



SMARTDEC SHIELD

“AI” sensors linked to UAV systems.
Complete situation awareness.

About

We are an Estonian company with **unique AI powered and UAV integrated border security solution - Smartdec SHIELD.**

Smartdec System in service in **30+ countries** around the world.

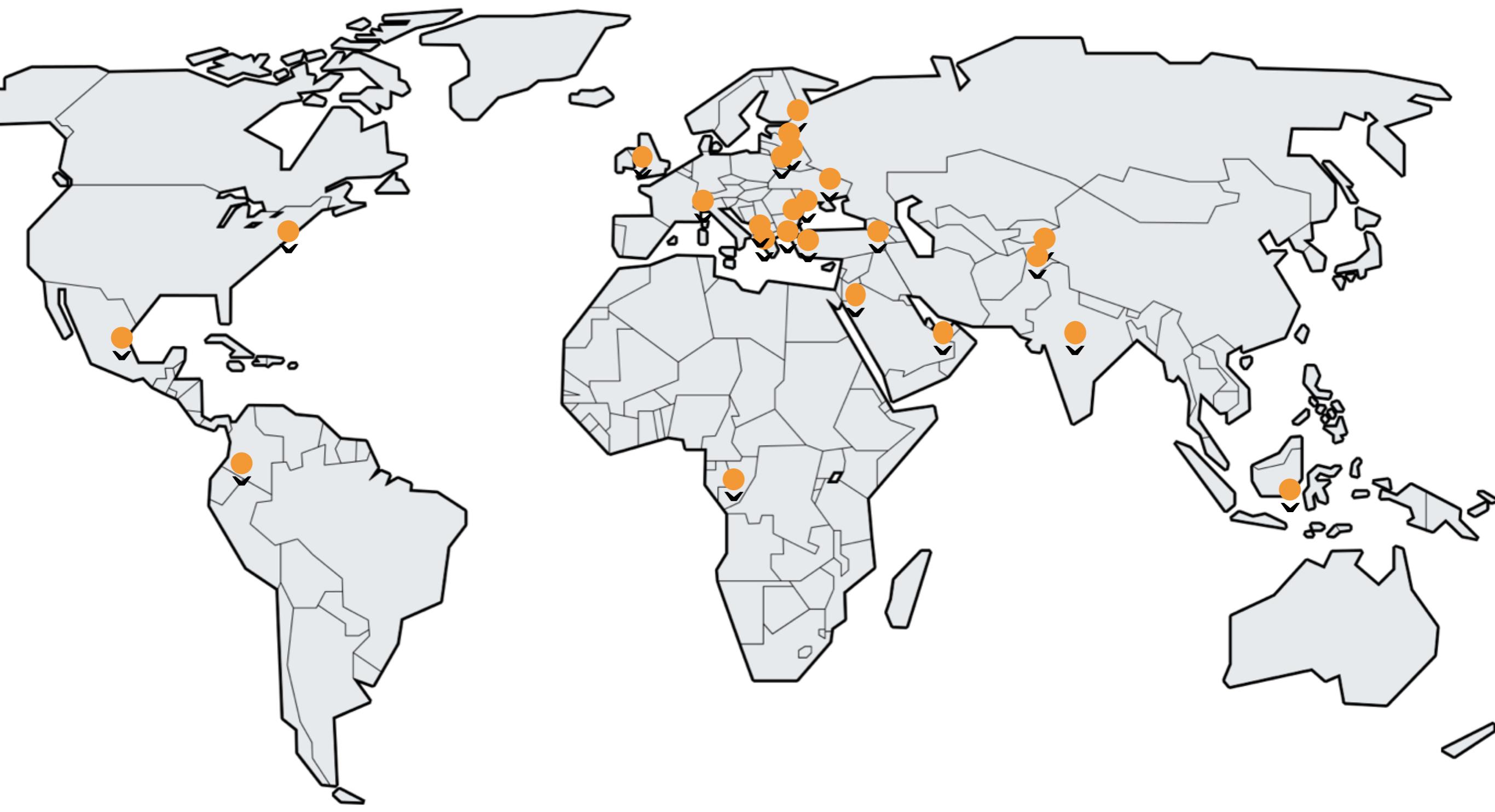
We have provided over **50 million hours of border protection** with “Smartdec” situational awareness system detectors.

We are a **leader in** the field of distributed **sensor networks** for border security and critical infrastructure.

Offices in Tallinn, Washington, DC, Kiev and London.
Manufacturing in Estonia.

Preferred vendor for multiple **USG Prime Defense contractors.**

Part of programs and projects in US: **DTRA, CN>, EXBS.**





SMARTDEC SHIELD

AI sensors linked to UAV systems



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SMARDEC SHIELD

Drone integrated

Battery powered cameras trigger UAV missions

Radio based ground sensor perimeter monitoring

UAVs trace and track intruders

Centralised Border Security

Flexible intruder detection with relocation

Land and sea/river/lake surveillance with UAV

Long distance communication via SATcom or radio

UAV

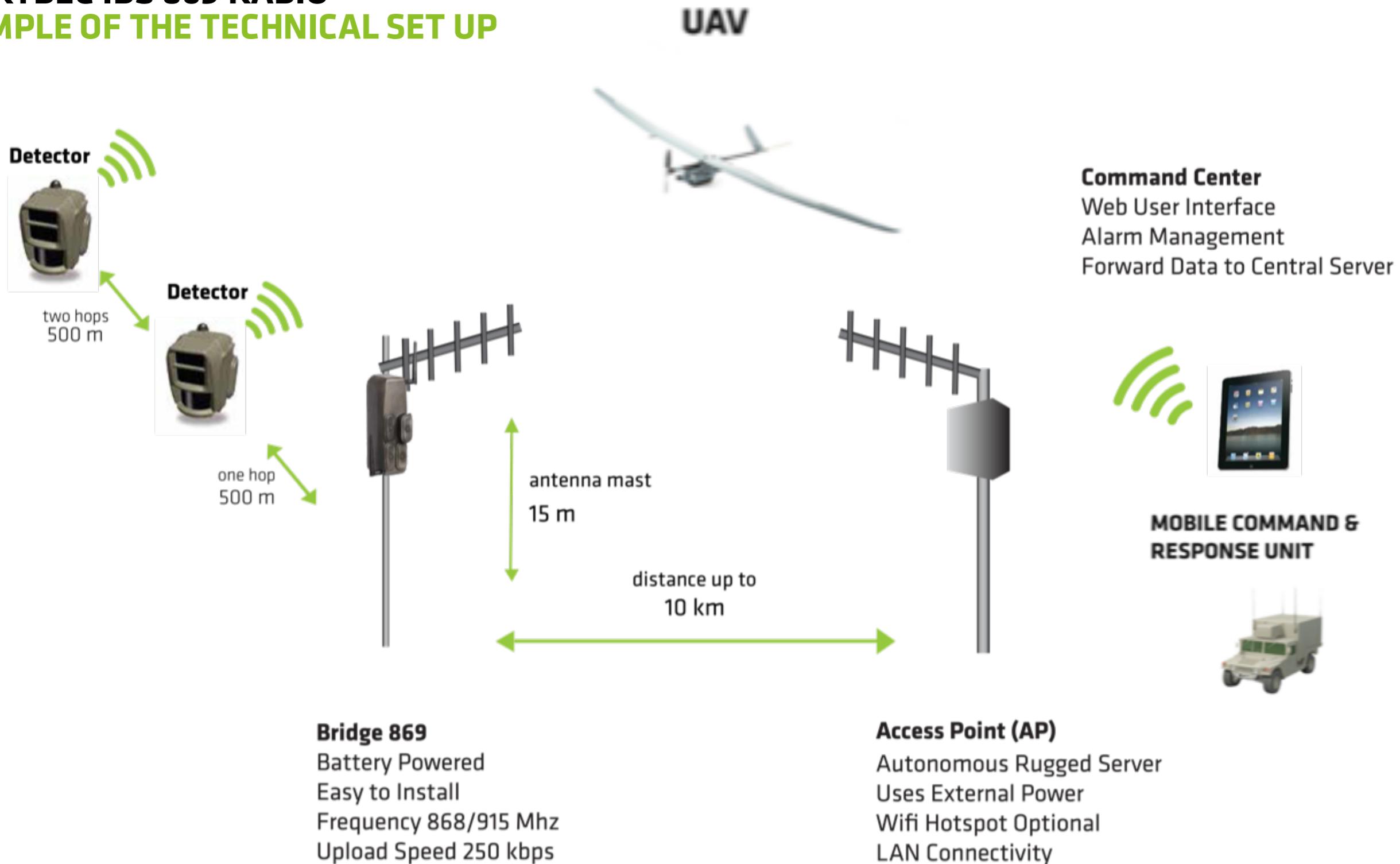


MULTIROTOR



SMARTDEC SHIELD (GSM/ 869Mhz/915Mhz)

SMARTDEC IDS 869 RADIO EXAMPLE OF THE TECHNICAL SET UP



SMARTDEC DETECTOR

DETECTOR HDR



- DETECTION RANGE: 35 m
- TEMPERATURE RANGE: -45C TO +60C
- BATTERY: 400 DAYS / up to 50,000 ALARMS
- IR FLASH (940 nm)
- HD semi-motion video (**3 FRAME/sec**)
- HDR capability
- Resolution
 - Day camera 2048x1536
 - Night camera 1280x960
- Car plate recognition
- Configurable photo resolution
- **Capture time 0.5 sec**
- INTERNAL MEMORY: 2,000 IMAGES (1 image up to 4MB)
- 2.4 GHz RADIO COMMUNICATION
- 500 M LINE OF SIGHT
- RE-TRANSMISSION (UP TO 8 HOPS)
- BANDWIDTH: 115 kbps
- ELLIPTIC CURVE CRYPTOGRAPHY (secp160r1)
- AES 128 OR 256 BIT KEYS (=RSA 1024 BIT KEYS)

**Smart, using
neural network algorithms**

Longest
battery
life



Fastest setup and installation













SMARTDEC SHIELD

UAV

PERFORMANCE: 2h flight time
Operational 1500m AGL
50...100km/h

Dual EO/IR sensor
EO: 30x zoom / 2x digital
IR: 640x512, 35mm lens

Over 20km LOS
Mesh network available
AES-256 encryption
Voice, video, data

Plug and play payload
Aerial mapping less than 2cm/px
24 MP

ISR 720HD Live streaming
ISR reporting tool, KLV metadata, selectable recording



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SMARTDEC SHIELD (GSM/ 869Mhz)

USER INTERFACE DASHBOARD



SMARTDEC SHIELD (GSM/ 869Mhz)

COMMAND CENTRE SOFTWARE

- **COLLECTS** AND STORES ALARM INFORMATION AND PHOTOS
- EASY TO USE **WEB-BASED** USER INTERFACE
- **SECURE** DATA TRANSMISSION
- ALARM FILTERING
- **UAV** MISSION LAUNCH
- INDTURDER **TRACE AND TRACK**
- ADJUSTABLE ALARM PHOTO PARAMETERS
- ALARM COORDINATES
- ADJUSTABLE USER GROUPS AND ACCESS LEVELS
- **ALARM SOUND**
- **MACHINE LEARNING POWERED AI**
- **AUTOMATIC CLASSIFICATION**
- EASILY INTEGRATABLE WITH OTHER SYSTEMS
- MOBILE COMMAND CENTER OR/AND SURVEILLANCE TOWERS



SMARTDEC SHIELD (GSM/ 869Mhz)

SMARTDEC SAVES TIME AND MULTIPLIES FORCES

RADIO BASED, WITHOUT WIRES

BATTERY OPERATIONAL CYCLE ONE YEAR FOR VISUAL VERIFICATION (CAMERAS)

LIGHTWEIGHT DEVICES, LESS THAN 1 KG PER DEVICE (WITH BATTERY)

LOW REQUIREMENT FOR CAMERA BANDWIDTH, MAX 150 KBPS

ZERO ADDITIONAL INVESTMENTS

HD SEMI-MOTION VIDEO

EASY TO (RE)LOCATE

UP AND RUNNING IN 2 MINUTES

ENCRYPTED DATA TRANSMISSION

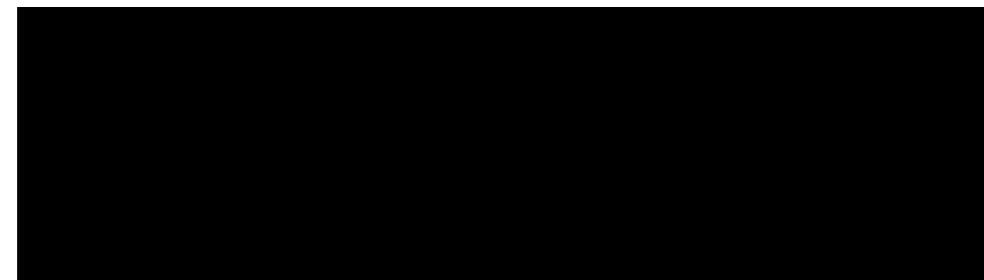
NO CONFIGURATION OR CALIBRATION REQUIRED DURING DEPLOYMENT AND FIELD OPERATION

INSTANT DETECTION IF INTRUDER HAS REACHED THE SURVEYED AREA (LESS THAN 10 SECONDS)

CENTRALIZED SYSTEM AND DATA MANAGEMENT

NO WIRES AND ON COMPACT DEVICE, WHICH MAKES INSTALLATION HASSLE AND MISTAKE FREE

THANK YOU!



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