

Drone Dome™

C-UAS, Drone Detection, Neutralization and Interception System

End-to-End solution for securing airspace

Today's airspace is constantly threatened by hostile drones, causing serious security concerns to both military and civilian sites. RAFAEL has leveraged years of air defense experience to develop the DRONE DOME system, an end-to-end solution for securing airspace from hostile drones.

DRONE DOME is an operational, combat proven, off-the-shelf system providing 360° coverage in all weather conditions, with soft and hard-kill capabilities.

The system is fully modular and can be configured as a mobile or stationary unit, as well as customized per the customer's request.

RAFAEL's comprehensive solution integrates a RADAR, SIGINT/RF sensor, E/O SPEED ER sensor, a JAMMER and a C4I CENTER.

Benefits

- Off-the-shelf system
- 360° coverage
- Quick response time
- Operates in all weather conditions
- High success rate
- Minimal collateral damage
- Modular configuration, tailored to customer's requirements
- · Open architecture-any sensor, any shooter

Main Capabilities

- One system used by a single operator detects, tracks, identifies and neutralizes hostile drones
- Detects small targets at more than 3.5km distance
- RF sensor detection of the drones and its operators
- Blocks drones' communication channels with Reactive Jamming (RJ) technology including Global Navigation Satellite System (GNSS)
- Open architecture enables integration with other effectors and sensors

RADAR





- · Static radar Modular configuration of up to 4 panels enabling 360° (4x90)
- Cutting-edge algorithm enabling:
- Micro-Doppler classification
- FAR reduction
- RPS 82-extended range detection
- All weather

JAMMER



- · Blocks the signal and commands from the Remote Control (RC)
- Jam the video transmitted by the drone to the operator
- · Jams the GNSS signal to destabilize the drone
- Multiple targets

SIGINT DETECTION





- · Detection and identification of potential threats by passive RF sensors
- Frequency coverage 70MGHZ-6GHZ
- · Enables specific alerts and positioning of both drones and operators (per configuration)
- Configuration options:
 - Stationary DTOA technology for site protection
 - Fast deployment directional or OMNI detection
- Updatable database of known threats

C4I CENTER



- Integrating multi sensors for unified air situational picture
- Cutting-edge algorithm enabling:
- Optimal situation awareness (SA)
- Counter measure activation
- · Integration of customers' sensors and C2 systems
- Advanced GUI
- Open architecture

EO SENSOR



- · Gimbalded EO Sensor enabling 360° coverage of detection and identification
- Accurate identification up to 3 km range
- Cutting-edge image processing algorithm enabling:
 - Automatic Video Detection (VMD)
 - Automatic Tracking (ATR)
- 1,400 mm Focal Length enabling:
- High distance detection
- Low contrast identification
- SWIR (optional) lens capabilities for overcoming dust and fog environment

MOBILE DEPLOYMENT





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