

# SuperServer F628G2-FC0PT+



## 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 v4<sup>†</sup>/ v3 family; QPI up to 9.6GT/s
2. Up to **2TB**<sup>†</sup> ECC 3DS LRDIMM , up to DDR4- **2400**<sup>†</sup>MHz ; 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 10GBase-T, 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. 6x 2.5" Hot-swap SAS/SATA HDDs; 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-F628G2-FC0PT+** ■ SuperServer F628G2-FC0PT+ (Black)

### Motherboard

**Super X10DRFF-CTG**

### Processor/Cache

- CPU** ■ Intel® Xeon® processor E5-2600 v4<sup>†</sup>/ v3 family (up to 145W TDP) \*  
■ Dual Socket R3 (LGA 2011)

- Cores / Cache** ■ Up to **22 Cores**<sup>†</sup> / Up to **55MB**<sup>†</sup> Cache

- System Bus** ■ QPI up to 9.6 GT/s

- Note** <sup>†</sup> BIOS version 2.0 or above is required

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

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

### Chassis

- Form Factor** ■ 4U Rackmount

- Model** ■ **CSE-F424BG-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  
■ UID LED

### Expansion Slots (per node)

- PCI-Express** ■ 3x PCI-E 3.0 x16 (FHFL) slots

**Phi Support**

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

**System Memory****Memory Capacity**

- 16x 288-pin DDR4 DIMM slots
- Up to 2TB<sup>†</sup> ECC 3DS LRDIMM, 1TB ECC RDIMM

**Memory Type**

- 2400<sup>†</sup>/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit

**DIMM Sizes**

- RDIMM: 64GB, 32GB, 16GB, 8GB, 4GB
- LRDIMM: 64GB, 32GB
- 3DS LRDIMM: 128GB

**Memory Voltage**

- 1.2 V

**Error Detection**

- Corrects single-bit errors

**On-Board Devices****Chipset**

- Intel® C612 chipset

**SAS**

- SAS3 (12Gbps) via LSI 3008
- SW RAID 0, 1, 10 support

**AHCI SATA**

- SATA 3.0 6Gbps with RAID 0, 1

**IPMI**

- Support for Intelligent Platform Management Interface v.2.0
- IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
- ASPEED AST2400 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 RTL8211E PHY (dedicated IPMI)

**Graphics**

- ASPEED AST2400 BMC

**Input / Output (per node)****SAS**

- 6x SAS3 (12Gbps) ports

**LAN**

- 2x RJ45 10GBase-T LAN ports
- 1x RJ45 Dedicated IPMI LAN port

**USB**

- 2x USB 3.0 ports

**VGA**

- 1x VGA port

(support 3x Double-width GPU/Xeon Phi)

- 2x PCI-E 3.0 x8 (LP) slots

**Drive Bays (per node)****Hot-swap**

- 6x 2.5" Hot-swap SAS/SATA HDD bays

**System Cooling****Fans**

- 8x 8cm heavy duty 11K fans with air shroud and PWM fan speed control

**Power Supply (76mm Width)**

2000W Redundant Power Supplies with PMBus

**Total Output Power**

- 1000W/2000W

**Dimension (W x H x L)**

- 76 x 40.4 x 336 mm

**Input**

- 100-127 Vac / 12-9.5 A / 50-60 Hz
- 200-220 Vac / 10-9.5 A / 50-60 Hz
- 220-230 Vac / 10-9.8 A / 50-60 Hz
- 230-240 Vac / 10-9.8 A / 50-60 Hz
- 200-240 Vac / 11.8-10 A / 50-60 Hz (UL/cUL only)

**+12V**

- Max: 83.3A & Min: 0A (100-127 Vac)
- Max: 150A & Min: 0A (200-220 Vac)
- Max: 165A & Min: 0A (220-230 Vac)
- Max: 166.7A & Min: 0A (230-240 Vac)
- Max: 166.7A & Min: 0A (200-240 Vac)(UL/cUL only)

**+5Vsb**

- Max: 1A / Min: 0A

**Output Type**

- 27 Pairs Gold Finger Connector

**Certification**

UL/cUL/CB/BSMI/CE/CCC  
**Titanium Level**  
[ Test Report ]

**System BIOS****BIOS Type**

- 128Mb 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**

- 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

Parts List - (Items Included)			
	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X10DRFF-CTG	4	Super X10DRFF-CTG 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-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>Backplane</b>	BPN-ADP-2UGPU	4	Backplan adapter card for 2UGPU
<b>Cable 1</b>	CBL-SAST-0759	8	MINI SAS HD-4 SATA,12G,INT,15CM,15CM SB,30AWG
<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-PWEX-0705	4	8 pin female (10A) to 8 pin female (10A), 12V CPU power cable, 35cm, 16AWG,RoHS/REACH
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Manual</b>	MNL-1757-QRG	1	Quick Reference Guide for F628G2-FC0+ / FC0PT+
<b>Riser Card</b>	RSC-R2UFF-2E16B	4	RSC-R2UFF-2E16
<b>Riser Card</b>	RSC-F2F-6	4	RSC-F2F-6
<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>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>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.