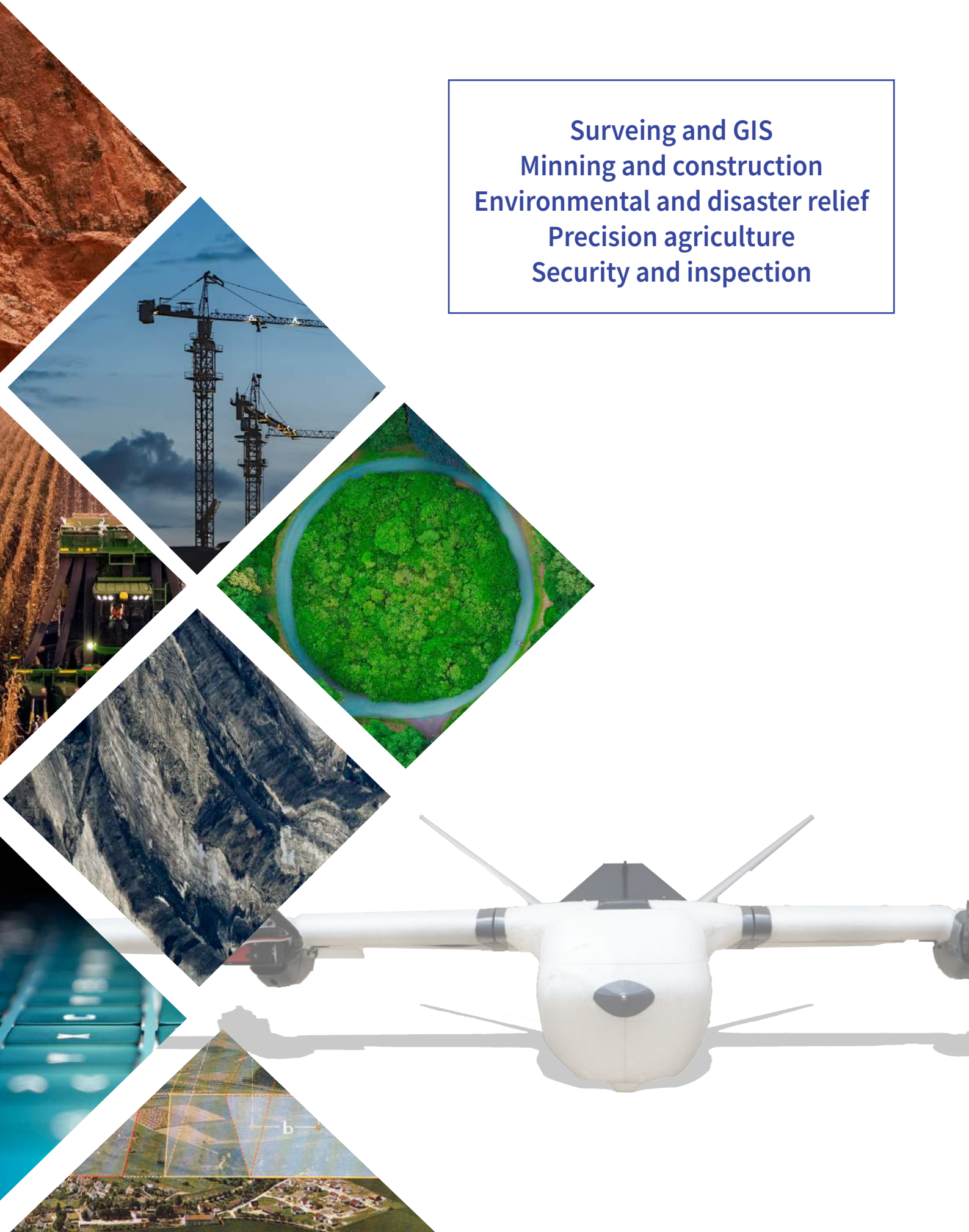


WINGQUAD₃



Surveying and GIS
Mining and construction
Environmental and disaster relief
Precision agriculture
Security and inspection



HIGH QUALITY, LOW COST, FIXED WING VTOL



WingQuad **3**

Resolution	down to 0.7 cm/px (0.3 in/px) GSD
-------------------	-----------------------------------

Accuracy	down to 1 cm (0.4 in) absolute accuracy
-----------------	---

Coverage	400 ha at 3 cm/px (988 ac at 1.2 in/px) GSD
-----------------	--

Hardware

Drone type	Tricopter VTOL (Vertical take-off and landing)
Max. take - off weight	5.2 kg (11.4 lb)
Weight (empty)	2.8 kg (6.2 lb)
Max. payload weight	600 g (1.8 lb)
Wingspan	1800 mm (5.9 ft)
Dimensions	1800 × 1300 × 280 cm (5.9 × 4.3 × 0.9 ft)
Autonomy	60 minutes
Forward Battery	16000 mAh Li-Ion High Endurance
Tricopter Battery	2200 mAh Li-Po 80C High discharge battery
Radio link	10 km, bi-directional communication data and video link
Onboard GPS	Double redundancy, using GPS, Glonass Galileo
Dimensions of travel case (Laser cut foam)	115 × 55 × 38 cm

Software & Tablet

Flight planning & mission control software	AirRails – LAS GCS. Intuitive planning and 3D capabilities. Flight monitoring and emergency commands capabilities: RTL, pause, add mission waypoints, etc.
Tablet (included)	Android tablet, ready-to-fly. Communication via Bluetooth to the radio controller to receive telemetry and video.

Operation

Operational cruise speed	16 m/s (57km/h)
Wind resistance	up to 36 km/h (10 m/s)
Min. space for take - off and landing	3 m × 3 m (9.1 ft × 9.1 ft)
Temperature range	-10° C to 40° C
Weather	No precipitation
Ground Control Points required	No (with PPK option)

Results

Coverage at 120m (400ft) *	320 Ha (790 ac)
Max. cover age **	24 km ² (9,2 mi ²)
Minimal ground sampling distance ***	Down to 0.7 cm/px (0.3 inch/px)
Mapping accuracy with PPK (w/o GCPs)	+ Absolute accuracy (RMS): horizontal: down to 1 cm (0.4 in); vertical: down to 2 cm (0.8 in) + Relative accuracy: horizontal: down to 0.003 %
Mapping accuracy w/o PPK (w/o GCPs)	+ Absolute accuracy (RMS): 3 to 5 m (9.8 to 16.4 ft) + Relative accuracy: horizontal 0.15 %

Payloads

Payload flexibility	Yes, interchangeable payload
Power supply	by flight batteries
Available cameras	+ Sony RX1RII / 35 mm lens, full-frame sensor, 42 MP, RGB + Sony QX1 20mm (optional 15 mm Voigtländer lens), APS-C sensor, 20 MP, RGB + Micasense Rededge, 5.5 mm, 5 × 1.2 MP, Multi-spectral camera + FLIR Duo Pro R640, 13 mm, 0.32 MP (thermal), 12 MP (visible), Thermal camera"

Telemetry / Remote Control

Frequency range Telemetry	2.4 GHz
Frequency range Remote Control	All countries 2.400 GHz - 2.4833 GHz
Transmission power Remote Control	100 mW
Max. range	10 km (6.2 mi) video and data transmission

* 2.8 cm/pixel (1.1 in/pixel), WingtraOne QX1 + 15 mm

** max. reconstructable area, 1950 m (6400 ft) flight altitude, WingtraOne RX1RII

*** For WingtraOne RX1RII. For WingtraOne QX1 1.4 cm/px (0.6 in/px) (depending on frontal overlap)

**** Country specific power settings according to local regulations

WingtraOne Remote Control

Module Name	T12 Radio Controller
Serial number	T12 channel
Main function	Remote Control for manual control, with data and video link. Includes 720p fpv camera
Frequency range	2.404-2.4833 GHz
Transmitting power	100 mW
Operation mode	FHSS (Frequency Hopping Spread Spectrum)
Typical max. range	10km (6 mi)

Technical Specifications Battery

Forward battery specifications

Module name	Forward Battery
Trade name	Lithium-ion-battery
Battery capacity	16000 mAh 6S 25.2 V
Battery type	Li-ion
Discharge rate	3C
Smart charging	Auto cell balancing
Battery dimension	150 × 95 × 60 mm
Battery weight	1500 g
Operating temperature	10°C - 50° C
Storage temperature (90% capacity recovery)	0°C - 25° C

Tricopter battery specifications

Module Name	Tricopter Battery
Voltage	6S 25.2V
Battery capacity	2200 mAh
Rated discharge	80C
Battery type	Li-Po
Max. continuous discharge	176 A
Battery dimension	105 × 50 × 33 mm
Battery weight	359 g
Operating temperature	10°C - 50° C
Storage temperature (90% capacity recovery)	0°C - 25° C

Technical Specifications Battery Charger

Product details

Module name	Ultra Power Charger
Charger type	Dual AC/DC Charger

Technical specification

Input Voltage AC	110-120 V / 220-240 V (manual switch), 50 / 60Hz
Input Voltage DC	11 – 18 V (optional, e.g. for charging from car)
Charge power	Dual charger 2 x 120 W (240W)
Modes	Charge / Storage / Balance
Charging types	Li-Po, Li-Ion, LiFe, LiHv, NiCd NiMH
Charging time	1 h aprox
Max. charge current	12 A
Charge end voltage	4.2 V per cell
Max. discharge current	5 A
Additional Outputs	USB 5V / 2.1 A
Dimensions	180 × 139 × 60 mm
Weight	1200 g

