

# CapShield™ – cUAS

## All in One System: Radar ES, Optical



### CapShield™ platform

A Micro-Doppler radar, mounted on a lightweight 360° tracking system, capable of detecting various types of Small Unmanned Aerial Vehicle Drones (SUAVDs) within a range of up to 11 kilometers.



### Key Features

- cUAS All-in-One System
- Micro-Doppler detection and differentiation of both drones & birds.
- Operating in Ku band
- UAV Detection up to 11 km
- Multi classification capability in Realtime
- Optical Day/Night and Thermal tracking
- Dimension – Approx. 90 x 60 x 60 cm
- 360° tracking system
- Weight: Approx. 35kg

**Equipped with a built-in C2 graphical user interface, and powered by AI analytics**



- Picture in picture video
- Automatic object tracking
- Moving map software

## | System parameters

Pan / Tilt Range	Pan: ±180 / ±90; Tilt: -45° to +45°
Pan / Tilt Speed	Configurable, pan: 0.01° ~ 40°/s
Waterproof	IP66
System Power	24V-28V up to 15A
Dimensions (L*W*H)	Approx. 90 x 60 x 60 cm
Control mode	Speed, position
Ethernet	TCP / IP

## | Camera parameters

	ATID-300-1ES-1C	ATID-300-1ES-1C1T150	ATID-300-1ES-1CU1T150	ATID-300-1ES-1CU-1T150HD	ATID-300-1ES-1CU-1T225	ATID-300-1ES-1C52-1T225
DAY / STARLIGHT	Image Sensor	1/1.8" Sony Starvis progressive scan CMOS				1/1.8" Sony Exmor Global Shutter CMOS
	Focal Length	6.8mm-300mm, 42x Optical Zoom	11.3mm-1000mm, 88x Optical Zoom			15mm~775mm, 52x Optical Zoom
	DORI Distance (Human)	Det':2,900m ; Obs':1,160m; Rec': 586m ; Ide':293m	Det':16,000m; Obs':6,300m; Rec': 3,200m; Ide':1,600m			Det': 9,026m; Obs':3,582m ; Rec':1,805m; Ide':903m
	Day / Night	Electrical, ICR (Auto/Manual)				
	Video output	RTSP				
THERMAL	Image Sensor	-	Uncooled VOx microbolometer			
	Resolution	-	Sensor- 640 x 512; 50Hz: 25fps	Sensor- 1280 x 1024; 25fps	Sensor- 640 x 512 ; 25fps	
	Focal Length	-	30mm~150mm, 5x Optical/ 8x digital Zoom	30mm~150mm 5x Optical / 4x digital Zoom	25~225m, 9x Optical/ 8x digital Zoom	
	Video output	-	RTSP, HTTPS			
	Pixel size	-	12 μm			
	Spectral Range	-	8-14 μm			

Pictures are for illustration purposes only.



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## | Radar parameters ES

RF Transmit Power	160W (52 dBm) nominal, 180W (52.5dBm) maximum
UAS Tracking Ranges	Group 1 (-20 to -10 dBsm): 2.5 to 4.8 km Group 2 (-10 to -5 dBsm): 4.8 to 6.4 km Group 3 (-5 to +5 dBsm): 6.4 to 11.4 km Note: Tracking ranges listed are highly environmentally
Operation center frequency	15.4-16.6 GHz
Frequency Accuracy	± 10ppm (± 250kHz) including temperature and aging 8 years
Waveforms	Multiple LFM Bandwidths, Pulsed Doppler
Polarization	Linear, Horizontal
Field of View	Azimuth ± 120° / Elevation ± 90°
Realized Gain at broadside	27 dBi (max gain)
Max Tracks	Up to 1000 simultaneous tracks
Track updates	1-10 Hz (EKF requested association update rate)

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