



ZENMUSE L2

Powerful Range, Elevated Precision

Zenmuse L2 integrates frame LiDAR, a self-developed high-accuracy IMU system, and a 4/3 CMOS RGB mapping camera, providing DJI flight platforms with more precise, efficient, and reliable geospatial data acquisition.

**GENERAL**

Dimensions:	155×128×176 mm (L×W×H)	Weight:	905 ± 5 g
Environmental Protection:	IP54	Power:	28 W (typical) 58 W (max.)
Supported Aircraft:	Matrice 300 RTK (with DJI RC Plus) Matrice 350 RTK	Storage Temperature:	-20° to 60° C

SYSTEM PERFORMANCE

Detection Range:	450 m @ 50% reflectivity, 0 klx 250 m @ 10% reflectivity, 100 klx	Point Cloud Range:	Single return: 240,000 pts/s Multiple return: 1,200,000 pts/s max.
System Accuracy:	Horizontal: 5 cm @ 150 m Vertical: 4 cm @ 150 m	Real-Time Point Cloud Coloring Coding:	Reflectivity, Height, Distance, RGB

LIDAR

Ranging Accuracy:	2 cm @ 150 m	Maximum Returns Supported:	5
Scan Modes:	Non-repetitive scanning pattern Repetitive scanning pattern	FOV:	Repetitive scan: Horizontal 70° Vertical 3° Non-repetitive scan: Horizontal 70° Vertical 75°
Minimum Detection Range:	3 m	Laser Beam Divergence:	Hor 0.2 mrad Vert 0.6 mrad
Laser Wavelength:	905 nm	Laser Spot Size:	Hor 4 cm Vert 12 cm @ 100 m (FWHM)
Laser Pulse Emission Frequency:	240 kHz	Reference Aperture:	Effective Aperture: 23.85 mm (equivalent to circular)
Accessible Emission Limit (AEL):	233.59 nJ	Laser Safety:	Class 1 (IEC 60825-1:2014)
Max Laser Pulse Emission Power within 5 Nanoseconds:	46.718 W		

INERTIAL NAVIGATION SYSTEM

IMU Update Frequency:	200 Hz	Accelerometer Range:	± 6 g
Yaw Accuracy:	Real-time: 0.2° Post-processing: 0.05°	Pitch / Roll Accuracy:	Real-time 0.05° Post-processing: 0.025°
Angular Velocity Meter Range:	± 300 dps	Horizontal Positioning Accuracy:	RTK FIX: 1 cm + 1 ppm
		Vertical Positioning Accuracy:	RTK FIX: 1.5 cm + 1 ppm

RGB MAPPING CAMERA

Sensor:	4/3 CMOS, Effective Pixels: 20 MP	Shutter Count:	200 000
Lens:	FOV: 84° Format Equivalent: 24 mm Aperture: f/2.8-f/11 Focus Points: 1 m to ∞ (with autofocus)	Shutter Speed:	Mechanical Shutter 2-1/2000 s Electronic Shutter 2-1/8000 s
		Photo Size:	5,280 × 3,956 (4:3)

Still Photography Modes:	Single shot:	20 MP	JPEG Timed Interval:	0.7/1/2/3/5/7/10/15/20/30/60 s
	Timed:	20 MP	RAW/JPEG + RAW Timed Interval:	2/3/5/7/10/15/20/30/60 s
Video Codec and Resolution:	H.264		ISO:	Video: 100-6400
	4K: 3840×2160@30fps			Photo: 100-6400
Video Bitrate:	FHD: 1920×1080 @30fps			
	4K: 85Mbps		Supported File System:	exFAT
	FHD: 30 Mbps		Photo Format:	JPEG/DNG (RAW)
Video Format:	MP4 (MPEG-4 AVC/H.264)			

GIMBAL

Stabilized System:	3-axis (tilt, roll, pan)	Angular Vibration Range:	0.01°
Mount:	Detachable DJI SKYPORT	Mechanical Range:	Tilt: -143° to +43°; Pan: ±105°
Operating Modes:	Follow / Free / Re-center	Controllable Range:	Tilt: -120° to +30°; Pan: ±90°

DATA STORAGE

Raw Data Storage:	Photo/IMU/Point cloud/GNSS/Calibration files
Point Cloud Data Storage:	Real-time modeling data storage
Supported microSD Cards:	microSD: Sequential writing speed 50 MB/s or above and UHS-I Speed Grade 3 rating or above; Max capacity: 256 GB. Use the recommended microSD cards.
Recommended microSD Cards:	Lexar 1066x 64GB U3 A2 V30 microSDXC Lexar 1066x 128GB U3 A2 V30 microSDXC Kingston Canvas Go! Plus 128GB U3 A2 V30 microSDXC Lexar 1066x 256GB U3 A2 V30 microSDXC;

POST-PROCESSING SOFTWARE

Supported Software:	DJI Terra
Data Format:	DJI Terra supports exporting point cloud models in the following formats: PNTS/LAS/PLY/PCD/S3MB