



## Case Study

# High-Speed Fish Counting Machine

## Advanced Fish Counting Machine with Water-Resistant Touch Panel PC

Automated fish counting machines are favored for use cases in aquaculture, commercial fishery, and even research and conservation studies for accurate fish counting. A water-resistant touch panel PC with high computing capability and the use of computer vision are the keys to the machine running fish counting programs to achieve fast and high-precision counting. With a combined solution, it monitors and counts the number and size of fish accurately.

### Challenges

The customer was seeking an industrial panel PC manufacturer that can supply an IP65-rated touch panel PC with stainless steel chassis for their own production. Other system requirements include a Win7 32-bit operating system, 4GB system memory onboard, a 128G SSD, Wi-Fi connectivity, two M12-type USB ports, one M12-type Ethernet, and one M12-type power connector.

### Main Requirements

- Low power yet high performance Intel Atom® processor
- IP65-rated high quality touch panel PC
- Wi-Fi kit for wireless network connectivity
- M12 type I/O connectors for harsh environments

### IP66 & IP69K-rated stainless steel fanless touch panel PC for fish counting with high accuracy and image verification

Axiomtek recommended its GOT815-834 to the customer, a 15" XGA TFT IP66 & IP69K-rated stainless steel fanless PCT (or resistive touch) touch panel PC. As one of our long-standing bestsellers, the Taiwan Excellence-awarded platform provides a cost-effective solution for the demands of water resistance and ruggedness in harsh environments. The GOT815-834 supports a wide operating temperature of -20°C to +55°C and can withstand vibration up to 2G. Moreover, the flat bezel design makes it easy to clean, enhances durability and reduces reflection for a better user experience.

The GOT815-834 has two PCI Express Mini Card slots for wireless networks. Combining ruggedness with a range of waterproof M12 connectors makes this panel PC highly usable under the most severe

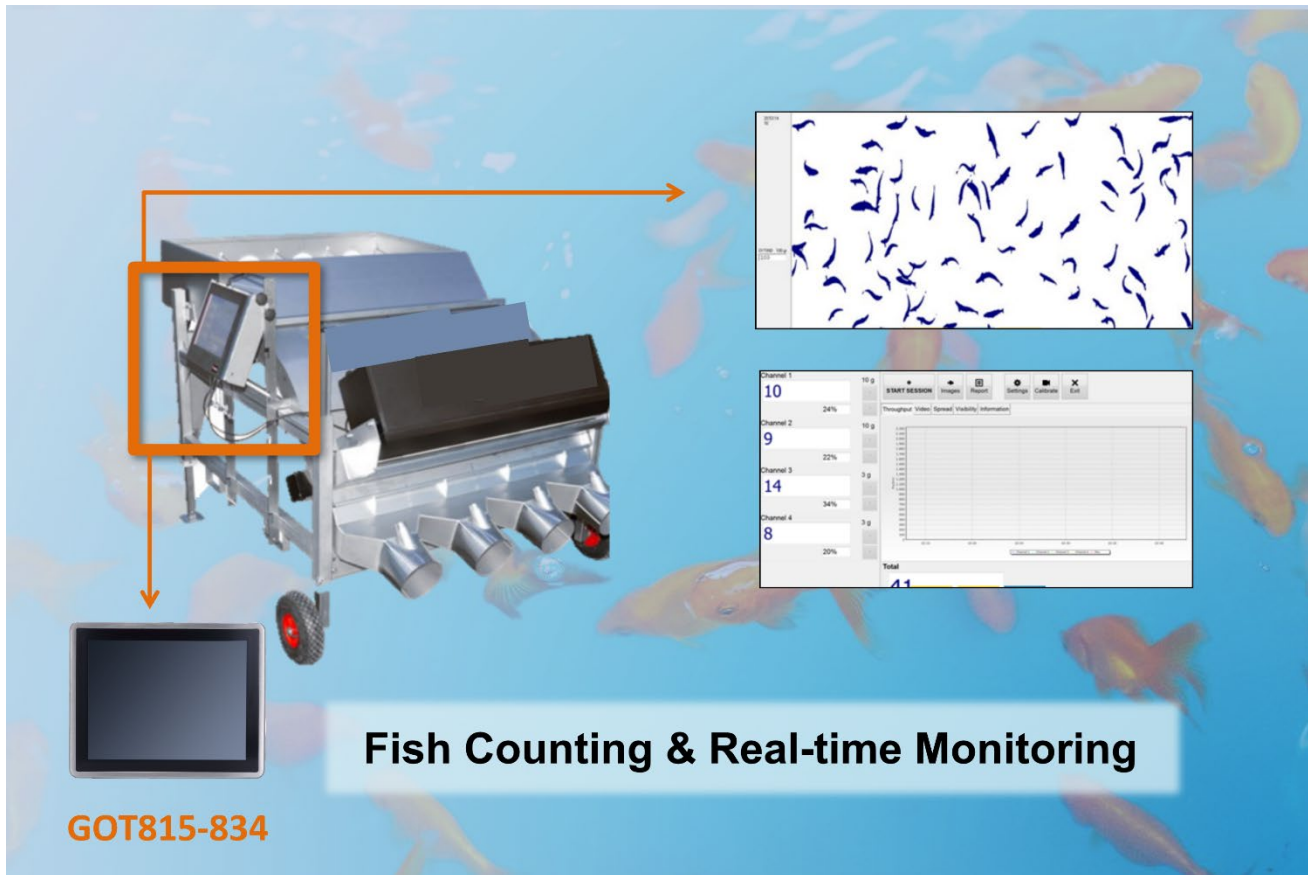
conditions. In addition, the GOT815-834 supports a VESA mount for ease of installation in diverse application scenarios.



## Application

### Keeping close eyes on the fish with machine vision

Integrated with the GOT815-834 and devices such as cameras and sensors, the fish counting machine features unparalleled accuracy and a high capacity to flawlessly count fish as they pass through, ensuring precise data collection for critical population studies. What's more, the image-saving capability provides a visual record for verification and analysis. The counting system goes the extra mile by generating comprehensive counting reports and sounding an alarm in the event of overload, guaranteeing accuracy and operational safety. With seamless remote monitoring features, the users can effortlessly manage and fine-tune the system from afar, ensuring it operates at peak performance.



## System Configurations of the GOT815-834

- 15" XGA TFT LCD with 420nits of brightness
- Intel Atom® processor E3827
- IP66 & IP69K rating
- 5-wire flat resistive touchscreen
- M12-Type I/O ports
- DDR3L-1333 4GB RAM
- W.T. 2.5" SATA3 128 GB SSD
- Win7 Pro 32-bit
- Intel® AC-3160 Wi-Fi + BT module

## Why Axiomtek

When it comes to the Human-Machine Interface, the users think of Axiomtek. Axiomtek provides a variety of high-quality touch panel PCs that are water resistant, lightweight, anti-vibration, extended operating temperature, or dust- -resistant. Customers can find the most suitable and cost-effective touch panel PC with the assistance of Axiomtek. In addition, we also provide after-sale FAE services to speed up the deployment and time-to-market.

## **About Axiomtek Co., Ltd.**

Axiomtek has experienced extraordinary growth in the past 30 years because of our people, our years of learning which resulted in our tremendous industry experience, and our desire to deliver well-rounded, easy-to-integrate solutions to our customers. These factors have influenced us to invest in a growing team of engineers including software hardware, firmware, and application engineers. For the next few decades, our success will be determined by our ability to lead with unique technologies for AIoT and serve our key markets with innovatively-designed solution packages of hardware and software – coupled with unmatched engineering and value-added services that will help lessen the challenges faced by our systems integrator, OEM and ODM customers and prospects alike. We will continue to enlist more technology partners and increase collaborations with our growing ecosystem who are leaders in their fields. With such alliances, we will create synergy and better deliver solutions, value, and the expertise our customers need.