P10DRE-N4I

Intel C621 Dual-Socket Server Motherboard

The P10DRE-N4I is a dual-socket server motherboard based on the Intel C621 chipset and Intel Xeon Scalable processors. It supports first- and second-generation processors on the Purley platform, with 16 DDR4 DIMM slots and extensive storage and expansion options. ODM customization is available for customer-specific requirements.



- Intel C621 supports two first- or second-generation Intel Xeon Scalable processors (Purley: Skylake/Cascade Lake).
- Sixteen DDR4 ECC RDIMM/LRDIMM/3DS LRDIMM slots support six-channel memory per CPU and speeds up to 2933MHz.
- Supports up to 4TB of memory and up to 2TB Intel Optane PMem 100 Series (second-generation Cascade Lake only).
- Three PCIe 3.0 x16 and three PCIe 3.0 x8 slots provide flexible expansion.
- Two M.2 PCIe 3.0 x4 slots support 2242/2280 drives and Intel VROC NVMe RAID key.
- Four Intel I210 Gigabit Ethernet ports and one dedicated 1GbE IPMI management port.
- Fourteen SATA3 6Gb/s ports support RAID 0, 1, 5 and 10; two DOM power connectors are provided.

01 Specifications

System Controller	CPU	2 × Socket P (LGA 3647); Intel Xeon Scalable 1st/2nd Gen; Purley (Skylake/Cascade Lake); TDP 205W; UPI 10.4 GT/s
	Chipset / BIOS	Intel C621 chipset; AMI UEFI BIOS
Memory	Type / Slots	16 × DDR4 ECC RDIMM/LRDIMM/3DS LRDIMM; six-channel per CPU; 2933/2666/2400/2133MHz
	Capacity	Up to 4TB 3DS RDIMM or 4TB 3DS LRDIMM
	Module Sizes / PMem	RDIMM: 16/32/64/128GB; LRDIMM: 64/128/256GB; up to 2TB Intel Optane PMem 100 Series (Cascade Lake 2nd Gen only)
Network	GbE LAN	4 × standard RJ-45; 10/100/1000Mbps; Intel I210
	IPMI Management	1 × standard RJ-45; 10/100/1000Mbps
Storage	SATA	14 × SATA3 6Gb/s (8 × iSATA + 6 × sSATA); RAID 0, 1, 5, 10
	DOM	2 × reserved DOM drive power connectors
	M.2 / VROC	2 × M.2 PCIe 3.0 x4; 2242/2280; Intel VROC NVMe RAID key support
Expansion	PCIe Slots	3 × PCIe 3.0 x16; 3 × PCIe 3.0 x8
I/O Ports	Rear I/O	2 × USB 3.0; 2 × USB 2.0; VGA; COM; UID switch with LED; 4 × GbE RJ-45; 1 × IPMI RJ-45
	Onboard I/O	1 × VROC; 1 × TPM header; ATX 24+8+8-pin power; 1 × PMBus interface
	Onboard I/O	2 × USB 3.0 headers; 2 × USB 2.0 headers; 1 × USB 3.0 Type-A
	Onboard I/O	8 × 4-pin fan headers; serial header; chassis intrusion header
Display	Graphics / Interface	ASPEED AST2500 BMC; 1 × VGA
Product Dimensions	Size	12.01 × 13.08 in (30.49 × 33.21cm)
Temperature / Humidity	Environmental	Operating: 10°C to 35°C; storage: −40°C to 70°C; operating humidity: 8% to 90% RH; storage humidity: 5% to 95% RH; non-condensing

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Platform	Chipset	Intel C621
Processor	CPU	2 × Intel Xeon Scalable 1st/2nd Gen
Memory	Type / Capacity	16 × DDR4 RDIMM/LRDIMM; up to 4TB
Dimensions	Size	12.01 × 13.08 in (30.49 × 33.21cm)

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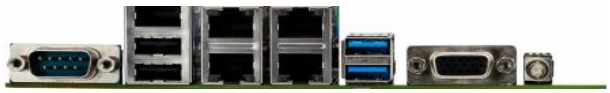
Product View





COM · VGA · USB 2.0/3.0 · LAN1-4 · IPMI · UID + LED

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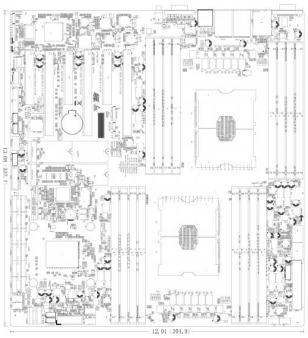
Dimensions



Product Selection

Model	Configuration
P10DRE-N4I	Neutral; dual Intel Xeon Scalable 1st/2nd Gen; C621; 16 × DIMM; 4 × GbE RJ-45; IPMI

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