

The World's BEST Ai Anti-Drone Radar SOLUTION

Elijah™

Overwhelming Detection Range of up to 10km (DJI Phantom 4)



Elijah™ is Active Electronically Scanned Array (AESA) Radar System specialized for detecting aerial threats. It has overwhelming detection performance, wider surveillance coverage, and miniaturized architecture.

It has overwhelming maximum detection range of up to 10km for DJI Phantom 4. Detection and tracking capability as following: full hemispheric (360°) surveillance coverage, hundreds of targets handling through Track While Search (TWS), enhanced aerial object classification and clutter cancelation algorithm included, and spotlight mode supported while full area scanning.

Advantages

OVERWHELMING DETECTION RANGE

The most important advantage of **Elijah™** is that it has the world's best detection range performance of 10km detection (@DJI Phantom 4).

Our own way of combining Active Electronically Scanned Array (AESA) with Frequency Modulated Continuous Wave (FMCW) radar system leads to the world's best detection performance.

In a view point of economics, a deployment of 10km detecting radar can replace the 16 radars of 2.5km coverage.

SUPERIOR ANGULAR ACCURACY

This system provides the high angular (azimuth and elevation) accuracy of less than 1 degree.

OPTIMAL BEAM MANAGEMENT

It supports various scan modes such as fast-scan, normal-scan, etc. through optimized beam management.

FULL HEMISPHERIC PROTECTION

5 Bay System : For full hemispheric surveillance, 4-main-units of and 1 sub-unit at the top are required. Surveillance Coverage: Azimuth 360° Elevation 120°

CLUTTER CANCELATION

Clutter canceling algorithm was applied to handle unwanted targets such as sea, mountain, buildings, ground, etc.

AERIAL OBJECT CLASSIFICATION

It incorporates filtering of airborne moving objects such as birds and clouds for focusing on aerial threats detection to mitigate false alarms.

TWS AND SPOTLIGHT MODE

It handles hundreds of targets, simultaneously, and provides spotlight mode function while full area scanning.


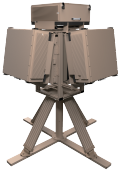


EASE INTEGRATION

It is an all-in-one integrated radar system. It can be easily integrated with all kinds of hard-kill and soft-kill systems.

System Specifications

SYSTEM	RF Type RF Frequency Scan Type	FMCW X-Band AES A
DETECTION CAPABILITY	Maximum Range (@DJI Phantom 4) Maximum Range (@Matrice 600) Minimum Radial Velocity Maximum Radial Velocity →Boosting Mode Scan Time Number of Simultaneous Detection & Tracking	10 km 13 km 2 m/s 70 m/s 140 m/s 0.5 / 1 / 2 s 128 / 256 / 512
DETECTION ACCURACY (RMSE)	Range Accuracy Radial Velocity Accuracy Azimuth Angle Accuracy Elevation Angle Accuracy	25 m 0.1 m/s <1 degree <1 degree
SPECIFICATIONS	Size (W x H x D) Weight Operation Temperature IP Rating	636 x 520 x 205 mm ³ 55 kg -32°C ~ 50°C IP 65
ADVANCED FUNCTIONS	Ai Filtering (Bird, Cloud, Etc.) & Tracking Clutter Cancellation Spotlight Mode Hovering Detection Mode Boosting Mode	<div>O</div> <div>O</div> <div>O</div> <div>O</div> <div>O</div>

Configurations

				
Core Component	x2 Main Unit	x2 Main Unit x1 Sub Unit	x4 Main Unit	x4 Main Unit x1 Sub Unit
Azimuth Coverage (degree)	-90° ~ 90°	-90° ~ 90°	-180° ~180°	-180° ~ 180°
Elevation Coverage (degree)	-30° ~ 50°	-30° ~ 90°	-30° ~ 50°	-30° ~ 90°
Averaged Consumption Power (Radar System)	1800W	2200W	3300W	3700W