



PMS2 'Sentinel'
MAN-PORTABLE MULTI-SENSOR SYSTEM

The PMS2 'Sentinel' is offering a lightweight, cost-efficient and easy to deploy solution optimized for silent battery operation with long runtime. The system provides a very good Return of Investment solution for the user.

BENEFITS

- ✔ Man-portable multi-sensor system
- ✔ 'Slew-to-Cue' functionality
- ✔ Long time surveillance scenarios
- ✔ Quick deployment
- ✔ Rugged design
- ✔ Cost-efficient solution

OVERVIEW

The system integrates two surveillance sensors, a PGSR-3i 'Beagle' Mk. II. Ground Surveillance Radar System and Bordercam-225 Uncooled Electro-Optical Camera System. The PGSR-3i 'Beagle' Mk. II. Ground Surveillance Radar System provides continuous observation of a large area detecting any movements, while the Bordercam-225 Uncooled Electro-Optical Camera System provides detailed image of any detected targets for accurate identification in both day and night operation.

The Bordercam-225 Uncooled Electro-Optical Camera System and the PGSR-3i 'Beagle' Mk. II. Ground Surveillance Radar System are mounted on their individual tripods and connected to the Operator Unit. The standard military batteries provide enough power for 8 hours surveillance operations, which can be extended with extra battery sets or vehicle generator/on-board battery.

The operating platform is the Pro Patria Electronics Ltd. own developed ADAMS (ADaptive Multisensor System), and provides an easy-to-operate user interface, offering the possibility of multi-tasking and sophisticated decision-taking for the operator. The software is capable of utilizing different map formats and displaying the detected targets over the map. The video of the cameras and the control functions are also integrated into the same system providing automatic 'Slew-to-Cue' functions. Surveillance data and user interaction is recorded and can be replayed for further/later analysis.

TECHNICAL PARAMETERS

GENERAL HARDWARE SETUP AND CHARACTERISTICS	
Instrumentation	PGSR-3i 'Beagle' Mk. II. Radar System Bordercam-225 Uncooled E-O Camera System
Power Requirements	PGSR-3i 'Beagle' Mk. II. Radar System: Operating voltage: 22 - 33 VDC, max. 65 W Bordercam-225 E-O Camera System: Operating voltage: 22 - 33 VDC, 36 W typical,

BORDERCAM FHD DAYLIGHT CAMERA SPECIFICATION		
Resolution	1920x1080	
Refresh rate	1..60 FPS	
Signal to noise	>50dB	
Optical zoom	30x	
Horizontal angle of view	1.2° - 10°	
Operation	12x digital zoom, AE, AF AWB, B&W, IR	
Target size	1.8x0.6m Human	2.3x2.3m NATO/vehicle
Identification range*	13600m	17400m

PGSR-3i 'Beagle' Mk. II. GSR			
Radar 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 (6° - 345°); Continuous (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	Track While Scan, Single Target Tracking, Clutter map, Spot Window, Doppler Audio (Single Target Tracking), Automatic Classification, LPI, STC, CFAR		

BORDERCAM THERMAL CAMERA SPECIFICATION		
Resolution	640x512	
Refresh rate	30-60 FPS, 9 FPS (NLR)	
Field of view**	1.96° - 17.46°	
Wavelength	LWIR	
Operation	Motorized continuous focus and zoom	
Target size	1.8x0.6m Human	2.3x2.3m NATO/vehicle
Detection range*	11200 m	21600m
Recognition range*	5600m	7200m
Identification range*	2800m	3600m

SPECIAL FEATURES

Display and Control sensors from one user interface;
Support of multiple monitors and split screens; Record and replay of all displayed data; Automatic optical target follow;
Periodic polling of optical marker points

* Maximum value, may be limited by the atmospheric conditions

** Equivalent to a 25-225mm focal length 12um pixel size camera

