

SuperServer E301-9D-8CN8TP

Supermicro SYS-E301-9D-8CN8TP Xeon D-2146NT 8-Core Networking Mini PC, 4X GbE, 2 x 10GBase-T, 2X 10G SFP+, IPMI

Key Features

- SDN-WAN, vCPE controller box
- NFV Edge Computing Server
- Virtualization Server
- FireWall Applications
- IoT Edge Computing

1. Intel® Xeon® processor D-2146NT,
8-Core, 16 Threads, 80W

2. System on Chip

3. 4x 7mm SSD

4. 1 M.2 slot M key for SSD, 2242/80,
1 M.2 B Key for SSD/ WAN card,
1 Mini-PCI-E with mSATA Support,
1 PCI-E 3.0 x8 slot

5. Up to 512GB ECC LRDIMM,
up to 256GB ECC/non-ECC RDIMM
DDR4-2666Mz; in 4 DIMM slots

6. 4x 1GbE, 2x 10GBase-T, 2x 10G SFP+
and 1 dedicated LAN for IPMI 2.0

7. 1 VGA, 2 USB 3.0

8. 3x 40x28mm 4-PIN PWM Fan

9. DC Power adapter

10. Built in Intel QAT up to 40Gbps
Crypto/Compression



Integrated Board



Super X11SDV-8C-TP8F



Specifications

Product SKUs

SYS-E301-9D-8CN8TP	■ SuperServer E301-9D-8CN8TP (Black)
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Motherboard

Super X11SDV-8C-TP8F

Processor/Cache

CPU	■ Intel® Xeon® processor D-2146NT, CPU TDP support 80W
Cores / Cache	■ 8 Cores, 16 Threads

System Memory

Memory Capacity	■ Up to 512GB DDR4 ECC LRDIMM ■ Up to 256GB DDR4 ECC/non-ECC RDIMM ■ 4 DIMM slots
Memory Type	■ 2666/2400/2133MHz ECC DDR4 ECC LRDIMM and ECC/Non-ECC RDIMM ■ Operating speed up to 2400MHz
DIMM Sizes	■ RDIMM: 4GB, 8GB, 16GB, 32GB, 64GB ■ LRDIMM: 16GB, 32GB, 64GB, 128GB
Memory Voltage	■ 1.2 V
Error Detection	■ Corrects single-bit errors ■ Detects double-bit errors (using ECC memory)

On-Board Devices

Chipset	■ System on Chip
SATA	■ SATA3 (6Gbps) ports via SoC controller
Network Controllers	■ Quad 1GbE with Intel I350-AM4 ■ Dual 10GBase-T with Intel X557 ■ Dual 10G SFP+ via SoC
IPMI	■ Support for Intelligent Platform Management Interface v.2.0 ■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Graphics	■ Aspeed AST2500 BMC

Input / Output

SATA	■ SoC controller for 4 SATA3 (6Gbps) ports, (or 2 NVMe U.2 / 8 SATA3 through two Port Eight Intel PCH SATA 3.0 Ports or Two MINI-SAS HD ports)
LAN	■ 2x 10G SFP+ ports ■ 2x 10GBase-T LAN ports ■ 4x 1GbE LAN ports ■ 1 Dedicated IPMI LAN port
USB	■ 2 USB 3.0 ports (rear)
Display	■ 1 VGA port
TPM	■ 1 TPM 2.0 header

Chassis

Form Factor	■ Compact
Model	■ CSE-E301

Dimensions

Width	■ 10" (254mm) / 15" (381mm) - pkg.
Height	■ 2.6" (66mm) / 10.87" (276mm) - pkg.
Depth	■ 8.9" (226mm) / 5.59" (142mm) - pkg.
Weight	■ Gross Weight: 7.5 lbs (3.4 kg) ■ Net Weight: 3.45 lbs (1.56 kg)
Available Colors	■ Black

Front Panel

Buttons	■ Power On/Off button
LEDs	■ Power LED (Hard drive activity LED)

Expansion Slots

PCI-Express	■ 1 PCIe 3.0 x8 slot
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Drive Bays

Internal	■ 4x 7mm SSD
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System Cooling

Fans	■ 3x 40x28mm 4-PIN PWM Fan
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Power Supply

DC Power Adapter

System BIOS

BIOS Type	■ 128Mb SPI Flash with AMI BIOS
BIOS Features	■ PCI 3.0 ■ ACPI 5.0 ■ USB Keyboard support ■ Hardware BIOS Virus protection ■ SMBIOS 2.8 ■ UEFI 2.4 ■ RTC (Real Time Clock) Wakeup

Management

Software	■ Intel® Node Manager ■ IPMI 2.0 ■ KVM with dedicated LAN ■ NMI ■ SUM ■ SuperDoctor® 5 ■ Watch Dog
Power Configurations	■ ACPI Power Management ■ +12V DC Power Input ■ Control of power-on for recovery from AC power loss ■ CPU thermal trip support for processor protection ■ M.2 NGFF connector, Node Manager Support, SDDC, System level control, UID, WOL
Fan	■ Fans with tachometer status monitoring ■ Status monitor for speed control ■ Low noise fan speed control ■ Pulse Width Modulated (PWM) fan connectors

Operating Environment / Compliance

RoHS	■ RoHS Compliant
Environmental Spec.	■ Operating Temperature: 0°C to 35°C (32°F to 95°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)



Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X11SDV-8C-TP8F	1	Super X11SDV-8C-TP8F Motherboard
	CSE-E301	1	Embedded Server BOX for Flex-ATX, Mini-ITX 1U height
Drive Tray	MCP-220-30101-0N	2	Dual 2.5" fixed HDD bracket for E301
Cable	CBL-SAST-0664	1	MINI SAS HD-4 SATA, 6G, INT, 20CM, 20CM SB, 30AWG
Cooling Fan	FAN-0065L4	3	4028mm 13K RPM 4-PIN PWM FAN for SC813MF, SC113M
Power Adapter	MCP-250-10133-0N	1	180W DC power adapter with US power cord 18AWG 6ft
Cable	CBL-PWEX-0983	1	PWR EXT, 1X4F/P2.50 TO 4x SATA POWER, 40CM, 22AWG, RoHS

Optional Parts List

	Part Number	Qty	Description
Riser Card	RSC-RR1U-E8	-	RSC-RR1U-E8 (Rev 4.00) Riser Card
Chassis Parts	MCP-290-30002-0B	-	CSE-E300 Rackmount kit