

# EchoShield

## Multi-Mission 4D Radar

Intelligent Search.  
Best-in-class Performance.  
Next-gen ESA.

Advanced pulse-Doppler cognitive radar.

Ultra-precise ESA beamforming combined with dynamic waveform synthesis to deliver half-degree tracking accuracy.

Micro-Doppler-based object screening enables long-range trustworthy classification.

Powerful cognitive control software allocates radar resources *when* and *where* most effective.

Leverages data from onboard (DTED, street maps, other) and offboard (customer-defined) knowledge repositories.

Full-featured software development kit enables data-rich C2 integration.

Low cost, size, weight, and power (C-SWaP).



Vehicle  
>11 k m



Human  
>8 km



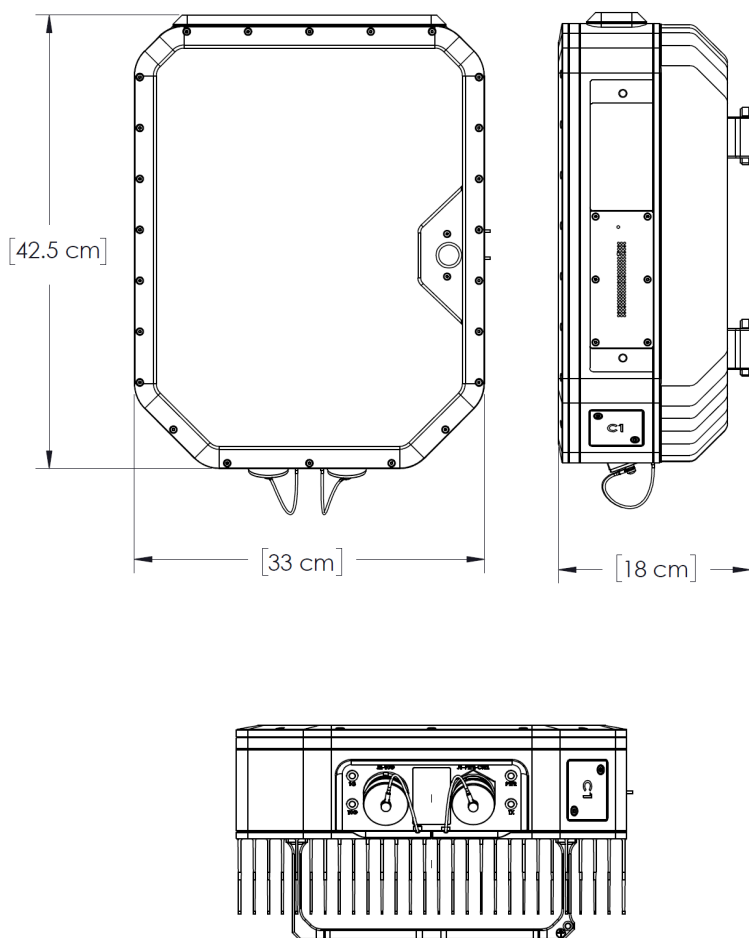
Matrice 600  
>6 km



Phantom 4  
>3 km

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Multi-Mission Cognitive 4D Radar



## Performance

Instrumented Range	20 km (mission defined)
Field of View	130° azimuth x 90° elevation
Track Accuracy	<0.5° azimuth x <0.5° elevation
Frequency (Ku-band / multi-channel)	15.4 - 15.7 GHz Band 1 (RadioNavigation) 15.7 - 16.6 GHz Band 2 (RadioLocation)

## Counter-UAS Mission Profile

Scan Volume	User configurable
UAS mean tracking ranges	
Group 1 (-20 to -10 dBsm)	2.7 km to 4.8 km
Group 2 (-10 to -5 dBsm)	4.8 km to 6.4 km
Group 3 (-5 to 5 dBsm)	6.4 km to 11.4 km
Maximum Active Tracks	
High priority objects	>40
Low priority objects	>1,000

## SWaP and Environmental

Size	42.5 cm x 33 cm x 18 cm
Weight	17.8 kg
Power	DC +20 V to +48 V
Operating	<250 W (Max duty cycle) MIL-STD-1275 compatible
Operating Temp	-40° C to +65° C
Environmental	MIL-STD-810 H
Ingress	IP66

## Integration and Data

Control I/O	Gigabit Ethernet
Power I/O	MIL-STD-38999 Style Bayonet
Data output ports:	
10 Gbps Ethernet	Range-Doppler spectrograms
1 Gbps Ethernet	Detections
	Measurements
	Tracks
	RadarStatus
Mounting	4x M6 200 mm bolt pattern

## FCC Identifier

This device has not yet been authorized by the FCC, and there are restrictions on its sale and use until authorization is obtained.

### Ordering Information



TAN 686A CAMO

700025-200-200