

Anti-Sniper Solution Profile

WORKING principle

Active laser reconnaissance against OOTD is based on the principle of the "cat's eye effect". When a light beam enters the optical lens of such device, a reflected echo traveling back along the original path is generated, and the intensity of the reflected echo is 2 to 3 orders of magnitude higher than that of ordinary diffuse reflection. This characteristic can be utilized to distinguish the target from the background.

The anti-reconnaissance & anti-sniper system emits laser beams to scan and illuminate suspicious areas, detects laser echoes by leveraging the "cat's eye effect" of enemy OOTDs, achieves target detection through signal processing, and can further carries out laser suppression.

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Detection laser

Echo signal

Suppression laser

Searching & Scanning Module

Laser Emission Module

Signal Processing Module

Echo Receiving Module

Central Control Module

Laser Suppression Module

OOTD

Targets

The targets of the anti-reconnaissance & anti-sniper system are OOTDs with optical structure similar to cat's eye.

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Targets of Action

Range Finder

Reconnaissance Device

Telescope

Camera

White Light Rifle Scope

TV-based Rifle Scope

Low-light Rifle Scope

Drone

Anti-Reconnaissance in Anti-Terrorist Attacks & Urban Operations

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Anti-Reconnaissance in Anti-Terrorist Attacks & Urban Operations

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Anti-Sniper Solution Profile

It rapidly locates sniper positions and conducts laser suppression in counter-terrorism operations. Accompanying the movement of armored vehicles in urban street battles, it quickly detects enemies concealed in buildings who conduct reconnaissance and await opportunities to attack, and guides friendly fire to strike and suppress such threats.

02 Anti-photography & Anti-sniper in Key Areas

Anti- photography & Anti-sniper in Key Areas

It can be applied to anti-espionage activities such as anti-photography and anti-sniper operations in various military sensitive sites including military airports, ports and missile positions, as well as field training military camps, key confidential units and VIP residences/office.

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03 On-Site & Convoy Security

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It can be applied to on-site security for major gatherings with VIPs in attendance and convoy security for the vehicles/ motorcades of VIPs during travel, enabling rapid threat detection and real-time anti-reconnaissance and anti-sniper protection.

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04 Mounted Anti-Reconnaissance & Anti-Sniper System-Cornerstone of Area Protection

mounted Anti-Reconnaissance & Anti-Sniper System-Cornerstone of Area Protection

Product Overview

The mounted anti-reconnaissance & anti-sniper system can be deployed in a mobile or fixed manner according to different application scenarios. It conducts active laser reconnaissance on OOTDs (opto-electronic observation & targeting devices) in its vicinity, provides high-definition target images and precise geographic coordinates, and performs laser jamming when necessary. The system comprises several key components, including a main unit, mounting components, a cable branch box, a ruggedized computer, and offers a full range of optional functions.

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Fixed Mounted Available

Movable Mounted Available

Main Unit

Operation Software

It can be applied to on-site security for major gatherings with VIPs in attendance and convoy security for the vehicles/ motorcades of VIPs during travel, enabling rapid threat detection and real-time anti-reconnaissance and anti-sniper protection.

1 Main Unit

2 Mounting Components

3 Cable Branch Box / Ruggedized Computer

4 Operation Software

5 Laser Jamming Module

6 Laser Suppression Module

Anti-Sniper Solution Profile

The main unit of the mounted anti-reconnaissance & anti-sniper system comprises several subsystems, including a target detection subsystem, a servo imaging subsystem, a laser jamming/dazzling subsystem, a laser warning subsystem (optional), a gunshot detection array (optional), a laser damage subsystem (optional), a stabilized imaging turret, and display & control equipment.

(1) Target Detection Subsystem: It performs high-speed scanning of the set area with the turret, and rapidly detects targets and locates their azimuth.

(2) Servo Imaging Subsystem: During the high-speed scanning of the turret, it can conduct high-definition imaging of the target area under the guidance of the target detection subsystem, facilitating the judgment of the nature of threat targets.

(3) Laser Jamming/Dazzling Subsystem: It can perform green laser jamming or dazzling on targets to disable their detectors with suppressing their observation and targeting.

(4) Laser Warning Subsystem: It can detect ranging lasers and illuminating lasers, calculate their azimuths and issue warnings.

(5) Laser Damage Subsystem: It can irradiate threat targets with high-intensity laser to damage their optoelectronic detectors.

(6) Gunshot Detection Array: It can judge the enemy's shooting position through the reception and processing of gunshot sounds.

Main Technical Specifications

1 Search Range: 360° (Azimuth), -20° to $+70^\circ$ (Pitch)

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2 Search Speed: $360^\circ/s$ (Azimuth speed, pitch angle range 8°)

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3 Detection Range: $\geq 2\text{km}$ (for equipment with a caliber of not less than 50 mm)

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4 Detection Probability: $\geq 90\%$

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5 False Alarm Rate: $\leq 10\%$

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6 Switching Time from Search to Jamming: $\leq 3\text{s}$

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7 Jamming Laser Wavelength: 530nm

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8 Target Geolocation Accuracy: Better than 20m (comprehensive for latitude, longitude and altitude at a target distance of 1 km)

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9 Laser Ranging Range: 100 ~ 3000 m

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10 Laser Warning : Wavelength range 1 ~ 1.6 μm , Angular Resolution: 45°

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1 Movable Mounted Available

Anti-Sniper Solution Profile

It is suitable for scenarios requiring rapid mounted, especially for anti-sniper protection at gathering events with VIPs in attendance and for performing anti-reconnaissance & anti-sniper alert missions at the temporary field encampments of military forces.

2. Fixed Mounted Available

It is suitable for the protection of fixed installations and can be fixedly mounted near highly sensitive facilities such as military airports, ports and missile positions to effectively prevent espionage activities like covert photography and secret theft. It can also be fixedly mounted near the residences of VIPs to counter threats of peeping and sniping.

3. Networkable Operation

Multiple mounted units can be used collaboratively in a network to form a complete protective zone.

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Vehicle-Mounted Anti-Reconnaissance & Anti-Sniper System-Guardian on the Move

Product Overview

The vehicle-mounted anti-reconnaissance & anti-sniper system can be mounted on various mobile platforms and operate during high-speed movement. It detects all types of opto-electronic devices conducting observation and targeting near its location through active laser detection, provides high-resolution target images and precise geographic coordinates, and can perform laser jamming on targets when necessary. The system also offers a full range of optional functions such as laser warning, laser damage, and gunshot detection.

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1. Moving Speed: Not less than 80 km/h

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3. Search Speed: 360°/s (Azimuth speed, pitch angle range 8°)

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4. Detection Range: ≥1 km (for equipment with a caliber of not less than 50 mm)

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5. Detection Probability: ≥90%

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6. False Alarm Rate: ≤10%

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7. Switching Time from Search to Jamming: ≤3 s

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8. Jamming Laser Wavelength: 530nm

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Anti-Sniper Solution Profile

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Application Scenarios

1 VIP Convoy Security

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It can be mounted on the vehicles/motorcades of VIPs to provide convoy security during their travel, detect threatening observation and targeting device and sniper devices timely, and carry out laser suppression.

2 Combat with Vehicle-Mounted Platforms

Combat with Vehicle-Mounted Platforms

It is installed on mobile platforms such as armored vehicles and command vehicles for coordinated combat, and is particularly suitable for rapidly detecting concealed enemies and guiding fire strikes in urban street battles.

Handheld Anti-reconnaissance Equipment-A Tactical Edge for Individual Soldiers

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Product Composition

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Main Tactical and Technical Specifications

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The handheld anti-reconnaissance equipment is compact and portable, suitable for flexible and mobile use in scenarios such as the sites of major gatherings with VIPs in attendance, counter-terrorism operations, urban street battles, as well as the protection of military airports, ports and key classified units.

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