TELEDYNE FLIR | Defense

CERBERUS® XL

Multi-sensor Surveillance and Air Domain Awareness Solution



Cerberus XL is a rugged, trailer-based integrated long-range mobile surveillance air domain awareness system that rapidly deploys in austere and challenging environments to provide unmanned remote perimeter, and border situational awareness and security. Cerberus XL is a fully integrated solution that includes radar and EO/IR. All sensors are fully integrated into a an easy to deploy and transport trailer platform and includes client laptop with Teledyne FLIR Cameleon user interface and operating system installed and configured for customer surveillance, and security missions.

APPLICATIONS

AIRPORT SECURITY | MILITARY FLIGHT LINE SECURITY | PORT SECURITY | PETROCHEMICAL FACILITY PROTECTION | CRITICAL INFRASTRUCTURE PROTECTION | PIPELINE SECURITY | BORDER SECURITY

FEATURES

INTEGRATED COMMAND & CONTROL

Teledyne FLIR integrated platforms and can network with our open architecture C2 to provide wide area perimeter security capability.

CONTINUOUS PERIMETER SECURITY

Simultaneously detect and track over 500 targets with radar, and use imaging sensors to detect, track, and identify threats.

MODULAR DESIGN FOR EASY OPERATION

Network with other sensors, vehicles, and command and control nodes for unparalleled mission effectiveness. Common client interface with mapping, display of tracks, camera control, and health status. NNTC video analytics tracker streams video from capture card, archive video/mission replay enhance the raw data coming from camera and radar sensors.

RAPIDLY DEPLOYABLE, RUGGED TRAILER PLATFORM

Cerberus XL can be rapidly deployed and is design to be used in the most challenging conditions. Rugged, telescopic mast extended the system sensors to height up to 10 meters and is available in multiple height options for scalable mission solutions. Cerberus XL unmanned platform is designed to integrate multiple products tailored for land, sea, and air markets, all managed from a single shared networked C2 system.

MULTI-DOMAIN USE

Versatile across land, air, and marine domains, the system is optimized with three distinct operational modes. Each mode is tailored to effectively detect and track targets in its specific environment, ensuring maximum mission adaptability and efficiency

SPECIFICATIONS

ARCHITECTURE	
Base Platform	Mid to Long range, Teledyne FLIR EO/IR, radar, Power/ Communication enclosure, multiple mast heights, and tactical trailer platform.
PHYSICAL CHARACTERISTICS	
Weight	3680 lbs (Std)
Length	175 in. (444.5 cm) including the tongue
Width	87 in. (221 cm)
Mast Option and Height	Overall height w/telescoping mast raised (Preliminary): • 17.8 ft (5.43m) • 24.4 ft (7.44m) • 37.5 ft (11.43 m) 10 m mast stowed, < 10.3 ft (3.12 m)
RADAR AND EO/IR SENSORS	
Radar Base Model	360° air and ground coverage with pan and tilt • R20SS (Std) • R8SS (Opt) • R6SS (Opt) 3-Dimensional Radar (Opt) Maritime configuration (Opt)
Camera Base Model	TacFLIR 380HD Mid-Wave Infrared (MWIR) EO High Definition (HD)
Sensor Wavelength Options	Low-Light (LL) Short Wave Infrared (SWIR)
Lasers Options	Laser Rangefinder (NIR wavelength) Laser Pointer (NIR wavelength) Laser Illuminator (NIR wavelength)
COMMAND & CONTROL	
Included in Base Model	Rugged Cameleon Client Laptop Cameleon Tactical V5 Software and Licenses 1yr Software Assurance
Cameleon Tactical V5	TDY FLIR's advanced VMS integrates EO/IR video AI and sensor blending, displaying up to 500 real-time, geolocated targets from onboard cameras and radar. Features: • Operator controls like slew-to-cue and 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
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.
Communications Base Model	External Ethernet WAN Port Internal LAN Service Port
Communication Options	Wireless Radio and LTE

POWER AND ENVIRONMENTAL	
Conditions	Storage Temperature, -33°C to 71°C Operating Temperature, -33°C to 50°C Altitude, ~3000m
Test	MIL-STD-810H Compliant 501.7 I/II High Temperature (A1) 502.7 I/II Low Temperature (C1) 505.7 I Solar (A1) 506.6 Rain 510.7 I/II Sand and dust
Power	24V DC nominal operated system sourced by an onboard 5.5kW battery bank provided both silent and reduced heat signature operation System charges from a single phase 90-240VAC 50/60Hz grid power source or its onboard diesel generator • US 120VAC 60Hz (Std) • Global 220-240VAC, 50Hz 1075W nominal operating (Std Config) 2050W max charging on a 120VAC grid source (2500W 220-240VAC)
DEPLOYMENT	
Mast Deploy and Fully Operational	In less than 30 minutes (Two Person)



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