

Specifications

7X Chassis	
Size	6.6 H x 17.0 W x 16.4 H
Weight	24 lbs (65 lbs with 7 modules, 2 power supplies)
PowerPak DC	
Size	5.85 H x 1.90 W x 11 D
Weight	3.4 lbs (each module) 6.8 lbs (redundant pair)
PowerPak AC	
Size	5.85 H x 1.90 W x 11 D
Weight	3.4 lbs (each module) 6.8 lbs (redundant pair)
CM1X Compute Module Size	
Size	5.85 H x 1.90 W x 11 D
Weight	3.4 lbs (add 1 lb for each TP2 disk)
CM2X Compute Module Size	
Size	5.85 H x 3.60 W x 11 D
Weight	3.9 lbs (add 1 lb for each TP2 disk)
Temp	
Non-Operating	-40°C to +70°C; Operating 5°C to 45°C
	-20°C to 45°C with rotational disk pre-heaters; -20°C to 45°C with solid state disks
Humidity	
	5% to 95% non-condensing
EMI	
	MIL-STD 461E* (*call factory)
Altitude	
Non-Operating	40,000 ft.; Operating 10,000 ft with rotational disks; 40,000 ft with solid-state disks
Vibration	
	MIL-STD 167 Extended capability with solid-state disks* (*call factory)
Shock	
Non-Operating	MIL-STD 810E (method 516), 30g's saw-tooth
	MIL-STD 901D (in isolated rack), extended capability with solid-state disks* (*call factory)

Z Microsystems is the leading designer and manufacturer of FIELD-READY computing solutions for critical defense and government applications.



MPU-COMx

Hardware building blocks for deployable computers



Upgradable COTS ruggedized building blocks

Optimize Size, Weight, and Power

Configure state-of-the-art long life server solutions using the newest industry standard building blocks. Z Microsystems' MPU-COMx family offers four compatible building blocks for you to configure long term hardware solutions.

MPU-COMx Compute Modules

The CMx compute modules host industry standard COM Express motherboards housed in sealed rugged containers that hot plug into a selection of docking bays.

The CM 1x and CM 2x modules provide small form factor sealed modules that hot-plug into a docking bay for ease in maintainability and upgradability. Both modules offer performance and power choices with Intel processors. Both modules feature a complete IO and storage set. The CM2x double width module includes a PCIe x16 expansion slot for high-end video cards and can be customized to support other PCIe cards.

Power Modules

Power modules are fully redundant, hot swappable and load sharing. Choose DC or AC power. The DC supplies are MIL-1275B qualified. The AC modules are designed to ruggedized COTS specifications.

Data Storage Modules

Each CMx compute module includes docking slots for two hot swap removable disk drives. Both rotational and solid state drives are offered.

Good things come in two's.....

- Two processor cores
- Two Intel Extreme graphics ports
- Two GigE ethernet ports
- Two hot swap SATA disks
- Two serial ports
- Two video outputs



Compute Module

Each COMx compute module is an independent computer that plugs into a docking bay. The docking bay provides a dedicated slot with power, sysadmin, and isolated signal interconnects to a separate IO panel for each module at the rear.

A robust backplane with a shielded connector system that is scalable to support very high speed system designs. Alignment guides eliminate the risk of bent pins and requires low insertion & extraction forces.



Power, reset and USB.



The CM 2x double width module allows custom configuration and expansion with additional PCI Express cards for enhanced graphics and performance.

The CM 1x contains two TranzPak 2 low-profile removable data storage modules.

- CM 1x Highlights**
- PICMG COMexpress open architecture
 - Intel Core 2 Duo processors
 - Highest performance for Computer On Modules
 - Up to 8GB RAM System Memory
 - On-board dual head graphics
 - PCI Express expansion slot

- 3 Rear USB 2.0, 2 x RS232, 2 x Gigabit Ethernet, x4 PCI Express, 2 x video out (DVI-I), audio in/out + mic
- Front: 1 x USB 2.0 ports
- Front panel status lights
- Power ON/OFF and reset buttons
- Embedded thermal management

Data Storage Module

The pocket-size TranzPak 2 low-profile, removable data storage module provides ruggedization and EMI/RFI protection. Machined from solid aluminium, nickel plated and Teflon coated the TranzPak 2 holds standard 2.5" SATA or SAS rotational or solid state drives.



The rugged interlocking shell provides secure stacking. A recessed rear connector port protects cable connections. Indented label pads are sized for standard Avery labels for easy customized user identification.

A sturdy cam-action, one-touch quick release insertion/extraction handle allows on-the-fly data loading and replacement.



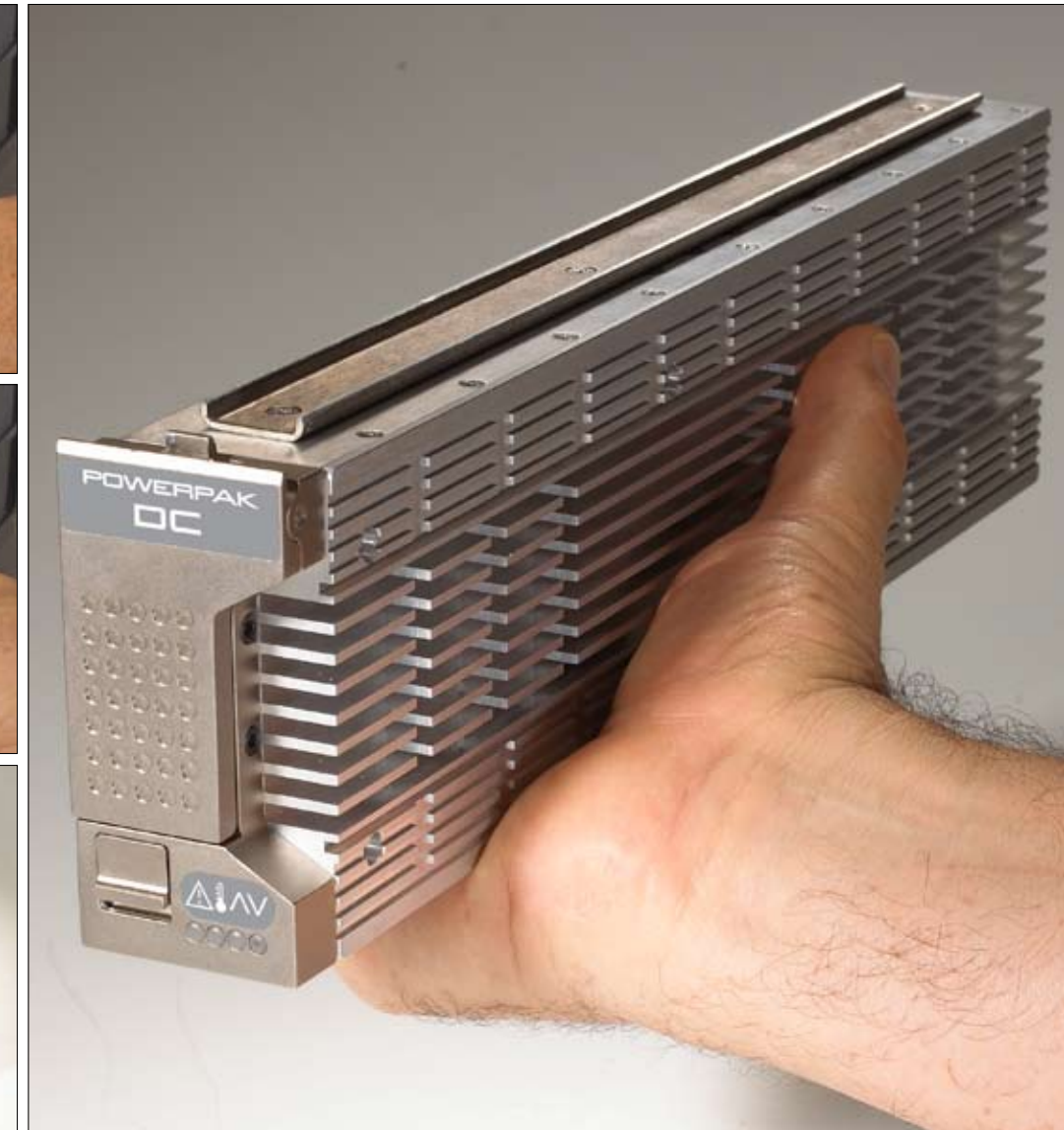
- TranzPak 2 Highlights**
- Houses low-profile 2.5" rotational or solid state SATA or SAS disk drives
 - Compact, light-weight rugged construction
 - Hot-swappable
 - EMI/RFI shielding
 - Cold weather options

PowerPak Module

Two hot-swap and redundant load-sharing power supplies deliver 600 Watts of power per module.



Removing a PowerPak module is effortless; press the one-touch quick release locking catch to release the cam-locking handle, and pull by the handle to eject the PowerPak module.



Rugged, redundant, front-removable power modules

PowerPak Module Highlights

- Hot pluggable load sharing power supplies
- AC or DC power option
- High-density power connectors

- Blind mate - self-aligning connectors
- 20, 35 and 50 ampere power contacts
- Safety agency recognized

High density computing systems on demand

Easy to use, space saving chassis in under 4U incorporates up to seven computer module bays.

This innovative design reduces cables and installation time.

Custom chassis configurations can be designed for large or small applications.



No cables to disconnect.



The docking bay provides a dedicated slot with power, sysadmin, and isolated signal interconnects to a separate IO panel for each module at the rear.

To swap out a computer module: press the one-touch quick release latch to release the locking handle and pull out the module.

The integration of processor, I/O, storage, operating systems and applications into a single, compact network platform is ideal for deployed mission critical applications.

Embedding industry standard COM Express motherboards in hot-swappable modules support DoD's long-term program requirements by providing a seamless upgrade path as technology evolves.

A breakthrough in size, weight & performance

The innovative replaceable modular design provides a practical RAS strategy delivering a high level of reliability, availability, and serviceability.

Industry standard IO connectors for each module



- MIL-STD Power Connector
- System Specific Serial Port
- RJ45 Ethernet Connection
- Grounding Lug
- Field-replaceable System Fan

- Field-replaceable Fans

- Isolated Module Connectors
- 3 USB Ports Rear (+ 1 on CM Module Front)
- 2 RJ 45 Ethernet
- x4 PCI Express
- 2 DVI-I (Selectable Analog or Digital)
- 2 Com Ports: Com1 Micro-D15
Com2 Micro-D9
- 1 Audio - Micro-D9