

TECHNICAL DATASHEET

SUPERMICRO · EDGE & EMBEDDED

Supermicro 1U IoT Server SYS-112B-FDWR

1U Compact Edge Server with 2 NVMe/SATA bays

SKU SYS-112B-FDWR

1U

LGA4710

Supermicro



FORM FACTOR

1U

MAX POWER (BASE)

269 W

HEAT OUTPUT

918 BTU/h

PRICE

On request

CONFIGURE & QUOTE ONLINE

serverinvest.com/product/sys-112b-fdwr

01 **Product overview**

The Supermicro SYS-112B-FDWR is a 1U IoT Server built on Intel Xeon 6 with up to 1 TB of memory in 8 DIMM slots.

1U Compact Edge Server with 2 NVMe/SATA bays.

The chassis accepts up to 2 GPU accelerators for AI, rendering and HPC workloads.

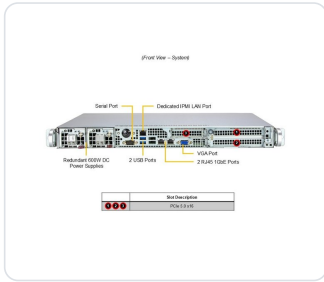
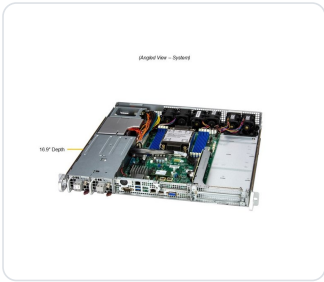
ServerInvest configures every SYS-112B-FDWR to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Intel Xeon 6
- Up to 1 TB memory · 8 DIMM slots
- Total 2 bays 2 internal fixed 2.5" NVMe/SATA drive bays
- Up to 2 GPUs
- Power: 2x 600W
- Networking: 2 RJ45 1GbE with Intel I210

KEY SPECIFICATIONS

Form factor	1U
Processor	Intel Xeon 6
Socket	LGA4710
Memory	8 DIMM slots, up to 1 TB
Memory type	DDR5-6400 ECC RDIMM
Drive bays	2 (2 NVMe)
GPU	Up to 2 GPUs
Power supply	2× 600 W
Typical power draw	1350 W
Networking	2 RJ45 1GbE with Intel I210
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 1U IoT Server SYS-112B-FDWR	1
Processor	Intel Xeon 6505P Processor 12 Cores (48M Cache, 2.20Ghz) 150W	1
Memory	16GB 6400MT/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
71 W	178 W	269 W	918 BTU/h	0.3 kW	45%

Typical 178 W · max 269 W · single PSU rating 600 W

Annual IT energy (24/7)	1,278 kWh
Annual facility energy (PUE 1.5)	1,917 kWh
Annual energy cost	€256 IT · €383 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.50 t (grid factor 0.26 kg/kWh)
Power supplies	2× 600 W redundant (N+1)

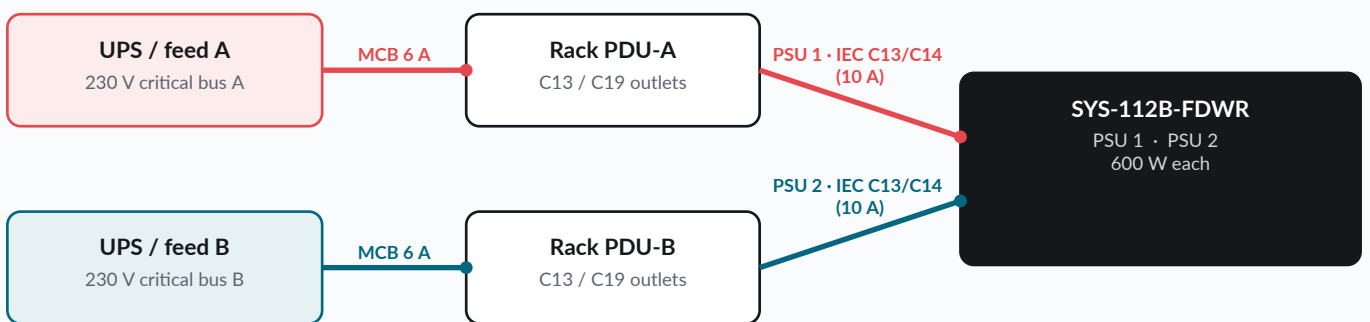
POWER BY COMPONENT

	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	38 W	59 W	85 W
CPU — Intel Xeon 6505P Processor 12 Cores	23 W	98 W	150 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 X14SBW-F

PROCESSOR

CPU

Single Socket E2 (LGA-4710)
 Intel Xeon 6700/6500 series processors with P-cores or 6700 series processors with E-cores

Core Count	P-cores: Up to 86C/172T; Up to 336MB Cache E-cores: Up to 144C/144T; Up to 108MB Cache
Note	Supports up to 250W TDP CPUs (Air Cooled)

GPU

Max GPU Count	Up to 2 single-width GPUs
Supported GPU	NVIDIA PCIe: L4 View GPU Options

SYSTEM MEMORY

Memory	Slot Count: 8 DIMM slots/8 Channels Max Memory (1DPC): Up to 1TB 6400MT/s ECC DDR5 RDIMM View Memory Options
Memory Voltage	1.1V

ON-BOARD DEVICES

SATA	SATA (6Gbps)
Network Connectivity	2 RJ45 1GbE with Intel I210 View AOC Options

INPUT / OUTPUT

LAN	1 RJ45 1 GbE Dedicated BMC LAN port 2 RJ45 1 GbE LAN ports
USB	2 USB 3.2 Gen1 Type-A ports (rear) 2 USB 3.2 Gen1 ports (Header)
Video	1 VGA port
Serial	1 COM port (Front)
TPM	1 TPM header

SYSTEM BIOS

BIOS Type	AMI 64MB SPI Flash EEPROM
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MANAGEMENT

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

SECURITY

Hardware	Trusted Platform Module (TPM) 2.0 Silicon Root of Trust (RoT) – NIST 800-193 Compliant
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Features	Cryptographically Signed Firmware Secure Boot Secure Firmware Updates Automatic Firmware Recovery System Lockdown
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PC HEALTH MONITORING

CPU	Monitors for CPU Cores, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory, Chipset Voltages.
Fan	Fans with tachometer monitoring Pulse Width Modulated (PWM) fan connectors Status monitor for speed control
Temperature	Monitoring for CPU and chassis environment Thermal Control for fan connectors
Voltage	Voltage, VBAT, Memory temperature, CPU temperature, 3.3V standby, +5V standby, +5V, +3.3V, +12V, VRM temperature, CPU thermal trip support, 1.8V standby

CERTIFICATIONS

Operating Systems	Oracle Linux 9.4, RHEL 9.4, RHEL 10.0, Windows Server 2022, Windows Server 2025 View all OS Compatibility and Certification Matrix
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CHASSIS

Form Factor	1U Rackmount
Model	CSE-515B-R000WNP

DIMENSIONS AND WEIGHT

Height	1.7" (44.5 mm)
Width	17.2" (436.88 mm)
Depth	16.9" (429.3 mm)
Package	8" (H) x 27" (W) x 24" (D)
Weight	Gross Weight: 15 lbs (6.8 kg) Net Weight: 10 lbs (4.54 kg)
Available Color	Silver

FRONT PANEL

Buttons	Power On/Off
LED	LAN1 activity LAN2 activity Power status

EXPANSION SLOTS

PCI-Express (PCIe) Configuration	Default 2 PCIe 5.0 x16 FHFL slots 1 PCIe 5.0 x16 LP slot View AOC Options
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DRIVE BAYS / STORAGE

Drive Bays Configuration

Default: Total 2 bays 2 internal fixed 2.5" NVMe/SATA drive bays
View NVMe Options
View Drive Options

M.2

2 M.2 PCIe 5.0 x2 NVMe slots (M-key 2280/22110)
View M.2 Options

SYSTEM COOLING

Fans

Up to 6x 4cm heavy duty fans with optimal fan speed control

Air Shroud

1 Air Shroud

POWER SUPPLY

2x 600W
2x 600W Redundant (1 + 1) Typical 90%+ Level (96%) power supplies
Dimension (WxHxL)
54.5 x 40 x 220 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.



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-112b-fdwr/datasheet/manufacture

