RADAR SYSTEMS

exMHR® Enhanced & Extended Multi-Mission Hemispheric Radar

A cutting-edge, ground-based, multi-mission radar.

The exMHR is an S-Band, Active Electronically Scanned Array (AESA) radar providing the performance, accuracy, and target sample rate required for Cruise Missile Detection and long-range Counter Rocket, Artillery, and Mortar (CRAM) missions. This performance can also be applied in Counter Unmanned Aircraft System (C-UAS), Airspace Management, and Precision Approach tracking by utilizing optimized software-defined configurations Performance of the exMHR is unmatched, providing superior performance against low signature targets at a low cost and optimized SWaP.

The versatility of the exMHR allows it to meet multi-mission profiles while being deployed in stationary and mobile applications, including tactical vehicles for rapid deployments. By remaining passively cooled, this radar does not require extensive power and cooling systems to support radar operation. Sharing the same interface as all other DRS RADA products, the exMHR can be easily placed on to existing platforms or integrated with new platforms consisting of hard and soft kill systems.

MISSIONS

- Counter Battery and Fire Control
- Counter Rocket, Artillery, and Mortar (CRAM) with Point-of-Origin/Point-of-Impact designation
- Long-Range Cruise Missile Detection
- Fire Control
- Perimeter Defense
- Border Surveillance
- Coastal Surveillance
- Counter Unmanned Aircraft System (C-UAS)

LEONARDO DRS

KEY CHARACTERISTICS

- Innovative GaN Semiconductor Technology: Reduced package size and improved thermal performance.
- Automated target detection and improved multipath mitigation through advanced signal processing and algorithms.
- Handles hundreds of targets through Track While Search.
- Passive Cooling reduces integration complexity and eliminates the need for ancillary cooling systems.
- Designed for easy integration into higher level systems

KEY FEATURES

- High doppler resolution that provides fast, accurate threat detection and classification.
- Software defined with Adaptive Beam Forming to operate in multiple mission-spaces.
- Fast volume scan coverage for high target sampling rates.
- Capable of full On-The-Move operation at highway speeds.
- ECCM Capabilities
- Supports disaggregated operations
- Aggressive delivery turn-around

PARAMETERS

Spatial coverage	Single radar: 90° Az, 90° El Four Panel Installation provides Full Hemispheric Coverage
Interfaces	Ethernet, I/O Discrete
Interface protocols	ASTERIX, Customer-tailored
Input Power	28 VDC
Power consumption	2,500 W average
Dimensions	H: 90 cm, W: 120 cm, D: 30 cm
Weight	150 kg
Operating temperatures	-40° to +55° C
Cooling method	Passive (Fans are added for harsh environments)

MAXIMUM DETECTION RANGES

Threat	*Range*
Nano UAV	18 Km
Medium size UAV	80 Km
Heavy Transport Aircraft	200 Km
Fighter	110 Km
Fighter- Low RCS	60 Km
Utility Helicopter	80 Km
Light/Medium Mortar / Short Range Rocket	18 Km
Heavy Mortar	20 Km
Direct- Attack Rocket / Missile	24 Km
Vehicles & Medium Size Vessel	80 Km
Large Vessel	130 Km

DRS RADA Technologies

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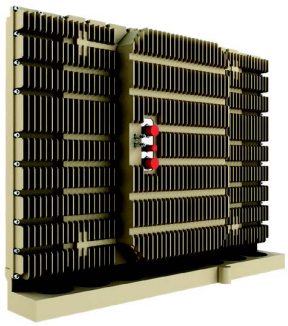
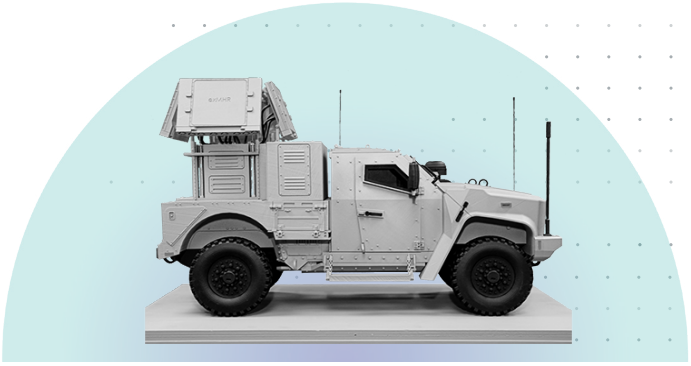
DESIGNATION

RPS-202	U.S. Variant
RPS-204	International Variant

Front View



Rear View



Typical Installations

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