LANTRONIX®

INDUSTRY: Unmanned Aerial Vehicles (UAV) / Drones

Lantronix Powers U.S. Army-Compliant Drones for Teal Drones, a Red Cat Holdings Company

Success Highlights

- Met TAA/NDAA compliance requirements
- Accelerated time-to-market
- Delivered military-grade reliability
- Provided a scalable platform

Overview

Lantronix's Open-Q™ 5165N System on Module (SOM) solution was selected by Teal Drones, a Red Cat Holdings Inc. (NASDAQ: RCAT) company, for production of its Black Widow™ drones under the U.S. Army's Short-Range Reconnaissance (SRR) Program.

Lantronix's processing platform delivers advanced Edge AI processing and meets stringent U.S. security requirements, including full TAA and NDAA compliance, for deployment in sensitive Department of Defense (DoD) missions.

Challenge: Fast, Compliant Drone Design

As part of a select group of Blue UAS-approved small Unmanned Aerial Systems (sUAS) vendors, Teal Drones must meet rigorous cybersecurity, operational and safety standards for sensitive use by the U.S. Department of Defense.

Challenges included:

- **Stringent Compliance Requirements**. Lantronix's TAA- and NDAA-compliant system met the integration requirements for drone production for the U.S. Army.
- **Optimization of Dragonwing™ Processor.** The SOM delivered the GPU and DSP capabilities needed to implement real-time AI algorithms for mission-critical applications.
- **Reliable, High-Speed Connectivity.** Ensuring secure and robust communication options, the SOM enables real-time alerts and cloud data integration.
- **Accelerated Development Timeline.** Together, Lantronix and Teal Drones delivered a compliant solution against a very tight timeline.

Solution: Open-Q™ 5165N SOM

Designed specifically for AI-enabled drones and UAVs, advanced robotics and other embedded vision applications, Lantronix's **Open-Q™ 5165N SOM** is an ultra-compact, production-ready computing module based on the **Qualcomm® Dragonwing™ QRB5165N System-on-Chip processor**. With Wi-Fi® 6 external connectivity, advanced camera features and high-speed interfaces, the 5165N SOM creates the perfect computing core for a variety of leading-edge applications.

> **"Lantronix's solution enables us to meet the U.S. Army's rigorous TAA and NDAA compliance standards under the SRR Program — a level of assurance few providers can match."**
>
> – Jeff Thompson, CEO, Red Cat

Lantronix Open-Q™ 5165N SOM

The **Open-Q™ 5165N SOM** is an ultra-compact (54mm x 45mm) production-ready computing module based on the powerful Qualcomm® Dragonwing™ QRB5165N System-on-Chip processor.

Coupled with advanced camera features and high-speed interfaces, the Open-Q 5165N SOM creates the perfect computing core for drones and other UAVs. It is available with a companion development kit, accessories and documentation.

Learn more at lantronix.com/open-q-5165n

Lantronix Open-Q™ 5165N SOM Key Features

- Ultra-compact (54mm x 45mm) with powerful specialized processing cores
- On-device Qualcomm® AI Engine™
- 8GB LPDDR5 RAM
- Ubuntu 18.04 Linux with Robot Operating System 2.0 support
- Dedicated Computer Vision Engine
- Multiple MIPI camera and display ports
- Multiple high speed connectivity options
- Power-efficient Edge AI computing up to 15 TOPS

Qualcomm

Qualcomm Dragonwing

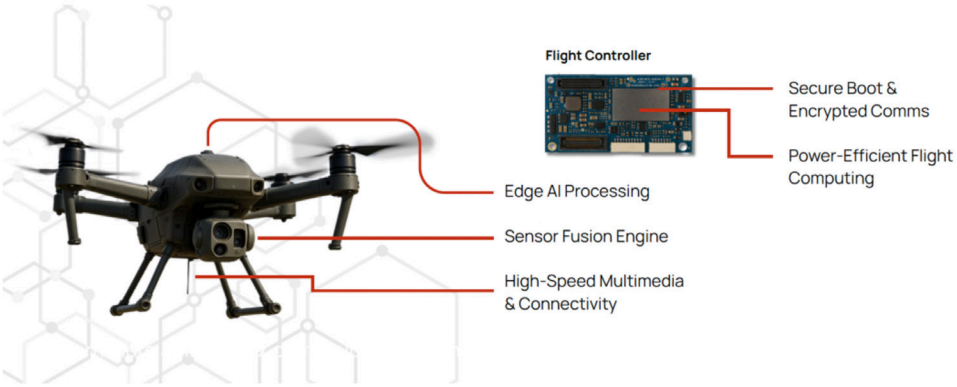
> **“Black Widow drones are redefining what’s possible for small unmanned systems, giving today’s warfighters real-time intelligence and the operational edge they need on the modern battlefield.”**
>
> – Jeff Thompson, CEO, Red Cat

Results: A Powerful, Compliant Platform Approved for U.S. Army Drones

Leveraging Qualcomm’s Dragonwing technology and engineering expertise from Lantronix, Teal Drones created a solution that delivers unmatched precision, connectivity and affordability.

Benefits of the collaboration include:

- Cost-effective solution with military-grade reliability
- Scalable platform capable of adapting to diverse applications
- Accelerated time-to-market



> **“Lantronix’s solution accelerates time-to-market for innovative new products requiring the highest AI processing performance in low-power embedded situations, including drones.”**
>
> – Saleel Awsare, CEO, Lantronix

The Lantronix Drone Advantage: Excellence in Low-SWaP Use Cases

- Longer flight endurance
- Greater power efficiency
- Smaller form factor
- More efficient AI inferencing
- Sustained supply and design longevity

TAA Compliant

NDAA Compliant

BLUE UAS

LANTRONIX®

TEAL™ A RED CAT COMPANY

WHY LANTRONIX?

- **End-to-End Ecosystem:** From SOMs and carrier boards to Visual Orchestration software and partner ecosystem support
- **Comprehensive Innovation:** Manages every stage of the AI lifecycle, from model design to deployment
- **Deep Qualcomm Partnership:** Co-developed solutions leveraging Qualcomm SoC to unlock mobile-grade performance in edge devices

Lantronix Engineering Services

Lantronix Engineering Services combine embedded compute technology, compliance expertise and flexible software support to accelerate customer product development.

The Drone Market

The global drone market is projected to reach $57.8 billion by 2030, according to Drone Industry Insights’ 2025–2030 Global Drone Market Report.

About Lantronix

Lantronix Inc. (Nasdaq: LTRX) is a global leader in Edge AI and Industrial IoT solutions, delivering intelligent computing, secure connectivity, and remote management for mission-critical applications. Serving high-growth markets, including smart cities, enterprise IT, and commercial and defense unmanned systems, Lantronix enables customers to optimize operations and accelerate digital transformation.

Lantronix is the only North America-based Qualcomm partner offering NDA/TAA-compliant System on Module (SOM) solutions.

About Red Cat Holdings Inc.

Red Cat (Nasdaq: RCAT) is a U.S.-based provider of advanced all-domain drone and robotic solutions for defense and national security. Through its wholly owned subsidiaries, Teal Drones and FlightWave Aerospace, Red Cat develops American-made hardware and software that support military, government, and public safety operations across air, land, and sea. Its Family of Systems, led by Black Widow™, delivers unmatched tactical capabilities in small, unmanned aircraft systems (sUAS). Expanding into the maritime domain through Blue Ops, Inc., Red Cat is also innovating in uncrewed surface vessels (USVs), delivering integrated platforms designed to enhance safety and multi-domain mission effectiveness. Learn more at www.redcat.red.