

Blade PC Workstation

Model M1028S



Outstanding performance computing solution for high-end CAD, GIS and 3D graphics power user. Featuring the most powerful Intel CPU and NVIDIA GPU

ClearCube® fully configurable single-socket M1028S Blade PC was designed for robust performance and efficiency by combining Intel® Xeon® Scalable Processors, up to 1.5TB of memory, NVIDIA® Quadro Pascal or RTX GPUs, six hot-swappable 2.5" drive bays, dual or quad 1:1 PCoIP® host cards and copper and/or fiber connections, and more to deliver true workstation performance in a datacenter optimized platform and to enable IT administrator to give power users the dynamic features they need to run CAD/CAM/GIS/3D applications.

For high-precision, data-sensitive applications, NVIDIA Quadro P6000 has 24 GB of GDDR5X GPU memory with ultra-fast bandwidth that allows you to create and render large, complex models and compute massive datasets. From medical imaging to structural analysis applications, data integrity and precision is assured, without sacrificing performance. ClearCube desktop to datacenter solution delivers benefits on both ends: better security, ergonomics and working environment at the desktop plus better cooling, management, and data control in the data center.

In CAD environments with heavy file transfer traffic, administrators can move large CAD files from the server to the M1028S in the datacenter using the built-in 10GbE Base-T ports and eliminates the need/cost/time/building code permits etc for having to run 10GbE infrastructure to the end points. With this configuration all the 10GbE runs from the workstation to the server can be short and done completely in the datacenter. All the runs to the desktop zero clients can be left intact as 1GbE.

Benefits



Powered by Intel® single Xeon® Scalable Processors



Faster performance across a broad range of design, animation and video applications



TPM 2.0 and UEFI BIOS to meet the latest DoD requirements for Windows 10 support



Faster performance across a broad range of design, animation and video applications



Locked user sessions or failed Blades PCs can be hot-swapped remotely so IT can deliver 99.999% uptime and 30 second return-to-service

Unparalleled Data and Intellectual Property Security

Protecting data and eliminating the chances of unauthorized access are two important considerations in enterprises these days. The M1028S Blade PC Workstations serve as a local workstation for a dynamic PC performance to end-users across the network, ensuring your data and intellectual property is always secure in the datacenter. M1028S Blade PC workstation integrated Trusted Platform Module (TPM 2.0) and UEFI BIOS with secure remote boot capability meets the latest US Department of Defense requirements for Windows 10 support to provide IT administrators everything they need for safe and powerful deployments and performance.



ClearCube M1028S combines the benefits of PCoIP host-side rendering with a CPU/GPU engineering workstation processing platform that is at the top of the performance charts. Users connect to their M1028S host processing platform that is rack-mounted in a 1U space in the secure datacenter using PCoIP protocol and a secure endpoint at the desktop. No data travels across the IP connection – only pixel change updates are sent to the displays. The end result at the CAD/CAM designer's desktop is a small footprint, secure, noiseless, high resolution zero client that supports one 4k display (30FPS), dual displays at 2560x1600 resolution or up to four displays at 1920x1080 resolution.

With zero clients, zero means no operating system, addressable memory, or storage device at a user's desktop. The PCoIP host card gives users the freedom to work wherever they want while enjoying the same performance they would at their desks. As a result, only authorized users can access certain data based on log-in and permission attributes—remote connections are secure and intellectual property is safeguarded.



High Availability and Uptime Without Sacrificing Performance

For designer, developers an engineers that cannot afford downtime, M1028S can be combine with connection broker software to provide pooling capabilities. By provisioning designated hot spare M1028Ss, the software can broker a connection from a zero client on the desktop to one or more standby resources in the datacenter (blade pooling) in the event of a primary resource failure. This valuable quick-return-to-service capability reduces the loss of expensive design, developing and engineering time that may adversely impact time-critical schedules. Brokering software are available from Citrix, VMware, Microsoft, Leostream among others.

M1028S Specifications

Form Factor

1U rackmount

Processor

Single Socket P (LGA 3647)
2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors

Expansion Slots

PCI-E 3.0 x16 slot (center right) x 1
PCI-E 3.0 x16 slot (right riser) x 1
PCI-E 3.0 x16 slot (left riser) x 1

On-board Devices

SATA3 (6Gbps) with RAID 0, 1, 5, 10
IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

GPU Options

NVIDIA Quadro P1000, P2200, P4000, P5000 or P6000
NVIDIA RTX options available

Host Card Options*

PCoIP Dual or Quad Host Card
Other Remote connection supported

Power Supply

1400W High-efficiency AC power supply with Digital Switching Control & PMBus 1.2

Gross Weight

Net Weight: 28 lbs (12.7 kg)
Gross Weight: 36 lbs (16.3 kg)

Temperature

Operating: 10°C to 35°C (50°F to 95°F)
Non-operating: -40°C to 60°C (-40°F to 140°F)

Chipset

Intel® C621 chipset

Memory Capacity/Type

6 DIMM slots
Up to 1.5TB 3DS ECC DDR4-2933MHz
Supports Intel® Optane™ DCPMM

Storage

Hot-swap 2.5" SAS/SATA drive bays x 6
M.2 form factor 2280 x 2
Supports both M.2 NVMe and SATA SSD

I/O Ports

SATA3 (6Gbps) port x 6
USB 3.0 x 2
USB 2.0 x 2
VGA port x 1
RJ45 Dedicated IPMI LAN port x 1
RJ45 10G Base-T port x 2**
Optional Fiber NIC/HBA x 1

Operating System

Microsoft® Windows 10
No operating system (Linux® Ready)

AC Voltage

1200W: 100-140 V, 14.7-10.5A, 50-60 Hz
1400W: 180-240 V, 10.5-8.0A, 50-60 Hz

Dimensions

28.5" (D) x 1.7" (H) x 17.2" (W);
72.4 cm (D) x 4.3 cm (H) x 43.7 cm (W)

Relative Humidity

Operating: 8% to 90% (non-condensing)
Non-operating: 5% to 95% (non-condensing)

Note:

*Dual host cards can deliver up to two monitors at 1920 x 1200 or one monitor up to 4k resolution (30FPS).
Quad host cards can deliver up to four monitors at 1920 x 1200 or two monitors at 4k resolution (15FPS) or one monitor up to 4k resolution (30FPS).

**Supports 10G BASE-T, 100BASE-TX, and 1000 BASE-T, RJ45 output

Description

M1028S Blade PC Workstation

Part Number

G091028



Industries



Defense



Government Agencies



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Ordering Information

Call: (866) 652-3500

Email: sales@clearcube.com
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