Specs

General

Product Name	Zenmuse L2
Dimensions	155×128×176 mm (L×W×H)
Weight	905±5 g
Power	28 W (typical) 58 W (max.)
IP Rating	IP54
Supported Aircraft	Matrice 300 RTK (requires DJI RC Plus) Matrice 350 RTK
Storage Temperature	-20° to 60° C (-4° to 140° F)
General Operating Temperature	-20° to 50° C (-4° to 122° F)

System Performance

Detection Range	450m @50% reflectivity, 0 klx 250m @10% reflectivity, 100 klx Typical data. Measured using a flat subject with a size larger than the laser beam diameter, perpendicular angle of incidence, and an atmosphe of 23 km. In low-light environments, the laser beams can achieve the optimal detection range. If a laser beam hits more than one subject, the t transmitter power is split, and the achievable range is reduced. The maximum detection range is 500 m.
Point Cloud Rate	Single return: max. 240,000 pts/s Multiple returns: max. 1,200,000 pts/s
System Accuracy	Horizontal: 5 cm @ 150 m Vertical: 4 cm @ 150 m Measured under the following conditions in a DJI laboratory environment: Zenmuse L2 mounted on a Matrice 350 RTK and powered up. Using I Area Route to plan the flight route (with Calibrate IMU enabled). Using repetitive scanning with the RTK in the FIX status. The relative altitude wa m, flight speed to 15 m/s, gimbal pitch to -90°, and each straight segment of the flight route was less than 1500 m. The field contained objects v angular features, and used exposed hard ground check points that conformed to the diffuse reflection model. DJI Terra was used for post-proc Optimize Point Cloud Accuracy enabled. Under the same conditions with Optimize Point Cloud Accuracy not enabled, the vertical accuracy is 4 horizontal accuracy is 8 cm.
Real-Time Point Cloud Coloring Coding	Reflectivity, Height, Distance, RGB

LiDAR

Ranging Accuracy (RMS 1σ)	2 cm @ 150 m
	Measured in an environment of 25° C (77° F) with a subject of 80% reflectivity at a distance of 150 m. The actual environment may differ from th environment. The figure listed is for reference only.
Maximum Returns Supported	5
Scanning Modes	Non-repetitive scanning pattern, Repetitive scanning pattern
FOV	Repetitive scanning pattern: Horizontal 70°, Vertical 3° Non-repetitive scanning pattern: Horizontal 70°, Vertical 75°
Minimum Detection Range	3 m
Laser Beam Divergence	Horizontal 0.2 mrad, Vertical 0.6 mrad
	Measured at full width at half maximum (FWHM) conditions. 0.6 mrad signifies that for every 100m increase in distance, the diameter of the las expands by 6 cm.
Laser Wavelength	905 nm
Laser Spot Size	Horizontal 4 cm, vertical 12 cm @ 100 m (FWHM)
Laser Pulse Emission Frequency	240 kHz
Laser Safety	Class 1 (IEC 60825-1:2014)
Accessible Emission Limit (AEL)	233.59 nJ
Reference Aperture	Effective Aperture: 23.85 mm (equivalent to circular)
Max Laser Pulse Emission Power Within 5 Nanoseconds	46.718 W

Inertial Navigation System

IMU Update Frequency	200 Hz
Accelerometer Range	±6 g
Angular Velocity Meter Range	±300 dps
Yaw Accuracy (RMS 1σ)	Real-time: 0.2°, Post-processing: 0.05°
	Measured under the following conditions in a DJI laboratory environment: Zenmuse L2 mounted on a Matrice 350 RTK and powered up. Using [Area Route to plan the flight route (with Calibrate IMU enabled). RTK in the FIX status. The relative altitude was set to 150 m, flight speed to 15 r pitch to -90°, and each straight segment of the flight route was less than 1500 m.
Pitch/Roll Accuracy (RMS 1σ)	Real-time: 0.05°, Post-processing: 0.025°
	Measured under the following conditions in a DJI laboratory environment: Zenmuse L2 mounted on a Matrice 350 RTK and powered up. Using [Area Route to plan the flight route (with Calibrate IMU enabled). RTK in the FIX status. The relative altitude was set to 150 m, flight speed to 15 r pitch to -90°, and each straight segment of the flight route was less than 1500 m.
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
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
Shutter Count	200000
Photo Size	5280×3956 (4:3)
Still Photography Modes	Single shot: 20 MP Timed: 20 MP JPEG Timed Interval: 0.7/1/2/3/5/7/10/15/20/30/60 s RAW/JPEG + RAW Timed Interval: 2/3/5/7/10/15/20/30/60 s
Video Codec and Resolution	H.264, H.265 4K: 3840×2160 @30fps FHD: 1920×1080 @30fps
ISO	Video: 100-6400 Photo: 100-6400
Video Bitrate	4K: 85Mbps FHD: 30 Mbps
Supported File System	exFAT
Photo Format	JPEG/DNG (RAW)
Video Format	MP4 (MPEG-4 AVC/H.264 or HEVC/H.265)

Gimbal

Stabilization System	3-axis (tilt, roll, pan)
Angular Vibration Range	0.01°
Mounting	Detachable DJI SKYPORT
Mechanical Range	Tilt: -143° to +43° Pan: ±105° * Structural limit, not controllable range.
Controllable Range	Tilt: -120° to +30° Pan: ±90°
Operation Mode	Follow/Free/Re-center

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 capacit 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

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