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Case Study

Portwell, Inc.
Retail

Portwell

ADVANPOS
AdvanPOS Technology Co., Ltd.

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Premier

Benefits from efficient Point-of-Sale (POS) based on Intel platform

New Intel-based Point-of-Sale system developed by Portwell is utilized effectively in Retail industry

Situation

For retailers, a Point of Sale (POS) system with high performance, low power consumption, compact size and enhanced graphics will not only speed up the transaction process and increase customer satisfaction, but will also save space and cost. Today adding digital signage capability to POS systems is an emerging opportunity for equipment vendors. Digital signage can be used as a communication medium for advertisement, entertainment, and promotion information as well as an interactive platform that engages with the customer. Recent market research shows that digital signage has a "convincing" impact on consumers' purchasing decisions, which positively drives overall sales of products and services, and ultimately increased profits for retailers.

Incorporating digital signage concepts into POS systems is innovative, yet poses a challenge to meet retailers' stringent specifications, especially when competing in large international projects. As an advanced product manufacturer, AdvanPOS is dedicated to develop POS products with integrated digital signage that meet customer demands and respond to market trends.

Challenge

An easy way to combine POS systems with digital signage is to add on a second display. However there are some challenges in doing so. For example, the display quality might be compromised. And if a large screen size is needed to display the retailer's content, issues such as distance, display quality, and cabling are critical factors to overcome. Additionally, space optimization is often the top priority for retailers such as convenience stores, grocery stores, and street-corner specialty stores where a small footprint or compact-sized POS system is preferred. Therefore, in the design and development of POS solutions for the retail market, all of the application functionality, the uncompromising performance, the size, the power consumption, and the price are a must to be considered.

Solution

AdvanPOS adopted the Intel® Atom™ processor D2000 and N2000 series and Intel® NM10 chipset platform in the W-POS series to provide retailers with powerful yet compact POS solutions. Powered by the advanced technology of the Intel platform, AdvanPOS W-POS system delivers increased processing performance, enhanced graphics quality, lower power consumption, and simplified cabling through greater integration of functions compared with previous generations. The AdvanPOS W-POS takes total advantage of the platform's capability to support full HD 1080p playback over an HDMI interface. The delivery of superior, uncompressed digital video and audio quality combined with the dual-channel LVDS output feature that enables multiple independent displays make the W-POS ideal for digital signage applications. While one display is used by the system operator to handle the conventional POS transaction, the second, independent customer-facing display will cost-effectively deliver impressive, attractive and informative multimedia messages to customers while their transaction is processing.

In addition to its high performance and advanced graphics capabilities, the Intel platform enables a small form factor, fanless POS system that offers a combination of practical and aesthetic advantages. Furthermore, its low power consumption reduces the retailer's energy costs and addresses the ever increasing demand for "green" products, and W-POS meets the PCI-DSS standard (Payment Card Industry Data Security Standard). Retailers save further costs due to the low labor needed for operation and maintenance. The wall-mountable W-POS panel PC is ideal for Kiosk or desktop POS in any retail application and environment.

 "The Intel® Atom™ processor D2000 and N2000 platform make it easier for Portwell and AdvanPOS to create an ideal retail POS solution with qualified digital signage output" said Andy Wu, R&D Director of AdvanPOS. "These POS solutions are not only powerful but also energy efficient, definitely a cost-effective and eco-friendly product!"

POS Speeds up Transactions

First generation POS systems introducing barcode readers significantly reduced transaction time and reduced human operator error which directly resulted in reduced operating costs to the retailer. Further

efficiencies were gained by enabling more accurate inventory management based on the accurate real-time selling information gathered by the POS system.

Adding digital signage applications takes POS to the next level, providing shoppers with individualized news, advertising and preferential treatment. Retailers can potentially realize additional profits from product advertising.

Based on the Portwell PEB-973J embedded board, AdvanPOS W-POS is designed with the latest dual-core or single-core Intel Atom processor D2550 combined with the Intel NM10 chipset.

Features of AdvanPOS W-POS system

PEB-973J offers 32nm Hi-K process technology with power saving architecture and supports one channel DDR3 SODIMM up to 4GB. I/O includes six COM ports (three ports on rear I/O), VGA, HDMI, LVDS display, and six USB connectors (with two powered USB).

AdvanPOS offers OEMs the option to customize the rear side of the system with their company color and logo. The rear is the side that is visible to retail customers and provides awareness or "advertising" of the POS system to customers while they wait for their transaction to complete.

Conclusion

AdvanPOS aims to provide powerful and yet eco-friendly POS solutions. With the Intel® Atom™ processor D2000 and N2000 platform, AdvanPOS can provide customers with POS solutions that meet customer requirements on specification, performance, graphics, and lower power consumption. The performance, reliability, efficiency and affordability of Intel-based AdvanPOS W-POS solutions provide retailers smarter investment alternatives to improve their services.

About AdvanPOS

Established in 2007, the vision of AdvanPOS is to leverage cutting-edge technologies to provide advanced Point of Service (POS) solutions. AdvanPOS combines the experiences from POS and IPC industries, moving the technology forward. Moreover, AdvanPOS is dedicated to create efficient and high-quality platforms for simple, smart, engaging, reliable, green and innovative POS solutions.

The AdvanPOS brand comes from the combination of two words, Advance and POS. Our brand encapsulates our promise to deeply understand the needs and aspirations of users and customers and to deliver innovative POS solutions with advanced and easier operation experience.

About Portwell

Portwell, Inc., a world-leading innovator in the Industrial PC (IPC) market, is a Premier member of the Intel® Intelligent Systems Alliance. Providing a complete range of Industrial products, including PICMG 1.0/1.3, COM express & Q7 Modules, Industrial M/B and system solutions along with advanced quality & service, Portwell serves customers in embedded markets such as automation, transportation, gaming and medical technology.

Intel® Intelligent Systems Alliance members provide the hardware, software, firmware, tools and systems integration that developers need to take a leading role in the rise of intelligent systems. Portwell is now one of five Premier members of the Alliance worldwide. This Premier membership not only means advanced technology and initiative awareness, new business exploration, co-marketing and co-selling opportunities, it also reflects a close working relationship between Intel and Portwell that can provide greater benefits to customers for shorter design cycles and strategic development of the embedded markets.

Portwell is a Premier member of the Intel® Intelligent Systems Alliance. From modular components to market-ready retail systems, Intel and the 200+ global member companies of the Intel® Intelligent Systems Alliance provide the performance, connectivity, manageability, and security developers need to create smart, connected systems. Close collaboration with Intel and each other enables Alliance members to innovate with the latest technologies, helping developers deliver first-in-market retail solutions to increase sales and efficiency. Learn more at: intel.com/go/intelligentsystems-alliance.

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