LANTRONIX ®

INDUSTRY:
Security/ Smart Cities

Success Highlights:

- Contributed to the creation of a community safety solution
- Shortened time for design and prototype of license plate reader
- Integrated cellular data connectivity to the cloud
- Enabled low-power management for long battery life
- Provided an affordable solution to help contain development costs

Case Study Overview:

To support citizens and law enforcement in fighting non-violent crime in their communities, Flock Safety created and distributes an affordable automated license plate recognition (ALPR) system with 24-hour wireless cameras. The Flock Safety system gathers license plate information that can be used by local police to investigate crime. To bring its APLR solution to market, Flock Safety worked closely with the Lantronix team, utilizing its Open-QTM 624A System on Module (SOM).
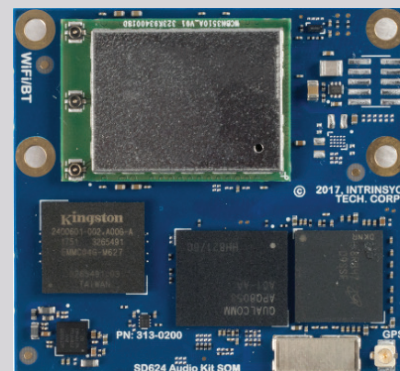
> " Utilizing Lantronix's OpenQ 624A SOM and Development Kit helped us affordably develop a prototype and quickly bring our Flock Safety system to market. "
>
> – Matt Feury, Founder & CTO, Flock Safety

Challenge: Create an Automated License Plate Reader Camera Solution

The challenge was to build technology that would capture the license plate evidence needed to solve non-violent neighborhood crime. To make the device both functional and affordable for the application, the team worked with Lantronix's engineering team, which has the expertise to offer SOM customization services of its Open-Q 624A SOM as well as experience with cloud connectivity and edge compute technologies.

Product:

Product: Lantronix Open-Q 624A SOM

The Lantronix Open-Q 624A SOM is a feature-rich, Android™-powered, production-ready module based on the Qualcomm® 624 processor. Its small form factor, high-end Wi-Fi®/BT and extensive peripheral I/O make it ideal for applications that require cloud connectivity and edge compute capabilities.
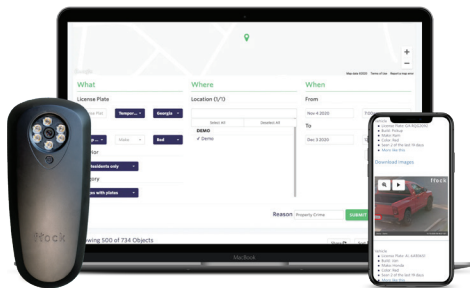
Product Features

- Octa-Core 64-bit ARM Cortex A53 1.8GHz
- Pre-certified high-performance Wi-Fi/BT module
- Qualcomm Hi-Fi audio codec for multi-mic solutions
- Hi-Def video playback and LCD support
- Android 8 Oreo™

https://www.lantronix.com/ professional-services/

Challenges included creating an ALPR solution with the following features:

- o Affordable, infrastructure-less design with wireless cameras
- o Ability to integrate cellular data into cloud connectivity
- o Secure website accessible only by authorized users
- o Built-in privacy to protect neighbors' identities
- o Power management for ultra-long battery life

> **"Lantronix's custom modules provide a great platform for fast-tracking product development of high-performance embedded devices."**
>
> – Matt Feury, Founder & CTO, Flock Safety

Solution: Lantronix Open-Q 624A SOM and Development Kit

Utilizing Lantronix's Open-Q 624A SOM, its Development Kit and a custom carrier board designed by Lantronix's engineers, the Flock Safety team was able to quickly and cost-effectively build a purpose-built core platform for its safety system.

Features include:

- Wireless camera technology
- Secure access by authorized users
- Remote device management, including software updates
- Low-power requirement for long-lasting battery
- Assurance of privacy for neighbors
- FCC/IC pre-certified Wi-Fi/BT module

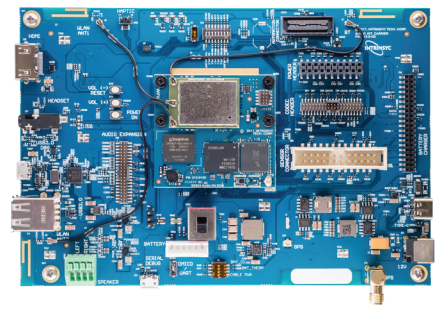## Results: Flock Safety Cameras Fight Crime With Technology

Utilizing Lantronix's Open-Q 624A SOM and engineering expertise, the Flock Safety design team created its breakthrough ALPR solution that combines powerful processing with security. Each camera can capture 15,000 vehicles per day and send real-time alerts to law enforcement with information including the license plate number, state, color of the car and if it is on the FBI's NCIC list of stolen vehicles.

Flock Safety's camera systems are currently being used in more than 700 cities across 38 states to help solve crimes. Law enforcement agencies have reported reductions in crime as high as 60 percent or more.

Benefits Include:

- Quickly build a market-ready prototype
- Provide an affordable solution that helps contain development costs
- Get to production and market faster
- Deliver a powerful yet affordable safety device

Please Visit: https://www.flocksafety.com/product/product-overview

Lantronix Open-Q 624A SOM Development Kit

Lantronix's Open-Q 624A Development Kit is a cost-effective, feature-rich, exposed-board platform running the Android OS. It is ideal for evaluation of the Open-Q 624A SOM as well as jumpstarting development of AI-enabled home hub products requiring tasks such as video conferencing, remote video monitoring, movie and video streaming.

Applications

- Audio/video home hubs
- Smart home control center
- Video conferencing products
- Streaming video/audio devices
- Smart connected cameras

About Lantronix

Lantronix is a global provider of Software as a Service (SaaS), engineering services and hardware for Edge Computing, the Internet of Things (IoT) and Remote Environment Management (REM). Lantronix enables its customers to provide reliable and secure solutions while accelerating time to market.

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(800) 422-7055 • sales@lantronix.com
lantronix.com