

AQUARIUS MK II

TACTICAL VTOL UAV

The Aquarius MK II is a Vertical take-off and landing fixed-wing aircraft that adopts a modular design, supporting quick assembly/disassembly and easy carrying. It comes with standard fixed-wing modification components and camera fixtures.



Main features



Low acoustic signature



Deployable and operable by 2 man crew



Operational in harsh weather



Fully Autonomous with Failsafe



EMI/EMC proof



User friendly



Portable GCS and Handheld controller



Encrypted digital datalink



VTOL



Dual Payload for day and night

Ground Equipment

Ground Control Station

The ground control station consists of a portable, rugged laptop and a user-friendly controller.

Ground Data Terminal

Aquarius MKII System contains three different types of antenna:

| | |
|---------------------|---|
| Standard & Maritime | 15 km + High-gain directional antenna system. Allows for long distance flight. |
| Extended Tactical | 30 km + Medium range antenna system. Very light version, allows for operation in tactical conditions. |

Flight Modes

| | |
|--------------------|---|
| Automatic Take-off | Controls the Aerial Vehicle until it reaches a safe altitude before switching to the flight plan mode. |
| Flight Plan | Fully autonomous flight in which navigation is made by any number of 3D waypoints. Waypoint can create closed flight plan as well as single loitering point. Any waypoint property such as activity, loitering radius and direction, altitude can be changed at any time, both prior and during mission. Many alternative flight plans can be prepared. |
| Camera Guided | The Aquarius MKII follows camera area of view to provide the operator the best conditions for observation. |
| Loiter | When necessary, the Aquarius MKII can start to loiter immediately in its actual position. |
| Failsafe mode | UAV will initiate a return to home mode incase of signal loss, battery low |
| Autonomous landing | Initiates the landing of the UAV at a pre-determined landing point. |

High-performance EO/IR payload

Full HD-view of stationary or moving targets with 10x optical zoom

- Gyro-stabilised in both the PAN and the TILT axes and have a full 360 degrees of continuous horizontal and vertical motion.
- Digitally stabilized image for a better viewing experience.
- Payload movement and camera zoom features are entirely operated from the ground control station with use of a user-friendly controller.
- “Target Lock” function - allows the camera to observe a target area or object regardless of the UAV’s position.

Rapid deployment

- Flight readiness in under 10 minutes
- Fully automated take-off and landing

Technical Specifications for Aquarius MKII

| | |
|----------------------|---------|
| Endurace | 2 hours |
| Wingspan | 3200mm |
| MTOW | 24kg |
| Cruise speed | 22m/s |
| Wind Resistance | 12m/s |
| Service Ceiling | 6000m |
| Max takeoff altitude | 5000m |

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