

SuperServer F628G2-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. 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-FC0+	▪ SuperServer F628G2-FC0+ (Black)
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Motherboard

[Super X10DRFF-CG](#)

Processor/Cache

CPU	▪ Intel® Xeon® processor E5-2600 v3 family (up to 145W TDP) * ▪ Dual Socket R3 (LGA 2011)
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Cores / Cache	▪ Up to 18 Cores / Up to 45MB Cache
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System Bus	▪ QPI up to 9.6 GT/s
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Note *** Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.**

GPU/Xeon Phi	▪ 3x Double-width GPU/Xeon Phi per node (total of 12x GPU/Xeon Phi cards in 4U) ▪ Supports Intel Xeon Phi ▪ Supports NVIDIA
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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 ▪ System Overheat / Power Fail LED ▪ UID LED

Expansion Slots (per node)

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

Memory Capacity	<ul style="list-style-type: none"> 16x 288-pin DDR4 DIMM slots Up to 1TB ECC LRDIMM, 512GB ECC RDIMM
Memory Type	<ul style="list-style-type: none"> 2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
DIMM Sizes	<ul style="list-style-type: none"> RDIMM: 32GB, 16GB, 8GB, 4GB LRDIMM: 64GB, 32GB
Memory Voltage	<ul style="list-style-type: none"> 1.2 V
Error Detection	<ul style="list-style-type: none"> Corrects single-bit errors

On-Board Devices

Chipset	<ul style="list-style-type: none"> Intel® C612 chipset
SAS	<ul style="list-style-type: none"> SAS3 (12Gbps) via LSI 3008 SW RAID 0, 1, 10 support
AHCI SATA	<ul style="list-style-type: none"> SATA 3.0 6Gbps with RAID 0, 1
IPMI	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 RTL8211E PHY (dedicated IPMI)
Graphics	<ul style="list-style-type: none"> ASPEED AST2400 BMC

Input / Output (per node)

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

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

Hot-swap	<ul style="list-style-type: none"> 6x 2.5" Hot-swap SAS/SATA HDD bays
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System Cooling

Fans	<ul style="list-style-type: none"> 8x 8cm heavy duty 11K fans with air shroud and PWM fan speed control
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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"> 1000W/1800W/1980W/2000W
AC Input	<ul style="list-style-type: none"> 100-127 V, 50-60 Hz 200-220 V, 50-60 Hz 220-230 V, 50-60 Hz 230-240 V, 50-60 Hz
+12V	<ul style="list-style-type: none"> Max: 83.3A & Min: 0A (100Vac-127Vac) Max: 150A & Min: 0A (200Vac-220Vac) Max: 165A & Min: 0A (220Vac-230Vac) Max: 166.7A & Min: 0A (230Vac-240Vac)
5V SB	<ul style="list-style-type: none"> Max: 1A / Min: 0A
Certification	 <ul style="list-style-type: none"> Titanium Level [Test Report]

System BIOS

BIOS Type	<ul style="list-style-type: none"> 128Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> 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
Motherboard / Chassis	MBD-X10DRFF-CG	4	Super X10DRFF-CG Motherboard
	CSE-F424BG-R2K04B	1	4U Chassis
Backplane	BPN-ADP-F418L	4	BPN;SASADP;SAS827-H8;H8DTT;cable req
Backplane	BPN-ADP-2UGPU	4	Backplan adapter card for 2UGPU
Backplane	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
Cable 1	CBL-PWEX-0705	4	8 pin female (10A) to 8 pin female (10A), 12V CPU power cable, 35cm, 16AWG,RoHS/REACH
Cable 2	CBL-0460L-02	4	8 pin Male to two 4 pin Male power cable, 10cm and 7cm. 18AWG
Cable 3	CBL-SAST-0759	8	MINI SAS HD-4 SATA,12G,INT,15CM,15CM SB,30AWG
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Riser Card	RSC-F2F-6	4	RSC-F2F-6
Riser Card	RSC-R2UFF-2E16B	4	RSC-R2UFF-2E16
Heatsink / Retention	SNK-P0047PSC	4	1U Passive Front CPU Heat Sink w/ a Side Air Channel for X9, X10 Systems Equipped with a Narrow ILM MB
Heatsink / Retention	SNK-P0057PS	4	1U High Performance Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Narrow ILM MB
Power Supply	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
Bracket for Xeon Phi	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
Internal Fan	FAN-0150L4	8	Rear internal fan for cooling enhancement
UIO AOC bracket cover	MCP-240-42412-0N	4	Front bracket cover for UIO Add-On-Card
Software	SFT-OOB-LIC	4	OOB Management Package (per node license)
Software	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.