

# EXPLORE1

## High Accuracy Drone



Designed by Skycatch,  
Manufactured by DJI

### MAPS & POINT CLOUDS IN 30 MINUTES

Dual-frequency GNSS RTK enables 5cm accuracy

### FULLY AUTONOMOUS

Takeoff, flight, and landing controlled by easy-to-use Skycatch flight app

### DUAL-CAMERA DATA CAPTURE

Simultaneously capture with Skycatch camera and any DJI gimbaled camera

### DESIGNED FOR INDUSTRIAL ENVIRONMENTS

Carbon-fiber DJI Matrice M100 airframe protected by custom high tensile strength polycarbonate shell for maximum durability

### INDUSTRY'S SHARPEST CAMERA SYSTEM

Skycatch Sync1 camera system features a high-resolution 20MP camera which has an ultra-fast mechanical shutter that captures at 1 picture per second, or twice the speed of existing solutions

### CENTIMETER-ACCURATE GEO-POSITIONING

Skycatch Air1 onboard computer ties together the positioning from the high-precision GPS and the timing from the high-res camera, so you know exactly where each photo was taken to within centimeter-level accuracy

# EXPLORE 1 TECHNICAL SPECIFICATIONS



GNSS SYSTEM	
Horizontal PPK Accuracy	Up to 3 cm
Vertical PPK Accuracy	Up to 5 cm
MAPPING CAMERA	
Model	Skycatch Sync <sup>1</sup> Camera
Resolution	20 mp
Shutter Type	Mechanical
Shutter Speed	1/2000 s
Camera to GPS Sync	0.11 ms
SIMULTANEOUS GIMBALED CAMERA	
Models	DJI X3, XT, Z3

PERFORMANCE	
Navigation	Fully autonomous takeoff, flight and landing
Area Coverage Per Battery	30 acres @ 1 cm GSD 45 acres @ 1.5 cm GSD
Hovering Accuracy (P-Mode with GPS)	Vertical: 0.5 m Horizontal: 2.5 m
Max. Speed of Ascent	5 m/s
Max. Speed of Descent	4 m/s
Max. Wind Resistance	10 m/s
Max. Speed	22 m/s (ATTI mode, no payload, no wind) 17 m/s (GPS mode, no payload, no wind)
Hovering Time (with TB47D battery)	No payload: 17 min With Zenmuse X3: 14 min
PROPULSION SYSTEM	
Motor Model	DJI 3510
Propeller Model	DJI 1345s
ESC Model	DJI E SERIES 620D
STRUCTURE	
Protective Shell Body	Polycarbonate & ABS Plastic
Motor-to-Motor Distance	650 mm
Max. Takeoff Weight	3600 g

REMOTE CONTROLLER	
Operating Frequency	5.725~ 5.825 GHz 922.7MHz ~ 927.7 MHz (Japan) 2.400 ~ 2.483 GHz (Lightbridge)
Transmission Distance (unobstructed, free of interference)	CE: 3.5 km FCC: 5 km
EIRP	10dBm@900M 13dBm@5.8G 20dBm@2.4G
Output Power	9 W
Operating Temperature	10°C to 40°C
Battery	6000mAh LiPo 2S

BATTERY	
Model	TB47D
Capacity	4500 mAh
Voltage	22.2 V
Type	LiPo 6S
Energy	99.9 Wh
Net Weight	600 g
Operating Temperature	10°C to 40°C
Storage Temperature	<3 months: -20°C to 45°C 3 months: 22°C to 28°C
Charging Temperature	0°C to 40°C