Kaspersky Antidrone:
a drone monitoring
and defense ecosystem

Smart drone defense

Kaspersky Antidrone is a solution you can trust to monitor and defend against rogue UAVs. It detects, classifies, and, when you need it to, neutralizes drones.

At the heart of the system is original software that employs neural networks and machine learning algorithms. The software quickly and efficiently processes data from all sensors and feeds analytics to a unified web interface.

Original software created by a leading cybersecurity company

Proprietary hardware sensors and Kaspersky-approved third-party sensors

Step-by-step security system scaling thanks to a modular architecture

Kaspersky Antidrone capabilities

Drone detection and tracking

Drone operator tracking

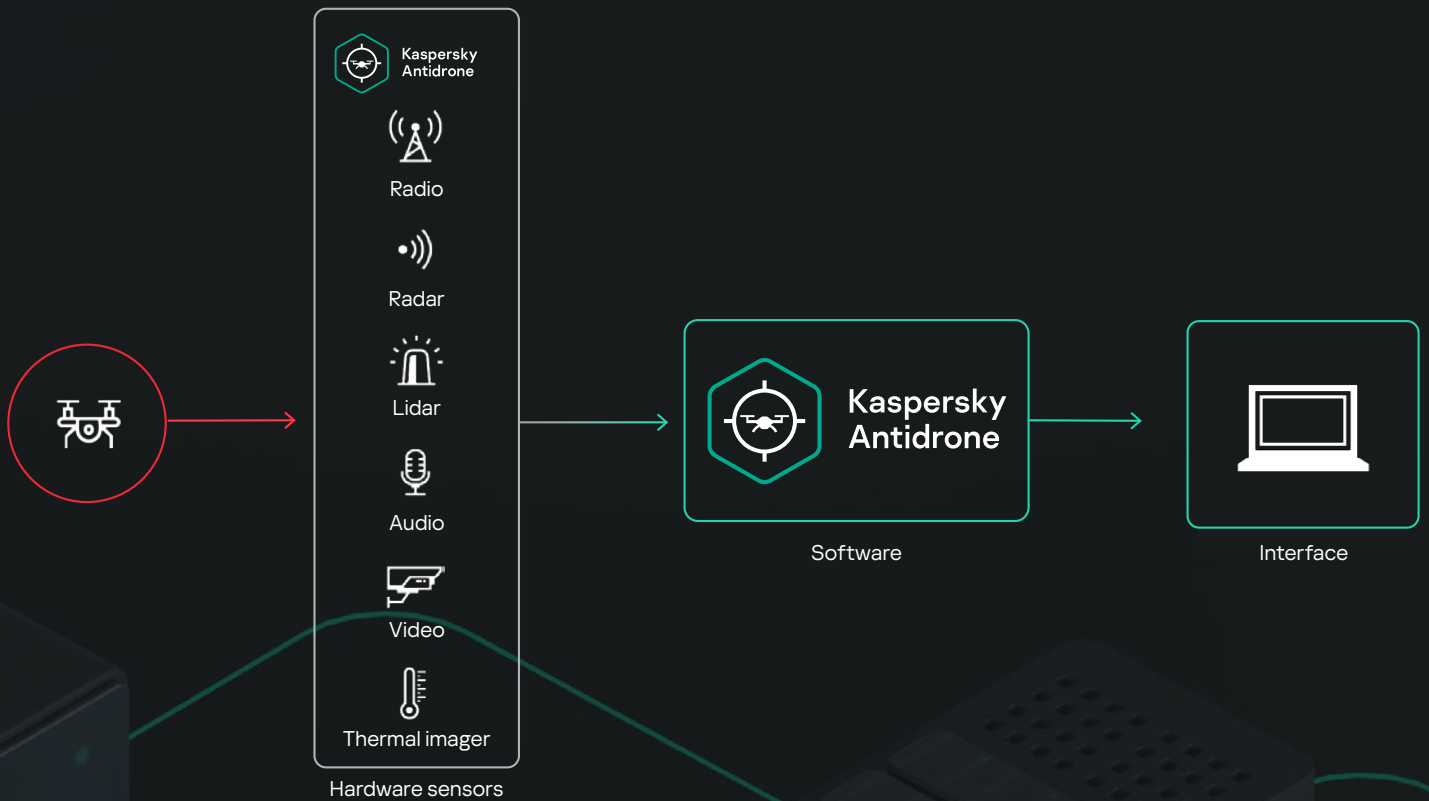**Drone classification**

**Drone IFF
(identification, friend or foe)**

**Analytics and incident
history**

Neutralization

Solution architecture

Kaspersky
Antidrone

Radio

Radar

Lidar

Audio

Video

Thermal imager

Hardware sensors

Kaspersky
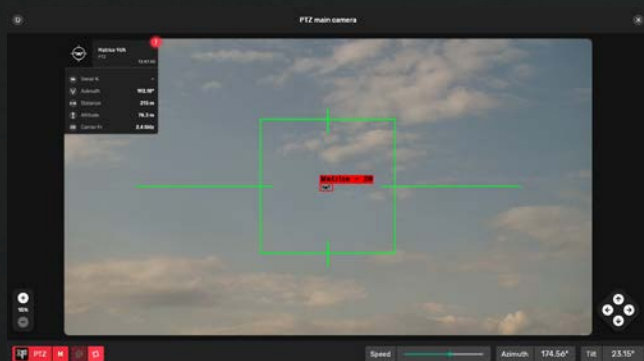Antidrone

Software

Interface

Working principle

Target detection

Kaspersky Antidrone relies on a combination of radio frequency and radar analysis, and thermal and optical scanning for minimum detection times and maximum accuracy.

The smaller the drone, the harder it is to detect. UAVs like the DJI Mavic in urban or low-visibility conditions are impossible to see without specialized hardware. Kaspersky Antidrone takes **under 15 seconds** to do that, and in certain cases, **can detect small drones flying as far as 40 kilometers away.** Kaspersky Antidrone can pinpoint the drone operator as well.

Classification

The Kaspersky Antidrone software relies on AI algorithms and neural networks to classify UAVs. The system takes less than a **second to determine the drone type and model from up to four kilometers away.**

The Kaspersky Antidrone web interface displays real-time data: drone characteristics, drone and operator coordinates, and whether the drone is on the system allow list.

Neutralization

When detecting an unauthorized drone flyover and if permitted, the Kaspersky Antidrone operator can send instructions to the neutralization hardware module. The Kaspersky Antidrone system uses several methods of countering drones.

Software

Software algorithms analyze data from diverse sensors automatically

Kaspersky Antidrone runs on original software developed by Kaspersky. To maximize the likelihood of detection and classification, the software algorithms consolidate inputs from all hardware sensors in the system. Kaspersky Antidrone is capable of detecting even custom-built drones.

Kaspersky Antidrone algorithms powered by a combination of neural networks and AI guarantee unrivaled precision and speed in unattended mode.

Thanks to a neural network–powered server that instantly processes data from hardware modules, the system can track targets on its own. Information about the exact drone model and location is displayed on a map and saved to history.

Different types of sensors synchronization

The Kaspersky Antidrone algorithms support the broadest range of hardware technology for UAV detection

Automated airspace monitoring

Analysis relies on sensor inputs and machine learning algorithms

History and reporting

Run automated reports on incidents: UAV model, distance, direction and speed

Easy operation

Training to use the system takes hours and requires no engineering skills

Web interface

Available on any device within the limits of the local access network

API

Kaspersky Antidrone easily integrates into other services and systems through an API to share data that it collects with SOC, SIEM and other systems. Integration with previously deployed systems and interfaces is supported

Main hardware modules and technologies

Pan-tilt unit

The Kaspersky Antidrone pan-tilt unit is made to Kaspersky specifications. It incorporates a surveillance camera and neutralization module. The powerful zoom capability, 360 degree panning and tracking help to analyze even small-sized drones from far away. The camera can classify the drone and determine if it is carrying a payload.

Radar

The radar is capable of detecting unlimited drones from up to 1800 meters. It gets a fix on the drone while efficiently maintaining radio silence.

This enables the system to automatically detect and classify even a drone that is following a flight plan in autonomous mode.

RF scanner

The device provides UAV and ground control station detection and direction finding within seconds. Radio-frequency scanning works well for larger objects in urban areas irrespective of light or weather conditions.

Kaspersky Antidrone Portable

This is a portable, watertight device for detecting most popular UAV models. It is relevant for event and small business settings. Ships with a tablet running the Kaspersky Antidrone software.

Server

Server portability allows deploying the system in any convenient location. The server processes data received from every hardware sensor and makes appropriate decisions to ensure security.

Neutralization module

The device, which has a legally permitted power rating, jams the drone, preventing the pilot from controlling it. When losing the link with the pilot, most UAV models will safely land or return home. This method of neutralization ensures a high level of safety and minimizes interference to other equipment.

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