MEDIATEK

Enhancing POS Performance with Xiangcheng Communication's P10

High Performance, Reliable and Affordable Smart POS

Case Study

Application

Smart POS

Background

Businesses are moving away from basic card readers to smart payment systems, driven by the growing need for multifunctional devices that enhance efficiency. For mobile merchants and retailers, this shift is crucial as they need systems with reliable connectivity, fast processing speeds, and long battery life.

To meet these needs, Xiangcheng Communication developed the P10, an Android-based smart payment device. Designed for mobile vendors, retail stores, service businesses, and merchants across a wide range of markets, P10 needed to be reliable across various settings, with network options like Wi-Fi, Bluetooth, 4G, and dual SIM support to ensure seamless, real-time transaction processing.

Challenge

- **Network Stability:** Ensuring reliable real-time transaction processing even in remote locations across diverse geographies.

- **Performance Demands:** Support multitasking for activities such as payment processing, inventory management and customer engagement without lag.

- **Battery Efficiency:** Critical for mobile merchants; balancing high computing power with long battery life for mobile usage.

- **Cost Constraints:** To be accessible and affordable to merchants in emerging markets with limited budgets, the POS had to be cost-effective.

Results:

The P10 Smart POS, powered by MediaTek's MT8766 SoC offers a high-performing POS with superior network stability, enhanced battery life and portability.

- **Faster Development:** Integrated CPU, WiFi, Bluetooth and LTE cut development time by 15%, enabling an accelerated launch

- **Extended Battery Life:** With power consumption being under 4W, P10 extends battery life by 20%, lasting up to two days

- **Improved Connectivity:** WiFi 5, Bluetooth, 4G Cat-4 and dual SIM boosted transaction speed and efficiency by 20%

- **High Market Adoption:** Strong adoption in Latin America, East Asia, and Africa for cost-effective POS solutions

Solution Partner

Xiangcheng Communication, a recognized Tier 1 provider of Smart POS systems and IoT devices, empowers merchants worldwide with cutting-edge solutions. These solutions redefine efficiency and customer experience for the merchants, particularly in emerging markets.
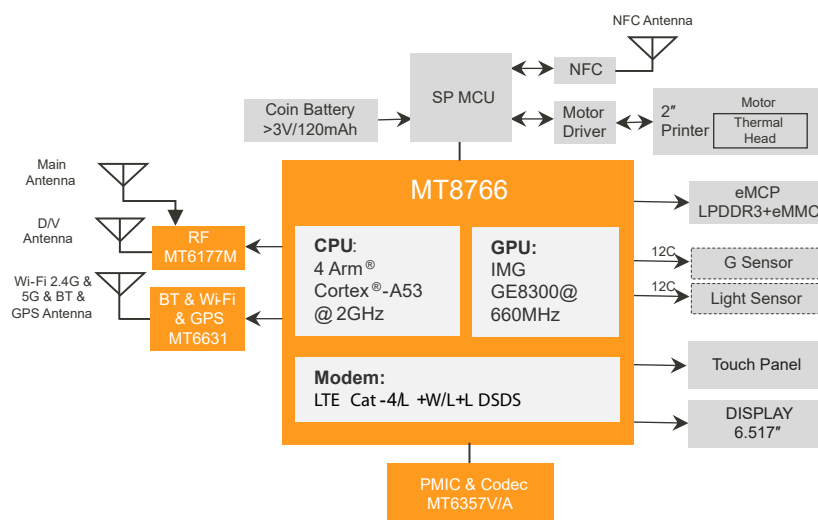
Solution

Xiangcheng Communication selected MediaTek's MT8766 processor, a highly integrated and efficient chipset well-suited for budget-friendly smart POS devices. The MT8766 features a 4-core CPU platform (4x Arm® Cortex®-A53@ 2.0GHz) that balances performance and power consumption, making it ideal for the P10 Smart POS. It supports entry-level, always-connected devices with multimedia, camera, and 3D graphics capabilities, along with wireless connectivity options like Wi-Fi 5, Bluetooth 5.0, and GNSS.

How Does MediaTek's MT8766 SoC Meet the Requirements?

- **Advanced Processing Power:** The MT8766's 4-core CPU ensures robust multitasking for applications like payment processing and inventory management, without lag or disruption. The integrated GPU (IMG GE8300 @ 660MHz) supports dynamic graphics enhancing user interactions.

- **Reliable Network Connectivity:** MediaTek's solution offers dual-band WiFi, Bluetooth, 4G Cat-4 connectivity with dual SIM support making the device efficient in enhancing connection stability and enabling seamless data synchronization.

- **Power Efficiency:** System operates below 4W, allowing up to two days of usage on a single charge.

- **Cost-Effective Integration:** The MT8766 chipset, designed with high integration, minimizes development resources, reduces production costs and accelerates market launch.

Solution Block Diagram

Learn about **MediaTek MT8766 SoC**