

RE3423M

SEALED SERVER



**IP68 water and
dust sealed**
24 hours @ 1 meter



**Intel Xeon CPU;
up to 20 cores
and 150W**



**Low-profile
GPU up to
70W**



**-40°C to +65°C
operational
temperature**



**Designed to
MIL-STD-1275E**



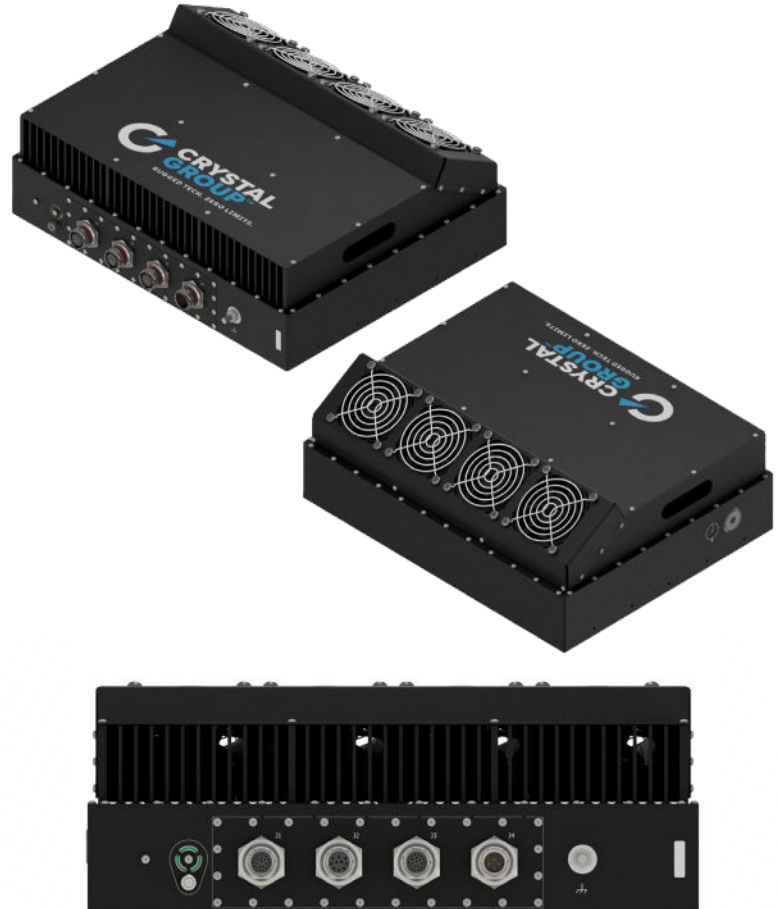
**Up to three 2.5"
SATA or two U.2
NVMe drives**

HIGH-PERFORMANCE COMPUTE IN A COMPLETELY SEALED CHASSIS

The RE3423M is third party certified to IP68 water and dust ingress protection levels with up to 220 watts of combined CPU and GPU power without sacrificing performance at 65°C. This purpose designed chassis enables demanding applications to be deployed into harsh elements and extreme environments. The custom internal heatsinks developed for the RE3423M allow industry leading operation for mission equipment in high temperature environments.

The RE3423M is currently configured with Intel® Xeon® Scalable processor and NVIDIA professional graphics card for high reliability in the field. Crystal Group's embedded computer systems align with industry processor roadmaps to ensure access to the latest in long life, powerful processors.

Crystal Group provides a 5-year warranty and forward-looking configuration management to enhance the long-term investment of your compute solution.



USE CASES

- Ground vehicles with high vibration and rain exposure
- Aircraft in unmanned areas of heavy humidity and condensation
- Naval applications with high humidity and salt atmosphere
- Applications with outdoor exposure to heavy rain and splashing, temporary immersion
- High temperature applications in dusty environments

RE3423M RUGGED SEALED SERVER

Mechanical	Height: 5.80" (14.7 cm)
	Width: 15.75 (40.0 cm)
	Depth: 12.60" (32.0 cm) over body, 13.35" (33.9 cm) max including MIL-CIRC connectors
	Weight: 33 lbs. (15.0 kg) max with all drives populated and one card installed
Mounting	Mounted from base flanges
Power Supply	500WDC 18-36VDC MIL-STD-1275, MIL-STD-461
CPU Architecture	Option 1: Up to 20 cores, 150W TDP at 65°C Option 2: Up to 28 cores, 205W TDP at 55°C
Memory	Up to 512GB DDR4 ECC RDIMM
Internal Expansion Slots	One PCIeX16 low profile, single slot, full length card, up to 70W TDP
Removable Drives & I/O	Option 1: Two non-removable NVME SSDs Option 2: Three non-removable SATA SSDs Option 3: Inquire about sealed removable drive option
System Board	X12SPM-TF
Cooling	External Heat Sink cooled by 4 external IP68 rated fans
Software Compatibility	Supports Windows® 11, Windows® Server, Linux®, or VMware®

ENVIRONMENTAL TESTING STANDARDS

MIL-STD-810: Environmental Engineering Considerations and Laboratory Tests	Method 500, Altitude: 12,500ft operation, 40,000ft transport ¹
	Method 501, Storage: Procedure I/II: -55°C to +80°C
	Method 501, Operational temperature: Procedure I/II: -40°C to +65°C (horizontal orientation), +63°C (vertical orientation), unthrottled full performance, configuration dependent
	Method 507, Humidity: Procedure II: 240 hours
	Method 509, Salt fog: 48 hours
	Method 514, Vibration: Procedure I: 8Grms, 10-2,000Hz, 30 min/axis, 3 axis per Crystal Group Standard Ground Profile
	Method 516, Shock: Procedures I/V: 40g, 11msec – functional shock; 40g, 11msec – crash hazard shock
IEC 60529 Ingress Protection	IPX8 Immersion for 24 hours at 1 meter IP6X Dust for 8 hours with vacuum

ELECTROMAGNETIC COMPATIBILITY STANDARDS¹

MIL-STD-461F CE102, CS101, CS114, CS115, CS116, RE102, and RS103 compliant¹

In-house test reports provided for baseline units; customer-specific test options available upon request.

¹: Designed to meet standard

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