



HENSOLDT SPEXER® 500

Surveillance Radar for Security Applications

SPEXER® 500 is a high performance radar for the surveillance of sensitive and protected areas such as camps, perimeters, infrastructures and borders.

Developed for security applications requiring a high situational awareness, this radar is able to automatically detect and classify ground and low flying air targets.

The highly portable SPEXER® 500 is part of the SPEXER® security radar family that has already proven its outstanding performance in integrated security systems in several regions of the world.

SPEXER® 500

Surveillance Radar for Security Applications

Main Applications and Capabilities

- FMCW X-band radar based on Digital Beam Forming (DBF) technology
- Surveillance of large areas and long distances
- High update rate
- High Doppler resolution
- Ready for operation in a network of multiple radars or in combination with cameras

Benefits

- Highly portable, low-weight and small size radar
- Very low radiated power: 4 Watt
- Low lifecycle cost and high MTBCF (>5,000 hrs)
High update rate ensuring very early warning/a high level of situational awareness

Features

- Detection, tracking and automatic target classification of even very small and slowly moving targets, e.g. pedestrians or UAVs with <math><0.01\text{ m}^2\text{ RCS}</math>
- High update rate (≤ 1.5 seconds for up to 120°) ensuring very early warning/a high level of situational awareness
- Very low average radiated power: 8 Watts
- Short lead time (can be delivered immediately on request)



Functional Data	SPEXER® 500		
Type	FMCW radar based on DBF technology		
Frequency	X-band		
Instrumented range	5.6 mi (9 km)		
Detection ranges (depending on the operation mode)	Pedestrian (0.5 m ² RCS)	3.1 mi	(5 km)
	Light vehicle (2.0 m ² RCS)	4.3 mi	(7 km)
	Truck (10.0 m ² RCS)	5.6 mi	(9 km)
	UAV (0.2 m ² RCS)	1.6 mi	(2.5 km)
	Light aircraft (3.0 m ² RCS)	4.7 mi	(7.5 km)
	Low-level helicopter (5.0 m ² RCS)	5.6 mi	(9 km)
Coverage	120° in azimuth 4° elevation beam width; +30° elevation trailing edge		
Dimensions	Width: 35.4 in (0.9 m), Height: 23.6 in (0.6 m), Depth: < 7.9 in (< 0.2 m)		