PCIe 4.0 2U Expansion Optimized Server

Part Number: OSS-EOS-2U-4a

FEATURES

- AMD EPYC™ 7002 Series (Rome) Processor
- Options for 7x add-in cards or 24x U.2/U.3 drives
- Up to six x16 PCIe 4.0 HH slots
- Supports OSS 256Gb/s PCIe 4.0 expansion
- Dual 1+1 redundant universal AC input power supplies
- Resource expanded BIOS for large expansion capability
- Guaranteed to operate with all OSS expansion products

The EOS-2U-4a contains an AMD EPYC™ 7002 Series Processor and provides the widest BIOS compatibility with dense storage and accelerator expansion systems. This allows the highly integrated server to stand alone or form the core CPU and memory resources for a scale-out, rack level, expandable solution. The EOS-2U-4a features six PCIe 4.0 x16 half-height slots and 1 PCIe 3.0 x16 half height slot. The EOS-2U-4a provides options for 7x add-in cards or 24x U.2 or U.3 drives. The server supports up to 2TB of memory and a resource expanded BIOS for scale-out device enumeration and large memory mapped I/O used for GP-GPUs and accelerators.

SPECIFICATIONS

Dimensions	3.45" H x 17.2" (19" with rack ears) W x 28" D (8.7 x 43.7 x 71 cm)
CPUs	AMD EPYC™ 7002 Series (Rome) Processor up to 225W TDP LGA 4094 single socket SP3
System Memory	8x DDR4 3200/2933/2666/2400 R DIMM slots (Modules Up to 64GB Supported) LR DIMM (Modules up to 256GB Supported) 8 Memory Channels, 1.2V low profile DIMMs

Expansion Slots	EOS configuration:
	  o 5 x PCIe 4.0 x16 HHFL slots
	  o 1 x PCIe 4.0 x16 HHFL slot or 2x M.2 (2230/2242/2260/2280) + 2x miniSAS-HD + 2x Oculink by jumper
	  o 1 x PCIe 3.0 x16 HHFL slot
	NVMe configuration:
	  o 2 x PCIe 4.0 x16 HHFL slots available with 48 PCIe 3.0 lanes routed to NVMe drives
	  o 1 x PCIe 4.0 x16 HHFL slot or 2x M.2 (2230/2242/2260/2280) + 2x miniSAS-HD + 2x Oculink by jumper
	  o 1 x PCIe 3.0 x16 HHFL slot

Storage Subsystem	EOS configuration:
	  o 24x hot-swap configurable SATA-3, SAS-3 or NVMe x4 2.5" x 15mm drive carriers
	  o 12Gb SAS-3, 6Gb SATA-3 SFF-8680, NVMe x4 32Gb slots
	  o Up to 8 SATA-3 slots use no PCIe slots
	  o 12x and 24x SATA/SAS slots require 1 and 2 PCIe x16 HHHL slots respectively
	  o 8x and 16x NVMe x2 slots require 1 and 2 x16 PCIe HHHL slots respectively (for 24x NVMe x4 use NVMe config)
	  o Further expansion up to 4PB possible using OSS JBOF expansion systems
	  o 2x M.2 x4 and 4x NVMe internal drive connections possible with jumper option
	NVMe configuration:
	  o 24x hot-swap NVMe x4 2.5" x 15mm drive carriers
	  o Up to 8 NVMe drive bays can be SATA-3 configured
	  o 1x M.2 x4 internal drive connections possible with jumper option

USB	4 USB 3.1 Gen 1 (2 from Rear I/O, 2 via Header) 3 USB 3.1 Gen 2 (1 from Type C, 2 via Header)
Ethernet	2x RJ45 10GBASE-T LAN from Intel® X550-AT2 1 x RJ45 Dedicated IPMI LAN port from RTL8211E

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SPECIFICATIONS CONTINUED

BIOS	32 MB AMI UEFI BIOS Supports PnP, PCI 4.0, ACPI 2.0 Wake, SMBIOS 2.8 support, Instant Flash 1TB BAR1 max size and 256 PCI bus enumeration expansion support
Cooling Fans	Four 80mm x 38mm PWM hot-swap Cooling fans
Chassis	Rugged steel enclosure Liquid paint with customizable front bezel
Weight	33-48lbs (15-22 kg)

Power Supply	1000W 90-264VAC, 47-63Hz Input:
	  o 1+1 Redundant 80plus Silver efficiency with Active PFC, PM Bus and Over Voltage Protection
	  o 15A input current at 115VAC and 7.5A at 230VAC each module
	  o 15A @ 115VAC and 30A @ 230VAC max inrush current each module
	  o EPS 12V Output type with 22A at+5V, 83A at +12V, 0.5A at -12V, 22A at+3.3V and 3A at +5V Standby

Environment	Operating:
	  o 5°C to 35°C (41°F to 95°F) at 0 to 915m (3,000ft) altitude
	  o 5% to 90% non-condensing relative humidity, max dew point 21°C, max rate of change 5°C/hr
	Non-Operating:
	  o -20°C to 60°C (-40°F to 140°F)
	  o 5% to 90% non-condensing relative humidity, max dew point 27°C, max rate of change 5°C/hr

Agency	Tested to conform to the following standards:
	  o FCC - Verified to comply with Part 15 of the FCC Rules, Class A
	  o Canada ICES-003, issue 4, Class A
	  o CE Mark (EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3)
	  o CISPR 22, Class A
	Designed to conform to the following extended standards:
	  o NOM-019
	  o Argentina IEC60950-1
	  o Japan VCCI, Class A
	  o Australia/New Zealand AS/NZS CISPR 22, Class A
	  o China CCC (GB4943), GB9254 Class A, GB17625.1
	  o Taiwan BSMI CNS13438, Class A; CNS14336-1
	  o Korea KN22, Class A; KN24
	  o Russia/GOST ME01, IEC-60950-1, GOST R 51318.22, GOST R 51318.24, GOST R 51317.3.2,
	  o GOST R 51317.3.3
	  o TUV-GS (EN60950-1 /IEC60950-1,EK1-ITB2000)

Compliance	RoHS 6 of 6, WEEE