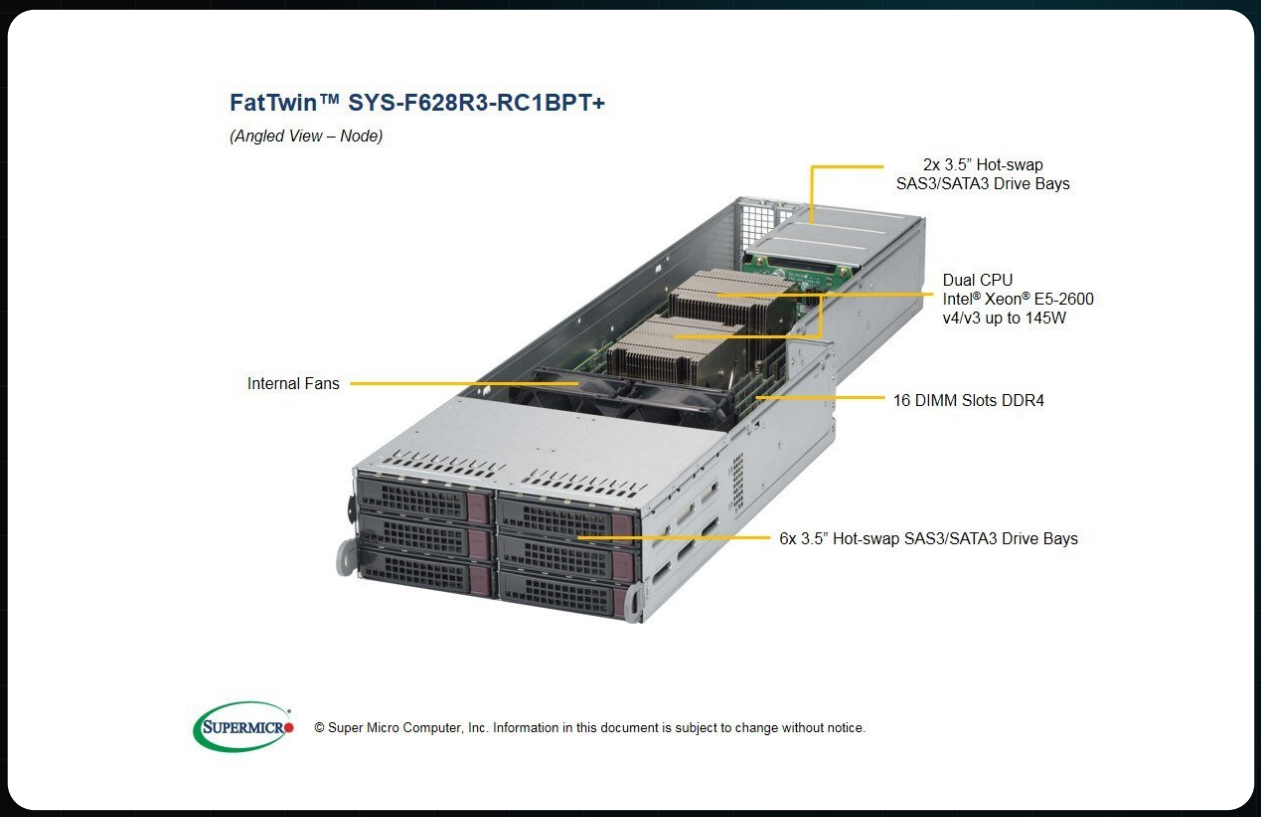
TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-F628R3-RC1BPT

SKU SYS-F628R3-RC1BPT | 4U | Supermicro



FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
4U	602 W	2,054 BTU/h	On request

REQUEST A QUOTATION ONLINE

serverinvest.com/product/sys-f628r3-rc1bpt

01 Product overview

The Supermicro SYS-F628R3-RC1BPT is a server built on dual Intel Xeon processor E5-2600 v4 † / v3 family (up to 145W TD processors with up to 2 TB of memory in 4 DIMM slots.

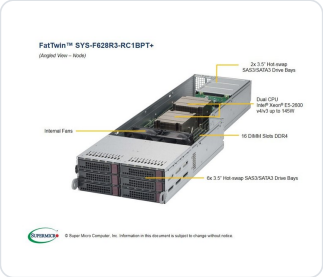
ServerInvest configures every SYS-F628R3-RC1BPT to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

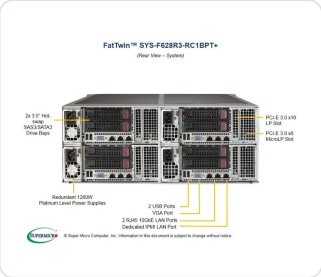
HIGHLIGHTS

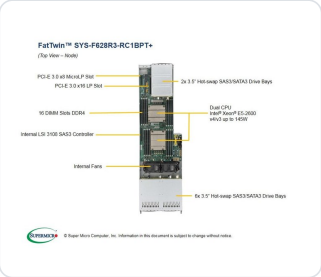
- Dual Intel Xeon processor E5-2600 v4 † / v3 family (up to 145W TD
- Up to 2 TB memory · 4 DIMM slots
- (6+2) 3.5" Hot-swap SAS3 HDD trays
- Power: 1000W Output @ 100-140V, 8-12A, 50-60Hz
- Networking: Intel X540 Dual Port 10GBase-T

KEY SPECIFICATIONS

Form factor	**4U**
Processor	**2× Intel Xeon processor E5-2600 v4 † / v3 family (up to 145W TD**
Memory	**4 DIMM slots, up to 2 TB**
Power supply	**1× 1000 W**
Typical power draw	**750 W**
Networking	**Intel X540 Dual Port 10GBase-T**
Dimensions (W×H×D)	**437 × 178 mm**







02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
143 W	**374 W**	**602 W**	**2,054 BTU/h**	**0.6 kW**	**60%**

Typical 374 W · max 602 W · single PSU rating 1000 W

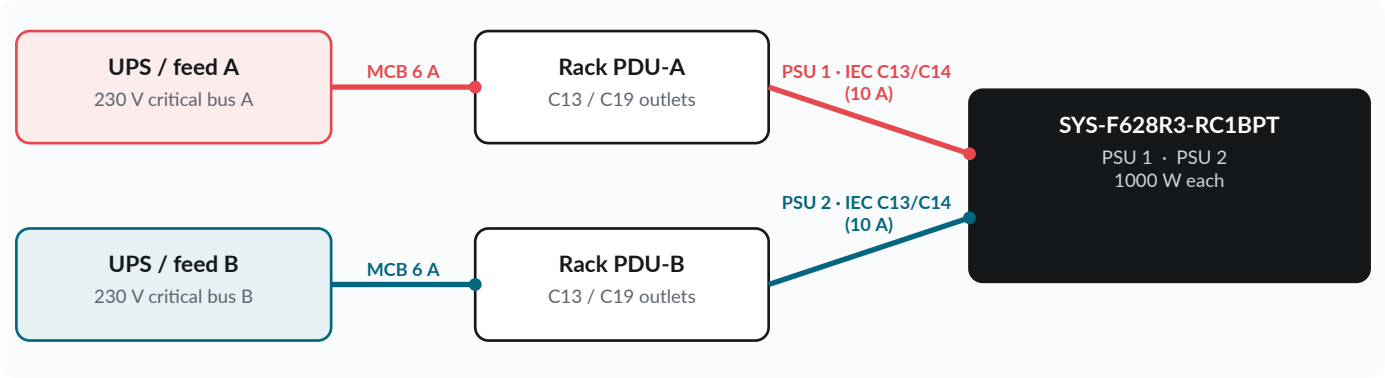
Annual IT energy (24/7)	2,669 kWh
Annual facility energy (PUE 1.5)	4,004 kWh
Annual energy cost	€534 IT · €801 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	1.04 t (grid factor 0.26 kg/kWh)
Power supplies	1× 1000 W

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	72 W	112 W	**160 W**
2× CPU (base configuration)	50 W	220 W	**370 W**
4× Memory (base configuration)	12 W	20 W	**36 W**

DC loads converted to wall power at 94% PSU efficiency; typical load assumed 70% of the time. Engineering estimates — confirm with the manufacturer's power calculator for critical designs.

03 Power connection diagram

Dual-feed (A/B) connection for redundant power supplies



- Connect PSU 1 to PDU-A and PSU 2 to PDU-B (independent feeds) using IEC C13/C14 (10 A) power cords.
- Maximum current per feed: 2.8 A at 230 V — each feed must be able to carry the full load if the other fails.
- Recommended protection per PDU circuit: MCB 6 A, curve C; RCD according to local regulations.
- Heat to remove at full load: 602 W = 2,054 BTU/h (0.6 kW).

04 Full specifications

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

SYSTEM MEMORY	
Memory Capacity	16x 288-pin DDR4 DIMM slots Up to 2TB † ECC 3DS LRDIMM, 1TB ECC RDIMM
Memory Type	2400 † /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	SAS 3.0 (12Gbps) via Broadcom 3108 HW RAID 0, 1, 5, 6, 10, 50, 60

SATA	SATA 3.0 (6Gbps) w/ RAID 0, 1, 5, 10
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 RTL8201N PHY (dedicated IPMI)
Graphics	ASPEED AST2400 BMC

INPUT / OUTPUT (PER NODE)

SAS	8 SAS3 (12Gbps) ports
LAN	2 RJ45 10GBase-T LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	2 USB 3.0 ports
VGA	1 VGA port

MANAGEMENT

Software	SuperDoctor 5 Watch Dog NMI IPMI 2.0 SUM and SSM
Power Configurations	ACPI / APM Power Management Power-on mode for AC power recovery

CHASSIS

Form Factor	4U Rackmount
Model	CSE-F424AS-R1K28BP

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: 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 Hard drive activity LED 2 Network activity LEDs Information LED (UID, Fan failure, Overheat)

EXPANSION SLOTS (PER NODE)

PCI-Express	1 PCI-E 3.0 x16 (LP) + 1 Micro LP MicroLP Adapter Matrix (Networking options)

DRIVE BAYS (PER NODE)

Hot-swap	(6+2) 3.5" Hot-swap SAS3 HDD trays 8 SAS3 or 6x SAS3 + 2 NVMe (optional) Note: NVMe support requires 2 CPUs installed

SYSTEM COOLING (PER NODE)

Fans	2x 8cm 11k RPM middle fans

POWER SUPPLY

AC Input	1000W Output @ 100-140V, 8-12A, 50-60Hz 1280W Output @ 180-240V, 6-8A, 50-60Hz
DC Output	1000W: +12V/83A; +5Vsb/4A 1280W: +12V/106.7A, +5Vsb/4A
Certification	Platinum Certified [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)

05 Built, tested & supported by ServerInvest

Engineered configuration
Every option validated for socket, memory channels, PCIe lanes, power and cooling.

48-hour burn-in
Assembled, firmware-updated and stress-tested before it leaves our workshop.

3-year warranty
Standard on every system, with on-site next-business-day upgrades available.

Rack-ready delivery
Rails, cable management and labelling included — delivered across Europe.

ISO 9001 · ISO 14001 · ISO 27001

Interested in this solution?
Request a quotation online or talk to a solutions engineer — we reply within one business day.
office@serverinvest.com