

# ***Lycan Counter UAS***

***Transforming Counter Drone Detection, Tracking & Mitigation***



- ⊕ *MWIR 40mm-825mm Continuous Zoom*
- ⊕ *Line Replaceable Unit Configuration*
- ⊕ *Tools Free/Cable Free Payloads Swap Out in Seconds*
- ⊕ *360° Panoramic Image Creation*
- ⊕ *Optical Target Tracking*
- ⊕ *Multiple RF and GPS Jamming*
- ⊕ *RF Detection*
- ⊕ *Long-Range 360° Detection (10m-5km) with Heuristic Target Prioritization*
- ⊕ *Optical Tracking to 4km*

# LYCAN CUAS

# Specifications



### Thermal Detectors

- 640x512 MWIR cooled InSb 15 $\mu$ m  
or
- 1280x720 cooled InSb 10 $\mu$ m
- Spectral range 3-5 $\mu$ m
- NETD <22 millikelvin

### Thermal Optics

- 40mm-825mm f/4 MWIR continuous optical zoom auto focus  
14.36 $^\circ$  to 0.67 $^\circ$  HFOV  
or
- 80mm-1200mm f/4 MWIR continuous optical zoom auto focus  
6.87 $^\circ$  to 0.46 $^\circ$  HFOV

DJI P4 Drone optical tracking  
3-4km

### Visual Detector

- 1920x1080 CMOS
- Spectral range 300-750 nanometers
- Minimum sensitivity 0.00015 lux

### Visual Optics

- 15mm to 500mm continuous zoom  
57.8 $^\circ$  to 1.7 $^\circ$  HFOV  
or
- 20mm to 800mm continuous zoom  
21 $^\circ$  to .55 $^\circ$  HFOV

### Multi-Mode Optical Tracking

- All clutter mitigation for target classification

### Ground/Air Surveillance Radar

- DJI P4 Drone detection and tracking  
10m-5km
- Pulse Doppler technology
- (3-4) 120 $^\circ$ /panel w/ 20 $^\circ$  VFOV S band  
500m-5km range for DJI P4
- (4) 90 $^\circ$ /panel w/ 20 $^\circ$  VFOV X band  
10m-700m range for DJI P4
- Simultaneous multiple beams
- 2Hz update rate

### RF Detection

- Library based drone classification
- Detection up to 2km radius
- Logs data for forensic analysis
- Assigns a persistent UID allowing for quick identification and situational awareness

### Mitigation

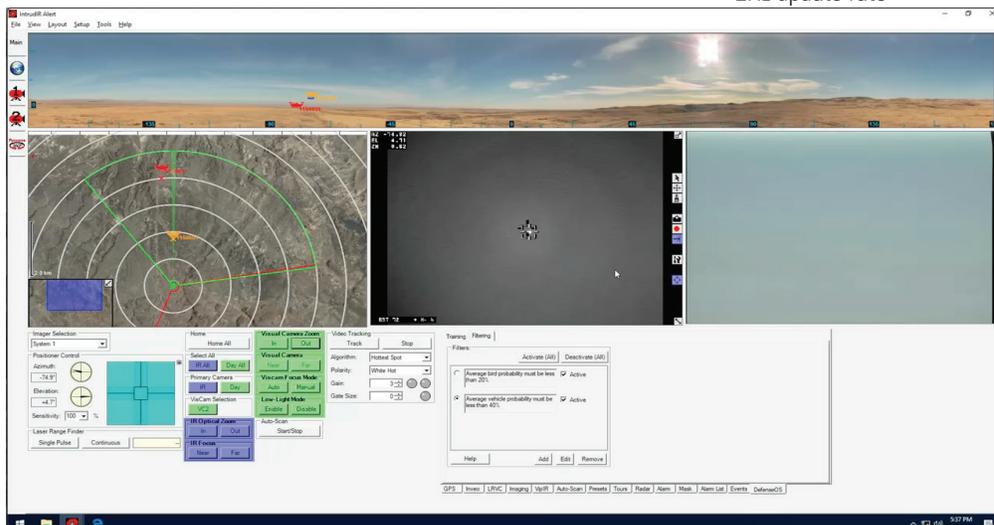
- Operational Bands  
433MHz, 915 MHz, 868Mhz
- Frequency 2400-2500Mhz WiFi  
RF Power 10.0 W  
(EIRP) Effective Isotropic Radiated Power 158W
- Frequency 5725-5825Mhz WiFi  
RF Power 5.0 W  
(EIRP) Effective Isotropic Radiated Power 79W
- Frequency 1562Mhz-1588Mhz GPS  
RF Power 10.0 W  
(EIRP) Effective Isotropic Radiated Power 158W
- DJI P4 jamming to 5km

### Positioner

- Pan Travel: 360 $^\circ$  continuous rotation
- Tilt Travel: Minimum +/- 90 $^\circ$  Tilt  
Optional -90 $^\circ$  to +180 $^\circ$  Tilt
- Pan/Tilt Speed: Slow speed down to 0.002 $^\circ$ /sec  
High speed up to 100 $^\circ$ /sec
- System Weight: 350lbs  
dependent on payload configuration and options

### Environmental

- Temperature  
Operational: -40 $^\circ$  C to +60 $^\circ$  C  
Storage: -46 $^\circ$  C to +85 $^\circ$  C



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