

# Sky Patriot

Sky Patriot - Powerful UAV Detection and Classification System



- ✓ Powerful Optic Based UAV Detection
- ✓ Passive System
- ✓ Detection, Classification and Tracking
- ✓ Over 1Km Detection Range
- ✓ Powerful Video Analytics
- ✓ Easily Expandable
- ✓ Integration with Drone Elimination Systems

Sky Patriot helps your organisation to detect, classify and track drones. Passive ultra high definition optic sensors constantly monitor pre-defined airspace whilst our powerful video analytics engine detects and classifies potential drone threats.



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Multiple drones are simultaneously detected regardless of trajectory or background noise. The operator is continuously updated and alerted to drone activity and presented with information about the type of drone and corresponding flight path.

Our extensive analytics library contains numerous drone optic signatures, and these are used to both classify the drone, together with the potential for harmful payload detection. Moving background objects such as birds, vehicles and people are filtered out to allow an operator to focus only on potential threats by minimizing false alarms.

All video and analytics derived meta data is stored for evidence gathering.

The option of integrating thermal cameras with Sky Patriot ensures that the detection and classification of drones is as reliable at night or day.



# Sky Patriot Datasheet

## Thermal Sensor

Core type	Tau 2 640 (640 x 512 17u)
Spectral Band	7.5 - 13.5um
Performance	<50mK @ f/1.0
Frame Rate	9/25/30fps (PAL/NTSC)*
Pixel pitch	17µ
Lens	150mm

## Optic Sensor

Image Sensor	Progressive scan RGB CMOS 1/2.8"
Lens	4.3-129mm, HFOV 63.7 -2.3
Day / Night	Automatically removable infrared filter
Illumination	Color 1.0 lux at 30IRE, B/W 0.03 lux
Shutter Time	1/10,000s to 1s
Zoom	30x Optical

## Video

Video Compression	Uncompressed, H.264, Motion JPEG
Resolutions	3840 x 2160 UHD 1920x1080 HDTV 1080p to 160x90
Frame Rate	Up to 50/60fps
Streaming	Multiple H.264 streams

## User Interface

Client Connection	Web browser
Client OS Supported	Windows, macOS, Android, iOS, Linux

## Operator Functionality

UAV Threat Level	UAV detected, UAV classified
UAV Positioning	UAV azimuth, altitude UAV GPS coordinates UAV distance
UAV Mapping	Map overlay with UAV positions
Video Recording	24 hours+recording Event replay
Telemetry Logging	All logs/events recorded

## Physical

Dimensions	520mm x 260mm
Weight	5Kg
Enclosure	IP rated
Casing	Perspex Acrylic
Pole Mount	4" Diameter

## Detection / Classification Specifications

Detection Range	22.5° FOV, 500mm UAV, ~1Km 2.8 FOV°, 500mm UAV, ~ 8Km
Simultaneous Detection	1-10+ Drones
Drone Detection Size	5cm+
Drone Classification Types	DJI, 3DR, Parrot, Others On Request
Detection Speed	Up to 25m/s
Drone Detection Time	90 frames / 3.6 seconds
Background Masking	None/Partial/Full Custom Masking
Video/Data Logging	Full
System Initialisation time	4 seconds
Azimuth/Altitude Error	±0.02° (base on 22.5° FOV)

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