

RRS-IRIS / A1

# IRIS® Drone Detection Radar

**NEW!**  
**Machine Learning Software Upgrade**  
Classification Ranges Up To Twice As Far!

Plus 4D on-the-move capability for MIL-STD IRIS® Radar

## FULL 360° DOME-LIKE COVERAGE

IRIS® combines smart software with affordable radar, and is built explicitly for drone detection and tracking. With 360° azimuth coverage, and a huge elevation coverage of 60°, IRIS® provides you with early warning of approaching drones, in all directions, giving you precious time to react. And the high elevation coverage means you don't have to worry about drones coming in over the top of your radar.

## DRONE POSITION TRACKING IN FULL 3D

Height information is particularly important for cueing cameras and other sensors and weapon systems. That's why IRIS® tracks drones in full 3D, providing accurate height information for quick and smooth detection and mitigation of rogue drones. When the stakes are high, every second counts. You need pinpoint accurate and direct tracking for quick interventions.

## SMALLER, LIGHTER, MORE POWERFUL

Size does matter. Today's drone threat calls for small and lightweight drone radars AND excellent detection range and coverage. Most radars do one or the other. With IRIS®, we refused to make that compromise.

A small and lightweight form factor, MIL-STD Certified, with best in class detection range and full coverage; you can take IRIS® with you, and easily deploy and redeploy as you need.

## 4D RADAR-ON-THE-MOVE (OTM)

Need to protect your convoy on-the-move? For VIP protection, law enforcement and military convoys? Of course you do. That's why we've added 4D radar-on-the-move (OTM) capabilities to our flagship IRIS® drone detection radar.

## MICRO-DOPPLER CLASSIFICATION

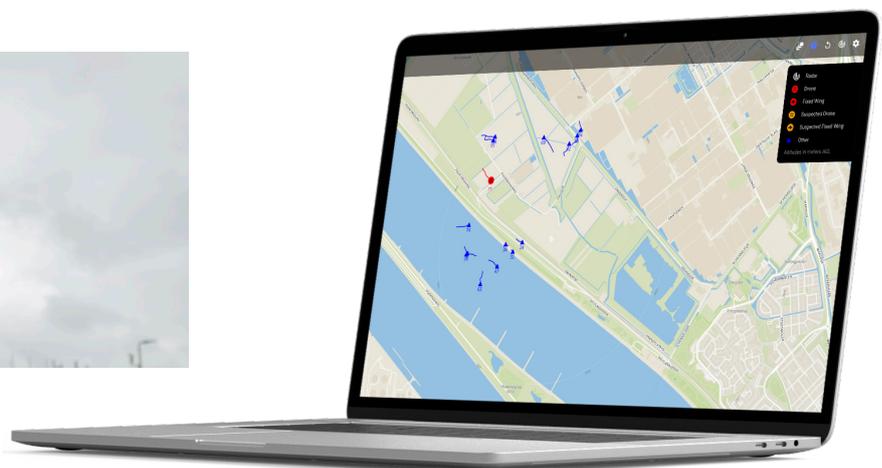
IRIS's micro-Doppler capability provides the necessary confirmation that a target has rotor blades. It's also what allows IRIS® to detect hovering drones, and to distinguish drones from other moving objects, like birds, avoiding false alarms.

## MULTIPLE TARGETS AND DRONE SWARMS

Drones can be pre-programmed for autonomous flight without an operator and can approach in swarms. Any drone detection system needs to be capable of detecting multiple targets simultaneously. IRIS® can detect and track hundreds of drones at the same time.

**“IRIS® can detect and classify drones swiftly and smoothly. It's very easy to use. Moving targets, static targets, even multiple targets; they're all detected and classified.”**

*Marijn Verbaant - Min-Def C-UAS Expert*



## WHAT'S INCLUDED

IRIS® comes as a complete radar system including back to back radar antennas, processing station and user interface, breakout box and interconnecting power and network cables. ASTERIX and SAPIENT communication protocols are included as standard for integration with command and control systems. Enquire for server / laptop / ruggedised options.

- Radar Antenna
- Processing Station / User Interface
- Cables (interconnector, power, network)
- User Manual & Certificates

IRIS® comes with an easy to use quick-mount tripod. It can also be deployed on a mast or vehicle.

## SPECIFICATIONS

Technology	FMCW
Frequency	X-Band (8900-9650 MHz)
Power Output (continuous)	2 x 12W
Instrumented Range	5 km
Detection Range: DJI Inspire (3kg)	4.0km
Detection Range: DJI Phantom (1kg)	3.4km
Detection Range: DJI Mavic Mini (<249g)	0.8km
Main Beam Width	6° x 60°
Azimuth Coverage	360°
Elevation Coverage	60°
Azimuth Accuracy	0.6°
3D Elevation Accuracy	1°
Range Accuracy	0.6m
Track While Scan	Yes
Scan Speed	1s Update Rate
Classification Method	Micro-Doppler
Upmast Dimensions (Dia. x Height)	554mm x 623mm
Upmast Weight (excl. foot)	25kg
Power	100-240VAC, 50-60Hz 200W nom, 600W max
Communication	Ethernet, 1000Base-T
IP Rating	IP66
Operational Temperature	-40°C to +65°C
Environmental Testing	MIL-STD-810H Certified

## IRIS® CLASSIFICATION RANGES

Drone	Typical Range*	Maximum Range**
Inspire (3kg)	2.0km	2.2 km
Phantom (1kg)	1.3km	1.6 km
Mavic Mini (<249g)	0.6 km	0.8 km

\* These ranges are typically achieved under varying circumstances including moderate clutter.

\*\* These ranges are indicative of the maximum observed ranges achievable under good flight conditions and favourable uncluttered surroundings.



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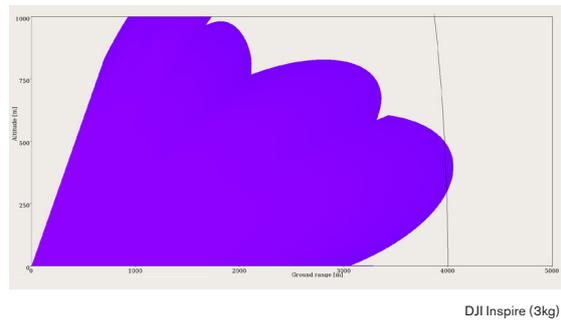
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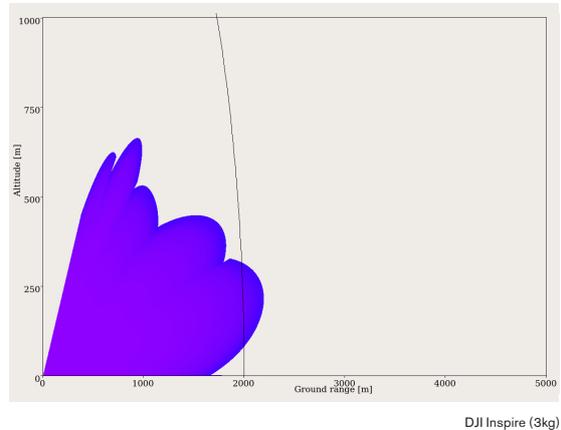
## BACK TO BACK RADARS FOR OPTIMAL TRACKING AND CLASSIFICATION



## DETECTION COVERAGE DIAGRAM



## CLASSIFICATION COVERAGE DIAGRAM



## DRONE VIEWER SOFTWARE

