835X, 836BH</td>
</tr>
</tbody>
</table>

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