

Retinar PTR Perimeter Surveillance Radar

Secure Zone

Retinar PTR is a medium range Perimeter Surveillance Radar, designed for border and zone security. Retinar PTR has advanced technological features such as human/animal detection and target classification, low size, low weight, low power consumption, mobility and rapid deployment.

User Friendly System and Efficient Protection

Retinar PTR has been designed for high mobility; it can be carried in backpacks and installed by two personnel in five minutes and operated by a single person. The system can detect and track targets with information on target location and classification as human, animal or vehicle. Retinar PTR can detect human and animal up to 4 km, vehicles up to 8-10 km depending on the size of the targets. Because of its high frequency emission rates it can detect very low speed moving objects such as crawling or creeping human. Unlike EO-IR cameras having limited visual detection capability due to limited FOV, Retinar PTR provides wide area surveillance capability beyond visual range in all sectors. This gives additional planning and reaction time for operators. A built-in GPS and magnetic compass helps to position the system precisely on a digital map background.

Retinar PTR Application Areas

Border Protection

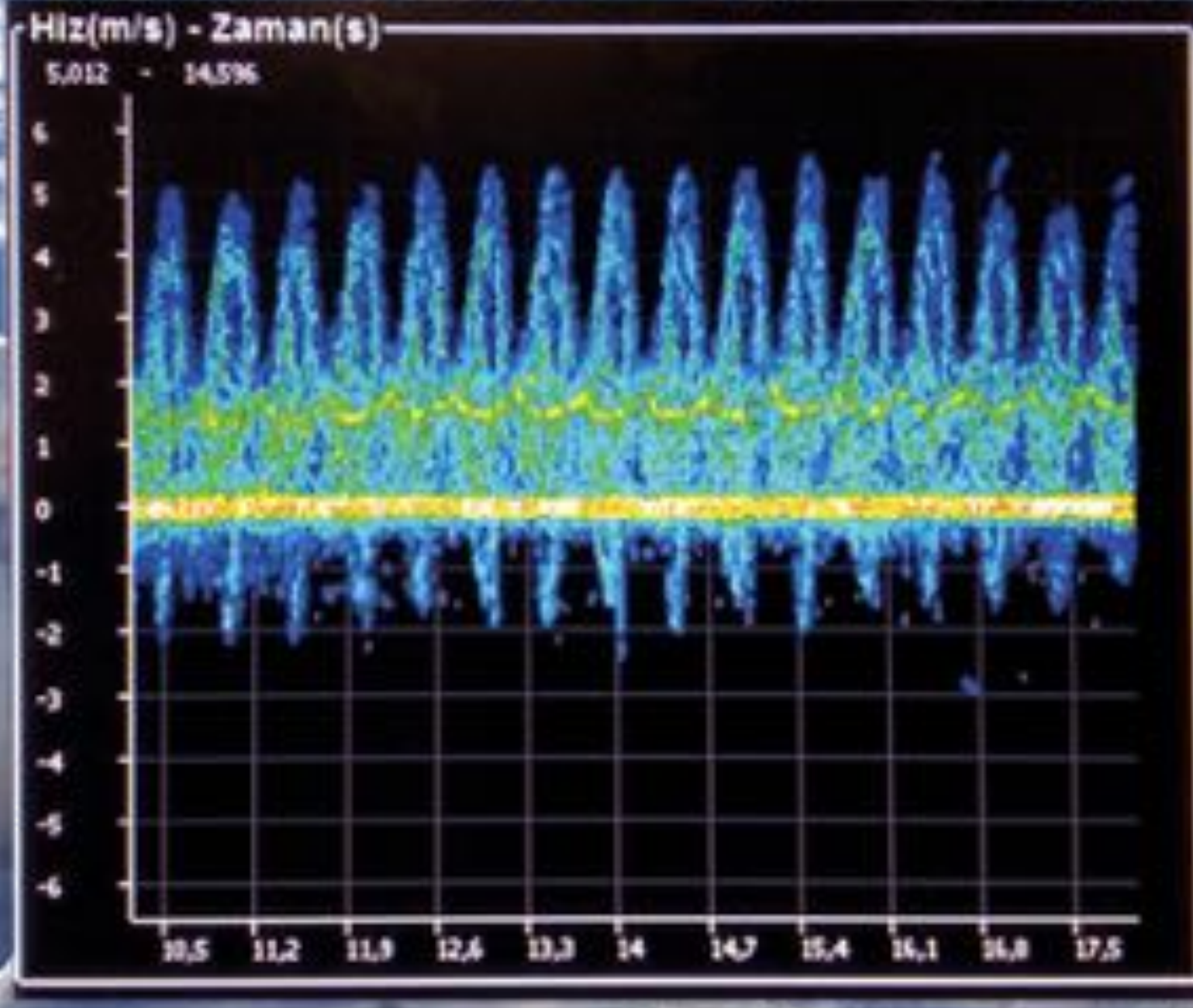
Patrol security for mobile troops

Critical Infrastructure Protection

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

Base Protection





Minimum Learning Time With User-Friendly Software

Retinar PTR's user interface was designed to minimize training requirements for the operator and enable any security personnel to efficiently use the system after minimal training. In addition to rugged user interface laptop, Retinar PTR can be controlled wirelessly through smart phones and tablets. This mobile mode enables the operators to receive plots, tracks and alerts, even when they are not actively engaged with the system interface. User interface can give audio and visual alarms via easily applicable friendly and alarm zones on software. Situational awareness of user can be incremented via polar screen on digital raster image map. Retinar PTR's working status can be monitored via advanced Build In Test (BIT). Retinar PTR has recording and replay feature for event analysis.

Key Features



Human, vehicle and animal classification



Built-in GPS and magnetic compass



Portable system with easy deployment



Detection ability to very low speed movements



Low Probability of Intercept (LPI)



Close and far range inclusion in same time

Operating Frequency

- Ka Band

System Architecture

- Pulse-Doppler

Detection Ranges

- Pedestrian: 4 km
- Standard vehicle: 8 km
- Large vehicle: 10 km
- Instrumental range: 12 km
- High range resolution (3 m) and angular resolution (2°)
- Transmitting power: <4 Watt
- 360° continuous or sector scanning

- Communication options: 10/100 Ethernet and Optional WiFi

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

- ±25° tilt angle limits, automatic tilt scanning mode

- Storage temperature: -40° C / +60° C

- Environmental design: MIL-STD-810, IP66

- Power Consumption: <120 Watt

Weight

- Radar*: <18 kg

- Whole system**: <40 kg

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

**Standard Configuration consists of Radar, rugged user interface computer, tripod, two pack battery set, cable set, two carrying back-packs.