SPECIFICATION

Aircraft		
Model	Drone-eco Pro	Drone-eco
Type	quadcopter, X-shape body, with foldable propellers	quadcopter, H-shape body, with foldable propellers
Control Method	vertical take-off & landing	
Structure	fully integrated, assembly free	quick assembly
Diagonal Distance	716 mm	618 mm
Dimension	564 x 564 x 360 mm (L x W x H)	450 x 424.3 x 290 mm (L x W x H)
Weight	5.15 kg (with battery); 2.35 kg (without battery)	3.2kg (with battery); 1.7 kg (without battery)
Payload Capacity	max. 1.4 kg	max. 0.8 kg
Max. Take-off Weight	6.55 kg	4.0 kg
Power Supply	Lithium polymer battery, one unit	
Battery Power	25,000 mAh, 6S, 26.1V	12,000 mAh, 6S, 26.1V
Battery Charging Time	approx. 1.5 h (@ 15 A)	approx. 1.2 h (@ 10 A)
Obstacle Sensing	forward 2-60 m, millimeter-wave radar detection	
Downward Laser Ranging	10 m, for precise landing control	
Max. Service Ceiling	4000 m ASL	
Working Height	typical 60-1000 m	
Cruising Speed	max. 12 m/s	
Endurance	(without payload/with single lens/with 5-lens)	
	approx. 80/70/60 min	approx. 60/50/40 min
Response Time	setup<3 min; packing<3 min	
Weather Limit	beaudfort scale 6	beaudfort scale 5
Operating Temperature	−20℃ ~ 50℃	
Environmental Humidity	90% condensing	
Ingress Protection Rating	IP 45	
Positioning System	dual redundancy design	
Airborne GNSS Module	GPS + Glonass + Galileo + Beidou tracking	
Differential Mode	GNSS RTK/PPK	
Data Refresh Rate	RTK: 100 Hz; PPK: 5/10/20 Hz optional	
Hovering Accuracy	H. 1cm+1ppm; V. 2cm+1ppm	
Positioning Accuracy	when fixed: H. 1cm+1ppm; V. 1.5cm+1ppm	
Relative Accuracy (XY/Z)	1-3x GSD / 1-5x GSD	
Single Flight Range	typical 50 km (@ 12m/s, with single lens)	typical 36 km (@ 12m/s, with single lens)
Single Flight Coverage	max. 6 sq.km (@ 10 cm GSD, with single lens)	max. 4 sq.km (@ 12 cm GSD, with single lens)
POS Data Storage	Micro SD card, 16 GB	
Download Interface	Micro USB	
Pilot Interaction	LED indicators & Web UI	
Remote Controller		
Datalink Mode	WiFi + type C + RD-link	
Internet Access	via external SIM card	
Control Frequency	2.4 - 2.483 GHz	
Communication Channel	≥12	
Radio Datalink Range	max. 30 km	
Transmitting Power	20 dBm @CE / 23 dBm @FCC	
Display Terminal	integrated with LED display, 7-inch, Android OS	
Working Time	6 - 20 h	
Hardware Option	upgradeable upon request	
Payload		
Connectivity	typical flange connector	
Power Supply	external, supplied by drone battery	
Trigger Exposure	flight control system triggering	
Time Synchronization	POS recorded while triggering	
Device Options	single lens, multi-lens, etc.	
Payload Option ①	S24, customized single lens, 24.3 MP, 25 mm lens, 266 g	
Payload Option ②	S42, customized single lens, 42.4 MP, 35 mm lens, full framer, 336 g	
Payload Option ③	T53P, customized 5-lens (45° lateral lens x 4, 35 mm; center lens, 25 mm), 120 MP in total, 750 g	
Payload Option ④	Q51,customized 5-lens (45° lateral lens x 4, 56 mm; center lens, 40 mm), 210 MP in total, 1.2k g	

Note: all information above is subject to change without any prior notice.

AERIAL EFFICIENCY

imaging sensor	single flight coverage (flight height & ground resolution)			
S24 (24 MP)	113 ha (@96m, 1.5cm GSD)	206 ha (@191m, 3cm GSD)	250 ha (@319m, 5cm GSD)	500 ha (@638m, 10cm GSD)
S42 (42 MP)	140 ha (@133m, 1.5cm GSD)	263 ha (@266m, 3cm GSD)	350 ha (@444m, 5cm GSD)	600 ha (@888m, 10cm GSD)
T53P (120 MP)	50 ha (@96m, 1.5cm GSD)	93 ha (@191m, 3cm GSD)	126 ha (@319m, 5cm GSD)	250 ha (@638m, 10cm GSD)
Q51 (210MP)	41 ha (@126m, 1.5cm GSD)	80 ha (@253m, 3cm GSD)	116 ha (@421m, 5cm GSD)	185 ha (@843m, 10cm GSD)

Note: the reference data shown above is computed according to the forward overlap 75%/80% (single lens/5-lens) and side overlap 60%/70% (single lens/5-lens) from approx. 45-50 min. effective flight for a survey zone with aspect ratio around 2:1 and at cruising speed of 12 m/s.

KOLIDA Professional's Choice

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KOLIDA Professional's Choice

FLY2MAP SERIES

Drone-eco Pro/Drone-eco

"Impressive is the ground control station software running on the integrated remote controller display. The survey-oriented flight plans and attentive safety control are tailor-made for drone pilots engaging in professional survey work. The well-balanced representation of aerial efficiency, mapping accuracy plus ease-of-use makes it a trustworthy UAV solution, yet it's fairly cost friendly. Believe it or not, you will find it much easier to train drone pilots than ever!" said Engr. Mayuan, a Chinese specialist dedicated to survey equipment R&D for nearly 30 years.

S24 (24 MP)
entry-level single-lens

S42 (42 MP)
single-lens full framer

T53P (120 MP)
integrated multi-lens

Q51(210 MP)
multi-lens full framer

SKYSOLUTIONS

(V. 2021AUG)

▶▶▶ Drone (aerial zone)

- highly integrated aircraft, **assembly free** and ready to use after unpacking
- fully autonomous operation after proper settings, **no pilot control required**
- **direct geo-referencing** with accurate POS data delivered by airborne RTK/PPK
- millimeter-wave radar that provides **intelligent obstacle avoidance** against flight safety
- a lightweight but efficient unit that enjoys **much longer endurance**
- **a variety of payload** options available for diverse needs
- **optimized precise landing** controlled by downward laser ranging

▶▶▶ Fly2Map Pilot (ground station software)

- display interface integrated with remote controller, **no tablet or laptop required** for ground control
- **survey-oriented flight plans** specifically made for professional aerial mapping
- compulsory pre-flight **checklist that guarantees no improper use**
- **one-key return-to-home** command in case of emergency
- **auto return-to-home** function enabled by challenging conditions
- **terrain-following option** ready for rugged terrains
- possible to **start with last waypoint to continue** the mission
- progress bar that vividly **illustrates flight duration and battery percentage**

Drone-eco

Drone-eco Pro

▶▶▶ Fly2Map Manager & Fly2Map Cloud (process & control software)

Fly2Map Manager

- mission planning
- GCPs planning
- flight assignment
- PPK processing
- raw data quality check
- POS data editing
- raw data integration
- coordinate transformation
- 3-dimension measurement

Fly2Map Cloud

- web user interface
- user management
- flight records
- realtime trajectory
- flight logs
- monitoring & statistics
- maintenance memo
- cloud platform control
- customization available