

## Qingdao Beverage Company Achieves Streamlined Warehouse Forklift Operations with EM-I16J



### Challenge

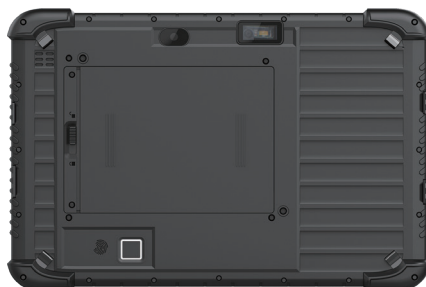
In modern warehousing and logistics, large warehouses inevitably require forklift operations to quickly transport bulk goods. However, traditional manual inventory management methods lead to inaccurate data, affecting order processing efficiency. Additionally, devices on forklifts may not be compatible with warehouse management systems, resulting in poor data transmission and low operational efficiency. Under high-intensity operations, if the devices used on forklifts are not robust enough, the risk of accidents increases. To optimize warehouse management and improve operational efficiency, many companies are urgently seeking smart devices that can be mounted on forklifts, support scanning functions, and are durable.

### Solution

A leading beverage company in Qingdao, China, has implemented Emdoor Information's EM-I16J rugged tablet PC to integrate a comprehensive smart warehouse logistics solution. When handling and transporting large quantities or heavy loads, the EM-I16J is securely mounted on forklifts using a vehicle mount clamp and seamlessly integrated with the warehouse management system, enabling real-time task instructions and data updates. The EM-I16J's HD display and rugged features ensure stable operation in harsh warehouse environments. Operators can use it to scan barcodes, record data, and upload information to the backend system, significantly improving inventory management accuracy and operational efficiency.

### Benefits

By integrating the EM-I16J rugged tablet with the warehouse management system, the efficiency of forklift warehouse operations improved by 40%, ensuring the accuracy of inventory management and significantly reducing equipment maintenance costs. Real-time data collection and task execution optimized resource utilization and enhanced overall logistics management effectiveness. The rugged design, high compatibility, and diverse accessories of the EM-I16J enhanced the flexibility and safety of operations, reducing the risk of interruptions and increasing the company's productivity and business value.



**EM-I16J**  
Rugged Tablet PC

## Challenge

The client is a well-known beverage production company in Qingdao, dedicated to providing high-quality and healthy beverage products. However, with the rapid market expansion, the client has encountered increasing challenges in warehouse and logistics management. Additionally, as intelligent and information technology rapidly proliferates in the industry, the client's traditional warehouse management methods can no longer meet the growing logistics demands. The main issues include untimely and error-prone data updates, directly impacting the efficiency and accuracy of order processing. Therefore, the client aims to upgrade by optimizing their existing infrastructure to strengthen and maintain their industry position.

Currently, the client's warehouse mainly uses electric forklifts for cargo handling, requiring smart devices to be installed on the forklifts for digital management. Traditional devices may be difficult to securely mount on forklifts, leading to instability or unsuitable operation positions during use. Some low-compatibility devices may not integrate well with the Warehouse Management System (WMS) or other information systems, nor meet emerging scanning needs and real-time data collection requirements, causing inefficient information flow and reduced overall warehouse logistics efficiency. Additionally, a significant challenge is the complex warehouse environment. High and low temperatures, dust, vibrations, occasional collisions, and frequent forklift operations make ordinary devices prone to damage under such harsh conditions, increasing maintenance and replacement costs.



## Solution

To address these challenges, the client sought to procure a batch of rugged and durable tablet devices that could be securely mounted on forklifts, aiming to continuously reduce costs and increase efficiency from multiple dimensions. Ultimately, the client chose Emdoor Information's EM-I16J rugged tablet to enhance the efficiency and accuracy of their warehouse logistics management. The EM-I16J is a 10.1-inch rugged tablet equipped with an Intel high-performance processor and Windows 11 operating system. It has undergone stringent IP65 protection level testing, making it water-resistant, dust-proof, and shock-resistant, suitable for harsh warehouse environments.

### Solution of EM-I16J

The client installed vehicle mounts on the control consoles of the forklifts in their warehouse. When the EM-I16J rugged tablet is needed on a forklift, it is placed on the mount and secured using an aviation plug, and powered through a vehicle power adapter connected to the forklift's power supply, with its wide voltage module adapting to different vehicle voltages. Equipped with a warehouse management system compatible with the EM-I16J's Windows 11 operating system, warehouse operators can quickly receive task instructions directly from the forklift. These instructions provide detailed information about the target goods, including names, codes, shapes, quantities, current locations, and the next target locations for handling. During the handling process, forklift drivers are guided by the EM-I16J, with its built-in GPS function accurately locating the storage positions of the goods.

When warehouse staff perform shipping operations, they can connect a barcode scanner via the USB port to retrieve relevant

information such as shipping quantities, locations, and containers from the shipping orders. Additionally, they can scan barcodes on the target goods for confirmation. Once the handling task is completed, they can mark it as finished in the warehouse management system and upload the data to the server backend via the EM-I16J's Wi-Fi network. This allows backend administrators to query work records, goods status, and warehouse usage information in real time, maximizing the uniformity, mobility, and efficiency of warehouse operations.



## Benefits

### Optimizing Resource Utilization

By utilizing the EM-I16J for accurate data collection and analysis, the client can optimize warehouse layout and resource allocation, enhancing the overall effectiveness of logistics management. The seamless integration of the Windows 11 operating system with the warehouse management system enables rapid deployment across all application stages in the warehouse, achieving a comprehensive digital operation. This integration ensures that all processes are efficiently managed, from receiving and storing goods to picking and shipping, thereby optimizing resource utilization and improving operational efficiency.

### Enhancing Operational Flexibility and Safety

The EM-I16J features IP65-rated protection against shock, water, and dust, combined



with a long-lasting battery, ensuring stability and safety during forklift operations in harsh warehouse environments. This robust design helps the client minimize the risk of operational interruptions. Additionally, the EM-I16J comes with a range of versatile accessories, including a stylus and a vehicle mount. These accessories enable warehouse operators to work effectively while wearing gloves and provide flexibility for both mounted and handheld use. This comprehensive approach addresses the diverse needs of warehouse operations, enhancing overall



functionality and safety.

## Improving Warehouse Operations Efficiency

With the EM-I16J, warehouse staff can receive and execute task instructions in real-time, significantly accelerating handling and inventory updates. This capability dramatically enhances overall operational efficiency, streamlining workflows and ensuring timely completion of tasks.



## Enhancing Inventory Accuracy

The integration of the EM-I16J with the warehouse management system allows for real-time data updates and barcode scanning, which reduces manual errors and significantly improves inventory accuracy.

## Reducing Equipment Maintenance Costs

The robust design and high durability of the EM-I16J substantially lower the rate of equipment damage, thereby reducing maintenance and replacement costs.

