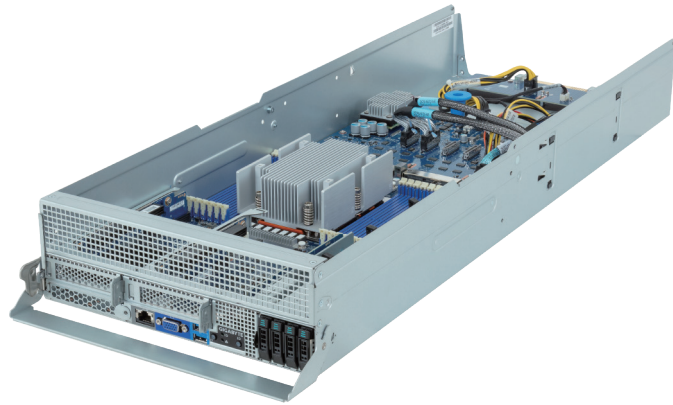# GIGABYTE™

T025-Z10-AA01

## ORv3 Compute Node - 2OU 2-Node UP

AMD EPYC

Key Features

- Single AMD EPYC™ 9005/9004 Series Processors
- 12-Channel DDR5 RDIMM, 12 x DIMMs
- Dual ROM Architecture
- 4 x E1.S Gen4 NVMe hot-swap bays
- 1 x M.2 slot with PCIe Gen4 x4 interface (optional)
- 2 x LP PCIe Gen5 x16 slots
- 1 x OCP NIC 3.0 PCIe Gen5 x16 slot
- 48V DC Bus Bar power solution

GIGABYTE OCP ORV3 Compliant Solutions

GIGABTYE is an active member of the OCP, regularly attending the OCP's annual summits and continuously designing and releasing new compute, storage and GPU server hardware based on the OCP Open Rack Standard specifications and providing the best performing mezzanine cards for your OCP solution. GIGABYTE's latest OCP server product line is based on OCP Open Rack V3 specification. The products are designed for a 21" OCP rack and feature a separate PSU system, with power supplied to each server node by a bus-bar system running along the rear of the rack.

Compute Node
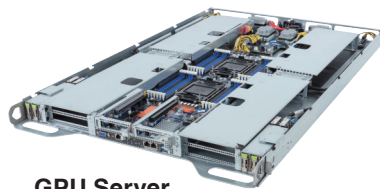
GPU Server
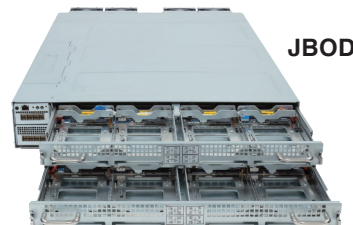
JBOD

OCP 21" Rack

GIGABYTE OCP ORV3 Compliant Solutions Advantages

Efficient Rack Density
- Optimal design (2OU 2nodes / 2OU 3nodes) - balanced consideration between density and power consumption.

Thermal Optimization
- Best thermal consideration to develop Rack and Nodes based on Cold Aisle/Hot Aisle concept.
- Reduce power consumption of cooling.

Greater Power Efficiency
- Low PUE helps reduce data center operating expense.
- Central power shelf design to enhance power efficiency and optimize power consumption.

Easy Maintenance
- Easier maintenance in front cold aisle instead of hot aisle.
- Tool-less design for easy replacement and repair.
- Less PSU quantities in whole rack to minimize maintenance efforts.

Higher MTBF
- Centralizing power supplies and removing unnecessary components to enhance MTBF (Mean Time Between Failures).
- Avoids system downtime caused by component failure and minimizes maintenance efforts.

The Future of Open Source Ecosystem

The Open Compute Project (OCP) is a collaborative community focused on redesigning hardware technology to efficiently support the growing demands on compute infrastructure. In 2011, the OCP Foundation was initiated with a mission to apply the benefits of open source and open collaboration to hardware and rapidly increase the pace of innovation. Its collaboration model is now being widely applied in fields like data centers, telecom industry, and edge infrastructure.

Flexible Node Configuration

GIGABYTE's OCP Open Rack Version 3 compliant solutions maintain the cost-efficient designs created in version 2, yet these new solutions provide even more power to each node. GIGABYTE TO23-BT0, a 2OU node tray, supports three nodes and up to six CPUs in a single tray. And a similar node tray, TO25-BT0, is designed for more PCIe expansion slots with each tray supporting up to four dual-slot GPUs or eight full-height full-length single slot cards for growing HPC and AI needs in data centers.

Specification

Dimensions	2OU 2-Node (W262.7 x H90 x D740 mm)		**Expansion Slots**	2 x LP PCIe Gen5 x16 slots 1 x OCP NIC 3.0 PCIe Gen5 x16 slot
Open Rack Version	ORv3		**Front I/O**	2 x USB 3.2 Gen1 1 x VGA 1 x MLAN
Motherboard	MZ13-HD0		**Security Modules**	1 x TPM header with SPI interface Optional TPM2.0 kit: CTM010
CPU	AMD EPYC™ 9005 Series Processors AMD EPYC™ 9004 Series Processors Single processor, cTDP up to 300W		**Power Supply**	Supports up to 1600W
Socket	1 x LGA 6096 (Socket SP5)		**System Management**	ASPEED® AST2600 Baseboard Management Controller GIGABYTE Management Console web interface
Chipset	System on Chip		**OS Support**	Windows Server, SUSE Linux Enterprise server, Red Hat Enterprise Linux server, Ubuntu, VMware ESXi, Citrix Hypervisor
Memory	12-Channel DDR5 RDIMM, 12 x DIMMs [EPYC 9005] Up to 6400 MT/s [EPYC 9004] Up to 4800 MT/s		**Operating Properties**	Operating temperature: 10°C to 35°C Operating humidity: 8%-80% (non-condensing) Non-operating temperature: -40°C to 60°C Non-operating humidity: 20%-95% (non-condensing)
LAN	1 x 10/100/1000 Mbps Management LAN		**Packaging Content**	1 x TO25-Z10-AA01 1 x CPU heatsink
Video	Integrated in ASPEED® AST2600 - 1 x VGA port		**Bus Bars**	1 x 48V Bus Bar
Storage	Front hot-swap: 4 x 9.5mm E1.S Gen4 NVMe Optional internal M.2: 1 x M.2 (2280/22110), PCIe Gen4 x4		**Part Numbers**	Barebone package: 6NTO25Z10DR000AC01* Optional parts: - M.2 expansion card - CMTP192: 9CMTP192NR-00*
SAS	N/A			
RAID	N/A			

Learn more at **https://www.GIGABYTE.com/enterprise**

Designed by

GIGA COMPUTING