

GASR-3D 'Terrier'

COUNTER-UAS GROUND & AIR SURVEILLANCE RADAR

The GASR-3D 'Terrier' is the next generation of Counter-Loitering Munition/UAS/Drone solution.

BENEFITS

- ✓ Unique capability: Simultaneous aerial and ground target detection
- ✓ Used in V-SHORAD applications
- ✓ No moving parts, fully solid state
- ✓ Continuous real time detection and tracking, classification
- ✓ Compact and light weight
- ✓ Improved and ergonomic UI

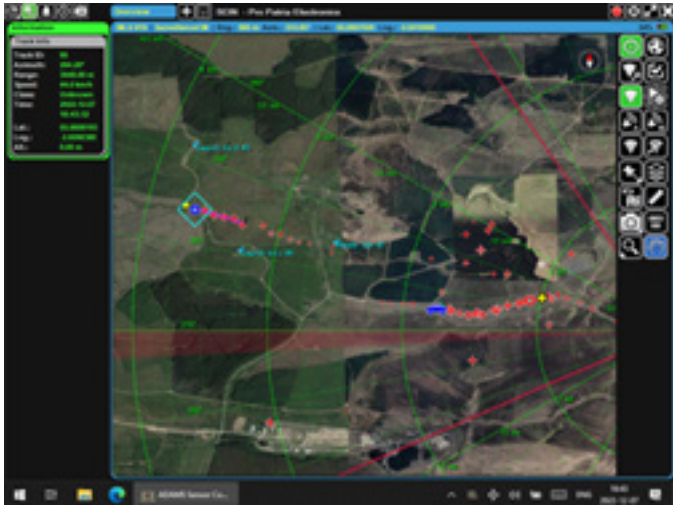
OVERVIEW

The Radar is capable to simultaneously detect, track and classify Loitering Munition, UAS/Drone, Helicopter, Aircraft and ground targets (humans, vehicles, tanks, etc..). In V-SHORAD configuration, the system detects and recognizes aerial threats and provides target information for the fire control system.

The principle of operation is Frequency Modulated Continuous Wave (FMCW) technology with DBF enabling high MTBF. It utilizes unique AESA transmitter. Low power and continuously changing frequency provides Low Probability of detection and Interception (LPI). The Radar utilizes multiple frequency channels in a wide frequency range to overcome the potential environmental disturbances and interferences and to adapt to the operating environment.

Embedded GPS and magnetic compass units are built-in for quick deployment. The Radar can be fixed deployed or portable due to its low weight and provides easy installation in hardly accessible locations. It is certified to withstand and operate in harsh environmental conditions and is suited for off-road vehicle transportation conditions.

The GASR-3D 'Terrier' is designed for easy integration with Command and Control Systems and can be interfaced via 1G Ethernet.



User Interface (ADAMS)



Processing Unit

TECHNICAL PARAMETERS

SURVEILLANCE AND DATA PROCESSING				TECHNICAL PARAMETERS	
Detection Ranges	Micro UAS	(RCS 0.01 - 0.05 m²)	2,5-3 km	Operation principle	FMCW - Doppler with DBF, AESA, AI
	Soldier	(RCS 1 m²)	6 km	Frequency Band	X Band
	(Road) Vehicle	(RCS 5 m²)	9 km	Transmitted Power	40 W
	Helicopter	(RCS 10 m²)	11 km	Input Voltage	28V DC
	Tank	(RCS 50 m²)	15 km	Cooling Method	Passive only
Azimuth Coverage	90° with DBF staring beams (single plate unit)			Interface	Ethernet
Elevation Coverage	80° with AESA Tx			Interface Protocol	ASTERIX, STANAG, Customer-tai- lored
Instrumented Range	4, 8, 12, 16, 26 km			Operating Temperature	-40°C to +55°C
Accuracy	Range: 4m Azimuth: 0.4° Elevation: 0.5°			Export Control Restrictions	no ITAR components
Minimum Detect- able Radial Velocity	1.0 km/h			Antenna Unit	
Minimum Detectable Range	50 m			Size	73 x 42 x 25 cm (single plate unit)
Track Update Rate	0.25 sec			Power Requirement	300 W
				Weight	23 kg
				Processing Unit	
				Size	43 x 13 x 38 cm
				Power Requirement	200 W
				Weight	12 kg
ACCESSORIES					
Operator unit with 230 VAC					
Power adapter					
Tripod (optional)					
Transportation cases					

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