Suricate

Optronic radar equipped
with artificial intelligence.

ATERMES

Why create this product?

Pedestrian and vehicle detection

Boat and aircraft carrier detection

Helicopter and drone detection

Kwassa kwassa detection

Optimal vision in all weather conditions

24/7 surveillance

The strong geopolitical movements constantly demonstrate how border security is a primary concern for nations worldwide. Traditional surveillance methods are often insufficient to effectively protect border regions, as they cover vast expanses and are distant from populated areas.

For over 35 years, ATERMES has provided technological solutions to these surveillance needs, both infrastructure-based and mobile. Most of these solutions are teleoperated from centralized, regional, or national command centers. The precision and detection range provided by optronics are indispensable in the face of constantly evolving security challenges. Additionally, recording media inherent to each alert also provides essential support for the judicialization of these operations.

By leveraging the power of our solutions, the forces responsible for the security of critical or border areas can enhance their ability to detect, recognize, identify, and respond to threats in real-time, ensuring the security and integrity of these zones.

Long-range recognition capability

SURICATE excels in long-range detection simply because this new high-performance platform integrates the best sensors. With a human observer in the loop, it can spot humans at an impressive distance of 15 km and vehicles at 22 km.

Surveillance of critical areas : Enhancing security

SURICATE is a multispectral platform entirely designed and dedicated to surveillance applications in critical and/or border areas. Indeed, it features real-time alert automation, and this particularly effective response to potential threats is paramount. SURICATE excels

in this crucial task. Advanced AI processing ensures rapid identification and classification of unauthorized border crossings, whether they be individuals, vehicles, vessels, or even drones. This capability significantly enhances the security of the areas under surveillance and reduces response times to potential threats, making SURICATE an invaluable asset for protecting the areas where it is deployed.

SURICATE can be deployed as an optronic turret, which is simple and quick to install into an existing security system. It can also be offered as a complete solution, incorporating software tools for control and command, as well as an associated GIS/Communication platform.

Its exceptional performance, ease of use, and resilience in extreme environmental conditions make it a reliable choice for a wide range of applications. Don't let any threat go unnoticed; choose SURICATE for highly effective surveillance.

One of the most compelling applications of SURICATE is the surveillance of critical areas.

Product zoom

The SURICATE-LR surveillance system comes with its embedded computer software and a PC control/command application.

The embedded software, C2-VIDEO-AI, enables the control of sensors (IR/Day Camera, Turret, Rangefinder) and video streaming. It integrates instant multimodal AI-based identification on fused IR/day images. It manages 2 operating modes: Remote Control mode and Fast Automatic Surveillance mode by executing a patrol route.

The C2-VIDEO-AI-IHM software is an operator software on PC that implements all functionalities of the SURICATE-LR system.

The SURICATE-LR system also features C2-CARTO-IHM software. This is a second operator software on PC that allows the visualization of the tactical situation on 2D-3D mapping as well as the position and orientation of the system and surveillance sectors. It also visualizes all detections by sectors. The C2-CARTO-IHM software is optional and can be replaced by client-provided third-party software.

For improving detection performance on new or existing targets, the system can be provided with an AI-LEARN software suite for deep learning. This software suite allows the selection and collection of pairs of images recorded in the field, tagging them with new targets to enrich the learning database, and then relaunching deep learning.

526 mm
480 mm
713,3 mm
372 mm

Cooled thermal camera (MWIR)

• Wavelength range : 3μm to 5μm
• Maximum focal length : 500mm, F/3
• Field of view : 1.4° to 20°
• Resolution : 1270 x 720

Optional eye-safe laser rangefinder

• Wavelength : 1.5μm
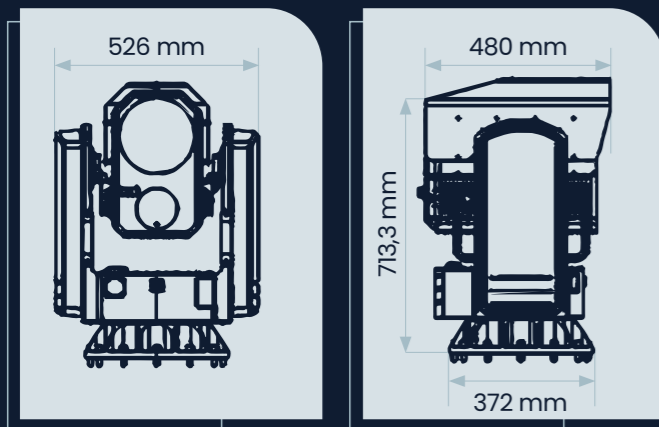• Divergence : 0.35mrad

Embedded GPU computer

• 12 CPUs @ 2.2GHz / 1 GPU @ 1.3GHz
• 64GB DDR5 RAM
• 275 Teraops/s

Daylight CMOS camera

• Focal length : 600mm, F/6.3
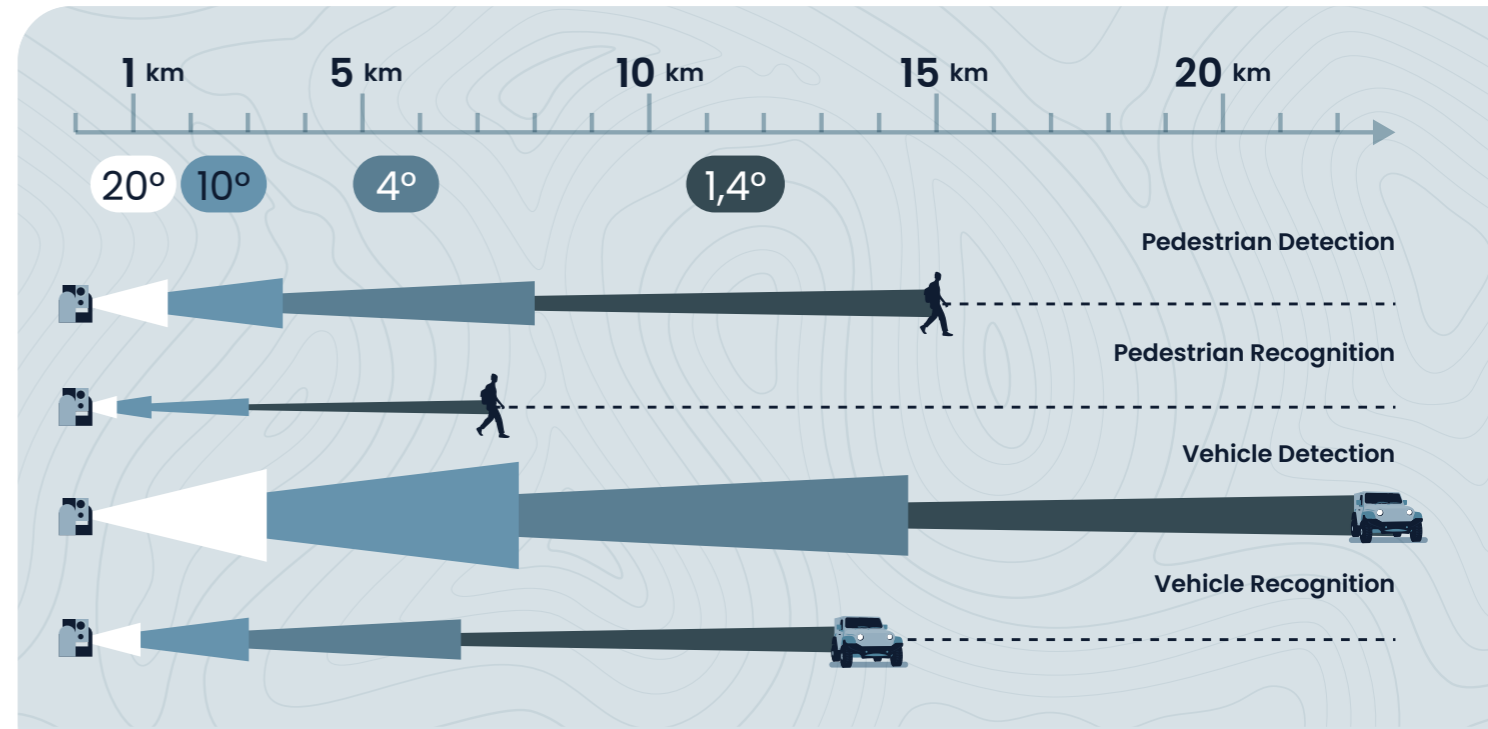• Field of view : 1.4° to 10°
• Resolution : 9504 x 6336

Stabilized panoramic and tilt platform

• Panoramic range : Nx360°
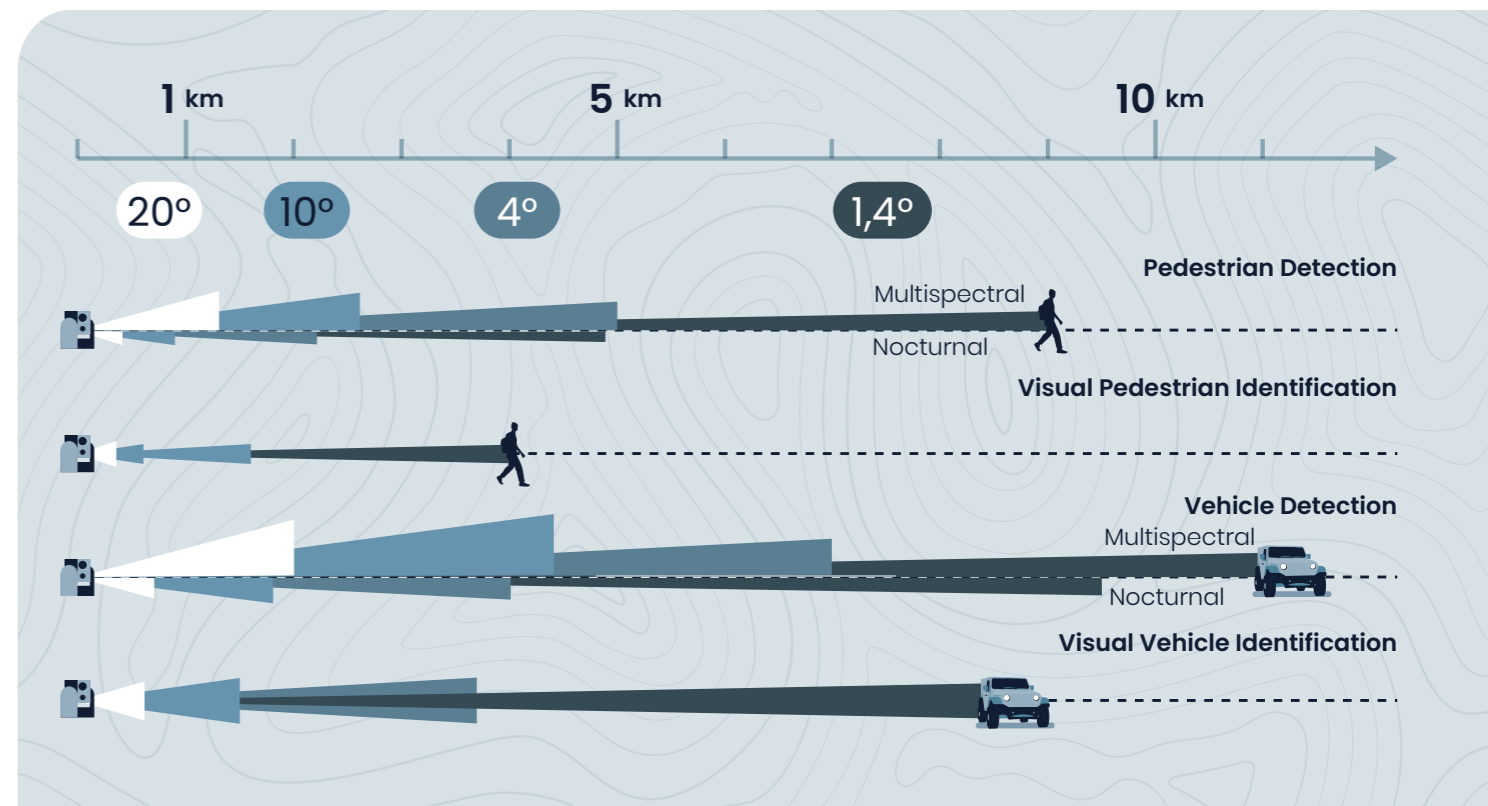• Pan and tilt acceleration : 150°/s
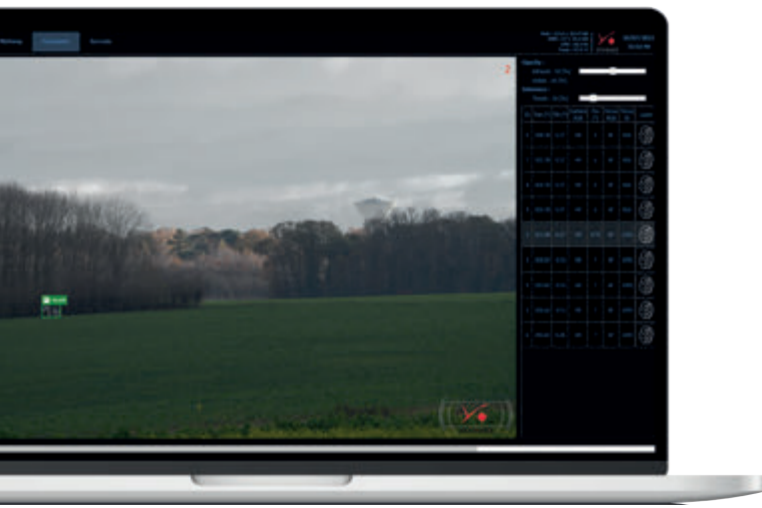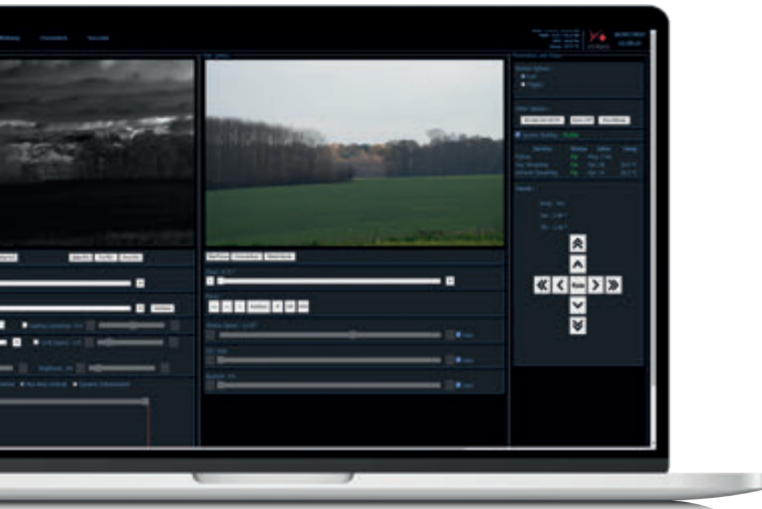• RMS stabilization : 100μrad

Product Specifications

Detection and Visual Recognition Distance

1 km | 5 km | 10 km | 15 km | 20 km

20° | 10° | 4° | 1,4°

Pedestrian Detection

Pedestrian Recognition

Vehicle Detection

Vehicle Recognition

Visual Identification and Deep Classification

1 km | 5 km | 10 km

20° | 10° | 4° | 1,4°

Pedestrian Detection
Multispectral
Nocturnal

Visual Pedestrian Identification

Vehicle Detection
Multispectral
Nocturnal

Visual Vehicle Identification

Services, maintenance, options

Mechanical

Weight < 85 kg	
Dimensions 480 x 530 x 800 (with elevated Leo)	
Power Supply 28VDC / < 80 W	

Environment (MIL-STD-810 - A1/C1)

Operating -40°C to +60°C (and for vehicles -32°C to +60°C)
Storage -46°C to +71°C
Vibration MIL-STD-810G (Wheeled vehicle)
Shock MIL-STD-810G
Waterproofing IP67

Interface

Gigabit Ethernet

The **C2-VIDEO-AI-IHM** software is an Operator Software on PC that implements all the functionalities of the SURICATE-LR system.

The two main tabs are :
• Remote Control Mode
  ➡ Overview Tab - Standard Mode
• Automatic Surveillance Mode
  ➡ Surveillance Tab

Atermes, it's also...

... other cutting-edge products !

Barier
Autonomous Beacon for Recognition, Identification, and Response Evaluation
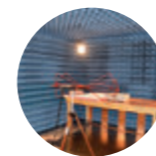
A-TOM550
Automatic Laser Deterrent for Airports

ASOS
ATERMES Operational Surveillance Solution

Our services

Mechanical
Mechanical Engineering Department

Electronic
Electronic Engineering

Optronic

Software
Software Engineering

Operational Maintenance

System Engineering
↓
Prototyping and Development
↓
Integration → Production → Support

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