

Retinar PTR-X Perimeter Surveillance Radar

High Technology Border and Critical Infrastructure Security

Retinar PTR-X is a medium range Perimeter Surveillance Radar which is designed for border and critical infrastructure security. PTR-X is specialized to detect and track human. There are selectable rotation modes (2-16 rpm) of PTR-X and it is suitable for fixed mast or on a vehicle usage.

Efficient Zone Protection with Retinar PTR-X

Retinar PTR-X provides user with zone control and situational awareness. Retinar PTR-X can detect and track moving objects such as human, animal and vehicles by support of the cutting edge radar technologies. Cameras can be automatically rotated to targets which are detected and tracked. Retinar PTR-X provides faster wide-area coverage compared to other observation methods such as camera or binoculars, keeping all the activity in the region under control at all times. Retinar PTR-X has selectable rotation modes against different operational requirements. Retinar PTR-X can detect and classify objects without any camera and binocular information through Micro-Doppler signatures analysis method. Retinar PTR-X can be integrated to vehicles; in addition to fixed usage on mast and tripod applications.

Application Areas

Border Protection

Critical Infrastructure Protection

- Airports and airbases
- Harbors and seaports
- Energy infrastructures (powerplants, pipelines, refineries, etc.)
- Transportation infrastructure

Base Protection

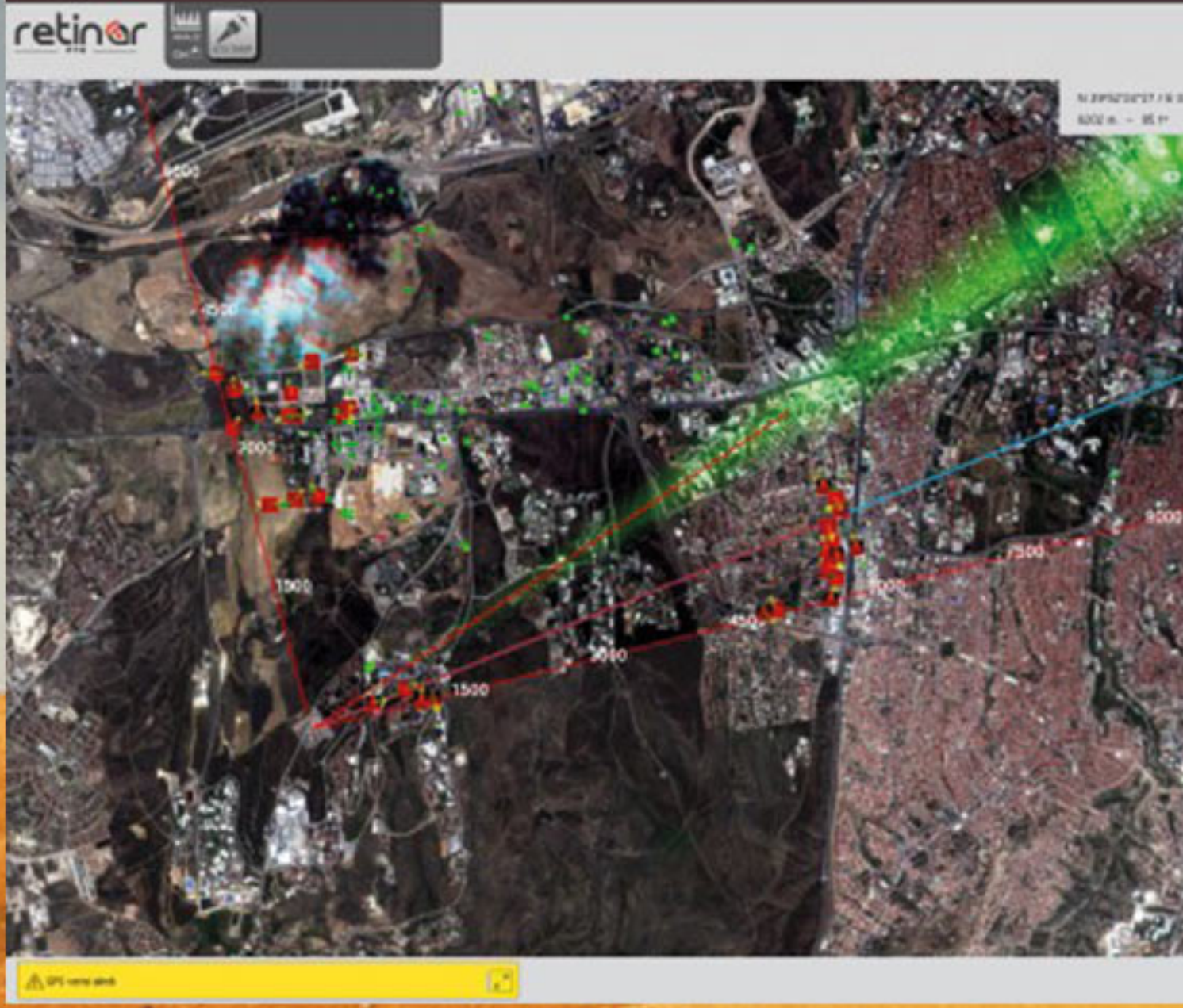
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Advanced Radar Algorithms with User Friendly Software

Retinar PTR-X user interface is designed to minimize training efforts for the radar operators and enable any security personnel to efficiently use the system after relatively short operator training period. User can choose scanning speed (2-16 rpm) and scanning range of radar via user interface. In addition to laptop, there is ability to use of Retinar PTR-X via tablets and smart phones with the help of special software. The system can give auditory and visual warnings for the predefined friendly and alarm zones. Situational awareness of user can be incremented via polar screen on digital raster image map. Retinar PTR-X's working status can be monitored via advanced Build In Test (BIT) and system is always under control of user via user interface. The system provides extensive record & play feature so as to brief records in mission analysis phase.

Key Features



Selectable radar scanning speed (2 to 16 rpm)



Human, vehicle and animal classification



Map support with built-in GPS and magnetic compass



Low Probability of Intercept (LPI)



Directing camera and weapon systems to target



Multi-Radar integration (C2Net)



Ability to detect very low speed movements



Simultaneous search in near and far fields

Operation Frequency: Ka Band

System Architecture: Pulsed Doppler

Detection Ranges: (Depending on the scan rate)

- Pedestrian: Up to 5 km
- Standard vehicle : Up to 8 km
- Large vehicle: Up to 10 km
- Instrumental range: Up to 24 km

Detectable minimum radial speed: 0.2 m/s

High range resolution (3 m) and angular resolution (2°)

Peak Transmit Power: <4 Watts

Azimuth Coverage: 360° continuous or sector scanning

Elevation Coverage : ±25° tilt angle limits, automatic tilt scanning mode

Communication options: 10/100 Ethernet

Operating temperature: -30° C / +55° C

Storage temperature: -40° C / +60° C

Environmental Design: MIL-STD-810, IP66

Power Consumption: <200 Watt

Weight

- Radar*: <24 kg

* Radar consists of sensor unit and antenna pan&tilt unit