DFI

The Ultra-Thin, Stable, Highly Reliable, and Anti-Vibration EC700-BT Helps Customers Build The Most Agile Shelf Moving Robot

Affected by COVID-19, the public avoids going out to prevent the epidemic. As an affect, there has been a surge in e-commerce orders, and the intelligent warehousing of major e-commerce companies must deploy more advanced technology such as shelf moving robots. The storage space is dynamically allocated to improve storage efficiency significantly. The ultra-thin, stable, highly reliable, and shock-resistant EC700-BT assists the world's leading intelligent warehouse robot solution provider to build the most agile shelf-moving robot.

Region: **China**
Industry: **Smart Warehousing**
Application: **Shelf-Moving Robot**
Solution: **EC700-BT**

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Can you imagine the row upon row of shelves? As if growing out of your own feet, moving freely and swiftly in the warehouse space?

Affected by the raging COVID-19 around the world, the public avoids going out to prevent the epidemic. As a result, not only has there been a surge in e-commerce orders, significant e-commerce companies must expand the deployment of autonomous mobile robots (AMR) and automatic guidance vehicles (AGV).

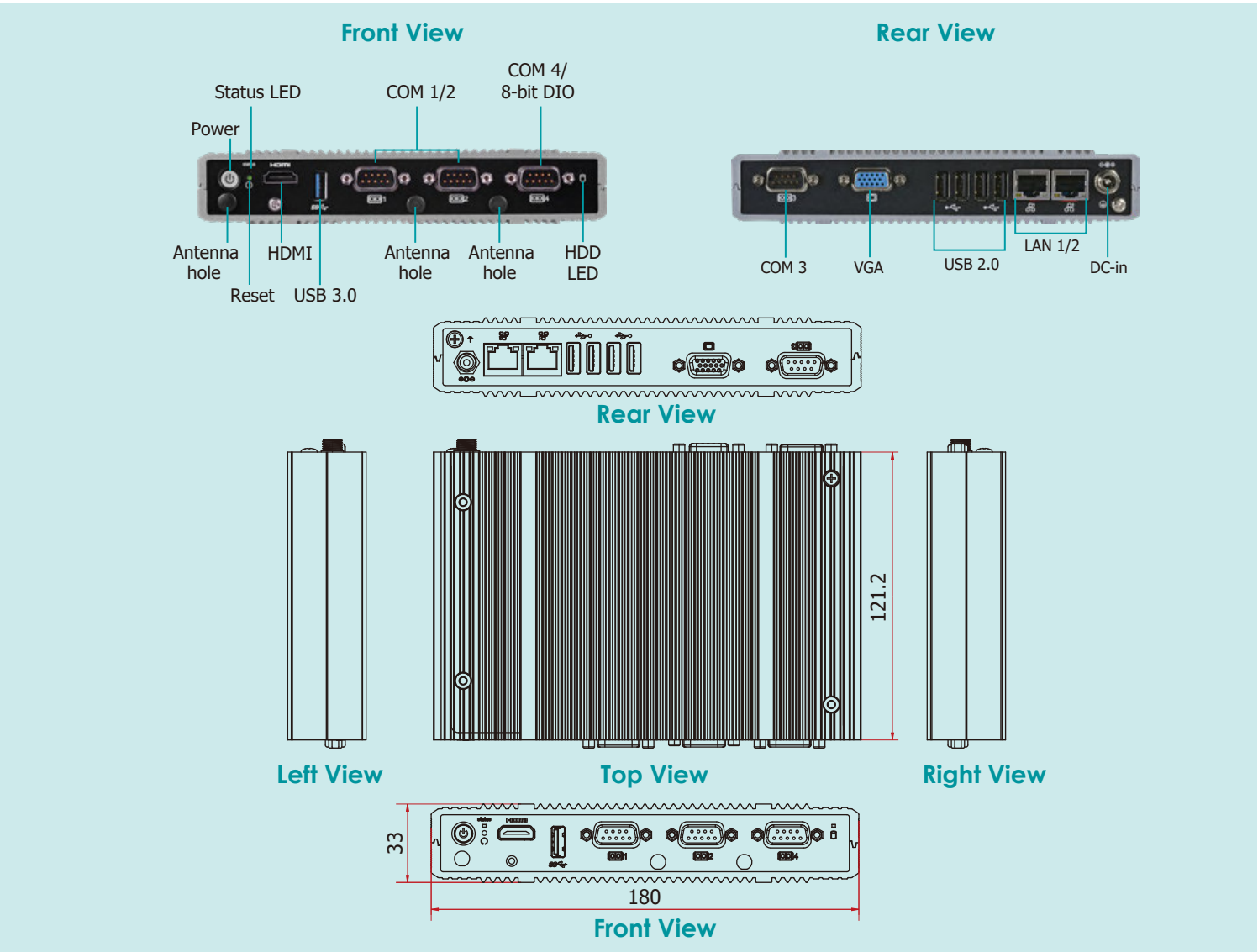
Established in 2014, a China-based intelligent warehousing robot solution provider is one of the largest in the world. It is committed to the development of unmanned robots and robot operating systems. It is said to have the most prominent "thousand-unit" robot intelligent warehousing in China.

Among them, there is a "latent type" shelf-moving robot that "drills under the shelf," lift the shelf, and then starts to move. There is a product with a handling weight of 600 kg and 1000 kg respectively, which is suitable for replenishment, shelf loading, picking, and work in the warehouse and used to optimize huge orders through the centralized management system of artificial intelligence. In addition, this series of robots move at a speed of more than one meter per second, with a lifting height of 55mm, use laser radar for positioning and automatic navigation of the system, and support emergency stop braking, sound, light warnings in response to exceptions. Operating ambient temperature is -10~45 ℃, the battery life can last up to eight hours and withstand 500 charge and discharge cycles, and the total charge time will not exceed two hours.

Due to the long-term operation of moving shelves in the warehouse, it is not difficult to imagine the computing brain required by this shelf moving robot. The most necessary prerequisite is shock resistance to ensure the stability of the system operation. The

processor, system memory, and storage devices should also be fixed to the motherboard (such as mSATA or eMMC) to improve reliability.

Therefore, this customer chose DFI's EC700-BT because this embedded system combines anti-vibration with onboard memory, onboard processor, support for mSATA SSD, ultra-thin body design, four sets of COM ports, 800g lightweight, low power consumption, and fully meet the seismic requirements of shelf-moving robots. Furthermore, the EC700-BT also has a model that supports memory error correction code (ECC) for more robust memory data integrity. According to the Intel IOTG product schedule, the processor used in EC700-BT will be supplied until the first quarter of 2028, which means that customers will not have to worry about out-of-stock issues within a few years and increase the return on investment.



Whether it is a shelf-moving robot or an inter-shelf shuttle with similar applications, the EC700-BT and the newer EC700-AL are a perfect match made in heaven. When e-commerce orders are rising, you must not miss DFI's complete solution if you want to build the most trustworthy smart storage robot.

Please click or scan the QR code to see our website if you would like us to contact you.

DFI

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.

Website: www.dfi.com

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For more information, please contact your DFI regional sales representative or send us an email: inquiry@dfi.com