



GUARDIARIS
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CARBOTEH.
BY GUARDIARIS

VORTEX

Mobile and modular ESA radar for
force protection UAV and FPV drone threats.



**FORCE
PROTECTION**



**UAV
DETECTION**



**MOUNTED
ON VEHICLES**



**MODULAR
INTEGRATION**



**360°
VIEW**

The Vortex radar is a **mobile and modular ESA radar** designed for quick field deployment in versatile and demanding operational environments. Vortex offers superior force protection UAV and FPV drone threats for exposed positions.

ULTIMATE MOBILITY AND INSTALLATION AGILITY

Weighing in at only 25 kg, Vortex is a highly portable radar solution that allows troops on the move to remain highly mobile in all conditions. Short setup times in various configurations (tripod, mast, fence, vehicle, pole, etc.) ensure full operation and threat detection in **under 15 minutes** from stopping.

SEAMLESS INTEGRATION

Built to integrate with other sensing systems like EO, other radars and kinetic effectors into modern command networks, Vortex connects to C2/C4I systems, custom API, BMS, Asterix protocol through 1 GE, 10 GE or RS-422 interfaces.

SWaP SUPERIORITY

Usability and performance on the battlefield are paramount. That's why Vortex prioritises small Size, light Weight, and low Power consumption to deliver a superior product with unmatched real-world capabilities.





MODULAR AND SCALABLE

From standalone to vehicle-integrated or fixed positioning, its modular design enables multiple placement options and use cases, adapting to mission scale. For full 360° coverage, seamlessly connect up to 4 systems to form a complete perimeter of detection with a radius of **more than 2 km.**

SPECIFICATIONS

Target detection

Micro quad-copter drone: > 2 km
Helicopter: > 5 km
Targets per scan: > 20
Swarm detection capability: Yes
Minimum target velocity: 0 m/s (hovering)
Classification: AI-based, Doppler analysis

Connectivity

Data interface: 1 GE, 10 GE (copper or fibre)
Protocols: Asterix, BMS, C2/C4I systems, API
Auxiliary I/O: RS-422
Power supply: 28 VDC (MIL-STD 1275)
Power consumption: 350 W (360 degrees azimuth coverage)

Coverage

Instrumented range: 0.1 - 7 km
FOV: 100° azimuth × 60° per antenna elevation
Scan time: > 2 Hz

*From the front line to critical infrastructure,
aerial threat detection starts with **Vortex**.*



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Contact us for detailed specifications, integration support
or to schedule a live demonstration.

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