



# Horsea

## 2U1N-2P AMD EPYC™ 7002 Server System



Horsea, the alternative high-performance 2U server system based on dual-socket 7nm AMD EPYC™ 7002 series processors (Rome), is perfect for various applications including virtualization, hyperconverged storage, cloud computing and high-end enterprise server; Horsea also features impressive TCO reduction benefited from the industry-leading core density and jump in performance. In addition to the highly serviceable 2U enclosure, Horsea provides scalability and flexibility including single CPU operation support, up to 6 standard PCIe Gen4 slots (with the option of 2 full height double width add-in cards), an OCP 3.0 slot, the capability of high bandwidth network communications and front-serviceable hybrid flash array module that not only supports all NVMe but also offers tremendous storage capacity by the optional advanced next generation SSDs.

### Highlights

- **Best Virtualization Solution with Optimal TCO and Enhanced Security**
- **Scalability Unleashed by Latest Technologies, from PCIe 4.0, OCP 3.0**
- **Excellent Serviceability and Flexibility Brought by Modular Design**



Virtualization



Hyperconverged Storage



Cloud Computing



High End Enterprise Server

### Doubled Core Density, Leading Performance

The latest AMD EPYC™ 7002 series processors are capable of 64 cores, 128 threads, 16 DDR4 memory slots and 1DPC supporting 3200MHz memory, delivering performance significantly increased up to 1.25 times per core and 1.7 times per socket compared with the previous generation, doubled throughput, improved execution pipelines, doubled floating point and bandwidth of load and store unit and half-reduced energy consumption per operation.

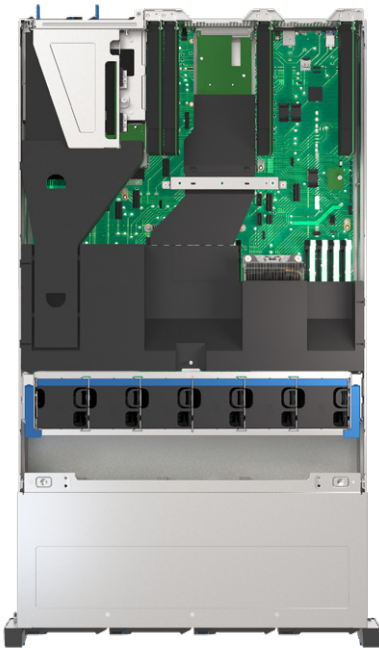
### Front View



### Rear View



As a dual socket AMD EPYC 7002 platform allowing single socket operation, TDP up to 280W, NUMA balance in Random Access Memory, Horsea offers VM density with the greatest amount and can significantly reduce TCO for workload requiring virtualization capacity for cloud and telecommunication service deployments.



## Hardware-based Security Enhancement

The embedded x86 silicon-level data security enables Horsea to offer AMD Secure Root-of-Trust, AMD Secure Run, and AMD Secure Move Technologies to minimize potential attack surfaces and protect software and data. Besides the dedicated security subsystem, additional security enhancements are provided to avoid future unknown vulnerabilities.

## Scalability Unleashed by Latest Technologies

The PCIe switch-free design enables Horsea to provide scalability in PCIe Gen4 interface, with up to 6 standard PCIe devices, 1 hot-swappable OCP 3.0 SFF card supporting up to 200GbE networking, as well as 9 Slimline x8 slots for storage options, realizing the high-speed connectivity of next-generation workload with unleashed doubled bandwidth. Moreover, the compatibility of up to 4 single-width or 2 dual-width acceleration cards makes Horsea further eligible for High Performance Computing (HPC) and Artificial Intelligence (AI) analytics applications.

Horsea offers a variety of hot-pluggable hybrid flash array choices by modular front cage design, ranging from regular SATA/SAS bays to a maximum of 24 U.2 NVMe drives. Together with OS drive supports from two internal M.2 or rear 2.5" SATA drive, Horsea can perfectly address the needs of various scenarios of hyperconverged storage, including content acceleration.

## Modular Design with Enhanced Reliability and Serviceability

To increase serviceability and reliability, Horsea provides highly modular design, supporting tool-less operations of serviceable parts, as well as N+1 redundancy for both power and cooling fans. Horsea is designed for modern software-defined infrastructure, offering a visionary yet robust solution for the coming next-generation workload.



## Horsea | AMD EPYC™ Server

<b>Positioning</b>	General Purpose
<b>Form Factor</b>	2U2P W x H x D: 447.6mm x 87mm x 780mm ( 17.62 x 3.43 x 30.71 inch )
<b>Processor</b>	Dual Socket; AMD EPYC™ 7002 Series Processors (2nd Gen AMD EPYC™ Processors) Up to 64 cores/per CPU TDP : Up to 280W
<b>Memory Slot</b>	32x DDR4 DIMM slots 8 channels per CPU and 2DPC DIMM Type: ECC RDIMM, LRDIMM at 1866/2133/2666/2933/3200
<b>Disk Drive Bay</b>	Front HDD Tray: 12x3.5" SAS/SATA hot-plug drive or 24x2.5" SAS/SATA/NVMe Rear HDD BP: 2x NVMe SSD or 2x SATA SSD Internal: 2x SATA M.2
<b>Expansion Slot (Rear side)</b>	<b>SKU A</b> 4x PCIe Gen 4 x16 (HHHL) 1x PCIe Gen 4 x16 (FHHL) 2x SFF 1x PCIe Gen4 x16 OCP 3.0 Mezz Slot <b>SKU B</b> 3x PCIe Gen 4 x16 (FHHL) 2x PCIe Gen 4 x16 (FHFL) 1x PCIe Gen 4 x16 (HHHL) 2x SFF 1x PCIe Gen 4 x16 OCP 3.0 Mezz Slot <b>SKU C</b> 2x PCIe Gen 4 x16(FHFLDW) 2x SFF 1x PCIe Gen 4 x16 OCP 3.0 Mezz Slot 1x PCIe Gen 4 x16 (FHHL)
<b>Network Controller</b>	Support 10GbE/25GbE/200GbE OCP Mezz or Standard PCIe card
<b>Storage Controller</b>	Support Raid/HBA standard card
<b>System Management</b>	IPMI 2.0 compliant + KVM with Dedicated LAN
<b>TPM</b>	TPM2.0 (optional)
<b>Power Supply</b>	1+1 redundanc 800W/1300W/1600W/2000W (100-220VAC) Platinum
<b>Fan</b>	N+1 redundancy, 6x 6056 hot-swap fan

### About Inventec Data Center Solutions (Inventec EBG)

Inventec Data Center Solutions (Inventec EBG) was established in 1998 and has been focusing on the design and manufacturing of server systems in Inventec Corporation. Over decades, Inventec EBG has been the key server system supplier of the global branding clients.

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