

1.2 Specifications

SPC621D8-2L2T / SPC621D8-2T / SPC621D8	
MB Physical Status	
Form Factor	ATX
Dimension	12" x 9.6" (30.5 cm x 24.4 cm)
Processor System	
CPU	3 rd Gen Intel Xeon Scalable Processors
Socket	Single Socket P+ (LGA 4189)
Max. Thermal Design Power (TDP)	300W
Chipset	Intel® C621A
System Memory	
Type	- Eight Channel DDR4 memory technology (1DPC) - Supports DDR4 RDIMM/ RDIMM-3DS/ LRDIMM/ LRDIMM-3DS/Intel®Optane™ Persistent Memory 200 Series
DIMM Size Per DIMM	- RDIMM: 64GB, 32GB, 16GB, 8GB - RDIMM-3DS: 256GB, 128GB, 64GB, 32GB, 16GB, 8GB - LRDIMM: 128GB, 64GB, 32GB - LRDIMM-3DS: 256GB, 128GB, 64GB, 32GB, 16GB, 8GB - Intel®Optane™ Persistent Memory 200 Series <i>*Max. memory capacity and frequency are to be validated</i>
DIMM Frequency	- RDIMM: 3200MHz - LRDIMM: 3200MHz <i>*Max. memory capacity and frequency are to be validated</i>
Voltage	1.2V
Expansion Slot	
PCIe 4.0 x 16	PCIe7: Gen4 x16 link PCIe5: Gen4 x16 link PCIe3: Gen4 x16 link PCIe1: Gen4 x16 link <i>*PCIe7/5/3 auto-switch to PCIe4.0 x8 when PCIe6/4/2 occupied</i>
PCIe 4.0 x 8	PCIe6: Gen4 x8 link PCIe4: Gen4 x8 link PCIe2: Gen4 x8 link <i>*PCIe7/5/3 auto-switch to PCIe4.0 x8 when PCIe6/4/2 occupied</i>
Storage	
SATA Controller	SPC621D8-2L2T: Intel® C621A (Up to 8 SATA 6Gb/s, support RAID 0/1/5/10): 1 Mini-SAS HD, 2 SATA DOM, 2 M.2

	SPC621D8-2T: Intel® C621A (Up to 12 SATA 6Gb/s, support RAID 0/1/5/10): 1 Mini-SAS HD, 4 SATA 7-pin, 2 SATA DOM, 2 M.2 SPC621D8: Intel® C621A (Up to 13 SATA 6Gb/s, support RAID 0/1/5/10): 1 Mini-SAS HD, 6 SATA 7-pin, 2 SATA DOM, 1 M.2
M.2 Slot	SPC621D8-2L2T / SPC621D8-2T: 1 (M2_1: M-key (PCIe3.0 x4 or SATA 6Gb/s); Type 22110/2280/2242) 1 (M2_2: M-key (PCIe3.0 x1 or SATA 6Gb/s); Type 22110/2280/2242) SPC621D8: 1 (M2_1: M-key (PCIe3.0 x4); Type 22110/2280/2242) 1 (M2_2: M-key (PCIe3.0 x1 or SATA 6Gb/s); Type 22110/2280/2242)
Ethernet	
Interface	10000/1000/100 Mbps by Intel® X710-AT2 1000/100/10 Mbps by Intel® i210
LAN Controller	SPC621D8-2L2T: - 2 x RJ45 10GbE RJ45 by Intel® X710-AT2 - 2 x RJ45 1GbE RJ45 by Intel® i210 - 1 x RJ45 Dedicated IPMI LAN port by RTL8211E SPC621D8-2T: - 2 x RJ45 10GbE RJ45 by Intel® X710-AT2 - 1 x RJ45 Dedicated IPMI LAN port by RTL8211E SPC621D8: - 2 x RJ45 1GbE RJ45 by Intel® i210 - 1 x RJ45 Dedicated IPMI LAN port by RTL8211E - Supports Wake-On-LAN - Supports Energy Efficient Ethernet 802.3az - Supports Dual LAN with Teaming function - Supports PXE - LAN1 supports NCSI
Management	
BMC Controller	ASPEED AST2500
IPMI Dedicated GLAN	1 x Realtek RTL8211E for dedicated management GLAN
Features	Watch Dog NMI
Graphics	
Controller	ASPEED AST2500

Rear Panel I/O	
VGA Port	1 x D-Sub
USB 3.2 Gen1 Port	4
LAN Port	SPC621D8-2L2T: - 2(10G)+2(1G)+1(IPMI) RJ45 Gigabit Ethernet LAN port - LAN Ports with LED (ACT/LINK LED and SPEED LED) SPC621D8-2T: - 2(10G)+1(IPMI) RJ45 Gigabit Ethernet LAN port - LAN Ports with LED (ACT/LINK LED and SPEED LED) SPC621D8-2T / SPC621D8: - 2(1G)+1(IPMI) RJ45 Gigabit Ethernet LAN port - LAN Ports with LED (ACT/LINK LED and SPEED LED)
UID	1
Internal Connector	
Auxiliary Panel Header	1 (includes chassis intrusion, location button & LED, and front LAN LED)
Panel Header	1
TPM Header	1
TPM-SPI Header	1
RAID_1 Header	1
CPU1_HSBP1	1
USB 3.2 Gen1 Header	1 (supports 2 USB 3.2 Gen1 ports)
USB 3.2 Gen2 Type-C Header	2 (supports 2 USB 3.2 Gen2 ports)
USB 2.0 Header	1 (supports 2 USB 2.0 ports)
USB 2.0 Port	1
Fan Header	5 Fans (6-pin)
ATX Power	1 x (24-pin) + 1 x (8-pin) + 1 x (4-pin)
SATA Power	1
PSU SMB	1
BMC SMB	1
IPMB Header	1
NMI Button	1
COM Header	1
Front LAN LED	1
SATA SGPIO	2
TR1	1 (2-pin)
SPEAKER	1
ME Recovery	1
PECI1	1
BIOS Recovery	1

ClearCMOS	1 (short pad)
OH/FanFail LED	5 (only Fan Fail LED)
System BIOS	
BIOS Type	256Mb AMI UEFI Legal BIOS
BIOS Features	- Plug and Play (PnP) - ACPI 2.0 Compliance Wake Up Events - SMBIOS 2.8 Support - ASRock Rack Instant Flash
Hardware Monitor	
Temperature	- CPU Temperature Sensing - PCH/MB/Card side Temperature Sensing
Fan	- Fan Tachometer - CPU Quiet Fan (Allow CPU Fan Speed Auto-Adjust by CPU Temperature) - Fan Multi-Speed Control
Voltage	Voltage Monitoring: CPU1_PVCCIN, CPU2_PVCCIN, PVDDQ_ABCD, PVDDQ_EFGH, PVDDQ_IJKL, PVDDQ_MNOP, 1.05V_PCH, 1.8V_PCH, +BAT, PVNN_PCH, 3.3V, 5V, 12V, 3.3VSB, 5VSB
Support OS	
OS	Microsoft® Windows*: - Server 2016 (64 bit) - Server 2019 (64 bit) Linux*: - Red Hat Enterprise Linux Server 7.9 (64 bit) / 8.3 (64 bit) - CentOS 7.9 (64 bit) / 8.3 (64 bit) - SUSE Enterprise Linux Server 12 SP5 (64 bit) / 15 SP2 (64 bit) - Ubuntu 20.04.1 (64 bit) / 20.10 (64 bit) Hypervisor: - VMWare® ESXi 6.7 U3 / vSphere 6.7 U3 - VMWare® ESXi 7.0.U1c / vSphere 7.0.U1c - Hyper-V Windows® Server 2016 - Hyper-V Windows® Server 2019 <i>* Please refer to our website for the latest OS support list.</i>
Environment	
Temperature	Operation temperature: 10°C ~ 35°C / Non operation temperature: -40°C ~ 70°C

NOTE: Please refer to our website for the latest specifications.