

# SuperServer F618R2-RC1+



Views: | [Angled with Callout \(node\)](#) | [Top \(node\)](#) | [Angled Front \(system\)](#) | [Rear \(system\)](#) |

## Key Features

### 8 Hot-plug System Nodes in 4U Each node supports:

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v3 family; QPI up to 9.6GT/s
2. Up to 1TB ECC DDR4 2133MHz; 16x DIMM slots
3. Expansion slots: 1 PCI-E 3.0 x16 (LP) 1 PCI-E 3.0 x8 (Micro Low Profile)
4. I/O ports: 2 GbE ports, 1 VGA, 1 COM/Serial port, 2 USB 3.0 ports
5. Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port
6. 6x 2.5" Hot-swap SAS/SATA or 4x 2.5" Hot-swap SAS/SATA + 2x SAS/SATA/ NVMe hybrid; SAS3 via LSI 3108
7. 3x heavy duty internal fans
8. 2000W High efficiency (96%) Redundant PSU; Titanium Level

Note: Image above may show a varied configuration or optional parts. Please refer to parts list for standard parts included.

## Specifications

### Product SKUs

SYS-F618R2-RC1+ ■ SuperServer F618R2-RC1+ (Black)

### Motherboard

Super X10DRFR-N

### Processor/Cache

CPU ■ Intel® Xeon® processor E5-2600 v3 family (up to 145W TDP) \*  
■ Dual Socket R3 (LGA 2011)

Cores / Cache ■ Up to 18 Cores / Up to 45MB Cache

System Bus ■ QPI up to 9.6 GT/s

Note \* Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

### System Memory

Memory ■ 16x 288-pin DDR4 DIMM slots

### Chassis

Form Factor ■ 4U Rackmount

Model ■ CSE-F418BC-R2K04B

### Dimensions and Weight

Width ■ 17.63" (448mm)

Height ■ 6.96" (177mm)

Depth ■ 29" (737mm)

Package ■ 28.3" (W) x 15.0" (H) x 42.4" (D)

Weight ■ Net Weight: 150 lbs (68.04 kg)  
■ Gross Weight: 200 lbs (90.71 kg)

Available Colors ■ Black

### 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

Capacity	<ul style="list-style-type: none"> <li>Up to 1TB ECC LRDIMM, 512GB ECC RDIMM</li> </ul>
Memory Type	<ul style="list-style-type: none"> <li>2133/1866/1600MHz ECC DDR4 SDRAM 72-bit</li> </ul>
DIMM Sizes	<ul style="list-style-type: none"> <li>RDIMM: 32GB, 16GB, 8GB, 4GB</li> <li>LRDIMM: 64GB, 32GB</li> </ul>
Memory Voltage	<ul style="list-style-type: none"> <li>1.2 V</li> </ul>
Error Detection	<ul style="list-style-type: none"> <li>Corrects single-bit errors</li> </ul>

#### On-Board Devices

Chipset	<ul style="list-style-type: none"> <li>Intel® C612 chipset</li> </ul>
SAS	<ul style="list-style-type: none"> <li>LSI 3108 SAS3 (12Gbps) controller; HW RAID 0, 1, 5, 6, 10, 50, 60</li> </ul>
SATA	<ul style="list-style-type: none"> <li>SATA3 (6Gbps) with RAID 0, 1, 5, 10</li> </ul>
IPMI	<ul style="list-style-type: none"> <li>Support for Intelligent Platform Management Interface v.2.0</li> <li>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</li> <li>ASPEED AST2400 BMC</li> </ul>
Network Controllers	<ul style="list-style-type: none"> <li>Intel® i350-AM2 Dual Port Gigabit Ethernet</li> <li>Virtual Machine Device Queues reduce I/O overhead</li> <li>Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> <li>1x Realtek RTL8201N PHY (dedicated IPMI)</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>ASPEED AST2400 BMC</li> </ul>

#### Input / Output (per node)

SAS	<ul style="list-style-type: none"> <li>6x SAS3 (12Gbps) ports</li> </ul>
NVMe	<ul style="list-style-type: none"> <li>2x Internal NVMe ports (PCI-E 3.0 x4)</li> </ul>
LAN	<ul style="list-style-type: none"> <li>2x RJ45 Gigabit Ethernet LAN ports</li> <li>1x RJ45 Dedicated IPMI LAN port</li> </ul>
USB	<ul style="list-style-type: none"> <li>2x USB 3.0 ports</li> </ul>
VGA	<ul style="list-style-type: none"> <li>1x VGA port</li> </ul>
Serial Port / Header	<ul style="list-style-type: none"> <li>1x Fast UART 16550 port</li> </ul>

#### Management

Software	<ul style="list-style-type: none"> <li>Intel® Node Manager</li> <li><a href="#">SuperDoctor® 5</a></li> <li>Watch Dog</li> <li>NMI</li> <li>IPMI 2.0</li> <li>SMCBU and SMM</li> </ul>
Power Configurations	<ul style="list-style-type: none"> <li>ACPI / APM Power Management</li> <li>Power-on mode for AC power recovery</li> </ul>

#### Expansion Slots (per node)

PCI-Express	<ul style="list-style-type: none"> <li>1x PCI-E 3.0 x16 Low-profile</li> <li>1x PCI-E 3.0 x8 (Micro LP)</li> <li><a href="#">MicroLP Adapter Matrix</a> (Networking options)</li> </ul>
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#### Drive Bays (per node)

Hot-swap	<ul style="list-style-type: none"> <li>6x 2.5" Hot-swap SAS/SATA or 4x 2.5" Hot-swap SAS/SATA + 2x SAS/SATA/NVMe hybrid</li> </ul>
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#### Backplane



1x SAS/SATA backplane

#### System Cooling (per node)

Fans	<ul style="list-style-type: none"> <li>3x 4cm 14k RPM middle fans</li> </ul>
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#### Power Supply with Digital Switching Control

2000W Titanium Level (96%) High-efficiency Redundant Power Supplies

Total Output Power	<ul style="list-style-type: none"> <li>1000W/1800W/1980W/2000W</li> </ul>
AC Input	<ul style="list-style-type: none"> <li>100-127 V, 50-60 Hz</li> <li>200-220 V, 50-60 Hz</li> <li>220-230 V, 50-60 Hz</li> <li>230-240 V, 50-60 Hz</li> </ul>
+12V	<ul style="list-style-type: none"> <li>Max: 83.3A &amp; Min: 0A (100Vac-127Vac)</li> <li>Max: 150A &amp; Min: 0A (200Vac-220Vac)</li> <li>Max: 165A &amp; Min: 0A (220Vac-230Vac)</li> <li>Max: 166.7A &amp; Min: 0A (230Vac-240Vac)</li> </ul>
5V SB	<ul style="list-style-type: none"> <li>Max: 1A / Min: 0A</li> </ul>
Certification	  <p>Titanium Level [ <a href="#">Test Report</a> ]</p>

#### System BIOS

BIOS Type	<ul style="list-style-type: none"> <li>128Mb SPI Flash EEPROM with AMI BIOS</li> </ul>
BIOS Features	<ul style="list-style-type: none"> <li>Plug and Play (PnP)</li> <li>APM 1.2</li> <li>PCI 2.2</li> <li>ACPI 1.0 / 2.0</li> <li>USB Keyboard support</li> <li>SMBIOS 2.3</li> <li>UEFI</li> </ul>

#### Operating Environment / Compliance

RoHS	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
Environmental Spec.	<ul style="list-style-type: none"> <li>Operating Temperature: 10°C to 35°C (50°F to 95°F)</li> <li>Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)</li> <li>Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>Non-operating Relative Humidity: 5% to 95% (non-condensing)</li> </ul>

## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
	MBD-X10DRFR-N	8	Super X10DRFR-N Motherboard
	CSE-F418BC-R2K04B	1	4U Chassis
<b>Backplane</b>	BPN-ADP-8S3108-1UF	8	Avago (LSI) 3108 adapter card for X10 FatTwin Rear I/O motherboards. Adapter card includes TFM module port and x8 SAS3 ports via x2 Mini-SAS HD connectors, HF, RoHS/REACH
<b>Backplane</b>	BPN-SAS3-F418-B6N2	8	6-Port Backplane support 4 x 2.5" 12Gb/s SAS/SATA HDD/SSD and 2x SAS/SATA/NVMe Storage Devices, HF, RoHS/REACH
<b>Backplane</b>	BPN-ADP-F418LS	8	Power Distribution Board for X10DRFR, RoHS/REACH, PBF
<b>Cable 1</b>	CBL-0486L	16	2x2 to 2x2 15cm power cable HF. 18AWG
<b>Cable 2</b>	CBL-OTHR-0022L	8	20 to 20 pin cable for BPN-ADP-F418LS, 7.5cm, 28AWG, RoHS/REACH, PBF
<b>Cable 3</b>	CBL-SAST-0697	16	Internal Mini-SAS HD to Mini-SAS HD 6cm, 30AWG, 12Gb/s [Amphenol], RoHS/REACH
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Manual</b>	MNL-1761-QRG	1	Quick Reference Guide for F618R2-RC1+/RC1PT+
<b>Riser Card</b>	RSC-R1UF-E16R	8	1U RHS Riser Card with PCI-E X16 for FAT TWIN System
<b>Heatsink / Retention</b>	SNK-P0047PSM	8	1U Passive Front CPU Heat Sink w/ a Middle Air Channel for X9, X10 2U Twin^2+ and Twin Pro^2 Series Servers
<b>Heatsink / Retention</b>	SNK-P0057P	8	1U High Performance Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Square ILM MB
<b>Power Supply</b>	PWS-2K04A-1R	4	AC-DC 2000W, Titanium Level, Redundancy, 1U, PMBus 1.2, +12V/+5Vsb, 360x76x40mm, HF, RoHS/REACH

### Optional Parts List

	Part Number	Qty	Description
<b>CacheVault Kit</b>	BTR-CV3108-FT1	1/node	CacheVault kit for FatTwin LSI3108 card. Includes: TFM, cables, brackets and supercap
<b>NVMe Cable</b>	CBL-SAST-0698	2/node	10cm NVMe cable; RA-RA
<b>Software</b>	SFT-OOB-LIC	8	OOB Management Package (per node license)
<b>Software</b>	SFT-DCMS-Single	8	DataCenter Management Package (per node license)