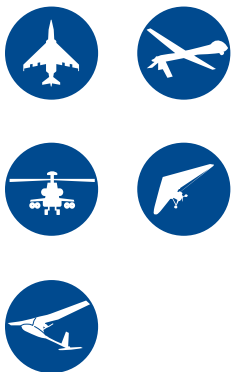




Hemispheric Surveillance for VSHORAD systems



RPS-42

Radar System for Tactical Air Surveillance

The RPS-42 Tactical Air Surveillance Radar System is the ultimate volume surveillance radar for today's and future Very-Short-Range Air Defense (VSHORAD) solutions. It is optimized to detect, classify and track all types of aerial objects, at altitudes from 30ft to 30,000ft within a radius of up to 30km – with emphasis on all types of UAVs, from micro and mini (groups 1-3) to the medium and large (groups 4-5). Other aerial objects are fighters, helicopters, transport aircraft, and others.

The RPS-42 is a member of RADA's Multi-Mission Hemispheric Radar (MHR) family, enabling advanced force and border protection solutions. Key characteristics of the MHR technology:

- Pulse Doppler, Software-Defined Radars
- AESA (Active Electronically Scanned Array) Antenna
- Extremely High Elevation Coverage
- Non-Rotating, Solid State Radars
- Digital: Beam Forming, Receivers, Pulse Compression
- Compact and Mobile, for Tactical Applications
- High Reliability
- Superior Performance-to-Price Ratio

Hemisphere coverage can be achieved by the simultaneous operation of four identical and interchangeable radars, each covering 90° in Azimuth and 80° in Elevation.

The RPS-42 exceptional real-time configurability provides a wide range of capabilities:

- Real-time control of scanning modes
- "Spotlight" examination of specific tracks while scanning is continued
- Operator-control or remote-control of radar operation modes
- Management of hundreds of simultaneous tracks

The RPS-42 Radar System 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. It can be mobile or positioned at stationary sites.

RPS-42

Radar System for Tactical Air Surveillance

RPS-42 Performance:

Parameter	Performance
Detected Targets	Fighters, Helicopters, UAVs, Transport Aircraft
Spatial Coverage	-10° to +70° in Elevation, up to 360° in Azimuth
Minimum Range	150 m
Maximum Range	30 km
Minimum Target Altitude	30 ft
Maximum Target Altitude	30,000 ft
Minimum Target Velocity	5 knots
Maximum Target Velocity	800 knots
Spatial Accuracy	Less than 0.5°
Speed Accuracy	1 m/s
Range Accuracy	50 m

MHR Specifications:

Parameter	Specification
Frequency Band	S Band
Antenna	Active Electronically Scanned Array (AESA)
Panel Dimensions	504 mm (diameter) by 206 mm (depth)
Weight	23 Kg per Panel, 105 Kg per System with 4 Radar Panels
Operating Temperature	-40°C to +55°C
Operating Wind Speed	35 mph (20% additional gust velocities)
Operating Voltage	28 V Nominal (16 V to 32 V, per MIL-STD-1275)
Power Consumption	320 W Average per Panel (software controlled)
Cooling	No Forced Cooling
Transmitting Power	60 W Average per Panel
Interfaces	Gigabit Ethernet, Discretes, Serial Channels

MHR Radar



Single Panel - Front View



Single Panel - Rear View

7 Giborei Israel Blvd.,
P.O. Box 8606
Netanya, 4250407
Israel
Tel: +972-9-892-1111
Fax: +972-9-885-5885
E-mail: mrkt@rada.com

www.rada.com



RADA
ELECTRONIC INDUSTRIES LTD.