SITARIA-M Fixed-Wing Unmanned System including the SITARIA aircraft and GCS

The SITARIA is a fixed-wing unmanned gasoline aircraft with fully automatic takeoff, landing and mission fulfillment.

Diagnostics, flight mission planning and remote control can be performed using wireless network connection.

Proprietary Autopilot.

The aircraft is designed with special proprietary aerodynamic scheme with quick change of the wing position relatively to the fuselage according to changing payload weight.

UAV empennage is out of the jet from propeller, that decreases aerodynamic drag and vibration.

Positive upsetting moment appears while deflecting of the directional rudders. This reduces required deviations of the ailerons. Aircraft controllability increases.

The specific weight of such empennage is minimal, which reduces the moment of inertia of the aircraft, thereby improving controllability.

Command link: up to 100 km
Video transmission: up to 60 km (optional)
The Iridium backup command link has an unlimited range.

UAVOS

APPLICATION

- Mapping
- Video surveillance and monitoring
- NDVI index measurement for agricultural purposes
- Payload (max. 10 kg)
- Radio link relay

SPECIFICATION

PHYSICAL	
Wingspan:	4.3 m
Empty Weight	27 kg
Length	2.8m
Engine type	Four-stroke
Engine start	Electric starter
Parachute	Ballistic
Minimum altitude of flight with laser altimeter	40 m
MTOW	38 kg

PERFORMANCE	
Cruising speed	80 km/h
Max speed	140 km/h
Stalling speed	60 km/h
Take-off speed (catapult)	65 km/h
Max. climbing capacity	5.0 m/s
Operational range (speed 80km/h)	900 km
Payload with full fuel tank	4 kg
Max payload	10 kg
Operational ceiling	5000 m
Endurance (payload 4kg)	12+hours
Fuel tank capacity	10l (7kg)

OPERATIONAL SPECIFICATION

Parameters	Value
Operating temperature:	from -20°C to +40°C
Takeoff and landing on runway: Required runway length :	Fully automatic from 600 m
Control modes: Main Assisted Emergency	Fully automatic Semi-automatic Automatic-emergency
Ground support equipment	Not required

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