

## **ST-7R3D-R**

**Precise 3D tracking Radar up to 7km**

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

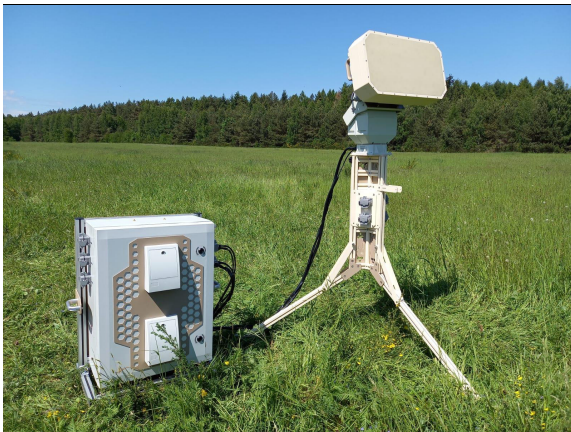
# Features

- **SOFTWARE DEFINED:** Coverage prediction , Advanced tracking , AI-powered classification , API enabled.
- **JOINT FORCES:** Integration with: ECM/C-UAS , APS/VPS , Perimeter security.
- **ST-7R3D-R 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

<b>Instrumented range</b>		7 km
<b>Minimum detection range</b>		1 m
<b>Maximum detection range</b>		
<b>Nano UAVS,</b>	<b>RCS 0.01 m<sup>2</sup></b>	2 km
<b>Pedestrian,</b>	<b>RCS 0.5 m<sup>2</sup></b>	3 km
<b>Light vehicle,</b>	<b>RCS 2.0 m<sup>2</sup></b>	5 km
<b>Boat,</b>	<b>RCS 5.0 m<sup>2</sup></b>	7 km
<b>Low-level helicopter,</b>	<b>RCS 5.0 m<sup>2</sup></b>	7 km
<b>Range accuracy</b>		10 m
<b>Range resolution</b>		6 m
<b>Minimum/maximum target altitude</b>		1 m/7 km
<b>Coverage, azimuth/elevation</b>		90°/45°(Rotating - 360 coverage)
<b>Frequency</b>		X-Band
<b>Technologies</b>		AESA/MIMO
<b>Tx output power (peak)</b>		8 W

## TRACKING AND CLASSIFICATION

<b>Update rate</b>	5 Hz
<b>Technologies</b>	MHT
<b>Software features included in every ST-7R3D MIMO radar.</b>	<p>Computationally efficient Multiple Hypothesis Tracking.Tracker is used to convert single radar detection events into real targets and their motion models (tracks).</p> <p>AI-powered target classification combined with traditional classification techniques.</p>

# Technical Specifications

## PAN / TILT UNIT

<b>Pan range</b>	360° continuous rotation
<b>Tilt range</b>	-45° to +45°
<b>Pan speed</b>	0.01° - 30°/S
<b>Tilt speed</b>	0.01° - 12°/S
	optional customized tilt angle can be ordered
<b>Ingress Protection</b>	IP 67

## OPERATIONS AND MAINTENANCE

<b>Interface protocols</b>	IEthernet
<b>Input power</b>	24 VDC
<b>Power consumption</b>	90 W
<b>Dimensions (W x H x D, cm)</b>	38 x 43.5 x 15
<b>Weight</b>	23 kg
<b>Operation temperatures</b>	-40°C - +60°C
<b>Cooling method</b>	passive
<b>Ingress Protection</b>	IP 66/IP 67
<b>Enclosure</b>	Rugged, milled aluminium, powder coated.
<b>Mean Time Between Failure</b>	50 000 hours
<b>Operational availability</b>	99%
<b>Fault tolerant architecture</b>	Remote monitoring, operational parameters adjustment and restart.



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