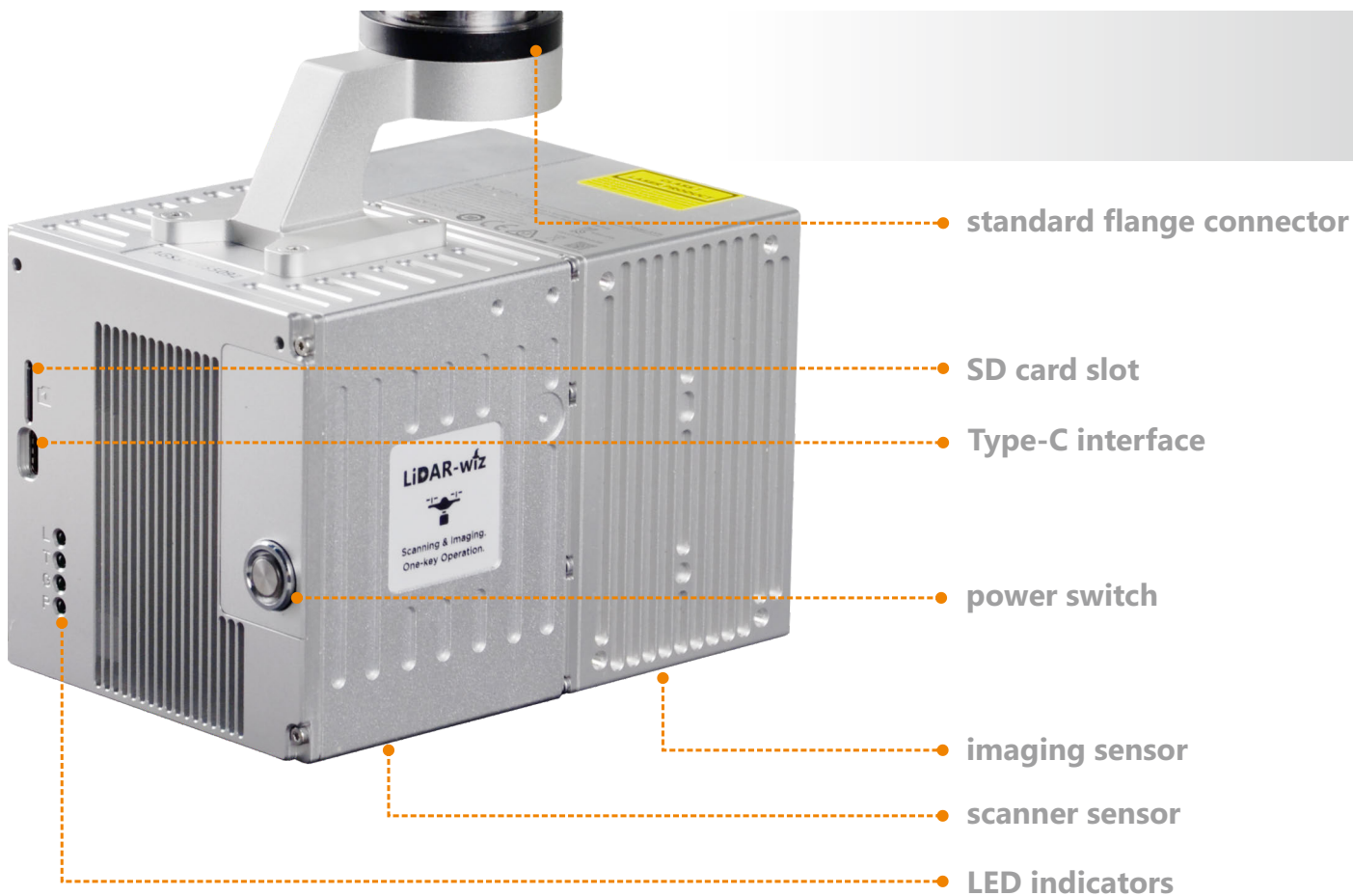


LiDAR-wiz





✓ FEATURES



toolless assembly designed for quick mount

centimeter-level accuracy to satisfy diverse needs



one-key operation for quick start to mission

well-balanced scanning/imaging FOV to meet efficiency



one-step process straight to colorized point cloud

✓ CARRIER

Platform A:

Drone-eco Plus

Dimensions (LxWxH):

450x424x290 mm **Endurance (with LiDAR):** approx. 25-30 min

Payload Interface:

flange connector

LiDAR-wiz to connect: ready to fit (as default)



Platform B:

Matrice300-RTK, DJI

Dimensions (LxWxH):

810x670x430 mm

Endurance (with LiDAR): approx. 25-30 min

Payload interface:

SkyPort PSDK

LiDAR-wiz to connect:

ready to fit (by PSDK)



✓ WORKFLOW



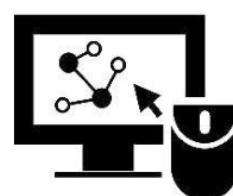
flight planning



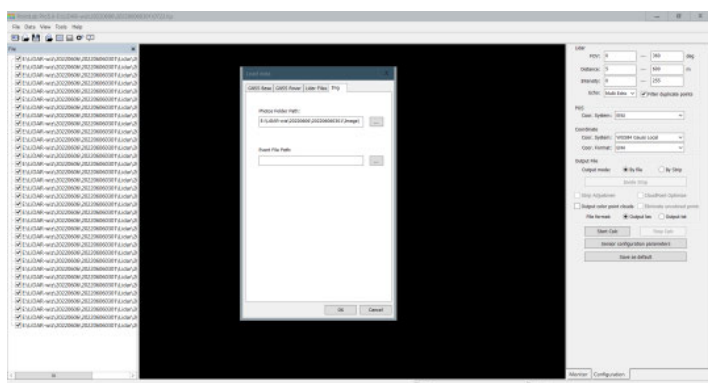
scanning & imaging



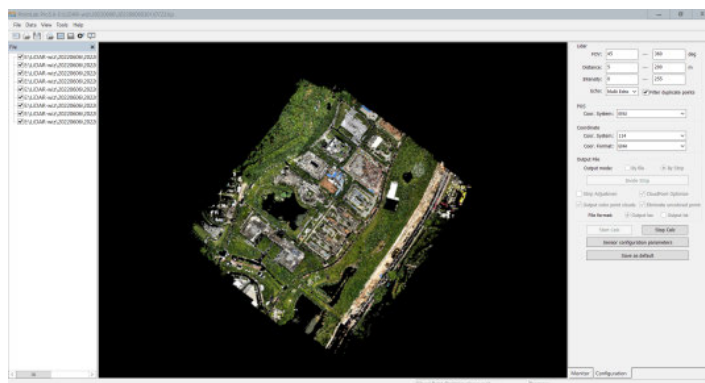
one-step processing



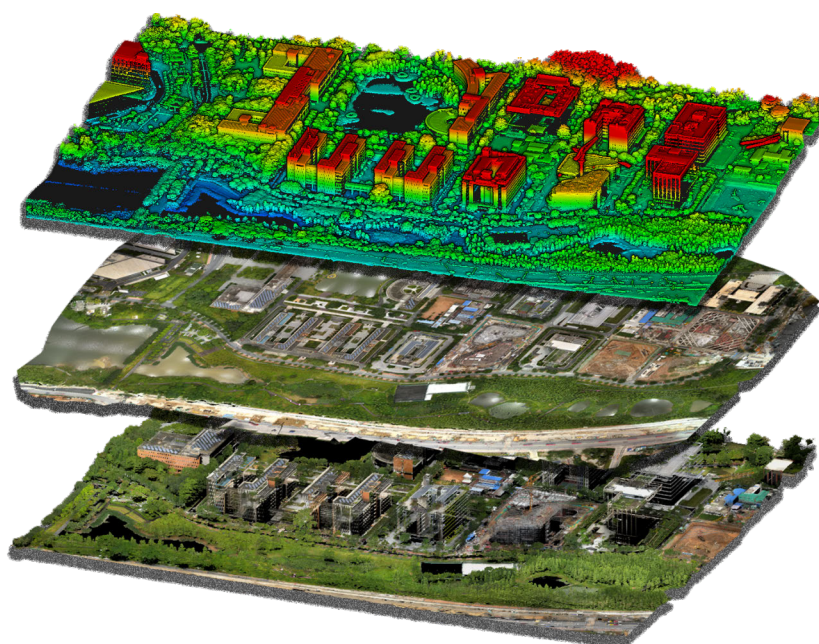
mapping & application



all raw data to import before process



colorized point cloud generated



●.....● Geo-referenced Point Cloud

●.....● Orthophoto Map

●.....● Colorized Point Cloud

SPECIFICATION

Model Code.....	LiDAR-wiz
Product Series.....	Scan2Cloud
Application Mode.....	UAV-based scanning & imaging
LiDAR Field-of-View.....	70.4°(H.)x77.2°(V.)
Net Weight (with camera)....	1.015 kg
Dimensions (LxWxH).....	155x92x93 mm
Power Supply.....	12-24 V
Power Consumption.....	20 W
Constellation Support.....	GPS L1/L2/L5; Glonass L1/L2; BDS B1/B2/B3; Galileo E1/E5a/E5b
Operating Temperature.....	-20~+55°C
Data Storage.....	SD card, 64 GB on board, 128 GB external
Positioning Accuracy.....	≤5 cm (H. 2 cm; V. 3 cm typical)
POS Refresh Rate.....	200 Hz
IMU Accuracy.....	pitch/roll 0.025°; heading 0.08°
UAV Interface.....	standard flange connector

Scanner Type.....	solid state sensor
Laser Safety.....	Class 1 (IEC 60825-1:2014)
Laser Wavelength.....	905 nm
Laser Channel.....	equivalent to 64-channel
Scanner Ingress Protection..	IP 67
Relative Accuracy.....	optimal 2 cm (1σ @ 20m)
Absolute Accuracy.....	≤10 cm @100 m
Number of Echoes.....	max. 3 returns
Measurement Rate.....	max. 720,000 points per second (in triple returns)
Measuring Range.....	max. 450 m @ 80% reflectivity
Scanning Height.....	typical 50-200 m, best below 150 m
Inbuilt Camera.....	26 MP, E17 mm
Imaging Field-of-View.....	83°
Triggering Mode.....	equidistance/isochronal
Carrying Case Size.....	155x92x93 mm



LiDAR-wiz, Scan2Cloud Series

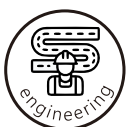


Drone-eco Plus, Fly2Map Series

AERIAL EFFICIENCY

flight height	imaging resolution	point density	absolute accuracy	aerial coverage
53 m	1.25 cm	approx. 200-300 pts/sq.m	≤5 cm	approx. 100 ha
64 m	1.5 cm	approx. 180-250 pts/sq.m	≤7 cm	approx. 120 ha
85 m	2.0 cm	approx. 150-230 pts/sq.m	≤10 cm	approx. 150 ha
106 m	2.5 cm	approx. 120-180 pts/sq.m	≤12 cm	approx. 180 ha
128 m	2.5 cm	approx. 100-150 pts/sq.m	≤15 cm	approx. 200 ha

Note: the data shown above is based on flat terrain conditions for job reference only, and the estimated coverage per flight is computed with 10m/s flight speed, horizontal FOV 77° and 30 minutes for a mission. Complex terrain of elevated areas or vegetated zones might reduce the work efficiency somehow. The point density varies greatly from reflective distance and reflective ratio of the target, moving speed of the carrier and air permeability. In case that colorized point cloud and orthophoto map are supposed to generate both, the aerial coverage will be accordingly decreased due to higher side overlapping or say, smaller strip interval to meet photogrammetry requirements.



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