Supermicro Visualization & Design
Real-Time Collaboration, 3D Design, Game Development

Increased fidelity of 3D graphics and AI-enabled applications by modern GPUs is accelerating industrial digitization, transforming product development and design processes, manufacturing, and content creation with true-to-reality 3D simulations to achieve new heights of quality, infinite iterations at no opportunity costs, and faster time-to-market.

Build virtual production infrastructure at scale to accelerate industrial digitalization through Supermicro’s fully integrated solutions, including the 4U/5U 8-10 GPU systems, an NVIDIA OVX™ reference architecture, optimized for NVIDIA Omniverse Enterprise with Universal Scene Description (USD) connectors, and NVIDIA-certified rackmount servers and multi-GPU workstations.

### Systems

#### Omniverse Optimized Systems

<table>
<thead>
<tr>
<th>Large Workload: 4U/5U 8 GPU (PCIe)</th>
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</thead>
<tbody>
<tr>
<td>• 8 NVIDIA L40S/L40 PCIe</td>
</tr>
<tr>
<td>• 3 NVIDIA ConnectX-7</td>
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<tr>
<td>• 16 U.2 NVMe drives</td>
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</tbody>
</table>

**Recommended NVIDIA GPUs**

- **L40S**
  - FHFL DW
  - PCIe 4.0 x16
  - 350W
  - 48GB GDDR6

- **L40**
  - FHFL DW
  - PCIe 4.0 x16
  - 300W
  - 48GB GDDR6

- **RTX 6000 ADA**
  - FHFL DW
  - PCIe 4.0 x16
  - 300W
  - 48GB GDDR6

#### 2U Hyper Systems

**Flagship Performance Rackmount System Designed for Ultimate Flexibility**

<table>
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<tr>
<th>Medium Workload: 2U Hyper</th>
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<tbody>
<tr>
<td>• 4 NVIDIA L40 PCIe</td>
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<tr>
<td>• 8 NVMe drives</td>
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<tr>
<td>• 32 DIMMs DDR5-4800</td>
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#### Workstations

**4-GPU Rackmount/Full Tower**

- **AI Workstations: 5U Full-Tower Workstation**
  - • 4 NVIDIA L40 PCIe
  - • Dual 4th Gen Intel® Xeon® Scalable
  - • 16 DIMM slots DDR5-4800

- **Graphic Workstations: 5U Full-Tower Workstation**
  - • 4 NVIDIA RTX A6000 or 3 RTX 6000 ADA
  - • AMD Ryzen™ Threadripper™ PRO
  - • 8 DIMM Slots DDR4-3200
Accelerate Visualization & Design Workloads
Real-Time Collaboration, 3D Design, Game Development

Opportunities and Challenges:
- AI-aided 3D graphics, game development, creative asset generation
- Digitizing industrial design and productization process with virtualized real-world scenarios
- Integrated engineering and enterprise-scale simulations
- Cloud and virtual collaboration with low latency

Key Technologies:
- NVIDIA OVX reference architecture supporting NVIDIA Omniverse Enterprise, Universal Scene Description (USD) connectors
- NVIDIA RTX GPUs with ray tracing for photo realistic visuals
- NVIDIA BlueField*-2 or BlueField*-3 (DPU) for low latency, secure and fast data management
- Multi-GPU workstation or virtualized workstations
- Rack-scale integration for virtual production and collaboration infrastructure, speedy rendering, fast and secure data storing and transfer

Solution Stack:
- Universal Scene Description Connectors
- NVIDIA Omniverse™ Enterprise

Use Cases:
- Game development
- Product design
- City planning/architectural
- Digital twins (manufacturing, assembly lines, logistics)

GPU Acceleration for Complete Range of Workloads