

RSR 150

3D Radar Sensor for Vehicle Self Protection

SYSTEM DESCRIPTION

Reutech Radar Systems has developed a 3D radar sensor optimised for the rapid acquisition and tracking of multiple simultaneous incoming projectiles, including Rocket Propelled Grenades and high-velocity rounds, in order to trigger fast reaction soft or hard kill counter-measures. The radar is also capable of being used to detect and track sniper bullets in a Hostile Fire Indication (HOSFIN) role.

The sensor features:

- High accuracy angular, range and velocity tracking
- Continuous wide area coverage through floodlight illumination and digital beam-forming
- Very short reaction time and high update rate
- Very low false alarm rate

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SYSTEM PERFORMANCE

- Radar frequency: X-band (NATO I/J band)
- Radar operational envelope
  - Maximum instrumented range: 350 m
  - Minimum instrumented range: 3 m
  - Maximum instrumented velocity: 1200 m/s
  - Minimum instrumented velocity: 30 m/s
- Tracking accuracy
  - Range accuracy: < 1 m RMS
  - Radial velocity accuracy: < 1.5 m/s RMS
  - Azimuth angle accuracy: < 0.3 ° RMS
  - Elevation angle accuracy: < 0.3 ° RMS
- Reaction time
  - Time to declare a track within operational envelope < 20 ms
- Multiple targets tracking capability
  - 20 simultaneous targets

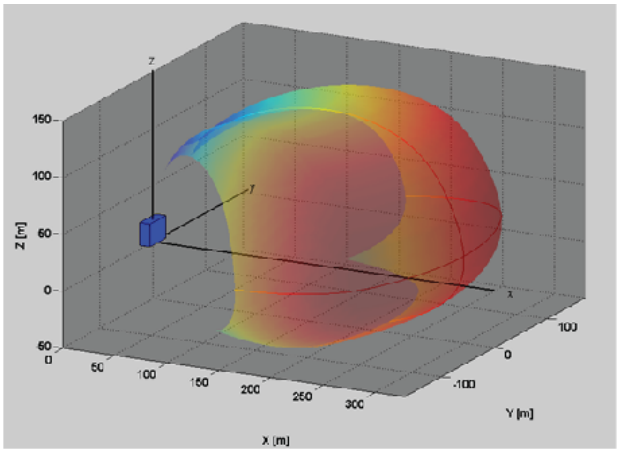
PHYSICAL SPECIFICATIONS

- Power requirements: Regulated 12 VDC
- Power consumption: 120 W
- Radiated power: 5 W
- Mass: < 18 kg
- Dimensions (mm): 376 (w) x 350 (h) x 228 (d)
- Minimal damage when subjected to Kinetic Energy
- Threats as defined in STANAG 4569 Level 1

OPTIONAL APPLICATIONS

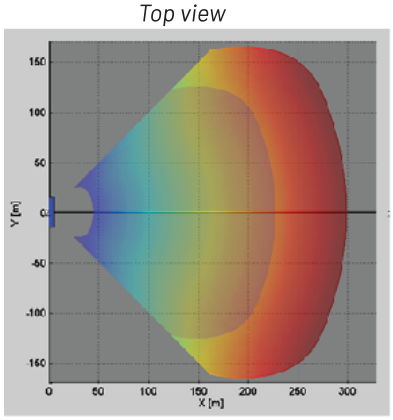
- Sniper fire tracking
- Hostile Fire Indicator (HOSFIN)

Typical radar coverage

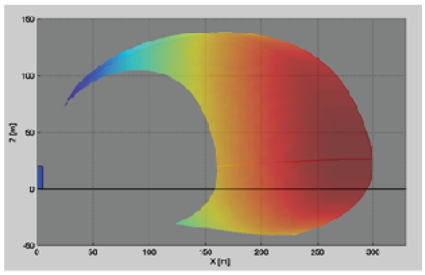


Typical 3D radar coverage for RPG-7

Top view



Side view



REUTECH RADAR SYSTEMS

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Reutech reserves the right to amend the characteristics of its products at any time 11/2021