

Crystal Group RE1739 Rugged Embedded Computer



Modular chassis

IPMI intelligent management control

Compact construction

Supports full-height, full-length cards

Multiple power supply options

Up to six 9mm SSD storage options,


A small footprint with GPU capabilities

Completely and easily configurable, the RE1739 boasts advanced thermal management in a composite chassis for rugged compute performance. This embedded computer system has a modular chassis that accommodates multiple micro-ATX motherboard/processor configurations, while following leading-edge CPU and GPU roadmaps to ensure access to the latest, most powerful silicon chipsets and processors. The integrated DC power supply is designed for low voltage noisy vehicular applications.

Use cases

- Signal processing
- Autonomous vehicle sensor processing and inference
- Vehicular applications

Designed to MIL-STD-810



Humidity Shock Operational Temperature Vibration Altitude

Crystal Group RE1739 Technical Specifications

Height	6.1" (15.3 cm)
Width	16.3" (41.4 cm)
Depth	13" (33 cm)
Weight	18–30 lbs (8.2–13.6 kg); content dependent
Power	75–650W with select configurations; CPU/GPU dependent
CPU Architecture	Modular chassis accommodates multiple micro-ATX motherboard/processor configurations
Internal Bay	Six SATA/SAS 2.5" SSD (externally removable)
Cooling	Three high-reliability, 120mm fans; back to front airflow
Power Supply	Option 1: 10–32VDC Option 2: 18–36VDC Option 3: 120–240VAC 50/60Hz, 115VAC 400Hz
Mounting	Option 1: Tray Option 2: Bulkhead; ears supplied Option 3: Rack

Environmental testing standards

MIL-STD-810: Environmental Engineering Considerations and Laboratory Tests	MIL-STD-810, Operational Temperature, Method 501, Procedure I/II: -40°C to +60°C ¹
	MIL-STD-810, Storage, Method 501, Procedure I/II: -40°C to +85°C ¹
	MIL-STD-810, Humidity, Method 501, Procedure II: 240 hours with humidity kit ¹
	MIL-STD-810, Altitude, Method 500: 12,500ft operation, 40,000ft transport ¹
	MIL-STD-810, Vibration, Method 514, Procedure I: 5.5G, 5–2,000Hz, 60 min/axis, 3 axis ¹

Electromagnetic Compatibility Standards

Some standards may require an internal kit; Testing with solid state drives

MIL-STD-461	RE102, CE102 compliant ¹
-------------	-------------------------------------

1: Testing in progress

Notice: This document is for marketing purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered by Crystal Group. Crystal Group reserves the right to make changes to this document at any time, without notice, and assumes no responsibility for its use. This document describes features that may not be currently available or are subject to change. Due to the numerous models and component combinations, some configuration testing remains pending. Please contact your Crystal Group program manager for test data on desired requirements. Export of technical data associated with this system may require an export license from the United States government.



info@crystalrugged.com | 800.378.1636 | crystalrugged.com

©Crystal Group, Inc. All trademarks are property of their respective owners. All rights reserved.

DOC-00829 REV B 11/23