



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

Copyright 2026 All Rights Reserved

Featured Specifications

CPU

Latest Intel Xeon Scalable Processor

Cores

4-12x

RAM

8GB

Power

Power options available

Chassis Type

Aircraft-Grade Aluminum



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

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

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.

Core Systems

13000 Danielson St
Poway, CA 92064

