



# DFI

## *Durable and Straightforward Touch Panel Computer Assists in The Creating of a Flexible and Simple Automatic Packaging Machine*

DFI's touch panel computer has an intuitive interface with a touch panel access to operator tutorials, help system, on-board diagnostics, data retrieval, and performance monitoring with graphic or text-based views. This ensures accuracy and efficiency in fulfillment applications that require frequent product and label changes, prevents product queuing, and improves packaging operators' efficiency.

Region: **United States**

Industry: **Automatic packaging**

Application: **Mail Order Fulfillment and e-Commerce Packaging Machine**

Solution: **Customized 10.1" Touch Panel PC (NXP i.MX6 system-on-chip)**



Automatic packaging machines are an industry with a long history. However, in recent years, due to the rapid popularization of e-commerce and mail-order distribution and the demand for customized packaging, packaging operations need to exceed the previous efficiency, such as the direct integration of thermal transfer imprinter.

From single or multi-line mail order fulfillment, e-commerce fulfillment, prescription-by-mail fulfillment, apparel, fashion accessories, sporting goods, footwear to a variety of products, the efficiency of automatic packaging machines has always played a pivotal role in logistics.

Modern automatic packaging machines feature a breakthrough bag opening technology that securely grips and holds the open bag in place. This creates a large, square opening that allows for effortless loading of single or multi-line orders. In addition, next-bag-out printing is achieved with an advanced thermal transfer imprinter positioned directly over the next bag to be loaded. This ensures accuracy and efficiency in fulfillment applications that require

frequent product and label changeovers and prevents product queuing.

However, changing products and labels more frequently in response to customized packaging makes the packaging machine more complicated. They require more intuition addition and the people who can guide them. Therefore, machine interface and industrial-grade touch panel PC is the best choice.

An automatic packaging machine manufacturer in the United States was established for nearly 60 years as the original inventor of auto bagging machines and pre-opened bags. Its 700-pound, large-scale mail-order distribution, and e-commerce packaging machine system (maximum bag size: 22 inches' width and 36 inches' length) uses DFI's customized touch panel PC, intuitive interface with control screen, which can provide operator tutorial, online assistance system, system diagnosis, data retrieval and visual performance monitoring based on graphics or text. In addition, it provides simple height adjustment and casters for operator's comfort and portability.

Q7A551



FS700



KS310-IMX6



DFI customizes DFI's customized touch panel computer for customers' unique needs, using Q7A551 SOM carrier board and FS700 Qseven module to customize it to meet customer requirements and support 12-36V broad voltage input. The introduction of DFI's customized touch panel PC will increase the flexibility of the automatic packaging machine to upgrade the software in the future and integrate the control of third-party equipment to enhance the flexibility of future deployment. The quad-core ARM Cortex-A9 i.MX6 Quad also ensures the performance margin for adding software functions in the future. NXP i.MX6 has a supply period of 15 years to the fourth quarter of 2027, and customers do not need to worry about upgrading the hardware in the short term.

However, ARM instruction's software ecosystem is far less complete and mature in industrial control than x86 platforms. It lacks standardized system firmware interfaces such as BIOS or UEFI. Providing comprehensive software support for board support package (BSP) to effectively integrate the driver and related functions, such as the challenging touch screen and system tuning, the boot loader can boot normally and ensure the operation's stability will determine the success or failure of this project. DFI

has quickly developed a BSP and Boot Loader that integrates the same customer-specified operating system based on its rich experience in customization and system integration. As a result, customers can focus on developing application software and quickly import it to the application site to improve service quality.

This automatic packaging machine manufacturer, who enjoys a leading position in the industry, does not need heavy protective devices or equipment required for safe operation. With the smooth packaging line, combined with DFI's high-quality and power-saving touch panel PC solution, the automatic packaging and loading work is ergonomic. Thus, it brings high-quality, reliable, and flexible automatic packaging systems to the productivity of packaging operators.

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# 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)

eStore: [estore.dfi.com](http://estore.dfi.com)



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