



## MPU-COMx RUGGED HIGH PERFORMANCE MULTI PROCESSOR UNIT

The MPU-COMx is a high-density blade server solution in an ultra-compact modular rugged package.

Using the Commercial-Off-The-Shelf (COTS) industry de facto COMExpress (Computer-On-Module) architecture, the MPU-COMx conduction cooled chassis delivers extreme performance with minimal size, power consumption and thermal impact.

The rack-mount configuration supports seven fully independent hot swappable computing modules that host the latest Intel or AMD processors, and two rugged ultra-compact TranzPak 2 (TP2) removable hard drives.



For PCI expansion, a double wide module is available; for easy mission-specific customization and graphic intensive applications.



Along with field-replaceable: fans, redundant power supplies, and the system control module; the MPU-COMx allows unprecedented on-the-fly component-level upgrades and swap-outs.

The MPU-COMx provides program leaders with seven independent hot-swappable computer systems, with boundless operational life, and an extremely cost effective upgrade path in the military's long-term program cycles.

### Highlights

- PICMG COMExpress standard architecture
- Supports latest Intel processors up to 2.2 GHz
- Up to 4GB RAM
- On-board dual head graphics
- Hosts up to seven hot-swappable processor modules
- Optional PCI Express module with enhanced graphics
- Mix and match processor and PCI expansion modules
- I/O includes: PCIExpress x4, (4) USB, dual RS232, dual GigE, dual video out (DVI-I), audio in/out + mic
- Sealed hot-swappable TP2 disk modules
- Front dual hot-swappable load sharing AC or DC power supplies
- Under 4U high & only 17.25 inches deep
- Rugged lightweight sealed chassis
- Field-replaceable fans
- 19" rack mountable

# SPECIFICATIONS

## MPU COMx

### Physical

Size: 6.59"H x 17.01"W x 16.37"D  
Weight: 65 lbs. for standard 7X configuration  
Storage Options: Single or dual SATA (to 260GB each)

### Power Supply\*

Total Output Power: 600 W per supply (two fully redundant)  
AC Input Range: 90-264 VAC Full range  
DC Input Range: 16-36 VDC  
AC Input Frequency: 47-63Hz, 400Hz (AC module)

\*(DC P/S designed to meet MIL-STD 1275D) With the exception of starting disturbance

### Environmental

Operating Temp:\* 0° to + 50° Celsius  
Non-op Temp: -40° to + 71° Celsius  
Operating Humidity: 5% to 95% Non-condensing  
Non-op Altitude: Up to 40,000 ft.  
Operating Altitude: Up to 10,000 ft.  
Vibration: MIL-STD-167  
Shock: MIL-STD-810E (Method 516), 30g's, Saw-tooth, 11ms

Fungus: MIL-S-901D (In isolated rack)  
Non Nutrients/contaminants

\*(Extended operating temp. Available with heaters: Consult factory)

### Reliability

Operating Life: 10 years  
Maintainability: Less than <20 minutes @ Line-Replaceable Unit (LRU) Level

### Regulatory

Safety: UL60950 (used as a guideline)  
EMI: Options: MIL-STD-461E (call factory to discuss)

### Quality/Workmanship

IPC / ISO 9001:2000 and applicable section of MIL-HDBK-454

### MIL-SPEC

Additional extended range environmental military specifications can be met with optional enhancements. See your Z Micro representative for details.

Units are designed and built to meet the following specifications. Results of 3.45 tests pending.

