



DFI

The highly reliable DFI EC700-BT fanless embedded system serves as the perfect brain for the automated production line

Robotic arms have always been a popular function of factory automation in "Industry 4.0". The endless rows of robotic arms in automated production lines have long been the daily scenery of countless manufacturing industries. They are gradually spreading to the service industry and catering industry and becoming an essential indicator of the degree of industrialization. DFI EC700-BT, with its ultra-thin, stable, high-reliability, and anti-vibration characteristics, as a Chinese customer with a long-standing international planning, is the perfect control brain of its universal super-large-load robotic arm.

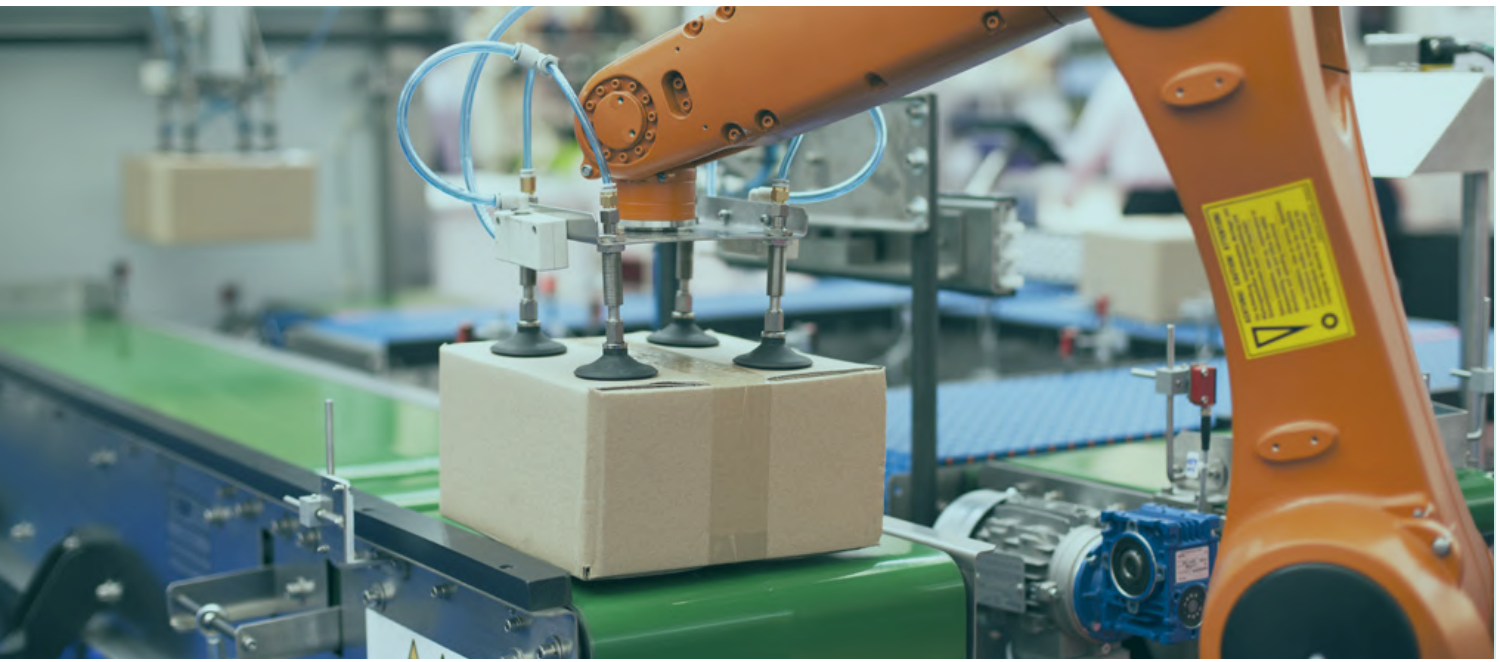
Region: **China**

Industry: **Automated Production Line**

Application: **Universal Super-Large-Load
Robotic Arm**

Solution: **EC700-BT**





The robotic arms for automate production to reduce labor and improve production efficiency has long become essential equipment for many companies and factories. In smart factories, the application of robotic arms has already been varied, which significantly increases production capacity, assists in the implementation of a sophisticated object assembly. Moreover, it effectively solves the more complex, dangerous, and challenging production processes within the industry.

When the COVID-19 epidemic causes a more significant global labor shortage and cross-border transportation pressure, the use of robotic arms to create a low-carbon local supply chain can optimize production energy and yield, and reduce energy and resource consumption, and increase local production capacity. Manufacturing products nearby, and minimizing transportation costs have also become essential policy directions for all countries that have re-examined their industries due to the epidemic.

In addition, the robotic arm has also embarked on a small and diverse customization trend. It can replace different sensors and mechanisms according to application needs. Through independent learning and data measurement, the operation of the production line can be reasonably quantified, and the data report can be used to show the operating status to enhance the enterprise's operational efficiency. Among them, in terms of application proportions, articulated robots are the majority. Not limited to manufacturing, in addition to manufacturing sites, robotic arms are gradually being used in industries such as catering and medical treatment.

A robot company in China that actively implements an international development strategy, has successively acquired a number of European and American companies, and established a European R&D center, and has completed an international development in brand and technology. Its weight is

DFI Application Story

The highly reliable DFI EC700-BT fanless embedded system serves as the perfect brain for the automated production line

up to 2855 kg, arm span 2800mm, and repeat positioning accuracy ± 0.3 mm general-purpose super-heavy load (500 kg) five-axis robotic arm, which originally used other brands of small industrial computers, switched to DFI EC700-BT as its new generation control brain, because the DFI solution has the following advantages:(As comparison table)

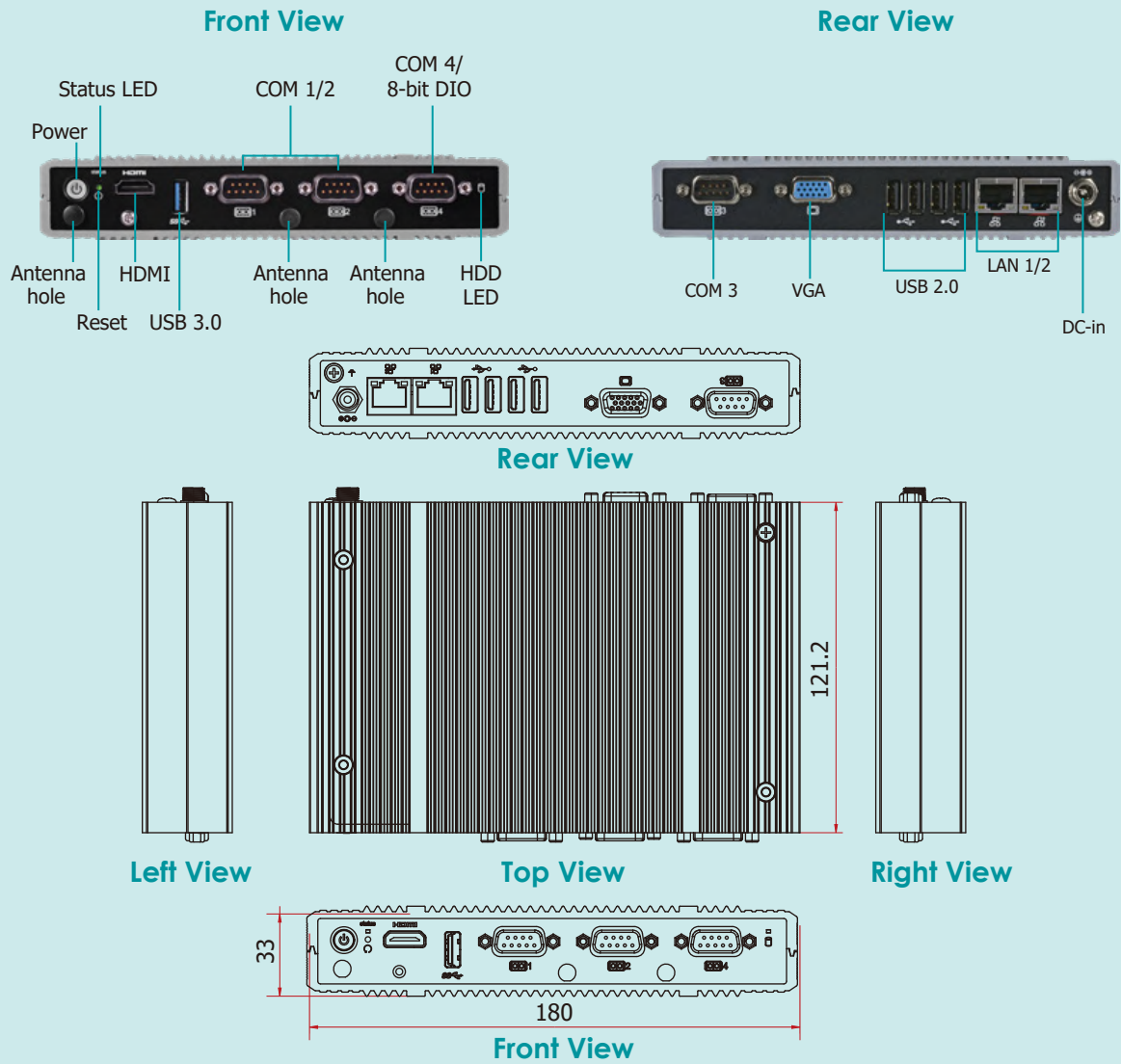
supports memory error correction code (ECC) for more robust memory data integrity. According to the Intel IOTG product schedule, the processor used in EC700-BT will be supplied until the first quarter of 2028, which means that customers will not have to worry about out-of-stock issues within a few years and increase the return on investment.

Therefore, this customer chose DFI EC700-BT because this embedded system combines anti-vibration onboard memory, ultra-thin body design, four sets of COM ports, and a more comprehensive input voltage range, which are perfectly in line with the customer needs. Furthermore, EC700-BT also has a model that

	Legacy Solution	DFI EC700-BT	Advantage
Main Memory	Single SO-DIMM	Onboard	Shock Resistance
Storage	Only mSATA	Optional eMMC	Shock Resistance
Internal Expansion	Full-Height Mini PCIe Half-Height Mini PCIe (mSATA) SIM Slot	Full-Height Mini PCIe (PCIe/USB/3G/GPRS) Full-Height Mini PCIe (SATA) Half-Height PCIe (PCIe/USB/LPC) SIM Slot	Can expand more diversified wireless network specifications
COM Port	1 x RS-232	4 x RS-232/422/485	Directly meet customer needs with three COM ports
Wide Voltage	12-24V	9-36V	More in line with the industrial scene
Dimension	166 x 106.6 x 41.5 mm	180 x 121.2 x 33 mm	Thinner and smaller, more conducive to installation and deployment


DFI Application Story

The highly reliable DFI EC700-BT fanless embedded system serves as the perfect brain for the automated production line



From the sizeable general-purpose robot arm to the lightweight SCARA, the EC700-BT and the newer EC700-AL are perfect matches made in heaven. If you want to build the most accurate and reliable universal super-large-load robotic arm, you must not miss DFI's complete solution.

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

eStore: estore.dfi.com



Copyright © 2021 DFI Inc. All rights reserved. DFI is a registered trademark of DFI Inc. All other trademarks are the property of their respective owners.

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