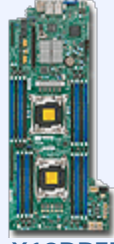


SuperServer F618R2-RCOPT+



Integrated Board



Super X10DRFR-NT

Key Features

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

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v4†/ v3 family; QPI up to 9.6GT/s
2. Up to 2TB† ECC 3DS LRDIMM , up to DDR4- 2400†MHz ; 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 10GBase-T ports, 1 VGA, 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 3008
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-RCOPT+	▪ SuperServer F618R2-RCOPT+ (Black)
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Motherboard

Super X10DRFR-NT

Processor/Cache

CPU	▪ Intel® Xeon® processor E5-2600 v4†/ v3 family (up to 145W TDP) * ▪ Dual Socket R3 (LGA 2011)
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Cores / Cache	▪ Up to 22 Cores† / Up to 55MB† Cache
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System Bus	▪ QPI up to 9.6 GT/s
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Note † 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.

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 ▪ UID button
LEDs	▪ Power status LED ▪ 1x Network activity LED for LAN 1 & LAN 2 ▪ Information LED (UID, Fan failure, Overheat)

System Memory	
Memory Capacity	<ul style="list-style-type: none"> 16x 288-pin DDR4 DIMM slots Up to 2TB[†] ECC 3DS LRDIMM, 1TB ECC RDIMM
Memory Type	<ul style="list-style-type: none"> 2400[†]/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
DIMM Sizes	<ul style="list-style-type: none"> RDIMM: 64GB, 32GB, 16GB, 8GB, 4GB LRDIMM: 64GB, 32GB 3DS LRDIMM: 128GB
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"> LSI 3008 SAS3 (12Gbps) controller
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps) with RAID 0, 1, 5, 10
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® 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	<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 10GBase-T 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

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

Expansion Slots (per node)	
PCI-Express	<ul style="list-style-type: none"> 1x PCI-E 3.0 x16 Low-profile 1x PCI-E 3.0 x8 (Micro LP) MicroLP Adapter Matrix (Networking options)

Drive Bays (per node)	
Hot-swap	<ul style="list-style-type: none"> 6x 2.5" Hot-swap SAS/SATA drives Optional NVMe support

Backplane	
1x SAS/SATA backplane	

System Cooling (per node)	
Fans	<ul style="list-style-type: none"> 3x 4cm 14k RPM middle fans

Power Supply with Digital Switching Control	
2000W Redundant Titanium Level 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	  Titanium Level [Test Report]
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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-X10DRFR-NT	8	Super X10DRFR-NT Motherboard
	CSE-F418BC-R2K04B	1	4U Chassis
Backplane	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
Backplane	BPN-ADP-F418LS	8	Power Distribution Board for X10DRFR, RoHS/REACH, PBF
Backplane	BPN-ADP-8S3008-1UF	8	BPN-ADP-8S3008-1UF
Cable 1	CBL-SAST-0697	16	Internal Mini-SAS HD to Mini-SAS HD 6cm, 30AWG, 12Gb/s [Amphenol], RoHS/REACH
Cable 2	CBL-0486L	16	2x2 to 2x2 15cm power cable HF. 18AWG
Cable 3	CBL-OTHR-0022L	8	20 to 20 pin cable for BPN-ADP-F418LS, 7.5cm, 28AWG, RoHS/REACH, PBF
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Manual	MNL-1764-QRG	1	Quick Reference Guide for F618R2-RC0+/ RC0PT+
Riser Card	RSC-R1UF-E16R	8	1U RHS Riser Card with PCI-E X16 for FAT TWIN System
Heatsink / Retention	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
Heatsink / Retention	SNK-P0057P	8	1U High Performance Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Square 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
NVMe Cable	CBL-SAST-0698	2/node	10cm NVMe cable; RA-RA
NVMe Kit:			
Mounting Bracket	MCP-120-42405-0N	1/node	2nd power adapter mounting bracket *
Power adapter Board	BPN-ADP-2UPWR-O-P	1/node	Power adapter board *
Software	SFT-OOB-LIC	8	OOB Management Package (per node license)
Software	SFT-DCMS-Single	8	DataCenter Management Package (per node license)

* Required for certain configurations. Please contact Supermicro for additional details.