



M1U-20

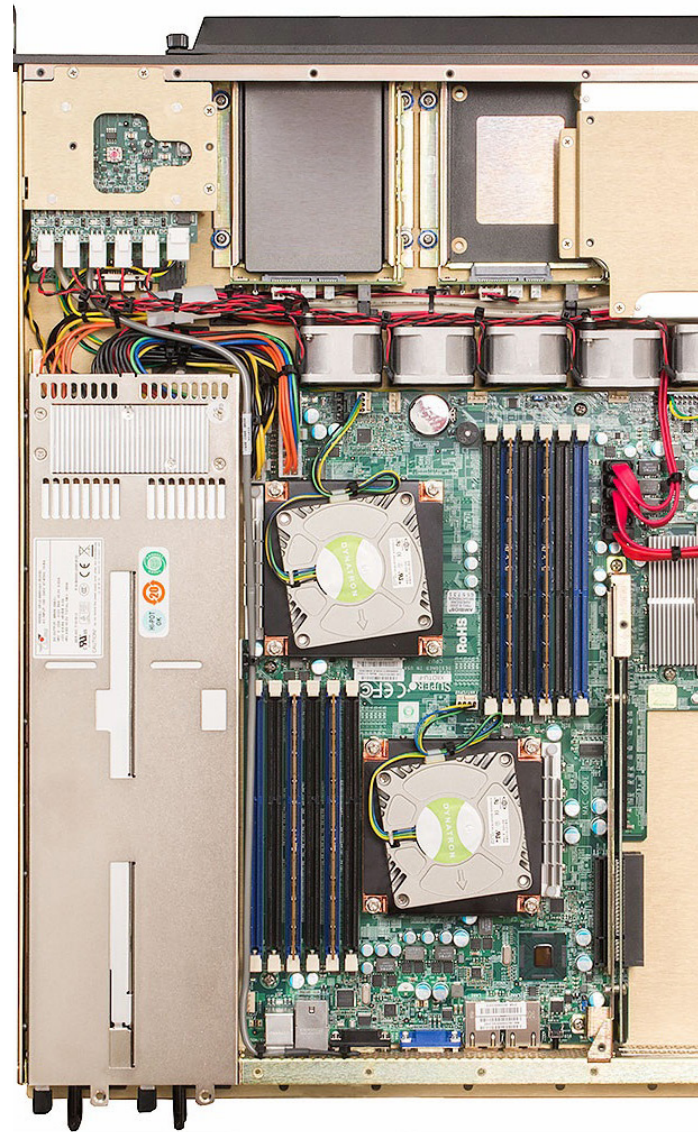
1U HIGH
PERFORMANCE
COMPUTER

1U COMPUTER

Our M1U-20 computing platform is a high-powered system in a small form factor, appropriate for computationally intense military applications. It has exceptional strength and built-in redundancy, is low weight, and contains our proprietary SysCool® thermal management system. SysCool® extends the life of the computing system, reduces power consumption, and lowers overall system noise levels. The M1U-20 system is ideal for those seeking a rugged rackmount 1U system designed to perform in confined spaces. Uniquely offered with an attached front door with integrated air (or optional EMI) filter serves to protect the drive bays and other components from dust and dirt, as well as shielding that is compliant for MIL-STD-461 EMI.

APPLICATIONS

- Airborne Operations
- Land-based Operations
- Seaborne Operations
- Telemetry
- Diagnostics
- Simulation
- C4ISR
- Communications
- Imaging
- Persistent Surveillance
- UAVs
- Automation
- Severe Environment Operations



Who We Are

CP North America designs, fabricates, and integrates standard and customized high-performance computing platforms and LCD monitors for military, industrial, and commercial applications.

Using COTS components, CP North America provides solutions for customers who need reliable systems that will operate in a variety of harsh conditions and who require revision control and hardware consistency for multi-year programs.

CP North America is an ITAR Registered and ISO 9001:2015 Certified business that has been operating for over twenty years.

Assembled in the USA
ISO 9001:2015 Certified
ITAR Registered

CP North America
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TECH SPECS

COMPUTER SPECIFICATIONS

CPU	Single or Dual Intel® Xeon® Processor
CHIPSET	Intel® Based Chipset
MEMORY CAPACITY	Up to 16x DIMMs, varies with configuration
STORAGE	Up to (3x) shock-isolated 2.5" removable drives, M.2 NVME options available depending on configuration
RAID OPTION	JBOD, RAID 0, 1, 5
OPTICAL DRIVE	Slim Slot-Fed Optical Drive
EXPANSION SLOTS	(2x) PCIe x16 1(x) 6.7" 1(x) 10.0" Max Length
REAR I/O	Varies with configuration
LAN	Varies with configuration
FRONT USB PORTS	(2x) ports USB
SYSTEM COOLING	(5x) 40mm, 18.4 CFM, 100K hour MTBF cooling fans Proprietary SysCool™ intelligent adaptive fan controller and temperature alarm circuit board
MOTHERBOARD CAPACITY	Designed for EATX-sized motherboard (12" X 13")
POWER SUPPLY	Redundant 110/220 Volt AC Other power options available

EXPANSION CAPACITY

- 3(x) 2.5" Drive Bays, Shock-Isolated
- 1(x) Slim Slot-Fed Optical Drive
- 1(x) Flash Card Reader Bay (optional)

FRONT DOOR FEATURES

Milled aluminum with four captive closure fasteners
Milled channel with RF/EMI/environmental gasket
Attenuating EMI honeycomb filter with 45 PPI
(washable) air filter rated to UL 94 HF-1



TECH SPECS

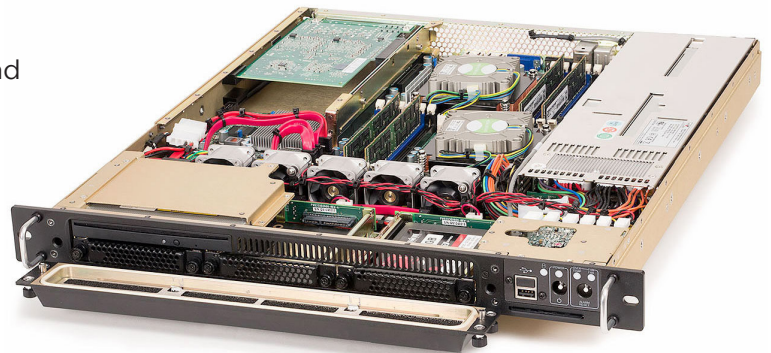
CHASSIS SPECIFICATIONS

DIMENSIONS	19" X 1.75" X 20" (482.6mm X 44.5mm X 508mm)
WEIGHT	19.6 lbs (approximate weight. Varies with configuration)
CONSTRUCTION	Front Panel: 0.187" milled 5052-H32 aircraft-grade aluminum Enclosure Body: 0.062" 5052-H32 aircraft-grade aluminum Rear Slot Panel: 18 gauge CRS, zinc plated
POWDERCOATING	Black per MIL-PRF-24712, Type IV, Class 3, Cardinal C214-BK110 polyester semi-gloss, fine texture
PLATING	Chem-Film per MIL-C-5541F, Class 1A

HARSH ENVIRONMENTS

CP North America designs, builds, and tests our ruggedized offerings to meet MIL-STD-810, 461, and 901. This includes environmental factors such as:

- **HIGH ALTITUDE**
- **EXTREME HIGH & LOW TEMPERATURES**
- **EMI**
- **HUMIDITY**
- **BLOWING SAND AND DUST**
- **VIBRATION**
- **SHOCK**



ENGINEERED TO YOUR SPECIFICATIONS

- In-house engineering department
- Design and build of rapid prototypes. Experience with solving difficult customer application problems through knowledge of the industry and custom system design and manufacturing capability
- Our Engineers use Solid Works 3D CAD modeling software for mechanical design and thermal simulation
- Design experience with MIL-STD-167, MIL-STD-461, MIL-STD-810, and MIL-S-901, in addition to FCC, UL, CE, and country specific agency requirements

REVISION CONTROL & CONFIGURATION MANAGEMENT

- Our Program Managers will assure your products are revision controlled for the life of the program
- Configuration Management to assure TAA Compliance and system compatibility
- One part number for life of the program
- Counterfeit and obsolescence management

FACILITY AND TEST

- All integration work is performed in a state-of-the-art, ESD-controlled facility
- Our facility has 50,000 sqft and has dedicated areas for manufacturing and engineering
- Operate to anti-static standard ANSI/ESD S20.20-2007 and electronics assembly standard IPC-A-610, Revision E-2010

QUALITY COUNTS

- ISO 9001:2015 Certified
- 100% system inspection before shipment
- All integrated systems undergo a rigorous system test and burn-in before shipment to the customer
- 5-year warranty on all servers and 3-year warranty on LCD monitor products
- TAA compliant
- Built in the USA

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