



# DFI

## *The Ultra-Thin Industrial-Grade Motherboard Meets Heat Dissipation Requirements to Help Build Efficient Logistics and Warehousing Robots*

Autonomous Guided Vehicles (AGVs) are commonly used in different industrial fields, from warehousing and logistics to highly automated intelligent factories. They can be seen everywhere. Affected by the raging COVID-19, the public has avoided going out to as a result of the epidemic. Not only has there been a surge of e-commerce orders, but the intelligent warehouses of significant e-commerce companies must deploy more and more advanced robots. DFI's SD101-H110 industrial motherboard assists the world's leading smart IoT solution provider to construct high-performance lifting and handling AGVs and improve the intellectual level of the entire warehouse management.

Region: **China**

Industry: **Smart Logistics And Warehousing**

Application: **Automatic Guided Vehicle**

Solution: **SD101-H110**



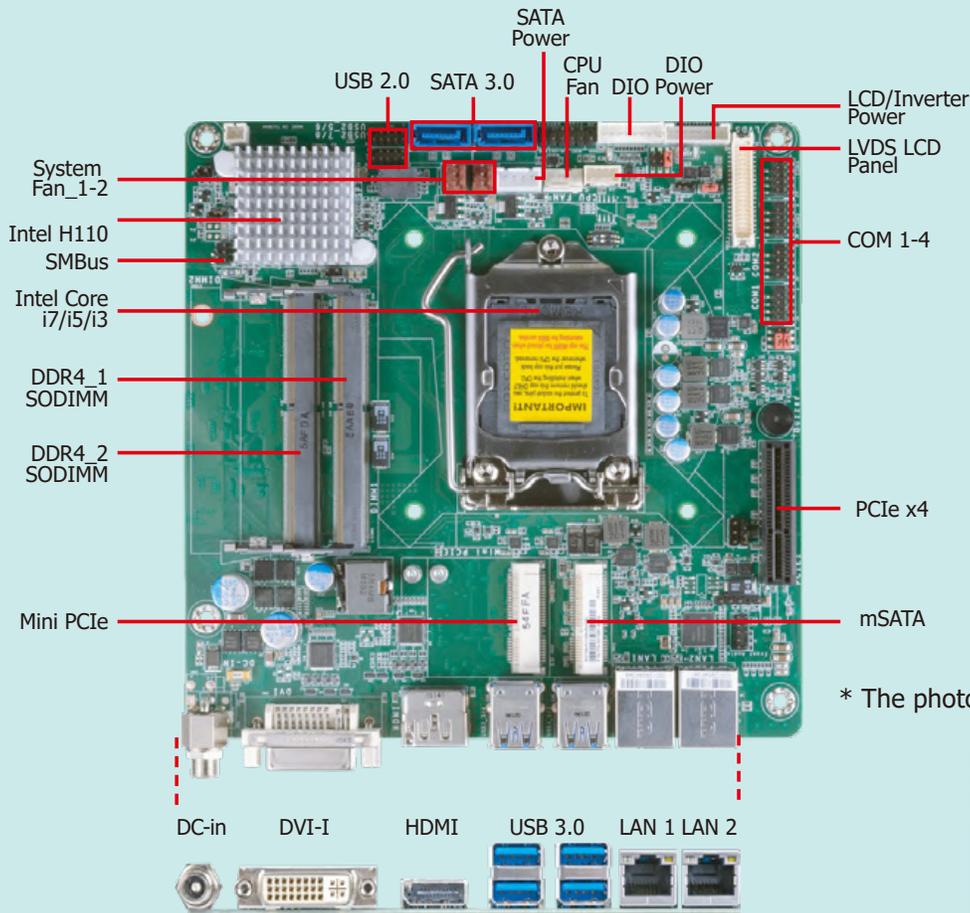


In recent years, with the popularization of artificial intelligence applications and the development of around-the-clock global logistics, the demand for mobile robots in industries dominated by e-commerce and manufacturers has continued to rise. Moreover, affected by the spread of the COVID-19, the public has avoided going out in prevention of the epidemic. Therefore, not only has e-commerce orders surged, major e-commerce companies must expand the deployment of autonomous mobile robots (AMR) and automatic guided vehicle (AGV), which also allows more and more manufacturers specializing in particular technical fields to step into the robot-related industry.

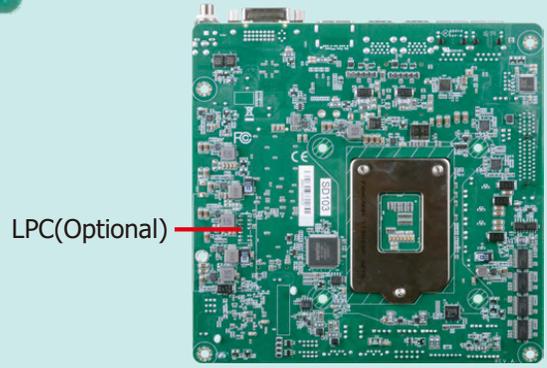
A global leading IoT solution provider, with video technology as the core in China, provide end-to-end video surveillance solutions, systems, and services based on technological innovation. Based on the video business, they continue to explore emerging

industries, and gradually extend to machine vision, video conferencing systems, professional drones, brilliant fire fighting, automotive technology, innovative storage and robotics, and other emerging video IoT businesses with products covering 180 countries and regions around the world.

This manufacturer has launched a series of robotic products, covering applications such as security, handling, lifting, and automatic material distribution. They chose to use DFI's SD101-H110 industrial-grade motherboard as the heart of their 200kg-class lifting-type logistics warehouse automatic guided vehicle. This robot can be stably lifted and transported, with a maximum load of 1,000 kg and a lifting height of 60 cm. It can achieve millimeter-level positioning accuracy, multiple safety protections, and intelligent autonomous charging. It can operate 24 hours a day and support Wi-Fi networks and seamless roaming. Entire operation can exceed eight hours, and is



\* The photos above refer to SD103-H110.



**Bottom View**

entirely suitable for express/e-commerce, automobile, manufacturing, 3C, medicine, tobacco, food and beverage, and other factory production logistics links, including raw materials, parts receiving and dispatching, transferring, etc.

The reason why SD101-H110 was selected is that the product specifications are highly in line with customer's needs, and the ultra-thin height design meets the heat dissipation needs of customers in a small space. The oblique insertion of the memory is



## 2 Extension Modules for Additional 4 COM Ports (via the LPC connector)



EXT-RS232  
- 4 RS232



EXT-RS485  
- 4 RS485



DFI Motherboard

EXT-RS232/RS485

Additional 4 COM

conductive to the heat dissipation of the customer in a small area, and the DC 12V DC power supply is also a necessary specification for the customer. From visual navigation, inertial navigation, laser sensor, safety touch edge, emergency stop button, sound and light alarm, and other critical function peripheral equipment, SD101-H110 also provides a patented extension module to provide a complete I/O interface.

In addition to technology, customers also benefit from DFI's excellent business promotion capabilities, technical support capabilities, and fully grasping and responding to customer's needs in real-time. Therefore, DFI assists customers in realizing the smart connection, bright loading and unloading, automatic handover, intelligent inventory management and control, AI recognition, node visualization, instant delivery, and continuously improving the warehouse management's innovative level for uncrewed operations.

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](http://www.dfi.com)

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