

CERBERUS® XL C-UAS

MULTI-SENSOR COUNTER UAS SOLUTION

Cerberus XL C-UAS is a rugged, state of the art integrated system, with high performance, long-range Counter Unmanned Aerial Systems (C-UAS) sensors, proven for rapid deployment in austere environments. It provides unmanned perimeter and border UAS situational awareness and multi-mission security. The fully integrated solution includes radar, EO/IR, and RF detection and mitigation for both ground and air threats, including Group 1 and 2 UAS, with a robust command and control system and AI/ ML interface. Cerberus XL C-UAS is sensor and C-UAS effector agnostic.

Provides accurate track data for precise target acquisition. It can easily integrate into existing defense kinetic effector systems, and additional detection and defeat technologies as available. All sensors are integrated into an easy-to-deploy trailer platform, equipped with a control system using the Teledyne FLIR Cameleon interface, optimized for C-UAS, surveillance, and security missions. The Cerberus XL C-UAS addresses the entire UAS kill chain including detect, track, identify, and defeat.



APPLICATIONS

AIRPORT SECURITY | MILITARY FLIGHT LINE SECURITY | PORT SECURITY | BORDER SECURITY | MILITARY FORCE PROTECTION

FEATURES

MODULARITY

Designed to support a variety of sensors and payloads, the system offers multiple range configurations tailored to mission requirements. Its modular architecture allows for easy customization with pre-integrated sensors and the capability to incorporate new components as needed for specific operational needs.

CONTINUOUS AIR DEFENSE

Maintain uninterrupted air security by detecting and tracking over 500 targets simultaneously with advanced radar and RF technology. Integrated imaging and RF sensors provide real-time detection, tracking, and identification of potential threats, ensuring comprehensive situational awareness and rapid threat response.

CONTINUOUS AIR DEFENSE

The Teledyne Cameleon C2 client interface offers mapping, track display, camera control, mission recording, and system health monitoring. The NNTC video analytics enhances radar tracks for real-time awareness. An integrated API enables data sharing and command reception, optimizing mission effectiveness, and sensors and effectors control.

RAPIDLY DEPLOYABLE, RUGGED TRAILER PLATFORM

Fast deployment in extreme conditions, the Cerberus XL C-UAS system features a free-standing, fixed mast trailer platform for land, sea, and air missions. All components are managed from a unified control system. It includes a two-axis inclinometer and digital GPS for precise targeting on uneven terrain and operates in GPS/GNSS-denied environments.

MULTI-DOMAIN USE

Versatile across land, air, and marine domains, the system is optimized with full, - distinct C-UAS operational modes. Each mode is tailored to effectively detect, track, identify and engage air threats in its specific environment, ensuring maximum mission adaptability and efficiency.

SOFT KILL CHAIN

A layered countermeasure system using radar and RF for detection, jamming and disruption, and EO/IR for precise tracking and identification. Design for precise target acquisition our C2 moves this data into a single integrated picture and used filtered data to cue kinetic options capability, depending on mission needs.

SPECIFICATIONS

ARCHITECTURE:

- **Base Platform:** Long range, Teledyne FLIR EO/IR, radar, Power/ Communication enclosure, multiple mast heights, and tactical trailer platform.

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PHYSICAL CHARACTERISTICS:

- **Weight:** ~ 4200lbs
 - **Length:** 175 in. (444.5 cm) including the tongue
 - **Width:** 87 in. (221 cm)
 - **Height 3m Fixed Mast:**
 - Shipment, w/payloads stored, and mast disassembled: 103 in (262 cm)
 - Mobilized, w/cameras stored (MS 1200): 152 in (386 cm)
 - Deployed, w/cameras mounted: 158 in (401 cm) Other mast options available
 - **Power:** 24V DC nominal operated system sourced by an onboard 5.5kW battery bank provides both silent and reduced heat signature operation. System charges from a single phase 90-240VAC 50/60Hz grid power source or its onboard AC diesel generator
 - US 120VAC 60Hz (Std)
 - Global 220-240VAC, 50Hz
- 2220W nominal operating, 3250W max operating (Std Config)
2050W max charging on a 120VAC grid source (2500W 220-240VAC)

RADAR AND EO/IR SENSORS :

- **Radar Standard:** 360° quad-radar array air and ground coverage
 - R20SS-3Ds-XR (Std)
 - R20-3Ds (Opt)
- **Standard EO/IR System:** HDC-MS 1200/1000
 - High Definition (HD) Mid-Wave Infrared (MWIR)
 - High Definition (HD) Color
 - Laser Rangefinder (NIR wavelength)
 - Laser Pointer (NIR wavelength)
- **Standard EO/IR System:**
 - Rugged Cameleon Client laptop
 - Cameleon Tactical V5 and Licenses
 - Rugged Cameleon Client laptop
 - Cameleon Tactical V5 and Licenses
 - 1yr Software Assurance
 - 1yr System Warranty

COMMAND & CONTROL:

- **Cameleon Tactical V5:** TDY FLIR's advanced VMS, enhanced with EO/IR video AI and sensor data fusion, displays up to 500 real-time geolocated targets from integrated EO/IR, radar, and RF sensors.

Features:

 - Operator controls like slew-to-cue, automated target tracking with history and alarms
 - Mapping with POI overlays and zone management
 - Video archive, playback, and distribution
 - Alarms
 - 3rd party C2 interoperability via Cursor-on-Target (CoT)
 - Scalable client/server architecture
 - Wireless communication options
 - CoT/TAK integration for target sharing, field-of-view, and blueforce tracking
- **Multi-sensor Tracking:** Up to 500 Targets. Automatic bi-directional handoff between radar and video AI tracking, sensor blending to improve radar track accuracy based on video AI detection.

POWER AND ENVIRONMENTAL:

- **Power:** 24V DC nominal system powered by an onboard 5.5kW battery bank for silent operation. Charges via single-phase 90-240VAC 50/60Hz grid power or onboard diesel generator. US 120VAC 60Hz (Standard) / Global 220-240VAC 50Hz. Power consumption: 2220W nominal, 3250W max (Standard configuration) 2050W max charging on 120VAC (2500W on 220-240VAC)

- Test:

- MIL-STD-810H Compliant
- 502.7 I/II Low Temperature (C1)
- 505.7 I Solar (A1)
- 510.7 I/II Sand and dust

SAND AND DUST COUNTER DRONE TECHNOLOGY:

- **Detect & Defeat:** Standard Configuration: (RF) 2.4 GHz / 5.8 GHz / Wi-Fi; Extended Frequency 433 / 868 / 915 MHz / 1.2 GHz / Wi-Fi. Existing options for additional RF and Kinetic technologies. Other technologies available upon request
- **Detection Range:** Standard Configuration: Up to 3 km horizontal; 457 m vertical (variable with noise floor & environment)
- **DDefeat Range:** Standard Configuration: Up to 1.5 km horizontal; 457 m vertical (variable with noise floor & environment)

DEPLOYMENT:

- **Mast Deploy and System Fully Operational:** In less than 30 minutes (Two Person)
- **US Export Classification:** USML VII(c) - Standard Configuration

