SensorTec

ST-7R3D
Precise 3D tracking Radar up to 7km

It is the smallest and the lowest power consumption radar that use MHT precision tracking technology

Features

- **SOFTWARE DEFINED**: Coverage prediction , Advanced tracking , AI-powered classification , API enabled.

- **JOINT FORCES**: Integration with: ECM/C-UAS , APS/VPS , Perimeter security.

- **ST-7R3D Software Defined**: Hi-tech devices need proper software to enhance their capabilities - our 3D radars come equipped with dedicated tools that guarantee robustness, provide reliability and build trust.

  The process starts with our Prediction Software which analyzes terrain and presents actionable information on optimum radar setup, locations and detection likelihood.

  Integrate through API with your C2 platform.

  Improve your combat readiness and effectiveness thanks to advanced AI-based tracking and classification algorithms.

Technical Specifications

DETECTION

Instrumented range	7 km
Minimum detection range	1 m
Maximum detection range	

Nano UAVS,	**RCS 0.01 m2**	2 km
Pedestrian,	**RCS 0.5 m2**	3 km
Light vehicle,	**RCS 2.0 m2**	5 km
Boat,	**RCS 5.0 m2**	7 km
Low-level helicopter,	**RCS 5.0 m2**	7 km

Range accuracy	10 m
Range resolution	6 m
Minimum/maximum target altitude	1 m/7 km
Coverage, azimuth/elevation	90°/45°
Frequency	X-Band
Technologies	AESA/MIMO
Tx output power (peak)	8 W

TRACKING AND CLASSIFICATION

Update rate	5 Hz
Technologies	MHT

Software features included in every ST-7R3D MIMO radar.

Computationally efficient Multiple Hypothesis Tracking.Tracker is used to convert single radar detection events into real targets and their motion models (tracks).

AI-powered target classification combined with traditional classification techniques.

OPERATIONS AND MAINTENANCE

Interface protocols	IEthernet
Input power	24 VDC
Power consumption	90 W
Dimensions (W x H x D, cm)	38 x 43.5 x 15
Weight	23 kg
Operation temperatures	-40°C - +65°C
Cooling method	passive
Ingress Protection	IP 66/IP 67
Enclosure	Rugged, milled aluminium, powder coated.
Mean Time Between Failure	50 000 hours
Operational availability	99%
Fault tolerant architecture	Remote monitoring, operational parameters adjustment and restart.