



Z MICROSYSTEMS – ZX RUGGEDIZED SERVERS RUGGED RACK MOUNTED WORKSTATIONS + SERVERS FOR MILITARY APPLICATIONS

Z Microsystems' ZX Series Servers are designed from the ground up to meet the stringent tactical and operational demands of deployed computing in DOD and Military applications. The ultra-rugged ZX Servers are powerful processing systems that combine leading-edge commercial-off-the-shelf (COTS) technologies with increased environmental limitations for reliable high-performance in extreme environments.

ZX Series servers are designed for MIL-STD qualifications and designed for peak performance in harsh conditions. A variety of increased enhancement options for the ZX line are available as well. An embedded ECB (environmental control board) with a sensor array network regulates temperature by monitoring and driving adaptive airflow to hot spots. Input filters and cable shielding protectors are employed for increased EMI requirements, while support brackets secure all PCI expansion cards and components in all three axes.

The design goal for the ZX Servers is to provide powerful and flexible processing systems with long-life cycles, long-term serviceability, and competitive performance. The ZX Series utilizes the universally compatible TranzPak2 rugged storage module, as well as industry-leading motherboards. ZX Servers are designed for compatibility with the latest Intel and AMD processors, and offer PCI expansion slots for flexible configuration options, improving their product life expectancy, performance, and optimizing upgradability.

- 1U, 2U, and 3U rack-mounted server solutions
- Supports latest Multi-Core Intel and AMD Processors
- Common architecture - Interchangeable components
- Fixed or "hot-swappable" power supply options
- 650W+ dual redundant MIL-AC/DC power supplies
- Rugged, lightweight aircraft-grade aluminum chassis
- Front panel system status display
- High-end PCI Express graphics card support
- Up to 6 PCI expansion slots, RAID capable (ZX3)
- Up to 12 removable TranzPak2 Modules



Technical Specifications

Physical			
ZX Station	ZX1	ZX2	ZX3
Dimensions	1.72" H x 17.00" W x 23.85" D (inside rack)	3.45" H x 17.14" W x 20.00" D (inside rack)	5.20" H x 17.15" W x 20.00" D (inside rack)
Weight	Unit weight 22 lbs. (Fully loaded 23.5 lbs.)	Unit weight 25 lbs. (Fully loaded 29 lbs.)	Unit weight 33 lbs. (Fully loaded 40.5 lbs.)
Storage Options	SATA or SAS		
Power Supply: Dual Redundant & Fixed Configurations			
Total Output Power	Dual redundant 650W AC or Fixed 750W DC Power Supply		
AC Input Range	90-132/180-264 VAC (Input-Frequency = 47-63Hz/400 Hz)		
DC Input Range	18-36 VDC @ 46 to 26A (Inrush Current 100 Amps @ 24 VDC @ 25°C)		
PCI Slots	1	3	7
Environmental			
Operating Temp	0° to + 50°C (Extended operating temperatures are achievable with sold state drives and conformal coating option)		
Non-Op Temp	-40° to + 70°C		
Operating Humidity	Up to 95% Non-Condensing, 40°C @ 48 hours (Extended humidity levels available with conformal coating option)		
Non-Op Altitude	Up to 40,000 ft.		
Operating Altitude	Up to 10,000 ft.		
Vibration	MIL-STD-167 up to 25 Hz. Above 25 Hz throughput will degrade with spinning HDDs Extended vibration environments (DO-160 Section 8, Curve B2) are achievable with solid state drives		
Shock	MIL-STD-810G 40 g's, Saw-tooth, 11ms		
Fungus	Non-Nutrients/Contaminants		
EMC/EMI	Options may require Mil-Spec Power Supplies MIL-STD-461F, RE101 Army Limits, RE102 (shipboard levels), RS101, RS103 (up to 60 v/m) CE102, CS101, CS114, CS115, CS116		
Reliability			
Maintainability	<20 minutes @ Line-Replaceable Unit (LRU) Level		
Regulatory			
Safety	CE Compliant (AC Servers), IEC 60950 (used as a guideline)		
Quality/Workmanship			
IPC / ISO 9001:2008 and applicable section of MIL-HDBK-454			
MIL-SPEC			
Additional extended range environmental limits for military operation can be met with further enhancements. **Contact Z Microsystems for details.			
* Typical design specification - may vary between units.			
** This information is subject to change without notice. For the most recent test data contact your local Z Microsystems' Sales Representative.			

ZX Series - Size Chart

Dimension	ZX1(S)	ZX1(L)	ZX2	ZX3
A - Width	17.00"	17.00"	17.14"	17.15"
B - Height	1.72"	1.72"	3.45"	5.20"
C - Depth	20.00"	24.50"	20.00"	20.00"

19" RETMA rack compatible

