

# M4U | 4U HIGH PERFORMANCE COMPUTER



## 4U COMPUTER

The M4U high-performance computing platform delivers rugged durability in a standard 4U rackmount form factor. Like most CP North America products, the M4U is built using industry standard COTS componentry and can be customized to meet the performance needs of each and every customer.

Featuring support for standard ATX size motherboards and the highest performing CPUs in both single and dual CPU configurations, the M4U is capable of mounting up to 4x removeable drives and an array of PCI and/or PCI Express expansion cards with chassis configurations ranging from 20" to 26" long.

Utilizing our proprietary SysCool® thermal management system and built to the highest of MIL-grade standards, the M4U is designed to meet modern high-performance computing demands while delivering consistent and reliable performance in the harshest of rackmount environments. Additionally, this is backed by our standard 5-year warranty, revision control and configuration management to ensure that current and future hardware remain supported throughout the life of any program it may be deployed in.



## 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**

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# TECH SPECS

## COMPUTER SPECIFICATIONS

<b>CPU OPTIONS</b>	Single or Dual Intel Core or Xeon
<b>MEMORY CAPACITY</b>	ECC or Non-ECC Modules Varies by configuration
<b>RAID OPTION</b>	JBOD, RAID 0, 1, 5
<b>MOTHERBOARD</b>	Up to EATX, depending on chassis configuration
<b>LAN</b>	Varies by configuration
<b>FRONT USB PORTS</b>	Minimum of (2x) ports USB
<b>SYSTEM COOLING</b>	(2x) 92mm, 60 CFM 100K hour MTBF or (3x) 120mm 150CFM 200K hour MTBF cooling fans Proprietary SysCool™ intelligent adaptive fan controller and temperature alarm circuit board
<b>POWER SUPPLY</b>	Available in 110-240VAC, 12VDC, 28VDC or 48VDC in both Single and Redundant configurations

## EXPANSION CAPACITY

- (3x) 5.25" Drive Bays
- (7x) Full Height Expansion Card Slots
- Optional configuration for up to (20x) Card Slots
- (1x) Slim Slot-Fed Optical Drive

## FRONT DOOR FEATURES

- Formed and welded aluminum with three 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

<b>DIMENSIONS</b>	19" X 7" X 20" or 26" (482.6mm X 177.8mm X 508mm or 670.6mm)
<b>WEIGHT</b>	46 lbs (approximate weight. Varies with configuration)
<b>CONSTRUCTION</b>	Front Panel: 0.250" milled 5052-H32 aircraft-grade aluminum Enclosure Body: 0.062" 5052-H32 aircraft-grade aluminum Rear Slot Panel: 16 gauge CRS, zinc plated with 10-32 grounding lug
<b>POWDERCOATING</b>	Black per MIL-PRF-24712, Type IV, Class 3, Cardinal C214-BK110 polyester semi-gloss, fine texture
<b>PLATING</b>	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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