



DFI

DFI's Highly Flexible, Off-The-Shelf Solution Ensures the Safety of Seamless Marine Monitoring

The Offshore Surveillance can obtain information through the offshore operator's room and the onshore control center to ensure 24/7 monitoring of the area surrounding offshore assets. DFI's CS322-C246 not only provides sufficient computing performance and PCIe slots to process large amounts of information in real-time, but it is also compatible with the legacy PCI slots to protect customers' past investments.

Region: **Norway**

Industry: **Offshore Surveillance**

Application: **Maritime Monitoring System**

Solution: **DFI's CS332-C246 with 2U Chassis (Guanghsing GHI-214)**





Offshore Surveillance collects and processes traffic and environmental information from the radar, AIS (Automatic Identification System), CCTV (Closed-Circuit Television), VHF (Very High Frequency), and other sensors, and displays it on the surveillance screen. The information is all concentrated and superimposed on the electronic chart. They provide a comprehensive traffic picture about the maritime situation around the offshore assets, information about the ships and targets in the protected area, ensuring that collisions are avoided, and providing the recording and replay of all data in the system.


Therefore, the maritime monitoring system needs a complete I/O interface to integrate a wide range of sensors and needs the computing performance to be sufficient to process and integrate big data in real-time, so it requires sufficient PCIe slots to connect multiple co-processing computing cards and to perform real-time image recognition that consumes a lot of computing power. The high humidity and high salinity of the coastal environment accelerate the machine's wear and tear. It is bound to require the use of a highly reliable industrial-grade system to ensure service life and durability.

Norway, a land area of more than 300,000 square kilometers, has a coastline of 100,000 kilometers and is ranked second globally. Naturally, there is a considerable demand for maritime monitoring systems. The original user of a local naval surveillance system needs to update its system due to performance upgrades. Because the cooperating system integrator has already introduced DFI's CS332-C246 in other similar nature projects, combined with speeding up the delivery time, the system integrator introduced this user to DFI and prepared to send test samples. But things were not all going well.

For the existing 2U chassis, the riser card used to expand the board has unique requirements, so DFI needs to customize the 2U height rear panel bracket of CS332-C246 to meet this particular demand. Since DFI has been providing various types of riser cards optimized for customers to use for different needs for many years, the riser card T100-3E, which was developed in advance for this type of application two years ago, perfectly matched the user's specifications and came into use immediately; saving the cost of tooling and developing new rear panel bracket.

Finally, CS332-C246 retains the legacy PCI slot, ensuring that users can continue to use the well-established image capture card. DFI further customizes the SNMP (Simple Network Management Protocol) software interface for power supply. They are making it compatible with the existing power management system to ensure software and hardware investment without costly reintegration. In the shortest time, the marine monitoring system's data processing capacity is increased, and the traffic in ports and coastal areas can be more effectively managed.

Please click or scan the QR code to fill out an inquiry form if you would like us to contact you.



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Founded in 1981, DFI is a global leading provider of high-performance computing technology across multiple embedded industries. With its innovative design and premium quality management system, DFI's industrial-grade solutions enable customers to optimize their equipment and ensure high reliability, long-term life cycle, and 24/7 durability in a breadth of markets including factory automation, medical, gaming, transportation, smart energy, defense, and intelligent retail.

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