TECHNICAL DATASHEET

SUPERMICRO · EDGE & EMBEDDED

Supermicro Mini-ITX IoT Server SYS-E200-12D-10C

Embedded Mini-ITX Box Based on Intel Xeon D-1749NT processor

SKU SYS-E200-12D-10C | Compact | Supermicro

FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
Compact	306 W	1,044 BTU/h	On request

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

REQUEST A QUOTATION ONLINE

serverinvest.com/product/sys-e200-12d-10c

01 Product overview

The Supermicro SYS-E200-12D-10C is a Mini-ITX IoT Server built on Intel Xeon D with up to 128 GB of memory in 2 DIMM slots.

Embedded Mini-ITX Box Based on Intel Xeon D-1749NT processor.

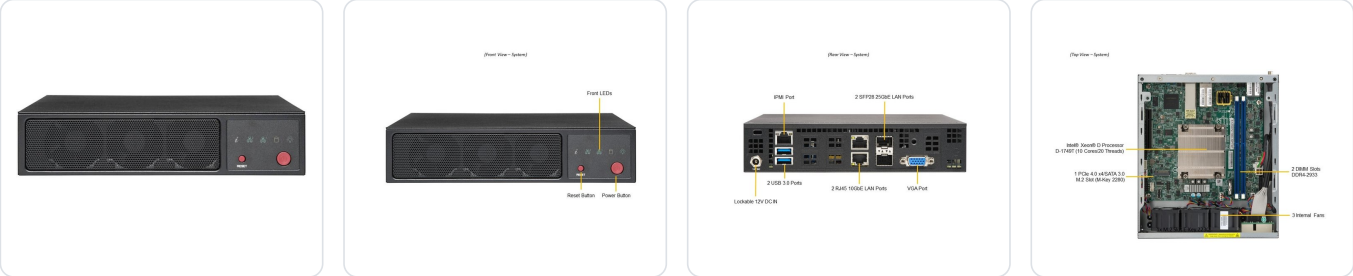
ServerInvest configures every SYS-E200-12D-10C to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

KEY SPECIFICATIONS

Form factor	**Compact**
Processor	**Intel Xeon D**
Memory	**2 DIMM slots, up to 128 GB**
Power supply	**1× 180 W**
Typical power draw	**450 W**
Networking	**2 RJ45 10GbE with Intel X550-AT2**

HIGHLIGHTS

- Intel Xeon D
- Up to 128 GB memory · 2 DIMM slots
- 1 M.2 PCIe 4.0 x4 NVMe/SATA slot (M-key 2280)
- Power: 1x 180W
- Networking: 2 RJ45 10GbE with Intel X550-AT2



02 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**	**170%**

Typical 190 W · max 306 W · single PSU rating 180 W

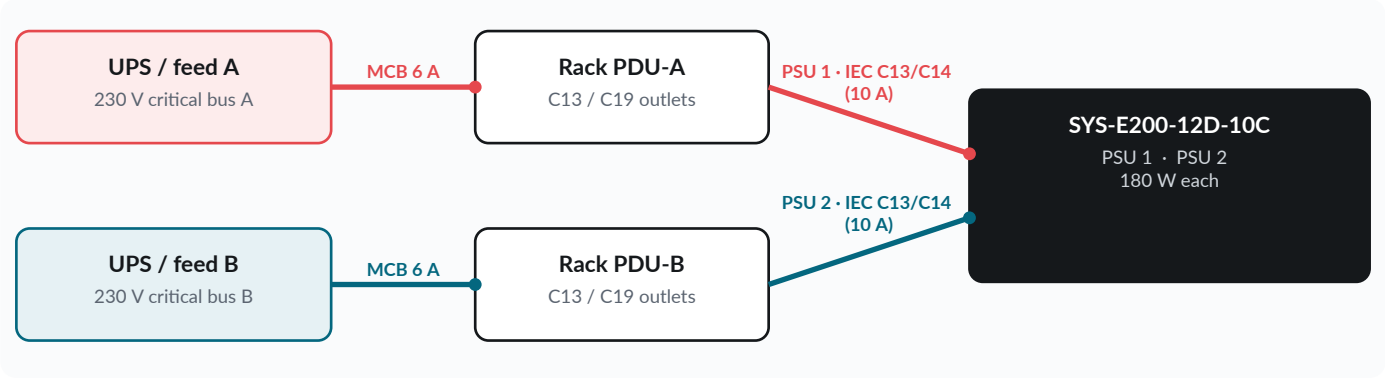
Annual IT energy (24/7)	1,357 kWh
Annual facility energy (PUE 1.5)	2,036 kWh
Annual energy cost	€271 IT · €407 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.53 t (grid factor 0.26 kg/kWh)
Power supplies	1× 180 W

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	38 W	59 W	**85 W**
CPU (base configuration)	25 W	110 W	**185 W**
2× Memory (base configuration)	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.

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: 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).

04 Full specifications

MOTHERBOARD	
	Super X12SDV-10C-SPT4F

PROCESSOR	
CPU	Single processor(s) Intel Xeon Processor D-1749NT
Core Count	Up to 10C/20T; Up to 15MB Cache
Note	Supports up to 90W TDP CPUs (Air Cooled)

SYSTEM MEMORY	
Memory	Slot Count: 2 DIMM slots Max Memory (1DPC): Up to 128GB 2933MT/s ECC/non-ECC DDR4 RDIMM/UDIMM View Memory Options
Memory Voltage	1.2V

ON-BOARD DEVICES	
Network Connectivity	2 RJ45 10GbE with Intel X550-AT2 2 SFP28 25GbE 1 RJ45 1GbE with Realtek RTL8211F PHY (dedicated IPMI) View AOC Options

INPUT / OUTPUT	
LAN	1 RJ45 1 GbE Dedicated BMC LAN port 2 SFP28 25 GbE LAN ports 2 RJ45 10 GbE LAN ports (Intel X550-AT2)
USB	2 USB 3.0 Type-A ports (Rear)
Video	1 VGA port (Rear)

SYSTEM BIOS

BIOS Type	AMI 32MB UEFI
BIOS Features	Plug and Play (PnP) SMBIOS 3.0 or later ACPI 6.0 Riser Card audio detection support

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 Silicon Root of Trust (RoT) – NIST 800-193 Compliant
Features	Cryptographically Signed Firmware Secure Boot Secure Firmware Updates Automatic Firmware Recovery System Lockdown

CERTIFICATIONS

Operating Systems	Windows Server 2019, Windows Server 2022, Windows Server 2025 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

DRIVE BAYS / STORAGE

M.2	1 M.2 PCIe 4.0 x4 NVMe/SATA slot (M-key 2280) View M.2 Options

SYSTEM COOLING

Fans	Up to 3x 4-PIN PWM 40x40x28mm Fan(s)

POWER SUPPLY

	1x 180W 1x 180W 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)

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.

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

Interested in this solution?

Request a quotation online or talk to a solutions engineer — we reply within one business day.
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Official manufacturer datasheet: serverinvest.com/product/sys-e200-12d-10c/datasheet/manufacturer