



IFP

INTEGRATED RECONNAISSANCE PLATFORM

OVERVIEW

The 'IFP' Integrated Reconnaissance Platform is complex sensor system combined with a unique single mast solution for limitless operation. The sensor system consists of a dual camera system with built in LRF and a Ground Surveillance Radar as well as a heavy duty Leveling Unit for compensating the slope of the vehicle. The entire platform is designed to withstand harsh environmental condition in the operational area without the need to dismount from the vehicle. The Leveling Unit has high payload capacity and built-in sensor for automatically perform the slope compensation within the range of +/-15 degree..

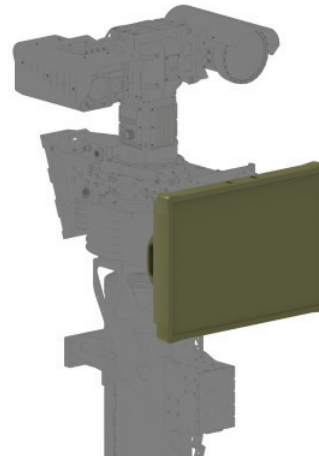
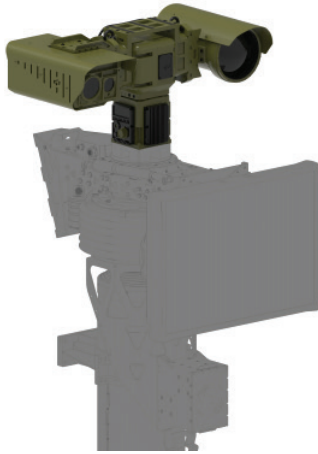
The PGSR-3i Beagle Mk II. radar is mounted on the Leveling Unit with a special Rotator Unit which supports sectorial and continuous 360 degree scanning. This solution provides solid and stable platform for the dual camera system on the top of the mast without blocking LoS of the camera as well as the GSR. The GSR Antenna Unit can be easily removed from the mast and deployed on a tripod up to 100 meters away form the vehicles if the operational scenario requires. The GSR has special artillery mode in which it is capable to detect and determine the coordinates of artillery shells with NATO Class-1 accuracy and forward them to fire control systems.

The high resolution dual camera systems is PPE's own developed solution consists of uncooled thermal camera and daylight camera with integrated LRF for accurately measuring target distances. The high precision Pan and Tilt Unit of the dual camera system combined with the LRF provides another NATO Class-1 measurement capability for the operator ensuring high reliability performance on any kind of operational scenario.

The GSR and the dual camera system is integrated into PPE's ADAMS software suit which gives the operator full control of all sensors on a simple, user friendly interface. The ADAMS software is already integrated in different C2 and C4i systems in order to support the commanders with reliable information.



TECHNICAL PARAMETERS



CAMERA SPECIFICATION

Daylight		
Resolution	2464 x 2056	
Zoom	20x optical (+12x digital)	
Vertical FOV	38.6 - 2.05°	
Detection ranges:	1.8x0.6m HUMAN	2.3x2.3m NATO
identification	10400m	13300m
recognition	21000m	26600m
detection	>30000m	>30000m

Uncooled Thermal		
Resolution	1280 x 1024	
Zoom	9x optical + 4x digital	
Vertical FOV	34.82 - 3.85°	
Pixel size	12 um	
Detection ranges:	1.8x0.6m HUMAN	2.3x2.3m NATO
identification	2800m	3600m
recognition	5600m	7200m
detection	11300m	21600m

Camera LRF Specification	
Maximum range	8000m / 30000m*
Accuracy	±1 m
Deviation	0.45 mrad
Security	Class 1 (Eyesafe)
Infra pointer	830 nm

RADAR SPECIFICATION

Operation principle	FMCW	
Frequency band	X-Band (NATO I/J Band)	
Transmitted power	3.5 W	
Power requirement	28 VDC (22- 33 VDC)	
MTBF	> 15000 hrs	
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	25 km
Convoy	RCS 300 m ²	40 km

CAMERA PTU SPECIFICATION

Horizontal range of motion	N x 360°
Vertical range of motion	±45°
Horizontal positioning accuracy	<0.25 mrad
Vertical positioning accuracy	<0.25 mrad

OTHER CAPABILITIES

3rd party INS integration
Leveling unit: +/- 15° tilt
PDU (vehicle specific)
Dismountable antenna unit
C4i and fire correction system integration
Through hole rotator unit

*optional

Note: Distances are calculated based on geometrical values and do not take into account atmospheric conditions. The actual pictures on this brochure are only illustration.

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