



Comprehensive
Intrusion Management



Three-Dimensional Perimeter Surveillance Radars

RADA's Three-Dimensional (3D) Perimeter Surveillance Radars provide comprehensive border and perimeter surveillance through detection, classification and tracking of surface and aerial intruders such as pedestrians, vehicles, slow and small aircraft, vessels and more.

In addition to Air Surveillance, these programmable, software-defined platforms can host a variety of operational missions such as Hostile Fire Location, Ground/Surface Surveillance, and combinations of such operational missions.

RADA's 3D Perimeter Surveillance Radar Systems are the systems of choice for borders, coasts and critical infrastructure protection solutions. These radar systems can be integrated with any C4I system and other radars/sensors using its standard Ethernet interfaces, and can operate stand-alone or as part of a large-scale surveillance system, vehicle-mounted or static.

A single radar platform provides 90° azimuth coverage. Hemispheric coverage is achieved when four identical and interchangeable radars are employed as a system.

In addition to 3D Perimeter Surveillance, these programmable, software-defined radar platforms can host a variety of operational missions such as Aerial Surveillance, Hostile Fire Location, and combinations of such operational missions.

Nomenclature of the radar systems (per platform):

Mission	eCHR	MHR	ieMHR
3D Perimeter Surveillance	RPS-64	RPS-44	RPS-84
Hostile Fire Location	RPS-60 / RPS-61	RPS-40 / RPS-41	RPS-80 / RPS-81
All-Threats Air Surveillance	RHS-62	RHS-42	RHS-82

Full Range of Tactical Radar Platforms for the Maneuver Force



eCHR

MHR

ieMHR

- Pulse Doppler, Software-Defined, Multi-Mission Radar Platforms
- AESA (Active Electronically Scanned Array) Antenna based on GaN Amplifiers
- Extremely High Elevation Angles, up to Hemispheric Coverage
- On-the-Move (OTM) Operation
- Non-Rotating, Solid State, Digital Radars
- Compact and Mobile, for Tactical Applications
- High Reliability
- Superior Performance-to-Price Ratio

Radar Platforms Specifications:

PARAMETER	eCHR	MHR	ieMHR
Spatial Coverage (Single Radar)	90° Az, 90° El		
Frequency Band	S Band		
Antenna Type	GaN-Based AESA		
Interfaces	Ethernet, I/O Discretes, RS-422, RS-232		
Input Power	28 V (per MIL-STD-1275E) / 110/220 VAC		
Power Consumption (Single Radar)	250 W average	290 W average	760 W average
Dimensions	50 cm (w) 30 cm (h)	50.4 cm diameter	79 cm diameter
Weight	21 kg	26 kg	57 kg
Cooling Method	Passive Only		
Operating Temperature	-40° to +55° C		

Radar Operating Modes:

- **Track While Search:**

The radar is set to search the desired coverage volume. The radar updates target tracks at the search rate allowing the tracking of up to 500 simultaneous targets.

- **High Update Track Mode:**

For high priority targets the radar is set to track a few targets at a higher update rate while continuing to use track while search for the lower priority targets. High priority targets may be selected for high update rate tracking manually by the operator or automatically by the radar based upon the threat profile.

- **Single Target Tracking:**

This mode is employed when the most accurate and frequent information on a certain target is desired, typically by an external weapon system which commands the radar to this mode. This improves the track accuracy for weak or highly maneuverable targets.

Maximal Detection Ranges per Radar Systems:

Type of Threat	RHS-64 (Hosted on eCHR)	RHS-44 (Hosted on MHR)	RHS-84 (Hosted on ieMHR)
Nano UAV	2 Km	3.5 Km	7 Km
Light Transport Aircraft	18 Km	25 Km	50 Km
Pedestrians	6 Km	10 Km	20 Km
Vehicles & Medium-size Vessels	12 Km	20 Km	40 Km
Large Vessels	24 Km	40 Km	80 Km

Radar System Installations:



Static - Deployable, Fixed



Vehicle Mounted



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