



ROV Subsea Control

Revolutionising deep-water productivity



“Our customer was experiencing shock and vibration challenges due to the extreme demands of the application, along with shipping complications that often resulted in computer failure. Our design and engineering experts overcame these challenges to provide a complete and reliable solution.”

Joe Phelps,
Director, Sales & Marketing
Captec Americas

The customer is a manufacturer of remotely operated vehicles (ROVs) and manipulator arms with an aim to revolutionise deep-water productivity. Due to mobile deployment in harsh conditions, robust, high-performance and compact computers play an integral part in improving the reliability and functionality of the customer's ROV subsea control application.



Requirements & Issues

- ▶ Requirement for the design and supply of a protected, compact industrial computing platform with the capacity to house customer equipment more reliably than a commercial alternative
- ▶ Protect internal components from heavy shock and vibration caused by frequent transportation to application sites
- ▶ High-end imaging support for maximum performance
- ▶ Improve accessibility and airflow while reducing cabling
- ▶ Meet custom I/O requirements to support optimised computing performance

The Solution

- ▶ A custom, ruggedised 2U industrial computer engineered to meet challenging operational and technology requirements
- ▶ Heavy-duty, cold rolled steel chassis provides a robust foundation of protection to internal components
- ▶ Specification of custom-designed brackets protects all internal components from shock and vibration damage
- ▶ An on-board graphics card delivers the image quality required to run the customer's application
- ▶ PSU engineering modifications remove excess cabling and improve ease of access
- ▶ Custom I/O requirements met and integrated, including HD audio kit for an improved operator experience



The Outcome

- ▶ A custom engineered computer capable of peak performance while subject to extreme shock and vibration
- ▶ Custom testing including GPU analysis to ensure maximum performance and reliability in the field
- ▶ Implementation of delivery schedules to ensure customer delivery times are continuously met
- ▶ Confidence in a specialist supplier capable of delivering reliable platforms that consistently outperform and outlast commercial alternatives



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