

# Empowers The Digital Transformation

EASY JOY



Driven by rising urbanization, capital investment and newly emerging consumer lifestyles, China's convenience store market is booming. This accompanies by vibrant sales growth and rapid network expansion. In 2020, sales revenue generated by convenience stores in China amounted to around 271.6 billion yuan, indicating over 6% of CAGR. The number of convenience stores is also growing, in 2020, there were approximately 144 thousand convenience stores across the country.



On the other hand, with labor costs soaring globally, retailers are constantly under the pressure of increasing the cost of operation, even in Asia, the market that has always been favored by its lower labor costs.

Consumers are also increasingly receptive to self-service and self-checkout, and mobile payment provides great convenience for retail transactions. With the impact of COVID19, more and more retailers are accelerating the implementation of the self-service, kiosk, vending machines, self-checkout, and the unattended operation became one of the most important strategies of retail transformation.

## BACKGROUND & CHALLENGES

Established in 2013, Sinopec Easy Joy Convenience Store is a wholly-owned subsidiary of Sinopec, relying on the mature sales network and traffic of Sinopec gas stations to carry out non-oil business and operations. As of 2021, Easy Joy convenience stores have 27,800 stores in China, making it the largest chain convenience store brand in China. Easy Joy has over 80-million-member users and an average of more than 20 million daily in-store visits and transactions.

According to the sales report of non-oil business from 2013 to 2018 released by Sinopec, the profit of Easy Joy's non-oil business contributed 12.36% to the profit of the entire gas station business, while in the well-developed markets of Europe and the United States, the profit contribution of the non-oil business of gas stations is about 40-55%.



In Easy Joy's existing business, snacks, beverages, and cigarettes often account for more than 50% of their overall business.

Further reducing labor costs and operating costs, improving the convenience and customers experience, and ultimately increasing the proportion of non-oil business has become the most important objective of Easy Joy.

Since 2018, Easy Joy has been implementing a series of innovative strategies for transformation, including increasing the number of private label products, as well as digitizing and automating store operations. Unmanned convenience stores have been established in Beijing, Shanghai, Hong Kong and other cities, further improving and optimizing store operational efficiency and reducing operating costs through auto-identification technology and other emerging technologies.

## SOLUTIONS

Easy Joy convenience stores plan to gradually deploy a new type of vending and self-service device in stores across the country for automated sales of their best-selling products.

With this device, customers can easily scan the barcodes and settle the payment by decoding a mobile barcode (QR code). To align with the contemporary design and compactness of the device, Easy Joy requires a high-performance barcode scanner that has both small housing and a large field of view. And also, considering 24/7 operation for Easy Joy, and the lack of hardware maintenance capabilities in the store. This scanning device must be highly reliable, robust, and stable.

Based on these requirements, Newland AIDC has customized a compact fixed-mount barcode scanner for Easy Joy and vending machine makers, equipped with Newland exclusive UIMG technology, and the latest algorithm specifically developed and optimized for retail. The standard serial port connection (RS232) enables easy integration for the vending machine.



Compared to another 2 embedded scanners, Newland FM80 and FM60, also developed for self-services & self-checkout, this customized scanner can provide a larger Field of View in a very compact design, like all its sibling products, it still guarantees the outstanding barcode decoding performance on both 1D and 2D barcodes, even for challenging barcodes like damaged barcode, low contrast printing barcode or barcode on a reflective surface, the visible scanning window and intuitive design ensures a very user-friendly interaction and experience.

In order to minimize the effort and cost of maintenance after the deployment, and to meet the requirement of the 24/7 operation. Newland AIDC's fixed-mount scanners have an MTBF of 100,000 hours of its highly reliable and robust system, from both hardware and firmware perspective, as an ideal embedded scanning solution for an uninterrupted work scenario. By providing three different colors of LED indicators, the staff would be able to intuitively indicate the working status of the scanner.





<b>Scan Window</b>	Big sized window 148 x 139mm	Mid-sized Window 93.2x73.2mm	Small sized window 69x49.5mm
<b>Dimensions/mm</b>	149(W)x78.5(D)x166.5(H)	114(W)x94(D)x46(H)	82(W)x54(D)x69(H)
<b>Field of View</b>	H42.4°, V36°	H65.6°, V44.6°	H47°, V36°
<b>Motion Tolerance</b>	3.5 meter/second	2 meter/second	2 meter/second
<b>Minimum Element Resolution</b>	≥3mil (1D)	≥4mil (1D)	≥5mil (1D)
<b>Indicator</b>	Beeper Multiple LED indicators	Beeper Multiple LED indicators	Beeper Multiple LED indicators
<b>Supported Host Interfaces</b>	RS-232, USB	RS-232, USB	RS-232, USB



In the next 1 to 2 years, Easy Joy will gradually deploy this new vending and self-service device and will keep exploring the innovative solutions, which is one of the most important components of their digital transformation strategy, this will definitely enhance Easy Joy's competitiveness and have a further lift up of customer experience.



## ABOUT NEWLAND AIDC

Newland AIDC was founded in 1999 as a wholly-owned subsidiary of Newland Digital Technology (Listed company, Stock code: 000997), with over 20 years of R&D in data capturing & enterprise mobility, Newland AIDC has become one of leading companies in automatic identification and data capture industry.



Newland AIDC empowers your workforce in retail store floor, warehouse & distribution center, manufacturing facility and other industries to transform your business with full data visibility and accuracy.

With our global sales & services network, we are committed to offering cutting-edge data capturing technology that helps our enterprise customer to win.



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