

# SuperServer F628G3-FC0+



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

## Key Features

### 4 Hot-plug System Nodes in 4U Front I/O. 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. 3x PCI-E 3.0 x16 slots (support 3x Double-width GPU/Xeon Phi cards), 2x PCI-E 3.0 x8 slots
4. Front I/O ports: 2 GbE LAN, 2 USB 3.0 and 1 VGA connector
5. Built-in Server management tool (IPMI 2.0, KVM/media over LAN) w/ dedicated LAN port
6. 2x 3.5" Hot-swap SAS3/SATA3; SAS3 (12 Gbps) via LSI 3008
7. 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-F628G3-FC0+ ■ SuperServer F628G3-FC0+ (Black)

### Motherboard

[Super X10DRFF-CG](#)

### 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.

■ 3x Double-width GPU/Xeon Phi per node (total of 12x GPU/Xeon Phi cards in 4U)

[GPU/Xeon Phi](#) ■ Supports Intel Xeon Phi  
 ■ Supports NVIDIA

### Chassis

Form Factor ■ 4U Rackmount

Model ■ CSE-F424AG-R2K04B

### Dimensions

Width ■ 17.63" (448mm)

Height ■ 6.96" (177mm)

Depth ■ 35" (889mm)

Package ■ 25.6" (W) x 11.8" (H) x 48.0" (D)

Weight ■ Net Weight: 105 lbs (47.63 kg)  
 ■ Gross Weight: 150 lbs (68.04 kg)

Available Colors ■ Black

### Front Panel

Buttons ■ Power On/Off button  
 ■ UID button

LEDs ■ Power status LED  
 ■ System Overheat / Power Fail LED  
 ■ UID LED

### Expansion Slots (per node)

Support	K1/K2/K10/K20M/K20X/K40M/K80(only supports 2 per node), Xeon Phi 5110P, and Xeon Phi 3120P/7120P
---------	--

### System Memory

Memory Capacity	<ul style="list-style-type: none"> <li>16x 288-pin DDR4 DIMM slots</li> <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>SAS3 (12Gbps) via LSI 3008</li> <li>SW RAID 0, 1, 10 support</li> </ul>
SATA	<ul style="list-style-type: none"> <li>SATA3 (6Gbps) with RAID 0, 1</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 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 RTL8211E 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>2x SAS3 (12Gbps) ports</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>

PCI-Express	<ul style="list-style-type: none"> <li>3x PCI-E 3.0 x16 (FHFL) slots (support 3x Double-width GPU/Xeon Phi)</li> <li>2x PCI-E 3.0 x8 (LP) slots</li> </ul>
-------------	--

### Drive Bays (per node)

Hot-swap	<ul style="list-style-type: none"> <li>2x 3.5" Hot-swap SAS3/SATA3 drive bays</li> </ul>
----------	--

### System Cooling

Fans	<ul style="list-style-type: none"> <li>8x 8cm heavy duty 11K fans with air shroud and PWM fan speed control</li> </ul>
------	--

### 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	 <ul style="list-style-type: none"> <li>Titanium Level [ <a href="#">Test Report</a> ]</li> </ul>

### 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
<b>Motherboard / Chassis</b>	MBD-X10DRFF-CG	4	Super X10DRFF-CG Motherboard
	CSE-F424BG-R2K04B	1	4U Chassis
<b>Backplane</b>	BPN-ADP-F418L	4	BPN;SASADP;SAS827-H8;H8DTT;cable req
<b>Backplane</b>	BPN-ADP-2UGPU	4	Backplan adapter card for 2UGPU
<b>Backplane</b>	BPN-SAS3-F424-B6	4	6-Port Backplane Supports 6 x 12Gb/s 2.5" SAS/SATA HDD/SSD for FatTwin Platform,HF,RoHS/REACH
<b>Cable 1</b>	CBL-PWEX-0705	4	8 pin female (10A) to 8 pin female (10A), 12V CPU power cable, 35cm, 16AWG,RoHS/REACH
<b>Cable 2</b>	CBL-0460L-02	4	8 pin Male to two 4 pin Male power cable, 10cm and 7cm. 18AWG
<b>Cable 3</b>	CBL-SAST-0759	8	MINI SAS HD-4 SATA,12G,INT,15CM,15CM SB,30AWG
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Riser Card</b>	RSC-F2F-6	4	RSC-F2F-6
<b>Riser Card</b>	RSC-R2UFF-2E16B	4	RSC-R2UFF-2E16
<b>Heatsink / Retention</b>	SNK-P0047PSC	4	1U Passive Front CPU Heat Sink w/ a Side Air Channel for X9, X10 Systems Equipped with a Narrow ILM MB
<b>Heatsink / Retention</b>	SNK-P0057PS	4	1U High Performance Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Narrow 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>Bracket for Xeon Phi</b>	MCP-240-42408-0N-PACK	4	System default installed brackets for Nvidia GPUs. This bracket must be ordered if Xeon Phi (MIC) will be implemented
<b>Internal Fan</b>	FAN-0150L4	8	Rear internal fan for cooling enhancement
<b>UIO AOC bracket cover</b>	MCP-240-42412-0N	4	Front bracket cover for UIO Add-On-Card
<b>Software</b>	SFT-OOB-LIC	4	OOB Management Package (per node license)
<b>Software</b>	SFT-DCMS-Single	4	DataCenter Management Package (per node license)

**Note:** Power redundancy is based on configuration. For more information, please refer to user manual.