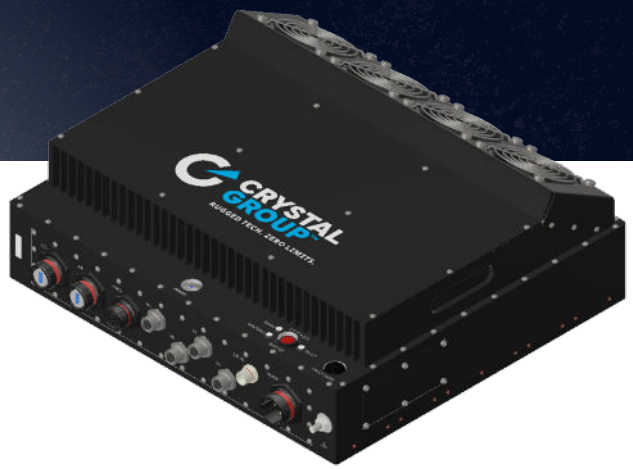
CRYSTAL GROUP™
RUGGED TECH. ZERO LIMITS.

RE5433M
SEALED SERVER

- **IP68 water and dust sealed** 24 hours @ 1 meter
- **Intel Xeon or AMD EPYC CPU**
- **Full-height GPU**
- **-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 RE5433M is third party certified to IP68 water and dust ingress protection levels with up to 425 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 RE5433M allow industry leading operation for mission equipment in high temperature environments.

The RE5433M is currently configured with an Intel® Xeon® processor and a 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

RE5433M RUGGED SEALED SERVER

Mechanical	**Height:** 16" (406 mm) **Width:** 14" (355 mm) **Depth:** 6" (152 mm) **Weight:** 35 lbs. (16 kg) max with all drives populated and one card installed
Mounting	Mounted from base flanges
Power Supply	425W maximum draw
CPU Architecture	**Option 1:** Intel Xeon **Option 2:** AMD EPYC
Memory	Up to 1TB DDR5 ECC RDIMM
Internal Expansion Slots	Two PCIeX16 full profile, single slot, full length card
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
Cooling	External heat sink cooled by four external IP68 rated fans
Software Compatibility	Supports Windows® 11, Windows® Server, Linux® , or VMware®

ENVIRONMENTAL TESTING STANDARDS[1]

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 STANDARDS[1]

MIL-STD-461F	**CE102, CS101, CS114, CS115, CS116, RE102, and RS103 compliant[1]**

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

1: Designed to meet standard

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AS9100D CERTIFIED ISO 9001

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