retinar
PTR-X

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 identify human. There are selectable rotation modes (2-16 rpm) of PTR-X and it is suitable for fixed mast or on a vehicle usage.

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 the cutting edge radar technologies. Cameras can be automatically guided to targets which are detected and tracked by Retinar PTR-X. It has lower error rates in contrast with other observation methods such as cameras and binoculars by it's various speed modes. Retinar PTR-X has selectable rotation modes againts different operational requirements. Retinar PTR-X can detect and classify objects without any camera and binocular via Micro-Doppler signatures analyses 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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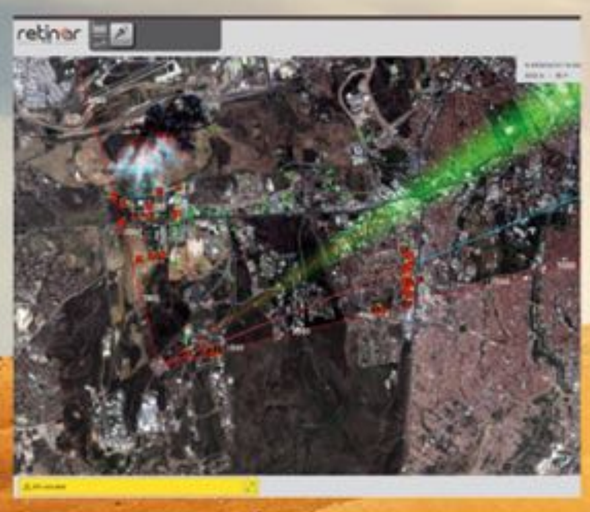

Advanced Radar Algorithms with User Friendly Software

Retinar PTR-X UI 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 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 predefiend 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 extansive 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)
- Multi-Radar integration (C2Net)
- Multi-Radar cluster and fusion of multiple radar targets data
- Ability to detect very low speed movements
- Simultaneous search in near and far fields

System Architecture: Pulse-Doppler Radar

Detection Ranges:

- Small Drones: 2 km
- Large Drones: 2,5 km
- Pedestrian: 6 km
- Standard vehicle: 12 km
- Large vehicle: 16 km
- Instrumental range: 24 km

Detectable minimum radial speed: 0.2 m/s

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

Transmitting power: <4 Watt

360° continuous or sector scanning

±25° tilt angle limits, automatic tilt scanning mode

Communication options: 10/100 Ethernet. Opsiyonel WiFi.

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

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