Beijing Weipass Panorama Information Technology Co.
Making Mobile Payments Safer and Easier with MAX32555 Secure Microcontroller

The WPOS-3 enables customer payments, coupon redemption, and membership programs.

Challenge
- Enable safe financial transactions via open internet-based business platform
- Meet power/performance/small footprint requirements

Solution
- MAX32555 secure microcontroller

Benefits
- Strong security
- Technical risk avoidance
- Met power, performance, and small footprint requirements

Beijing Weipass Panorama Information Technology Co. aims to reinvent internet point-of-sales (POS) transactions, helping businesses grow and transform themselves by providing them with an internet-based infrastructure and underlying technology. Founded in 2012, the company has become China’s leading provider of intelligent business hardware, serving banks, third-party payment processors, e-commerce platforms, and more than 100,000 businesses.

The company created and defined the country’s first full-touchscreen financial POS, which has obtained the new security certification issued by UnionPay, according to Marco Ma, co-founder, vice president, and chief engineer. “Through our work, we take advantage of science and technology to make conducting business easier for our customers,” said Ma. “We define products from the usage scenarios of merchants and internet commerce rather than just focusing on the business of bill collection.”
“Through our work, we take advantage of science and technology to make conducting business easier for our customers.”

- Marco Ma, Co-Founder, Vice President, and Chief Engineer, Beijing Weipass Panorama Information Technology Co.

Design Challenges
Beijing Weipass Panorama’s flagship product is its WPOS-3 touchscreen financial POS with business platform. The platform features near-field communication (NFC) and Bluetooth capabilities, an acoustic induction high-speed thermal printer, and iBeacon support. Users can use the terminal to support customer payments and coupon redemption, customer membership programs, multi-store unified management efforts, and more.

When evaluating the underlying technology for its WPOS-3, the company knew it had to guarantee the safety of financial transactions while also meeting the open nature of online platform-based business.

Solution and Benefits
The company opted to design its WPOS-3 with Maxim’s MAX32555 DeepCover® secure ARM® Cortex®-M3 flash microcontroller. This microcontroller features the essential functions of a mobile POS terminal, including a cryptographic engine, a true random number generator, environmental and tamper detection circuitry, a magnetic stripe reader, a smart card controller with embedded transceiver, and an integrated secure keypad controller.

“Maxim is an outstanding vendor in terms of safety in the industry. It’s a top player in the security chip solution market, already certified by PCI (Payment Card Industry),” said Ma. “Using the MAX32555 provides a strong safety guarantee for us.”

The company is also pleased with the technical support received from Maxim. In addition, the maturity of the MAX32555 enabled Beijing Weipass Panorama to avoid technical risks, its solution size supported its small-footprint requirements, and its power/performance mix addressed the needs of the WPOS-3.

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