TECHNICAL DATASHEET

SUPERMICRO · TOWER SERVERS & WORKSTATIONS

Supermicro Mid-Tower Client System Server SYS-C542I

L6 configurable mid-tower AI PC for SMBs, creators, and AI developers

SKU SYS-C542I | Tower | Supermicro

FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
Tower	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-c542i

01 Product overview

The Supermicro SYS-C542i is a Mid-Tower Client System Server built on Intel Core.

L6 configurable mid-tower AI PC for SMBs, creators, and AI developers.

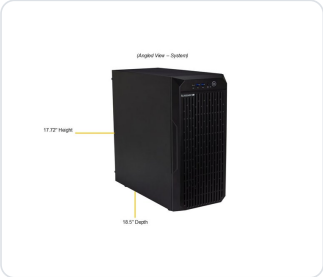
ServerInvest configures every SYS-C542i to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

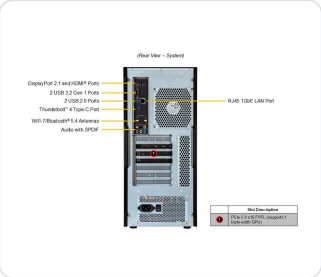
KEY SPECIFICATIONS

Form factor	**Tower**
Processor	**Intel Core**
Memory	**4 DIMM slots**
Drive bays	**10**
Power supply	**1× 1000 W**
Typical power draw	**450 W**
Networking	**1 RJ45 1GbE with Intel PHY I219-V**

HIGHLIGHTS

- Intel Core
- Total 4 bays 2 internal fixed 2.5" SATA drive bays
- Power: 1x 1000W
- Networking: 1 RJ45 1GbE with Intel PHY I219-V





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**	**31%**

Typical 190 W · max 306 W · single PSU rating 1000 W

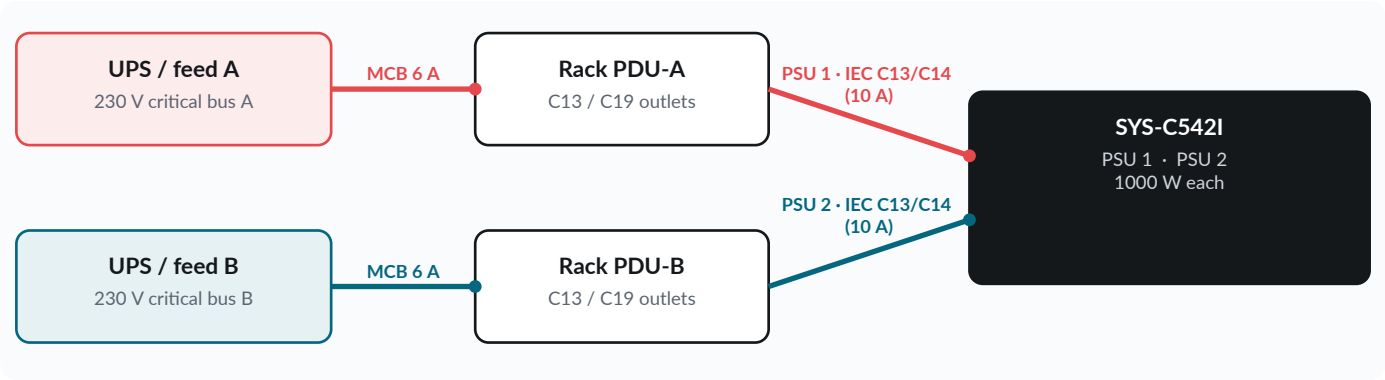
Annual IT energy (24/7)	1,357 kWh
Annual facility energy (PUE 1.5)	2,036 kWh
Annual energy cost	€271 IT · €407 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.53 t (grid factor 0.26 kg/kWh)
Power supplies	1× 1000 W

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 C9B860-MW

PROCESSOR	
CPU	Single LGA-1851 Intel Core Ultra (Series 2) U7-265, Max 5.30GHz
Core Count	8C/20T; 30MB Cache
Note	Supports up to 65W TDP CPUs (Air Cooled)

SYSTEM MEMORY	
Memory	Slot Count: 4 DIMM slots/2 Channels Max Memory (1DPC): 256GB 5600MT/s non-ECC DDR5 UDIMM View Memory Options
Memory Voltage	1.1V

ON-BOARD DEVICES	
SATA	SATA (6Gbps)
Network Connectivity	1 RJ45 1GbE with Intel PHY I219-V View AOC Options

INPUT / OUTPUT	
LAN	1 RJ45 1 GbE LAN port
USB	2 USB 3.2 Gen1 Type-A ports (rear) 2 USB 2.0 Type-A ports (rear) 2 USB 3.2 Gen1 Type-A ports (front) 1 Thunderbolt 4 Type-C port (Rear) 1 USB 3.2 Gen2x2 Type-C port (Front)

Video	1 HDMI 2.1 port(s) (Rear) 1 DisplayPort 2.1 port (Rear) 1 DisplayPort over USB Type-C port (Rear)
Audio	7.1 HD Audio Front Audio

SYSTEM BIOS

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

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 System Lockdown

PC HEALTH MONITORING

Voltage	+1.0V PCH, +1.8V PCH, +12V, +3.3V, +5V, +5V standby, 1.05 (PCH), 3.3V standby, 5 (4-pin), CPU, CPU temperature, CPU thermal trip support, PCH temperature, System temperature, VBAT, VRM temperature

CHASSIS

Form Factor	Mid-Tower
Model	CSE-GS3B-000NBP

DIMENSIONS AND WEIGHT

Height	17.72" (450 mm)
Width	8.07" (205 mm)
Depth	18.5" (470 mm)
Package	24.29" (H) x 12.8" (W) x 23.23" (D)
Weight	Gross Weight: 30 lbs (13.61 kg) Net Weight: 28 lbs (12.7 kg)
Available Color	Black

FRONT PANEL

Buttons	Power On/Off
LED	HDD activity Power status LED
Port	Audio Jack-Combo microphone input / audio output port USB Type-A Ports-USB 3.2 Gen 1X1 ports (5G) USB Type-C-USB 3.2 Gen 2X2 port (20G)

EXPANSION SLOTS

PCI-Express (PCIe) Configuration	Default 1 PCIe 5.0 x16 (in x16) FHFL slot Option A 1 PCIe 4.0 x4 LP slot Option B 1 PCIe 3.0 x1 LP slot View AOC Options
M.2	1 M.2 PCIe 5.0 x4 NVMe slot (M-key 2280(default)/22110) 1 M.2 PCIe 4.0 x4 NVMe slot (M-key 2280(default)/2260)

DRIVE BAYS / STORAGE

Drive Bays Configuration	Option A: Total 4 bays 2 internal fixed 2.5" SATA drive bays 2 internal fixed 3.5" SATA drive bays Option B: Total 4 bays 4 internal fixed 2.5" SATA drive bays View Drive Options
M.2	1 M.2 PCIe 5.0 x4 NVMe slot (M-key 2280(default); Capacity 1TB) View M.2 Options

SYSTEM COOLING

Fans	Up to 1 Rear 120mm Fan(s) Up to 3 Front 120mm Fan(s) Up to 3 Top 120mm Fan(s) (optional)

POWER SUPPLY

	1x 1000W 1x 1000W Gold Level (90%) power supply Dimension (WxHxL) 150 x 86 x 140 mm

OPERATING ENVIRONMENT

RoHS	RoHS Compliant
Environmental Spec.	Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -40°C to 60°C (-40°F to 140°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.

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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-c542i/datasheet/manufacturer