



RUGGED AR1 MISSION COMPUTER

Military-Grade Tactical Computer

The **AR1** is a compact, rugged tactical mission computer from Core Systems designed for SWaP-optimized performance in demanding environments. Its fully sealed, conduction-cooled design utilizes proprietary thermal transfer technology to eliminate moving parts, ensuring reliable, silent operation in extreme temperatures, shock, and vibration. Its small form factor makes it ideal for embedded and mobile deployments where space and durability are critical.

Powered by a latest-generation Intel® quad-core processor, the AR1 delivers efficient performance in a compact system. It supports up to two internal expansion cards, including options such as 1553, GPS, and D/A, providing flexible, application-specific I/O for defense, aerospace, and other mission-critical applications.

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

Featured Specifications

CPU

Latest Intel Quad-Core

Storage

One internal SATA or SAS 2.5" HDD

RAM

2GB

Power

28VDC

Chassis Type

Aircraft-Grade Aluminum



Technical Specifications

Dimensions

Height: 2.00 inches, Width: 5.25 inches, Depth: 7.75 inches
Weight: 5.00 lbs

CPU

Latest Intel Quad-Core options

Power

28VDC

RAM

2GB

Storage

One (1) internal SATA or SAS 2.5" HDD

Cores

4-12x

Expansion Slots

Two (2) internal mPCIe slots
multiple mPCIe slot combinations are available

Chassis

Lightweight aluminum chassis

Environmental Specifications

Operational Temperature

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

Storage Temperature

MIL-STD-810F, Method 501.5, Procedures I/II: -15°C to +55°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: 4.43 GRMS, 5-20000Hz, 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

