ST Engineering



COUNTER-DRONE LASER EFFECTOR

[CDLE]

PRECISION TRACKING. RAPID NEUTRALISATION.

With the rapid proliferation of small drones, security forces require a counter-drone solution that delivers fast, precise and controlled neutralisation.

The Counter-Drone Laser Effector (CDLE) is designed to rapidly neutralise Class 1 micro-UAVs. Featuring automated precision tracking and fast dwell times of 10 seconds at 1 km and 5 seconds at 0.5 km, the system integrates a sighting capability for target detection of up to 1.5 km with a 3 kW high-energy laser effector for controlled engagements at ranges of up to 1 km.

Easily mounted on the rear of a 4x4 pickup truck, it enables swift threat neutralisation while ensuring operational safety and minimising collateral risk, offering enhanced mobility and rapid deployment capabilities.

KEY FEATURES

SINGLE LINE-OF-SIGHT ENGAGEMENT

- What the operator sees is exactly where the laser is directed

FIELD CALIBRATION-FREE OPTICAL SYSTEM

- Integrated optical design eliminates the need for field boresight calibration

PROPRIETARY THERMAL ENERGY STORAGE

- Allows for optimal size and weight profile suitable for rapid deployment

PLATFORM AGNOSTIC

- Supports both vehicle and fixed-site installations

OPERATIONAL ENDURANCE

- Flexible electrical power source, either through an external 230 VAC single-phase input or onboard electrical energy storage
- Onboard electrical energy storage provides 10 hours of surveillance or 6 minutes of HEL firing magazine

SEAMLESS CUAS INTEGRATION

- Integrates with existing counter-drone sensors systems
- Receives target detection and cueing information via Ethernet for rapid response
- Onboard Inertial Navigation Sytem ensures real-time orientation for precise target alignment

DEPLOYMENTS







MID-WAVE INFRARED ZOOM CAMERA

Enables target detection and tracking of up to 1 km in both day and night conditions.

VISIBLE ZOOM CAMERA

Provides situational awareness and allows target detection and tracking.

NEAR-INFRARED ILLUMINATOR

Delivers NIR illumination to the target for night operation.

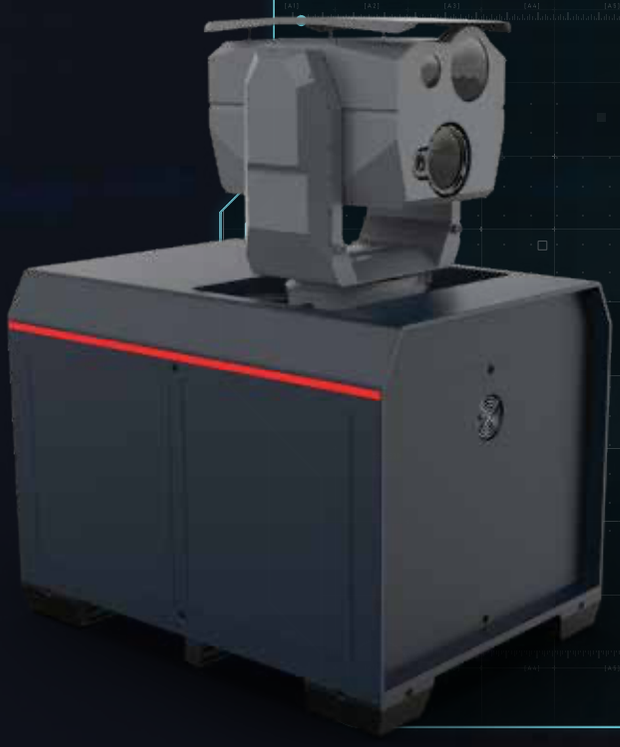
HIGH ENERGY LASER APERTURE

Focuses and directs the high energy laser beam onto the target.

VISIBLE/NEAR-INFRARED CAMERA

Unique common aperture design ensures that what you see is where you are firing at.





CLIMATE-CONTROLLED CABIN

Encloses the following in a temperature-regulated unit to ensure optimal performance:

- High Energy Laser Source
- Thermal Energy Storage
- Electrical Energy Storage
- System Electronics

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For more information on product:
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