arm

Arm AGI CPU 1OU Dual Node Reference Server

A pre-validated platform for AI and cloud infrastructure development.

KEY FEATURES

- Pre-validated system architecture

- Full design package

- Reference firmware

- Production-ready BIOS and BMC firmware available through external IBV partners

INTRODUCTION

The Arm AGI CPU 1OU Dual Node Reference Server is a pre-validated platform designed to accelerate the evaluation and deployment of systems built on the Arm AGI CPU, an Arm Neoverse™ V3-based server processor. Designed using the Open Compute Project (OCP) DC-MHS modular architecture, the reference server provides a production-representative system for software enablement, workload validation, and system design for accelerated deployment timelines.

As AI services and cloud applications scale, infrastructure performance is increasingly measured at the rack level, where compute density, power efficiency, and operating costs determine overall system economics. The Arm AGI CPU reference platform demonstrates how Arm-based infrastructure can deliver:

- **Agentic-tuned performance**: Up to 136 Arm Neoverse V3 cores with class-leading 6GB/s memory bandwidth per core at sub-100 ns latency

- **Rack-scale architecture**: 300W TDP enables deployment of up to 8,160 cores per standard 36kW air-cooled rack

- **Unmatched compute density**: More than 2x the performance per rack of comparable x86-based deployments[1]

[1] Based on estimates.

DETAILED SPECIFICATION

Arm AGI CPU 1OU Dual Node Reference Server	
SKU	RS113021S-2
Chassis	1OU ORv3 Chassis, (W) 21.14 x (H) 1.76 x (D) 31.7 inch (= 537 x 44.7 x 805 mm)
Host Processor Module	DC-MHS M-SDNO Class B
CPU	(2) ARM AGI CPUs
Memory	12x DDR5 64GB 8000 MT/s (1DPC)
Storage (Front)	(2) E1.S 15mm Data Drive PCIe Gen 5.0, 7600 1.92TB (2) E1.S 9.5mm Boot Drive PCIe Gen 5.0, 7600 1.92TB
Storage (Internal)	(2) E1.S 9.5mm Data Drive PCIe Gen 5.0, 7600 1.92TB (2) E1.S slot available for expansion
PCIe Expansion Slots (Front)	(1) PCIe x16 FHHL Card, (1) HHHL (1) OCP NIC 3.0 per node
PCIe Expansion slots (Back)	(1) PCIe x16 FHHL Gen 6.0 expansion slot (1) PCIe x16 HHHL Gen 6.0 expansion slot
I/O Ports	(1) Micro USB Type B (1) Mini Display Port (1) 1Gbe Dedicated LAN Port (1) USB 3.0
TPM	TPM 2.0 on DC-SCM module
DC Power	ORv3 48V Bus Bar
System Fans	(10) 4056 Dual Rotor fans (19+1 redundancy)
System Management	OCP DC-SCM 2.1 module with BMC Aspeed 2600
NIC	OCP NIC 3.0 support
Operating conditions	Operating temperature: 5°C to 40°C Non-operating temperature: -40°C to 70°C
Rack Support	21" ORv3 Rack air cooled
Server Power	1100W