



ADRS-2020

ANTI-DRONE RADAR SYSTEM 2020



MAIN CHARACTERISTICS

Anti-drone Radar System 2020 (ADRS 2020) is a prestigious radar predestinated for observation of moving objects at ground, air and on the water at the range up to 45 km. Very low emitting power ranks this radar to the category of passive radars with wide range of implementation without a negative impact to the operators, humans and animals located within its operational range. It can be used for observation of flying targets, moving cars, motorcycles, pedestrians and ships in the determined or in the opened area. Thanks to these capabilities it can be used for defense of the strategic economic, military and other important government sites, military units, headquarters including military industrial complexes, air defense and missiles posts and for defense of military and commercial ships. ADRS 2020 can be used also by police units and special forces for safety of VIP while stationary or moving against potential attack from air, land and water. Thanks to very low emitting power the detection sensitivity of ADRS is so high that radar can detect even birds and for this can be also used for airport's safety against birds. ADRS 2020 is horizontally, 360° rotating radar with 2 emitting rays within the angle of 22.5° each. Combination of 2 radars gives capability of observation circle of 360° horizontally, 180° vertically and up to 45 km. Even though, radar can be adjusted for different observation tasks with elevation -25°. ADRS 2020 screens azimuth of the targets and their distance in less than 1.5 seconds intervals. Received information are transmitted to the Operator by cable or via ciphered radio-transmission. Besides this, ADRS 2020 can be affiliated with the Platform where the defense system for drone's destruction is cradled, together with thermal, optical and audio cameras. Platform can be also connected with the Digital Long Distance Telescope (DLDT 2020) for observation up to 19km distance and manual control of all associated system on it. In case that DLDLT 2020 is left off in the vertical position directed down than radar and Platform immediately start to work in automatic mode with all systems at the Platform. ADRS 2020 has capability to work in automatic and/or manual mode in the "open air" or within the designated areas such as defined "NFZ" (None Fly Zone).





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Radar is designed for observation from static, built-in posts (buildings), from mobile posts built in special vehicles (for objects which change their positions as for example units) and from moving vehicles or ships. The speed of such vehicles or ships can be up to 75km/h. Operation and control of the system is relatively simple. Readiness for the operation is in 10 to 20 min., depends on the tasks which will be fulfilled and level of crew's skill.

SYSTEM USAGE EXAMPLES

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VIP MEETINGS



POWER PLANTS



VIP CONVOYS



AIRPORTS



MILITARY SHIPS

TECHNICAL PARAMETERS RADAR ADRS 2020 :

Identification of the target size	from 0.01m ²
Coverage	elevation 00 (-25°) to +45°, azimuth 360°
Emitting power	200 mW
Frequency	9/20 GHz
Rotation in	1.5 sec
Minimum operation range	50m
Maximum operation range	45km
Minimum target height	4m
Maximum target height	4km
Minimum target speed	> than 0km/hour
Maximum speed of target	1200km/hour
Frequency zone	X-band
Antenna	Slotted
Size	280x490mm
Weight	8kg
Operating temperature	-25 to 55°C
Operating wind	114mph = 183k/h
Energy input	2W
Cooling	not obliged
Interface	Ethernet High Speed
Power supply	230 V
Battery with automatic charger	24 V
Operation time for one charge	12 hours

RANGES FOR RECOGNITION :

UAV/size of bird	from 0.01m ² up to 2km
UAV/	from 0.05 m ² up to 4 km
Pedestrian	0.5 m ² 17km
Vehicle	10 m ² 30km
Tank	20m ² 40km

RADAR RADIUS OPTIONS :

0.05-0.1-0.25-0.5-0.75-1-1.5-2-3-4-5-6-12-24-45km



PORTABLE OPERATOR CONTROL PANEL