



PGSR-3iFT 'Beagle' Mk. II. TOWER-MOUNTED GROUND SURVEILLANCE RADAR

PGSR-3iFT 'Beagle' Mk. II. is a tower-mounted radar for detection, tracking and classification of targets moving on or close to the ground.

PGSR-3iFT 'Beagle' Mk. II. is a member of our fix radar family together with the coastal sea surveillance radar. It was designed for desert and harsh environment operation. It is placed inside a hermetically sealed Radom to withstand extreme weather and environmental challenges.

BENEFITS

- ✔ remote operation with IP communication
- ✔ improved, longer detection range
- ✔ intelligent ruling element in sensor system
- ✔ easy maintenance
- ✔ integration with camera subsystems
- ✔ integration with C4i systems, local operation
- ✔ key element of large border security systems

WIDE RANGE OF USAGE

The radar PGSR-3iFT 'Beagle' Mk. II. is member of the PGSR Beagle family of FMCW radars, making use of all advantages specific to this excellent and well-proven radar class. Mounted on top of towers, it is watching and collecting information from the surrounding area practically from 360 degree. Numerous camera vendors are supported; new camera integration is standard procedure. Optionally camera integration/control hardware is available.

The radar PGSR-3iFT 'Beagle' Mk. II. is key element of sensor systems for early warning, illegal border crossing prevention and threat recognition along extensive border sections in desert or harsh environment. Improve the resilience passive cooling was deployed, no ventilator used for cooling.

If several radars are operated, neighboring radars cover shadow zones of each other, to achieve full coverage of surveillance area.

Radar operating channels are selectable and adjustable. Neighboring radars do not disturb each other even if radiating and receiving signals over a common area.

The PGSR-3iFT 'Beagle' Mk. II. radars are the highest level ruling intelligent units in the radar-camera-sensor modules hierarchy. The radar controls cameras: activates, directs, "slew-to-cue" etc.

OVERVIEW

The radar is controlled from the local operator unit or remote command center. The radar's control software ADAMS is capable of utilizing various map formats and displaying the detected targets over the map. PGSR-3iFT 'Beagle' Mk. II. is the intelligent ruling unit that performs activation, coordination and control of thermal cameras, daylight cameras and other sensors. All surveillance data and user interaction events are logged and can be replayed for further analysis.



TECHNICAL PARAMETERS

SURVEILLANCE AND DATA PROCESSING			
Detection Ranges*	Soldier	(RCS 1 m ²)	10 km
	Road vehicle	(RCS 5 m ²)	15 km
	Helicopter	(RCS 10 m ²)	18 km
	Large vehicle (e.g.: tank)	(RCS 50 m ²)	24 km
Scanning Modes	Sector Scan (6° – 345°) Continuous Rotation (n x 360°)		
Scan Rate	7°/sec or 14°/sec		
Accuracy	Range: +/- 10 m at 10 km range Azimuth: ≤ 0.4°		
Detectable Radial Velocity	from 1.0 km/h at 7°/sec scan rate from 1.7 km/h at 14°/sec scan rate		
Target Capacity	600 plots can be displayed		
Other Features	rack While Scan, Single Target Tracking, Clutter map, Spot Window, Doppler Audio (Single Target Tracking), Automatic Classification, LPI, STC, CFAR		

FURTHER FEATURES
Low Radiated Power for Human Safety
Comprehensive BIT
20 Fixed channel and automatic hopping
Controller software: Freely Configurable Alarm and Dumb Zones, Map Handling, Fully Logged Operation and Replay

TECHNICAL PARAMETERS	
Operation principle	FMCW
Frequency Band	X Band (NATO I/J Band)
Transmitted Power	max. 4W
Power Requirements	28 VDC (22 – 33 VDC), max. 100 W
Selectable output channels	20
Environmental Specifications	Tested according to MIL-STD-810G
Operation	Continuous 365/24
Control levels	Automatic, autonomous, local control, remote control
MTBF	> 15 000 hrs
Data / Control interface	RS-485, Ethernet

BORDER SURVEILLANCE & ALARM SYSTEM
Multiple connected Beagle FT Mk. II. radars provide hermetic protection against illegal border crossers
Radars and cameras mounted on towers
Integrated in system: local, medium size or C4I
Thermal and daylight camera ranges are matched to radar range

*Radar version with 40 km max. detection range (NATO directive) capability in case of convoy is optional, requires development. Distances are calculated based on geometrical values and do not take into account atmospheric conditions.

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