

MRK1-8 Liberator

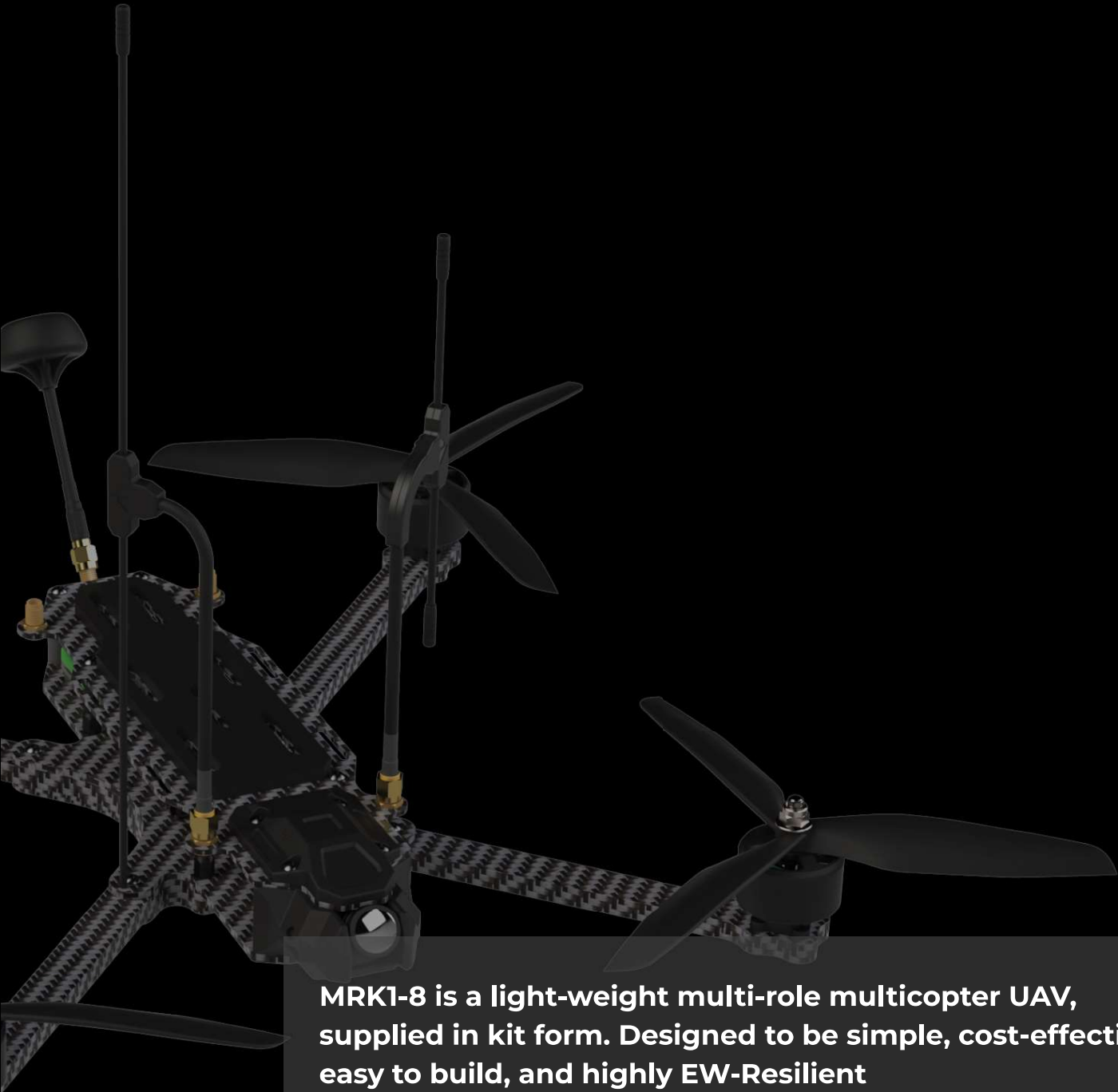
8" Multi-Role-Multicopter Kit Brochure

Not for public disclosure

2-Feb-2024



ORQA



MRK1-8 is a light-weight multi-role multicopter UAV, supplied in kit form. Designed to be simple, cost-effective, easy to build, and highly EW-Resilient

Fully NDAA compliant



Designed and Manufactured in the EU

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Description

MRK1-8 is a light-weight multi-role multicopter UAV designed and built for versatility, effectiveness, and cost efficiency.

Supplied in kit form, but with a full set of assembled, and pre-tested **NDAA-compliant** electronics. Designed to be assembled by unskilled personnel, with easy-to-follow instructions.

With a payload capacity of up to **1.5kg**, and a maximum range (with payload) of **>22km**, the **MRK1-8** is ideally suited to intercept, and take out hostile UAVs.

Designed to be assembled using simple hand-tools at home, in the country of deployment, avoiding complex customs import regulations.

Specifications

- Robust **carbon fiber** frame, with **6mm** carbon arms;
- **Triple 3030** stack mounting, future-proof for **Guidance Computer** and **Digital vTx**;
- **Injected plastic** parts for camera mount, GPS/Mag cover, and payload adapter;;
- Prop disc separated to clear larger payloads of up to **1.5kg**, with correct center of gravity placement;
- Dual-SubGHz Control link, **850-950MHz** and **400-490MHz** default options;
Other bands available on request, including the 600MHz and 700MHz bands
- spiroNET **5.5-6.0GHz** video transmitter antenna w/long 140mm cable;
- **MAVLINK** and **ATAK** integration (**Q2 2024**);
- Optional **GPS**, with integrated **magnetometer**, and auxiliary barometric **altimeter**;
- Motors: **2814, 880kV**;
- Props: **8 inch**, with **400mm** between diagonal motor axes;
- 30x30 **F405** Flight Controller with **Betaflight, iNav, Ardupilot**, and **PX4** options;
- 30x30 **60A** ESC with **AM32** firmware;
- Camera: **4:3, 1200TVL, 0.00001** Lux camera, FOV-D **125°**; (low light camera for night operations);
- Supported Batteries: Flexible top-plate accommodating up to **6s4p 16800mAh** **Molicels** for longer flights;
- 100% **conformally coated** electronics, for wet-weather operation;
- Integrated standard **MRM2/MRK1** bottom-mounted **payload adapter**;
- Frame weight: **350g** w/o electronics and motors, **??g** AUV;
- Flight time: **TBD** w/o payload;
- Est. Range:
 - **>30km** without payload, LOS
 - **>22km** with **1.5kg** payload, LOS



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