TECHNICAL DATASHEET

SUPERMICRO · EDGE & EMBEDDED

Supermicro IoT SuperServer SYS-E200-12A-4C

Embedded Mini-ITX Box Based on 4-Core Intel Atom Processor C5000 SoC

SKU SYS-E200-12A-4C | 1U | Supermicro

FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
1U	306 W	1,044 BTU/h	from €1,140

ISO 9001 · ISO 14001 · ISO 27001 · cisco · tp-link · Omada by tp-link

CONFIGURE & QUOTE ONLINE

serverinvest.com/product/sys-e200-12a-4c

01 Product overview

The Supermicro SYS-E200-12A-4C is a Mini-ITX IoT Server built on Intel Atom.

Embedded Mini-ITX Box Based on 4-Core Intel Atom Processor C5000 SoC.

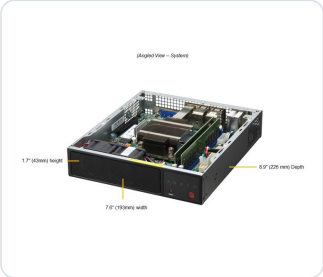
ServerInvest configures every SYS-E200-12A-4C to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

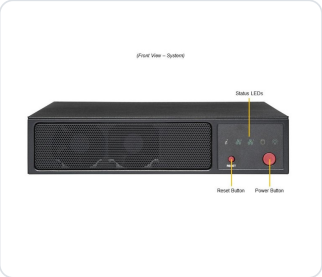
HIGHLIGHTS

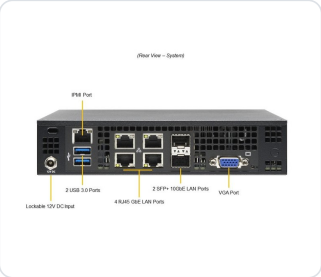
- Intel Atom
- 1 M.2 PCIe 3.0 x4 NVMe slot (M-key 2280)
- Power: 1x 150W
- Networking: 4 RJ45 1GbE with Intel C5000 SoC

KEY SPECIFICATIONS

Form factor	**1U**
Processor	**Intel Xeon D / Atom (embedded)**
Memory	**2 DIMM slots, up to 256 GB**
Power supply	**1× 150 W**
Typical power draw	**490 W**
Networking	**4 RJ45 1GbE with Intel C5000 SoC**
Dimensions (W×H×D)	**437 × 44 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 IoT SuperServer SYS-E200-12A-4C**	**1**
Memory	16GB 5600MT/s DDR5 ECC Registered DIMM Module	**2**
Warranty & support	3-year return-to-base warranty (included)	**1**

Base configuration from **€1,140** excl. VAT

03 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
73 W	190 W	306 W	1,044 BTU/h	0.3 kW	204%

Typical 190 W · max 306 W · single PSU rating 150 W

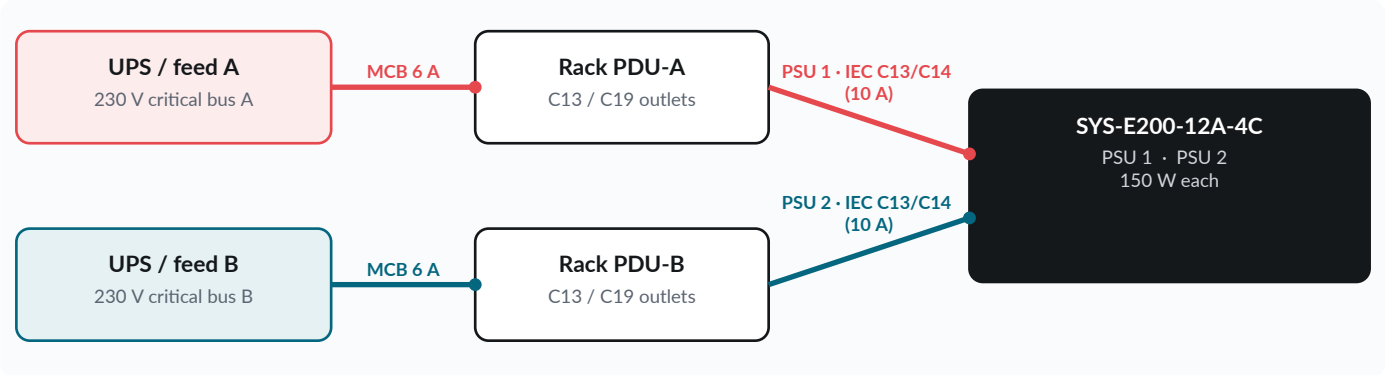
Annual IT energy (24/7)	1,357 kWh
Annual facility energy (PUE 1.5)	2,036 kWh
Annual energy cost	€271 IT · €407 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.53 t (grid factor 0.26 kg/kWh)
Power supplies	1× 150 W

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	38 W	59 W	**85 W**
2× Memory 16 GB DIMM	6 W	10 W	**18 W**
CPU (base configuration)	25 W	110 W	**185 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: 1.4 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: 306 W = 1,044 BTU/h (0.3 kW).

05 Full specifications

MOTHERBOARD	
	Super A3SPI-4C-LN6PF

PROCESSOR	
CPU	Single FCBGA-2106 Intel Atom processor C5315
Core Count	4C/8T; 9MB Cache

Note	Supports up to 38W TDP CPUs (Air Cooled)

SYSTEM MEMORY

Memory	Slot Count: 2 DIMM slots Max Memory (2DPC): 128GB 2400MT/s ECC DDR4 RDIMM View Memory Options
Memory Voltage	1.2V

ON-BOARD DEVICES

Network Connectivity	4 RJ45 1GbE with Intel C5000 SoC 2 SFP+ 10GbE with Intel C5000 SoC View AOC Options

INPUT / OUTPUT

LAN	1 RJ45 1 GbE Dedicated BMC LAN port 2 SFP+ 10 GbE LAN ports 4 RJ45 1 GbE LAN ports
USB	2 USB 3.0 ports
Video	1 VGA port

SYSTEM BIOS

BIOS Type	AMI 32MB UEFI
BIOS Features	UEFI 2.7 ACPI 6.0 or later SMBIOS 3.0 or later

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	Power-on mode for AC power recovery +12V DC Power Input CPU thermal trip support for processor protection

SECURITY

Hardware	Trusted Platform Module (TPM) 2.0

CERTIFICATIONS

Operating Systems	RHEL 9.0 View all OS Compatibility and Certification Matrix

CHASSIS

Form Factor	Mini-ITX
Model	CSE-101F

DIMENSIONS AND WEIGHT

Height	1.69" (43 mm)
Width	7.68" (195 mm)
Depth	8.89" (225.8 mm)
Package	11.22" (H) x 14.96" (W) x 5.47" (D)
Weight	Gross Weight: 7.5 lbs (3.4 kg) Net Weight: 2.76 lbs (1.25 kg)
Available Color	Black

FRONT PANEL

Buttons	Power On/Off button System Reset button
LED	Unit Identification (UID) LED

EXPANSION SLOTS

M.2	1 M.2 NVMe/SATA slot (B-key 3052)
PCI-Express (PCIe) Configuration	View AOC Options

DRIVE BAYS / STORAGE

M.2	1 M.2 PCIe 3.0 x4 NVMe slot (M-key 2280) View M.2 Options

SYSTEM COOLING

Fans	Up to 2x 4-PIN PWM 40x40x28mm Fan(s)

POWER SUPPLY

1x 150W
1x 150W power supply
Dimension (WxHxL)
151.3 x 25.4 x 75.6 mm

OPERATING ENVIRONMENT

Environmental Spec.	Operating Temperature: 0°C to 40°C (32°F to 104°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.

NATCERT ISO 9001 · NATCERT ISO 14001 · NATCERT ISO 27001 · cisco · tp-link · Omada by tp-link

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-e200-12a-4c/datasheet/manufacturer