ADVANCED CENTRIC SYSTEMS B.V

TACTICAL GROUND SURVEILLANCE RADAR FAMILY

Product brochure

Advanced Centric Systems B.V. | Laurierstraat 71 HS | 1016 PJ, Amsterdam | The Netherlands
☎+31207784141 | ✉ info@acs-tech.nl | www.acs-tech.nl

THE PROBLEM

Persistent area surveillance is a specific type of surveillance activity where the area of interest is constantly under surveillance. Under the circumstances calling for persistent surveillance, the targets must be detected, analyzed and tracked instantly and continuously.

The sensor category used most extensively for persistent area surveillance applications is the Radar category. Tactical persistent area surveillance Radars are required to provide continuous coverage of the area of interest and instant detection and tracking of any target that moves within that area, at ranges extending from very short (around 50 meters) to long (about 25 kilometers).

Military ground forces, HLS / law enforcement agencies and security organizations will benefit from ground persistent surveillance Radars providing continuous 360-degree coverage of large areas of interest along with instant target detection and continuous tracking of multiple targets.

THE SOLUTION

ACS presents TGSRF – Tactical Ground Surveillance Radar Family.

The solid-state, pulse-Doppler X-band Radars in this series provide 360-degree coverage of large areas of interest with instant target detection and continuous tracking of multiple ground targets under all weather conditions.

Each TGSRF Radar may operate as a standalone unit or as part of a comprehensive ground surveillance system, integrated with other sensors.

All TGSRF Radars are lightweight (man-portable), easy to deploy and operate, have a low power consumption rating, Low Probability of Interception (LPI), high MTBF and a high track updating rate.

All TGSRF Radars may be operated locally or remotely through landline or wireless communication.

The TGSRF persistent surveillance Radars were specifically designed and developed for such applications as early warning, border surveillance & security, strategic infrastructure/installation security and law enforcement.

KEY FEATURES & MAJOR ADVANTAGES

Key Features & Major Advantages

- Cutting-edge pulse Doppler Radars
- Standalone operation or integration with other surveillance systems
- Track-while-scan of up to 200 targets

- Continuous 360° coverage of large areas of interest
- Instant target detection & continuous tracking
- Low Probability of Interception (LPI)
- Day, night & all weather operation
- High reliability – solid-state design (high MTBF)
- Easy to deploy, operate & maintain
- Man portable (one person)
- Fast track updating rate
- Remote operation through landline or wireless communication
- Typical applications:
    - Early warning
    - Border security
    - Strategic infrastructure/installation security
    - Law enforcement

TGSRF Radar Models & Specifications

Model / Characteristic	**TGSRF Standard**	**TGSRF-SER**	**TGSRF-SLR**
Type	Pulse Doppler Radar		
Frequency Band	X-Band		
Transmitted Power	10 W Peak, 1 W Average		
Weight	±30 kg		
Dimensions	305(W) x 550(H) x 330(D)		
Power Consumption	Less than 80 W		
Power Supply	20 to 32 VDC		
Communication	LAN		
MTBF (Calculated)	More than 7,000 hours		
Operating Temperature	-30°C to +50°C		
Storage Temperature	-40°C to +85°C		

Rain	Per MIL-STD-810F		
Humidity	Per MIL-STD-810F		
Solar Radiation	Per MIL-STD-810F		
Vibrations	Per MIL-STD-810F		
EMC	Per MIL-STD-461E		
Detection Range – moving person	5000 m	10000 m	15000 m
Detection Range – moving vehicle	8000 m	20000 m	25000 m
Minimum Detection Range	50 m	50 m	50 m
Minimum Detectable Velocity	1 km/h	1 km/h	1 km/h
Range Resolution	4 m , 8 m	8 m	8 m
Range Accuracy	1 m	1 m	1 m
Azimuth Coverage	10°	7°	5°
Azimuth Accuracy	0.5°	0.5°	0.3°
Altitude Coverage	10°	8°	5°
Sector Coverage	360°	360°	360°
Maximum Number of Tracks	200 (TWS)	200 (TWS)	200 (TWS)
Track Update Rate	±5 sec.	±5 sec.	±10 sec.