



RC-1

Single Slot Rugged Chassis

Embedded real-time control and signal processing sub-systems must deliver the highest reliability without sacrificing or compromising performance or I/O while providing protection from the external environment. The RC-1 provides a superior rugged enclosure for one full-size 6U x 160mm VMEbus (ANSI/IEEE 1101.2-1992) or one 6U or two 3U Compact PCI (ANSI/VITA 30.1-1998) conduction-cooled modules for tightly spaced, high density computing applications.

In addition to the chassis' single slot, the internal interconnect of the RC-1 can accommodate an additional PMC site to provide further I/O flexibility and customization. Utilizing high-grade machined aluminum alloys and protective chemical finishes, the RC-1 combines with the latest in tightly toleranced machining and low cost assembly processes providing programs with a rugged, lower cost sealed enclosure.

To ensure the best possible I/O flexibility, rapid quick-turn prototyping along with the lowest development costs, the RC-1 supports a Wirewrap™ backplane for the module's user-defined I/O combined with discrete panel wiring. The connector configuration is then customized to maximize I/O flexibility per customer's requirements. Once the subsystem development cycle is complete, a printed circuit backplane with Flex cable to the I/O panels will minimize manufacturing and subassembly costs and maximize reliability for higher subsystem quantities.



Considering the requirements for technology insertion and high-speed, differential data, serial fabric communication architectures, all backplane I/O lines can be impedance balanced and length matched to minimize differential latency thereby increasing data integrity. An extended life span is also an integral part of the RC-1. Curtiss-Wright Controls Embedded Computing's unique and unparalleled TMI™ (Technology Migration and Insertion) program

For more information on our broad range of high-integrity computing solutions, please visit our website at www.cwembedded.com.

**CURTISS
WRIGHT** **Controls**
Embedded Computing

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supports our customers' configuration and logistics management requirements for COTS products.

The performance of the RC-1 is fully modeled and verified using the latest FEA tools to ensure its thermal characteristics meet the most demanding applications. Customization options include all aspects including front panel, power supply input voltage/output voltages and VMEbus or Compact PCI backplanes. Curtiss-Wright's Level 100 and 200 (rugged, conduction-cooled) Single Board Computers (SBCs), I/O modules and high accuracy platform stabilization and autoloader controllers are perfectly matched for use in the RC-1.

About Our Subsystems Group

Curtiss-Wright's Subsystems Group specializes in integrated, embedded, real-time and mission-critical processing systems for the defense, aerospace and rugged industrial markets. Products include COTS subsystems, boards, chassis and integrated software product solutions based on VME and other industry standard, open systems architectures – all supported by the company's TMI™ program – a complete life-cycle management and logistics support service.

Curtiss-Wright's Subsystems Group designs and develops a wide variety of leading edge subsystem and board-level items including single board computers (SBCs), graphics, high-speed data fabrics, I/O, memory along with environmentally sealed chassis and enclosures, software integration and customized sub-systems. Applications for the company's products range from mission processor and control sub-systems for ground vehicles, surface and subsurface naval platforms, and tactical and strategic fixed- and rotary-wing aircraft, to low- and high-earth-orbit space vehicles and platforms.

Features

- ◆ Compact, low profile rugged enclosure
- ◆ Single slot, 6U VMEbus or Compact PCI backplane
- ◆ 1 PMC site for I/O flexibility (not including 2 sites typically found on 6U card)
- ◆ 16V to 40V input range with 50V transient
- ◆ 50ms Power Holdup
- ◆ Integrated RFI/EMI filter
- ◆ Finned to safely dissipate over 80W to free air
- ◆ Discrete wire or Flex cable rear panel wiring
- ◆ Free-air or baseplate/conduction-cooled chassis
- ◆ Meets NBC wash-Down / Decon. Specifications

