

TECHNICAL DATASHEET

SUPERMICRO • EDGE & EMBEDDED

Supermicro 1U IoT Server SYS-111AD-WRN2

1U short-depth 14th Gen Intel Core edge server with 2 internal 2.5" drive bays and PCIe 5.0

SKU SYS-111AD-WRN2

1U

Supermicro



FORM FACTOR

1U

MAX POWER (BASE)

306 W

HEAT OUTPUT

1,044 BTU/h

PRICE

from €2,800

REQUEST A QUOTATION ONLINE

serverinvest.com/product/sys-111ad-wrn2

01 Product overview

The Supermicro SYS-111AD-WRN2 is a 1U IoT Server built on Intel Core.

1U short-depth 14th Gen Intel Core edge server with 2 internal 2.5" drive bays and PCIe 5.0.

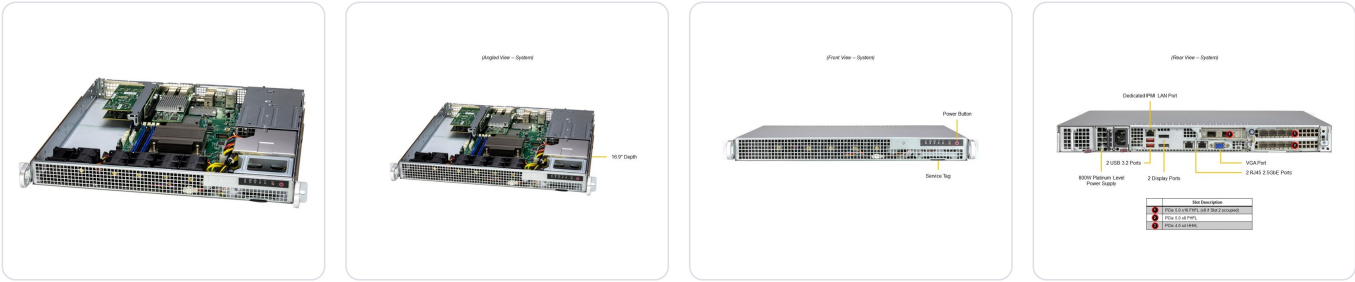
ServerInvest configures every SYS-111AD-WRN2 to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Intel Core
- Total 2 bays 2 internal fixed 2.5" NVMe/SAS/SATA drive bays
- Power: 1x 800W
- Networking: 2 RJ45 2.5GbE with Intel I226

KEY SPECIFICATIONS

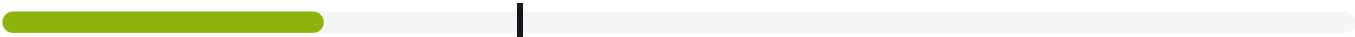
Form factor	1U
Processor	Intel Core
Memory	4 DIMM slots
Drive bays	2 (2 NVMe)
Power supply	1× 800 W
Typical power draw	450 W
Networking	2 RJ45 2.5GbE with Intel I226
Dimensions (W×H×D)	437 × 44 mm



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	38%



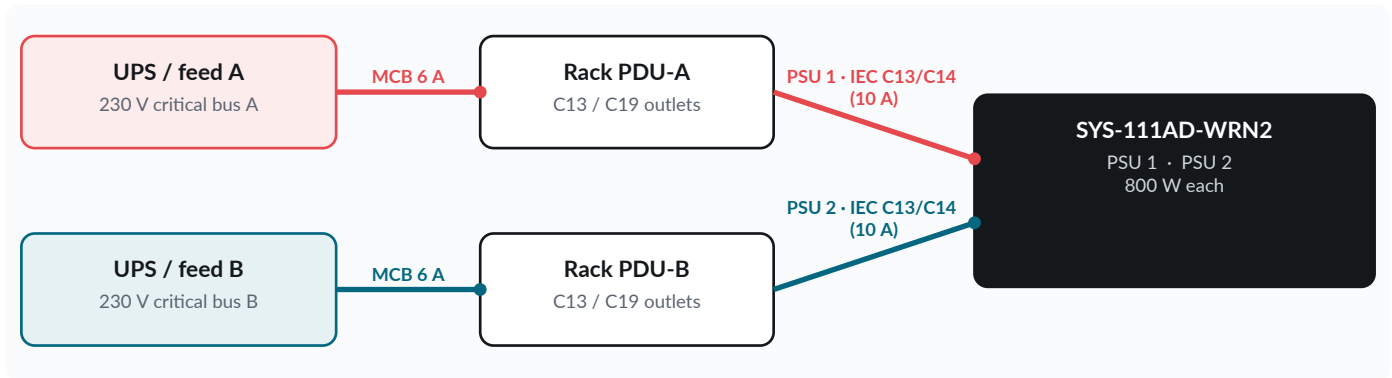
Annual IT energy (24/7)	1,357 kWh
Annual facility energy (PUE 1.5)	2,036 kWh
Annual energy cost	€271 IT · €407 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.53 t (grid factor 0.26 kg/kWh)
Power supplies	1× 800 W

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 X13SAW-F

PROCESSOR

CPU	Single L0 (LGA-1700) Intel Core 3/5/7 (Series 2) and 14th/13th/12th Gen Core i3/i5/i7/i9 Processors
Core Count	24C/32T
Note	Supports up to 80W TDP CPUs (Air Cooled)

GPU

Max GPU Count	1 double-width or 1 single-width GPU
Supported GPU	NVIDIA PCIe: NVIDIA RTX PRO 4000 Blackwell View GPU Options

SYSTEM MEMORY

Memory	Slot Count: 4 DIMM slots Max Memory (2DPC): 128GB 4400MT/s ECC/non-ECC DDR5 UDIMM View Memory Options
Memory Voltage	1.1V

ON-BOARD DEVICES

Network Connectivity	2 RJ45 2.5GbE with Intel I226 View AOC Options
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INPUT / OUTPUT

LAN	1 RJ45 1 GbE Dedicated BMC LAN port 2 RJ45 2.5 GbE LAN ports (Intel I226)
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USB	2 ports
Video	1 VGA port 2 DisplayPort 1.4a ports

SYSTEM BIOS

BIOS Type	AMI 32MB SPI Flash
BIOS Features	Plug and Play (PnP) ACPI 6.5 SMBIOS 3.6 or later UEFI 2.8 USB Keyboard 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	800W 100-240Vac Platinum Single Power Supply (can be upgraded to redundant power supply)

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

Temperature	Platform Environment Control Interface (PECI) 3.0 support SuperDoctor 5 System resource alert via SuperDoctor5
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CERTIFICATIONS

Operating Systems	Windows 10 View all OS Compatibility and Certification Matrix
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CHASSIS

Form Factor	1U
Model	CSE-514-R00RWNP

DIMENSIONS AND WEIGHT

Height	1.7" (43 mm)
Width	17.2" (437 mm)
Depth	16.9" (429 mm)

Package	8" (H) x 27" (W) x 24" (D)
Weight	Gross Weight: 25.2 lbs (11.43 kg) Net Weight: 15.5 lbs (7.03 kg)
Available Color	No Paint

FRONT PANEL

Buttons	Power On/Off button System Reset button
LED	Fan Fail/System Over Heat LED HDD activity LED Network Activity LEDs Power status LED

EXPANSION SLOTS

PCI-Express (PCIe) Configuration	Default 2 PCIe 5.0 x8 FHFL slots 1 PCIe 4.0 x4 LP slot Option A 1 PCIe 5.0 x16 (in x16) FHFL double-width slot 1 PCIe 4.0 x4 (in x8) HHHHL slot View AOC Options
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DRIVE BAYS / STORAGE

Drive Bays Configuration	Default: Total 2 bays 2 internal fixed 2.5" NVMe/SAS/SATA drive bays
M.2	2 M.2 NVMe slots (M-key 2280/22110) 1 M.2 PCIe 3.0 x4 NVMe slot (M-key 2280) 1 M.2 PCIe 4.0 x4 NVMe slot (M-key 2280/22110) View M.2 Options

SYSTEM COOLING

Fans	Up to 5 Heavy duty counter-rotating 4cm Fan(s)
Air Shroud	1 Air Shroud

POWER SUPPLY

	1x 800W 1x 800W Redundant Platinum Level (94%) power supply Dimension (WxHxL) 54.5 x 40.25 x 220 mm
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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)
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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.



Interested in this solution?

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

Official manufacturer datasheet: serverinvest.com/product/sys-111ad-wrn2/datasheet/manufacture

