



RUGGED AR8 MISSION COMPUTER

Military-Grade Tactical Computer

The **Rugged AR8** is a compact, fully sealed mission computer built for harsh environments and low SWaP applications. Its conduction cooled, small form factor design uses proprietary thermal transfer technology to eliminate moving parts, and its sealed chassis withstands extreme temperature, shock, and vibration for reliable mission critical operation.

Powered by an Intel® Xeon® E 2276ML 6 core processor and up to 64 GB of ECC memory, the AR8 delivers strong performance in a compact, durable enclosure. With Mini PCIe expansion, quad GbE ports, and ruggedized I/O, it integrates easily into defense, aerospace, and tactical platforms. Tested to MIL STD 810 and available with MIL STD 461 EMI filtering, the AR8 ensures dependable operation across harsh environments and elevated altitudes for demanding edge compute and cross domain missions.

- Application-specific design
- Tested to meet military standards
- Built in the USA

Featured Specifications

CPU

Intel® Xeon® E-2276ML, SIX CORE 2.7GHz

Expansion

3x Mini PCIe Modules

RAM

64GB ECC RAM

Power

28VDC

Chassis Type

Aircraft-Grade Aluminum



Technical Specifications

Dimensions

Height: 1.75 inches, Width: 7.50 inches, Depth: 7.65 inches

CPU

Intel® Xeon® E-2276ML, SIX CORE 2.7GHz

RAM

64GB ECC RAM

Video

VGA

Power

28VDC

Expansion

3x Mini PCIe Modules

Ethernet

4x GbE Ports with On-Board Magnetics

Chassis

Rugged MIL-Spec Chassis

Environmental Specifications

Operational Temperature

MIL-STD-810F, Method 501.5, Procedures I; -15°C to +55°C

Storage Temperature

MIL-STD-810F, Method 501.5, Procedures II; -55°C to +85°C

Humidity

MIL-STD-810F, Method 507.4: 95% RH, 48 hours at 40 – 65°C

Altitude

MIL-STD-810F, Method 500.4: 12,500 ft operation; 40,000 ft transport

Vibration

MIL-STD-810G, Method 514.6 Procedure I; 4.43 GRMS, 5-2000Hz, 60 min/axis

Shock

MIL-STD-810G, Method 516.6: 20g, 11ms functional; 40g, 11ms crash hazard

EMC

MIL-STD-461F: CE & RE emissions

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Core Systems designs and builds rugged servers, displays, mission computers, and integrated cabinet solutions for military and industrial applications. From our 85,000 sq. ft. San Diego facility, we deliver cutting-edge, durable computing solutions for mission-critical needs.



Core Systems

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