



AMD FirePro™ S-Series for Virtualization Pure Virtualized Graphics

Solution Brief: AMD Multiuser GPU with Cisco® UCS C-Series rack servers

Graphics virtualization is taking off as more and more enterprises deploy VDI

Cisco and AMD are combining the proven UCS C-Series server platform and AMD Multiuser GPU (MxGPU) hardware-based graphics virtualization to deliver a world-class VDI solution.

Cisco and AMD are addressing today's enterprise graphics virtualization demands by making the AMD FirePro™ S7150 series GPUs available on Cisco UCS C-Series rack servers. These graphics cards support AMD Multiuser GPU (MxGPU) technology, the world's first hardware-virtualized GPU solution. Building virtualized graphics into the silicon offers the ideal solution for Cisco customers looking for highly secure, high performance, and cost effective GPU acceleration for their Virtual Desktop Infrastructure (VDI) deployments. The Cisco UCS C240 M4, UCS C240 M5, UCS C460 M4, and UCS C480 M5 rack servers are now available with the AMD FirePro S7150 and AMD FirePro™ S7150 x2 server graphics accelerators.

Cisco and AMD understand that scalability is key for successful VDI deployments. Each UCS C240 M4 or C460 M4 supports up to 64 graphics-accelerated virtual desktops, with each user receiving predictable performance and dedicated frame buffer memory. Need high-end performance for the most demanding applications and use cases? FirePro GPUs are built around the proven AMD Graphics Core Next architecture, which is ideal for demanding 3D design and engineering workloads.

Cisco and AMD make IT management easy. MxGPU cards on Cisco servers use the same certified AMD FirePro drivers behind today's industry-leading workstation products. No additional licensing fees means that MxGPU helps maximize your IT hardware investment. Virtual GPU acceleration powered by Cisco servers configured with AMD FirePro™ S7150 graphics cards offer world-class VDI using hardware-virtualized GPU acceleration.

Key Reasons to Consider Cisco UCS C-Series Rack Servers

- Industry-leading reference architectures deliver out-of-the-box performance while scaling from small to very large Big Data and Analytics deployments.
- Superior rack server management capabilities manage individual or scale-out server deployments with a consistent methodology.
- Improved application performance that has captured 126 world records with first-to-market results or results that exceed those set by other vendors.

Five reasons for AMD MxGPU Technology

- **Full workstation acceleration:** Each user receives dedicated GPU resources and predictable graphics acceleration.
- **Mobility and collaboration:** Users can access fully accelerated virtual desktops from virtually any device in virtually any location at virtually any time.
- **Data security and version control:** Moving data to the datacenter helps guard against unauthorized access or loss, and also helps reduce lengthy file transfers and version management between locations.
- **Cost effective:** Affordable hardware pricing and extreme scalability with no additional hardware licensing fees helps lower TCO and optimize hardware ROI.



- **Simplicity:** Using native AMD FirePro drivers helps ensure compatibility with operating systems and applications and helps IT focus on strategic planning over daily maintenance and troubleshooting.

Availability

AMD FirePro S7150 and S7150 x2 MxGPU cards are available in the following Cisco servers:



UCS C240 M4

- **MxGPU Config:** Up to two (2) AMD FirePro S7150 x2
- **Max. Users:** 64
- **Processor:** One (1) or two (2) Intel® Xeon® E5-2600 v3/v4 product family (Intel C610 series chipset)
- **Memory:** Up to 1.5TB (M4)/3.0TB (M5); (24x DDR4 RDIMMs or LRDIMMs at 2400MHz)
- **Hard Drive:** Up to 24 SFF (M4) or 26 SFF (M5) or 12 LFF hot-swappable drives (SAS/SATA HDD or SSD), plus two (2) optional SFF boot drives and optional NVMe PCIe SSDs.

UCS C240 M5

- **MxGPU Config:** Up to four (4) AMD FirePro S7150 or two (2) FirePro S7150 x2
- **Max. Users:** 64
- **Processor:** Two (2) or four (4) Intel® Xeon® processor E7-4800/8800 v2, v3, or v4 product family (Intel C602) chipset)
- **Memory:** Up to 6TB (96 DDR3 or DDR4 DIMMs in 48 DIMM kits with 2x64GB DIMMs per kit) in a 4-CPU configuration.
- **Storage (C460):** Up to 12 hot-swappable SFF 2.5" SAS/SATA HDD or SSD drives, plus up to two (2) NVMe SFF 2.5" drives. UCS Storage Accelerators are also available.
- **Storage (C480):** Up to 24 front-accessible and 8 top-loading hot-swappable HDD/SDD or PCIe NVMe drives.

AMD FirePro S7150 and S7150 x2 Specifications

- **Max. Power:** 150W (S7150), 265W (S7150 x2)
- **Form Factor:** Full height/full length PCIe x16
- **Cooling:** Passive (active available for S7150)
- **RAM:** 8GB (S7150) or 16GB GDDR5 (S7150 x2)
- **Interface:** 256-bit
- **Performance:** 3.77 TFLOPS single-precision and 250 GFLOPS double-precision peak floating-point performance (S7150). 7.54 TFLOPS single-precision and 500 GFLOPS double-precision peak floating-point performance (S7150 x2).
- **ECC Memory:** supported
- **API Support:** DirectX® 11.1, OpenGL® 4.4 and OpenCL™ 2.0
- **OS Support:** Microsoft® Windows® 10, 8.1, and 7; Linux® (32- or 64-bit)
- **Virtualization:** VMware® ESXi™ 6.0 Hypervisors, VMware View, and Horizon View; Citrix XenServer 7.2

- **Concurrent Users:** Up to 32 (dual S7150 cards); up to 64 (dual S7150 x2 cards)

Warranty and Support

- Three-year limited product repair/replacement warranty
- Direct toll-free phone (US, Canada) and global email access to dedicated workstation technical support team
- Advanced parts replacement option

Cisco Part Numbers

UCSC-GPU-7150X2 = when ordering with a server or standalone (card only)

Standalone cards require cables as appropriate for the specific server type:

UCS-300WK-240AMD with UCS C240 M4
UCS-AMDCBL-C240M5 with UCS C240 M5
UCSC=300W-460AMD with UCS C460 M4
UCS-AMDCBL-C480M5 with UCS C480 M5

For more information, please visit <https://pro.radeon.com/en/solutions/vdi/>

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