



## GENOAD8UD-2T/X550

- 10.4" x 10.5"
- Single Socket SP5 (LGA 6096), supports AMD EPYC™ 9005\*/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
- 8 DIMM slots (1DPC), supports DDR5 RDIMM, RDIMM-3DS
- 4 PCIe5.0 / CXL2.0 x16
- 2 MCIO (PCIe5.0 x8 or 8 SATA 6Gb/s), 2 MCIO (PCIe5.0 x8), 1 MCIO (PCIe5.0 x4)
- Supports 2 M.2 (PCIe5.0 x4)
- Up to 16 SATA 6Gb/s
- 2 RJ45 (10GbE) by Intel® X550-AT2
- Remote Management (IPMI)
- Support ATX PSU or 12V DC-IN



## SPECIFICATIONS

Dimensions	10.4" x 10.5"
<b>Processor System</b>	
CPU	Supports AMD EPYC™ 9005*/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors  *A BIOS update is required to support AMD EPYC™ 9005 series processors
Socket	Single Socket SP5 (LGA 6096)
Thermal Design Power	Up to 400W
Chipset	System on Chip
<b>System Memory</b>	
Supported DIMM Quantity	8 DIMM slots (1DPC)
Supported Type	Supports DDR5 288-pin RDIMM, RDIMM-3DS
Max. Capacity per DIMM	RDIMM: 96GB (2R) RDIMM-3DS: 512GB (2S8Rx4)
Max. DIMM Frequency	4800 MHz
Voltage	1.1V
<b>PCIe Expansion Slots (SLOT7 close to CPU)</b>	
PCIe x 16	SLOT6: PCIe5.0 / CXL2.0* x16 □ SLOT5: PCIe5.0 / CXL2.0* x16 SLOT4: PCIe5.0 / CXL2.0* x16 SLOT3: PCIe5.0 / CXL2.0* x16  *Supports CXL1.1 while installing AMD EPYC 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
<b>Other PCIe Expansion Connectors</b>	
M.2 slot	2 M-key (PCIe5.0 x4); support 2280/2260/2242/2230 form factor
Others	2 MCIO (PCIe5.0 x8) 2 MCIO (PCIe5.0 x8 or 8 SATA 6Gb/s) 1 MCIO (PCIe5.0 x4)
<b>SATA/SAS Storage</b>	
PCH Built-in Storage	AMD EPYC™ 9005/9004 (16 SATA 6Gb/s): 2 MCIO
<b>Ethernet</b>	
Additional GbE Controller	Intel® X550-AT2: 2 RJ45 (10GbE)
<b>Server Management</b>	
BMC Controller	ASPEED AST2600
IPMI Dedicated GLAN	1 Realtek RTL8211F for dedicated management GLAN
<b>Graphics</b>	
Controller	ASPEED AST2600
VRAM	DDR4 512MB
<b>Rear I/O</b>	
UID Button/LED	1 UID button w/ LED

VGA Port	1 DB15 (VGA)
USB 3.2 Gen1 Port	2 Type-A (USB3.2 Gen1)
RJ45	2 RJ45 (10GbE) 1 dedicated IPMI
<b>Internal Connector/Headers</b>	
Power Connector	1 (4-pin, ATX PSU signal) w/ ATX 24-pin adapter cable, 3 (8-pin, ATX 12V) support 12V DC-in
Other Power Connectors	1 (6-pin) for HDD power
Auxiliary Panel Header	1 (18-pin): chassis intrusion, system fault LED, LAN1/LAN2 activity LED, locate, SMBus
System Panel	1 (9-pin): power switch, reset switch, system power LED, HDD activity LED
COM Header	1
Speaker Header	1 (4-pin)
Fan Header	6 (6-pin)
Thermal Sensor Header	1
TPM Header	1 (13-pin, SPI)
SGPIO Header	2
HSBP	1
SMBus header	1
PMBus header	1
IPMB Header	1
Clear CMOS	1 (contact pads)
USB 3.2 (Gen1) Header	1 (19-pin, 2 USB3.2 Gen1)
NMI Header	1
<b>LED Indicators</b>	
Standby PWR LED	1 (5VSB)
Fan Fail LED	6
BMC heartbeat LED	1
<b>System BIOS</b>	
BIOS Type	AMI UEFI BIOS; 256 Mb (32MB) SPI Flash ROM
BIOS Features	ASRock Rack Instant Flash, ACPI 6.4 and above compliance wake up events, SMBIOS 3.5.0 and above, Plug and Play(PnP)
<b>Hardware Monitor</b>	
Temperature	CPU, MB, TR1 Temperature sensing
Fan	CPU/Rear/Front Fan Tachometer CPU Quiet Fan (Allow Chassis Fan Speed Auto-Adjust by CPU Temperature) CPU/Rear/Front Fan Multi-Speed Control
Voltage	VCORE,VCCSA,VCCM,3V, 5V, 12V, +BAT, 3VSB, 5VSB,VCCIO,+2.5V_VPP
<b>Supported OS</b>	
OS	<p>Microsoft® Windows:</p> <ul style="list-style-type: none"> <li>- Server 2019 (64bit)</li> <li>- Server 2022 (64 bit)</li> </ul> <p>Linux:</p> <ul style="list-style-type: none"> <li>- RedHat Enterprise Linux Server 8.6 (64bit) / Server 8.7 (64bit) / Server 9.0 (64bit) / Server 9.1 (64bit)</li> <li>- SUSE SLES 15.4(64 bit)</li> <li>- Ubuntu 20.04.5 (64 bit) / 22.04 (64 bit) / 22.10 (64 bit)</li> </ul> <p>Hypervisor::</p> <ul style="list-style-type: none"> <li>- VMWare® ESXi/ 7.0 U3i / 8.0</li> <li>- CITRIX Hypervisor 8.2.1</li> </ul>
<b>Environment</b>	
Temperature	Operation temperature: 10°C ~ 35°C / Non operation temperature: -40°C ~ 70°C
Humidity	Non operation humidity: 20% ~ 90% ( Non condensing)

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