

GRYPHON R1410 **AESA 3-D MULTI-DOMAIN RADAR**

Hemispherical surveillance of air, ground & sea targets in a **small lightweight and portable** package

The Gryphon R1410 is a 3-D, fully active electronically scanned array (AESA) multi-domain radar. It provides state-of-the-art moving target indication (MTI) surveillance, tracking and classification over air, land and sea.

One in a family of Gryphon X-band radars, the Gryphon R1410 radar is a single panel unit using a rotating positioner that benefits from common logistics and sparing with its larger sibling, the Gryphon R1440.

Designed to be small size, low weight and low power, the Gryphon R1410 is ideal for commercial and defense applications like border surveillance, site protection (critical infrastructure, airports, bases), harbor surveillance and mobile missions.

The Gryphon R1410 radar operates in all-weather conditions and can be emplaced permanently or in mobile- at-the halt configurations. Customer radar deployments have included long-term emplacements on fixed structures / towers, temporary

tripod emplacements that can be set up in under 30 minutes, and mobile deployable masts.

The Gryphon R1410 offers class-leading performance for detection range, accuracy, tracking and clutter rejection. The built in AI-based classifier provides the operator with target type classification, while the state-of-the-art tracker provides location and velocity.

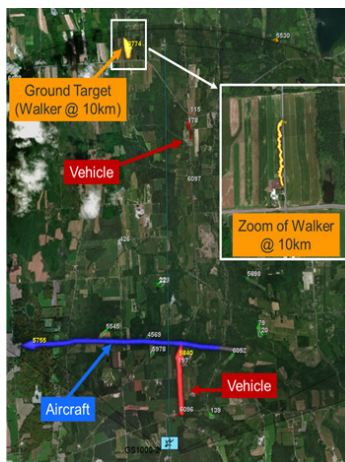
The Gryphon R1410 radar can be configured to support unique customer needs. It features customizable data output options and user-friendly software for rapid configuration.

The radar can simultaneously operate in search and track modes, including high update rate precision track beams, enabling the system to cue cameras and EW systems.

**THE GRYPHON R1410 RADAR
DETECTS LAND, AIR AND
SEA TARGETS AND IS IDEAL
FOR THE SURVEILLANCE
OF BORDERS, COASTLINES,
CRITICAL INFRASTRUCTURE
AND AIRSPACE**



GRYPHON
MULTI-MISSION RADARS



GRYPHON R1410

AESA 3-D MULTI-DOMAIN RADAR

APPLICATIONS

- General aviation air surveillance
- Counter-UAS including swarms
- Unmanned traffic management
- Detect and avoid applications
- Border surveillance
- Coastal/maritime surveillance
- Site/base/critical infrastructure protection
- Ground surveillance

BENEFITS

- Provides optimal balance of performance and price for customer's mission
- Best-in-class range for small form factor radar
- 360 rotating modes and 120 AESA stare modes
- Built-in GPS/INU makes for easy emplacement and accurate operation
- Air cooled for improved reliability

SPECIFICATIONS

- Size (receiver/transmitter): 81.3cm x 49.5cm x 24.6cm (32in x 19.5in x 9.7in)
- Weight: 36.5 kg (80 lbs) for radar only, 102 kg (225 lbs) with positioner and tripod

- Input power: 1600W, 90-265VAC
- Transmit type: Pulse-Doppler
- Operating frequency: X band
- Interface: Ethernet (ASTERIX, SRC protocol buffer interface, other)
- Detection range
 - 7.7 km (4.8 mi) for small UAS
 - 18 km (11.2 mi) for large UAS
 - 16.5 km (10.3 mi) for single person
 - 18 km (11.2 mi) for rubber raft
 - 25 km (15.5 mi) for small manned aircraft
 - 23 km (14.3 mi) for 6 m (20 ft) boat
- Operating temperature: -40° C to +60° C
- Azimuth coverage: Radar can be operated in a rotating mode with a full 360° of configurable azimuth coverage or a stationary mode covering a fixed azimuth sector up to 120°
- Elevation coverage: Definable
- Environment: Designed to MIL-STD-461, MIL-STD-810
- Reliability (mean time between critical failures): 8,620 hours
- Minimum detection velocity: 0.5 m/s

FEATURES

- Simultaneously tracks targets over air, land & sea
- X-Band AESA 9.3-9.8 GHz 3-D (includes height measurement) with excellent accuracy
- Tower, vehicle mount & tripod configurations
- Situational awareness for both cooperative & non-cooperative targets for safety & security
- High update rate track-while-scan
- Micro-doppler techniques for target classification of aircraft, watercraft, ground vehicle, ground walker, small airborne bird & UAS
- Low false alarm & classification rate
- Intuitive & user friendly operation
- Advanced 3-D GUI
- Built-in-test for automatic fault isolation
- Air cooled with sealed electronics
- Low size, weight & power (SWaP); man transportable
- Low life cycle cost
- Customer support & user training available



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