CORE SYSTEMS



RUGGED AR7 MISSION COMPUTER

Military-Grade Tactical Computer

The **Rugged AR7** is a compact, fully sealed mission computer built for harsh environments and low-SWaP applications. It features a fanless, conduction-cooled aluminum chassis and runs on a quad-core Intel® processor, configurable up to 12 cores, with 8 GB of memory. Operating on 28VDC input and weighing 7.5 lbs, its 4.56" × 6.36" × 8.65" enclosure is optimized for efficient thermal performance without moving parts.

Tested to MIL-STD-810 and MIL-STD-461 standards, the AR7 withstands shock, vibration, humidity, and temperatures from –15 °C to +55 °C. It operates at altitudes up to 12,500 ft and is transport survivable to 40,000 ft. Optional EMI filtering ensures CE and RE compliance, making it ideal for tactical, aerospace, and rugged edge computing where performance and durability matter.

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

Featured Specifications

CPU
Latest Intel Xeon Scalable Processor

Cores
4-12x

RAM
8GB

Power
Power options available

Chassis Type
Aircraft-Grade Aluminum

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Technical Specifications

Dimensions
Height: 4.56 inches, Width: 6.36 inches, Depth: 8.65 inches
Weight: 7.50 lbs

CPU
Latest Intel Xeon Scalable Processor

Cores
4-12x

RAM
8GB

Power
28VDC

Cooling
Conduction-cooled

Chassis
Lightweight aluminum chassis

Environmental Specifications

Operational Temperature
-15°C to +55°C; MIL-STD-810F, Method 502.4 Procedure II (Low Temperature) and Method 501.4 Procedure II (High Temperature)

Storage Temperature
-55°C to +85°C; MIL-STD-810F, Method 502.4 Procedure I (Low Temperature) and Method 501.4 Procedure I (High Temperature)

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

Work With Core Systems Today

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.

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