



PASR-17c 'Pointer'

PASSIVE COHERENT LOCATOR RADAR SYSTEM

PASR-17c 'Pointer' is a short-to-middle range Passive Coherent Locator (also known as passive radar) for air surveillance applications.

KEY FEATURES

- ✓ No radio frequency transmission
- ✓ Detects low flying targets (e.g.: commercial drone)
- ✓ Fully covert operation
- ✓ Automatic AI based classification
- ✓ Staring radar
- ✓ Low system and maintenance cost
- ✓ All weather, day-night operation
- ✓ Suited for remote, single node, networked operation
- ✓ Automatic Built-in test

WIDE RANGE OF USAGE

As a passive radar, to detect moving targets it is able to utilize the already existing radio frequency sources in the environment instead of actively illuminating the surveillance area. The utilized illuminators, or so-called Illuminators of Opportunity (IoO) are typically broadcasting signals. The system is designed to exploit digital television signals (DVB-T/T2, Digital Video Broadcast - Terrestrial) in the UHF band to detect various aerial targets ranging from low flying small-sized multirotor drones up to bigger sized airliners. Due to the flexible and modular hardware design, the system can be upgraded to also exploit FM radio illumination, providing even greater detection ranges for large aircrafts. Since the radar has no RF emission it is able to operate fully covert without the need of frequency authorization.

Due to the applied technologies the startup investment and the maintenance cost of the Pointer is significantly lower compared to conventional active radars, which arise from the fact that the system has minimal hardware requirements and applies state-of-the-art signal processing technologies. This also provides extremely high MTBF. With deploying multiple systems, the surveillance of entire border sections could be covered cost efficiently.

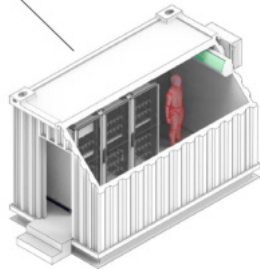
The Radar is designed for easy integration with command and control systems and other surveillance equipment such as Electro-optical sensors. It is interfaced with standard Ethernet connection to further ease the integration of the system.

TECHNICAL PARAMETERS

TECHNICAL PARAMETERS			
Illuminators of Opportunity		DVB-T/T2	FM
Detection Ranges	Mini UAS	8 km	-*
	Small UAS	15 km	-*
	Medium UAS	36 km	74 km
	Helicopter	48 km	92 km
	Aircraft	90 km	130 km
Detectable target velocity		≥ 5 km/h	≥ 30 km/h
Track update rate**		0.1-1 sec	0.6 -2 sec
Azimuth coverage***		90°	90°
Elevation coverage		90°	90°
Range resolution		40 m	1500 m

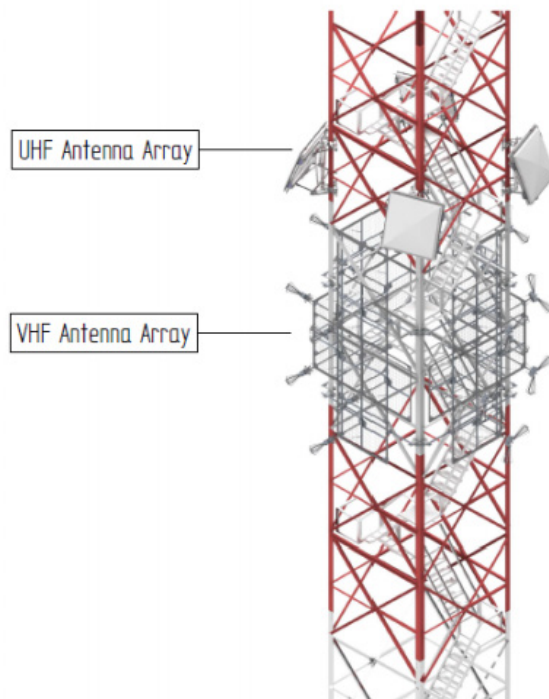
* With FM illumination it is not applicable
 ** Depends on signal processing configuration
 *** DVB-T/T2/T2 360° coverage with 4 antenna panels

RECEIVER CABINET
 - Data Acquisition Module
 - Signal Processing Module
 - Power Supply Module



ADVANCED DSP CAPABILITIES
AI supported algorithms
Automatic 3D target tracking
Automatic target classification
Fully adaptive signal processing

ADVANCED OPERATOR SOFTWARE
Integration with C2 systems
Automatic alarm zones (user settable)
Continuous recording of all events and radar measurements
Various target filtering settings



Single node illustration with two antenna plates

Detection definitions and conditions:

- The detection ranges are achieved when a clear line of sight exists between the Radar, the illuminator and the target.
- Detection range depends on the actual bistatic deployment scenario (assumed illuminator to radar distance is at least 10 km)
- Quasi monostatic deployment (bistatic angle is zero)
- Depends on RCS fluctuation
- Probability of Detection (Pd) ≥ 90%
- The probability of detection in case of intentionally low RCS aircrafts can be higher due to the applied frequency range
- Target radial velocity is above 10km/h.
- Ranges are defined for clear weather conditions.
- In case of properly installed system

© 2026 Pro Patria Electronics. All rights reserved. This document may not be copied in any form without permission from Pro Patria Electronics. Information in this document is subject to change without notice. Pointer is a trademark of Pro Patria Electronics. All other trade and service marks are the property of their respective holders.



Pro Patria Electronics
 Konyves Kalman krt 12-14
 H-1097 Budapest, Hungary
 Tel +36 1 322 7010
 Fax +36 1 344 7020
 Web: www.propatria-inc.com