

TECHNICAL DATASHEET

SUPERMICRO · EDGE & EMBEDDED

Supermicro 2U IoT Server SYS-211SE-31DS

X13 SuperEdge 2U3-Node UP front I/O short-depth server

SKU SYS-211SE-31DS

2U

LGA4677

Supermicro



FORM FACTOR

2U

MAX POWER (BASE)

269 W

HEAT OUTPUT

918 BTU/h

PRICE

On request

CONFIGURE & QUOTE ONLINE

[serverinvest.com/product/
sys-211se-31ds](https://serverinvest.com/product/sys-211se-31ds)

01 **Product overview**

The Supermicro SYS-211SE-31DS is a 2U IoT Server built on Intel Xeon Scalable 4th/5th Gen with up to 2 TB of memory in 8 DIMM slots.

X13 SuperEdge 2U3-Node UP front I/O short-depth server.

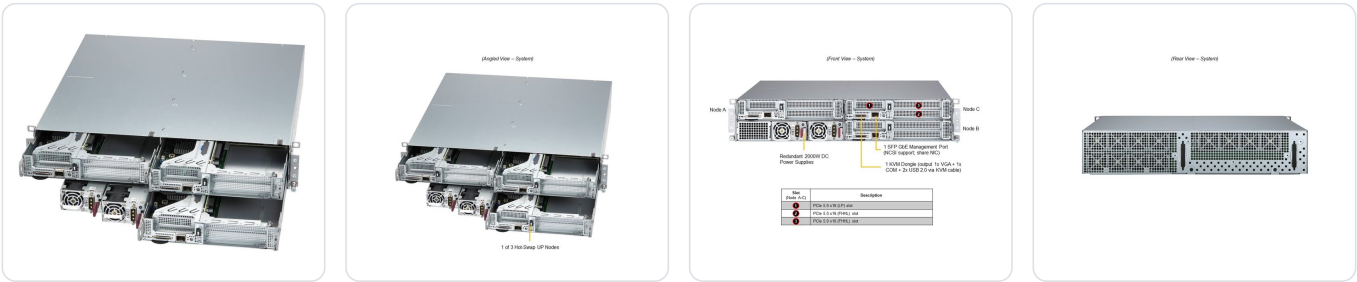
ServerInvest configures every SYS-211SE-31DS to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Intel Xeon Scalable 4th/5th Gen
- Up to 2 TB memory · 8 DIMM slots
- 2 M.2 PCIe 5.0 x4 NVMe slots (M-key 2280/22110; VROC required for RAID)
- Power: 2x 2000W
- Networking: 1 SFP 1GbE with Intel I210-IS

KEY SPECIFICATIONS

Form factor	2U
Processor	Intel Xeon Scalable 4th/5th Gen
Socket	LGA4677
Memory	8 DIMM slots, up to 2 TB
Memory type	DDR5-5600 ECC RDIMM
Power supply	2× 2000 W
Typical power draw	450 W
Networking	1 SFP 1GbE with Intel I210-IS
Dimensions (W×H×D)	437 × 89 mm



02 **Base configuration**

Components included in the listed base price — every part can be changed in the online configurator

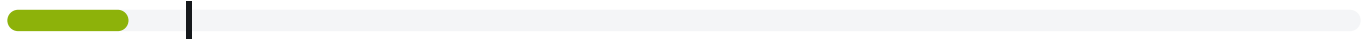
COMPONENT	DESCRIPTION	QTY
Base system	Supermicro 2U IoT Server SYS-211SE-31DS	1
Processor	Intel Xeon Bronze 3408U Processor 8 Cores (22.5M Cache, 1.80/1.90 GHz) 125W	1
Memory	16GB 5600MT/s DDR5 ECC Registered DIMM Module	2
Warranty & support	3-year return-to-base warranty (included)	1

Price on request — contact us for a tailored quotation

03 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
80 W	179 W	269 W	918 BTU/h	0.3 kW	13%



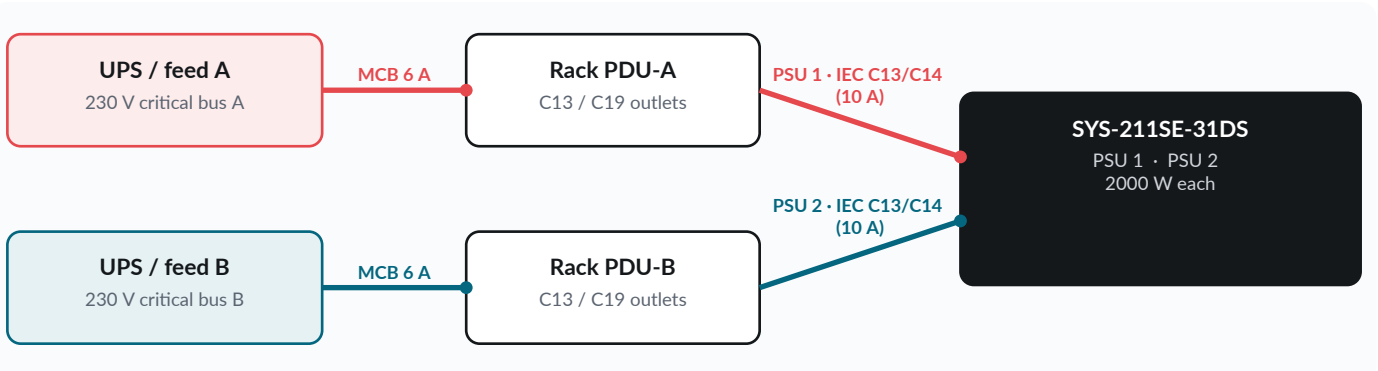
Annual IT energy (24/7)	1,308 kWh
Annual facility energy (PUE 1.5)	1,962 kWh
Annual energy cost	€262 IT · €392 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.51 t (grid factor 0.26 kg/kWh)
Power supplies	2× 2000 W redundant (N+1)

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	50 W	77 W	110 W
CPU — Intel Xeon Bronze 3408U Processor 8 Cores	19 W	81 W	125 W
2× Memory 16 GB DIMM	6 W	10 W	18 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.

04 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: 1.2 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: 269 W = 918 BTU/h (0.3 kW).

05 Full specifications

MOTHERBOARD	
	Super X13SEED-SF
PROCESSOR (PER NODE)	
CPU	Single Socket E (LGA-4677) 5th Gen Intel Xeon / 4th Gen Intel Xeon Scalable processors
Core Count	Up to 52C/104T; Up to 97.5MB Cache

Note

Supports 85W - 300W TDP CPUs (Air Cooled)*

*Air Cooled CPUs with TDP over 205W only supported under specific conditions. Contact a Supermicro representative for details.

SYSTEM MEMORY (PER NODE)

Memory	Slot Count: 8 DIMM slots/1 Channels Max Memory (1DPC): Up to 2TB 5600MT/s ECC DDR5 RDIMM View Memory Options
Memory Voltage	1.1V

ON-BOARD DEVICES (PER NODE)

Network Connectivity	1 SFP 1GbE with Intel I210-IS View AOC Options
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INPUT / OUTPUT (PER NODE)

LAN	1 SFP 1 GbE LAN port (Intel I210-IS) (IPMI shared on LAN port 1)
TPM	1 TPM header
Others	1 KVM dongle (output 1x VGA/1x COM/2x USB 2.0 via KVM cable) port

SYSTEM BIOS

BIOS Type	AMI 256MB SPI Flash
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MANAGEMENT

Software	SuperCloud Composer (SCC) Supermicro Server Manager (SSM) Supermicro Update Manager (SUM) Supermicro SuperDoctor 5 (SD5) Super Diagnostics Offline (SDO) Supermicro Thin-Agent Service (TAS) SuperServer Automation Assistant (SAA) New!
Power configurations	ACPI Power Management Power-on mode for DC power recovery

SECURITY

Hardware	Trusted Platform Module (TPM) 2.0 Silicon Root of Trust (RoT) – NIST 800-193 Compliant
Features	Cryptographically Signed Firmware Secure Boot Secure Firmware Updates Automatic Firmware Recovery Supply Chain Security: Remote Attestation Runtime BMC Protections System Lockdown

PC HEALTH MONITORING

CPU	Monitors for CPU Cores, Chipset Voltages, Memory
Fan	Fans with tachometer monitoring Pulse Width Modulated (PWM) fan connectors Status monitor for speed control

Temperature	CPU thermal trip support, PEPI Monitoring for CPU and chassis environment
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CERTIFICATIONS

Operating Systems	RHEL 9.0, Windows Server 2022 View all OS Compatibility and Certification Matrix
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CHASSIS

Form Factor	2U Rackmount
Model	CSE-SE201-R2K06P

DIMENSIONS AND WEIGHT

Height	3.5" (88 mm)
Width	17.7" (449 mm)
Depth	16.9" (430 mm)
Package	9.5" (H) x 29.5" (W) x 23.2" (D)
Weight	Gross Weight: 70.6 lbs (32 kg) Net Weight: 55.1 lbs (25 kg)
Available Color	Silver

FRONT PANEL

Buttons	Power On/Off UID button
LED	LAN1 activity Power status System information

EXPANSION SLOTS (PER NODE)

PCI-Express (PCIe) Configuration	Default 1 PCIe 5.0 x16 HHHL slot 2 PCIe 5.0 x16 FHHL slots View AOC Options
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DRIVE BAYS / STORAGE (PER NODE)

M.2	2 M.2 PCIe 5.0 x4 NVMe slots (M-key 2280/22110; VROC required for RAID) View M.2 Options
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SYSTEM COOLING

Fans	Up to 12x 4cm heavy duty fans with optimal fan speed control 40x40x56mm Fan(s)
Air Shroud	3 Air Shrouds

POWER SUPPLY

2x 2000W
2x 2000W Redundant (1 + 1) power supplies
Dimension (WxHxL)
73.5 x 40 x 265 mm

OPERATING ENVIRONMENT

RoHS

RoHS Compliant

Environmental Spec.

Operating Temperature: 0°C to 35°C (32°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)

06 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.



Ready to order or need changes?

Configure this system online or talk to a solutions engineer — we reply within one business day.

office@serverinvest.com

Official manufacturer datasheet: serverinvest.com/product/sys-211se-31ds/datasheet/manufacturer

