TECHNICAL SPECIFICATIONS AND BASIC CHARACTERISTICS

MULTI-PURPOSE ROBOTIC, REMOTE CONTROLLED, UNMANNED VEHICLE 4X4

UGV-150 ISTAR

„UGV-150 ISTAR“ Multi-purpose robotic, remote controlled unmanned vehicle 4x4 designed for Land Forces and Special Operations Forces support in Ground Surveillance, Reconnaissance and Target Acquisition missions when deployed in theatre.

UGV-150 ISTAR can be a part of broader Ground Surveillance System configuration cooperating with air vehicles like UAV (rotary or fixed wing), Aerostats, Airships all through Ground Based C3 system within military unit formation. UGV-150 ISTAR serves as forwarded Surveillance, Reconnaissance and Target Acquisition tool in Land Forces combat support and can be carried to the deployment area on armoured vehicle board and remote controlled from any deployed Armoured vehicles or other vehicles in theatre. Equipped with Electrooptical head & Laser rangefinder can be effective supporter in multinational deployment in operations abroad as well as in peace time deployment within the territory of state.

Basic tactical and technical characteristics of modular robotic vehicle UGV-150

Empty weight:	30 kg – base model (with optional modifications 50 kg)
Operational weight:	150 kg (optional up to 300 kg)
Maximum payload:	120 kg (optional modification for up to 250 kg)
Vehicle operator:	1 (movement and observation/additional systems operator)
Vehicle operating staff:	2 (1 vehicle operator, 1 vehicle operation technician)
Vehicle length:	1150 mm
Vehicle width:	1100/750 mm
Vehicle height:	540 mm and more – according to specialized superstructure
Carrying area:	max. 343 cm^2
Wheel gauge:	930 mm – variable according to specific wheels
Ground clearance:	160 mm – variable according to selected tyres
Chassis type:	wheeled 4x4 configuration with rigid wheel mounting
Type of wheels:	hardened aluminium discs, rubber tyres - more variants
Electrical system:	Low-voltage system with DC electric motors (4 pcs)
Accumulator type:	Li-ion 8 Ah 24V accus. with series-parallel connection (9 pcs)
Connection type:	Special encrypted radio Wi-fi communication dual-channel

Running costs:	20,- EUR/mh
Additional equipment:	opto-electronic day TV camera, special universal data-logger, panoramatic fish-eye camera, special SW of image processing, outside environment and orientation sensors, FLIR camera, rigid manipulating arm, additional integrated sensor systems

Driving performance of modular robotic vehicle:

Powerplant:	4x direct-current electric motor with integrated gearbox
Engine performance:	1000W nominal output – max. 3-time overload (3 kW)
Drive transmission:	single-stage with direct gearing (gear ratio 1:20)
Maximum speed:	8 km/h up to 16 km/h
Off-road passability:	Overhang angle: 30°, Max. trench width: 0,3 m, Max. vertical wall height: 0,2 m
Maximum range:	3.000 m (in open space) / 600 m (in urban area)
Operating time:	2 hrs. of operation (full charge), optional expandable for 6 hrs.

Basic tactical and technical characteristics of ISTAR superstructure:

Weight	15 kg
Height	
Width	
Length	

Video Camera:

IR Camera

Laser Range Finder