CORE SYSTEMS



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

Dimensions
Height: 2.00" | **Depth:** 7.75" | **Width:** 5.25"

CPU
Latest Intel Quad-Core

Storage
One internal SATA or
SAS 2.5" HDD

RAM
2GB

Power
28VDC

Chassis Type
Aircraft-Grade Aluminum

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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
-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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