SPECIFICATION

Model Code	LiDAR-wiz	Scanner Type	solid state sensor
Product Series	Scan2Cloud	Laser Safety	Class 1 (IEC 60825-1:2014)
Application Mode	UAV-based scanning & imaging	Laser Wavelength	905 nm
LiDAR Field-of-View	70.4°(H.)x77.2°(V.)	Laser Channel	equivalent to 64-channel
Net Weight (with camera)	1.015 kg	Scanner Ingress Protection	IP 67
Dimensions (LxWxH)	155x92x93 mm	Relative Accuracy	optimal 2 cm (1σ @ 20m)
Power Supply	12-24 V	Absolute Accuracy	≤10 cm @100 m
Power Consumption	20 W	Number of Echoes	max. 3 returns
Constellation Support	GPS L1/L2/L5; Glonass L1/L2; BDS B1/B2/B3; Galileo E1/E5a/E5b	Measurement Rate	max. 720,000 points per second (in triple returns)
Operating Temperature	-20~+55°C	Measuring Range	max. 450 m @ 80% reflectivity
Data Storage	SD card, 64 GB on board, 128 GB external	Scanning Height	typical 50-200 m, best below 150 m
Positioning Accuracy	≤5 cm (H. 2 cm; V. 3 cm typical)	Inbuilt Camera	26 MP, E17 mm
POS Refresh Rate	200 Hz	Imaging Field-of-View	83°
IMU Accuracy	pitch/roll 0.025°; heading 0.08°	Triggering Mode	equidistance/isochronal
UAV Interface	standard flange connector	Carrying Case Size	155x92x93 mm

LiDAR-wiz, Scan2Cloud Series

Drone-eco Plus, Fly2Map Series

LiDAR-wiz
Scan2Cloud Series

One-key Operation.
One-step Processing.

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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SKYSOLUTIONS

(V. 202206)

standard flange connector

SD card slot

Type-C interface

power switch

imaging sensor

scanner sensor

LED indicators

✓ WORKFLOW

flight planning ▶ *scanning & imaging* ▶ *one-step processing* ▶ *mapping & application*

Some Other Solutions ↓

- mission complete
  ↓
- data download
  ↓
- aerial trajectory process / photogrammetry process
  ↓
- geo-referenced point cloud generation / orthophoto production
  ↓
- colorized point cloud generation

Our Solution ↓

- mission complete
  ↓
- data download
  ↓

by importing all raw data (aerial positioning records, base observations, aerial images, etc.)

with software PointLab Pro

- colorized point cloud generation

Point LAB

all raw data to import before process

colorized point cloud generated
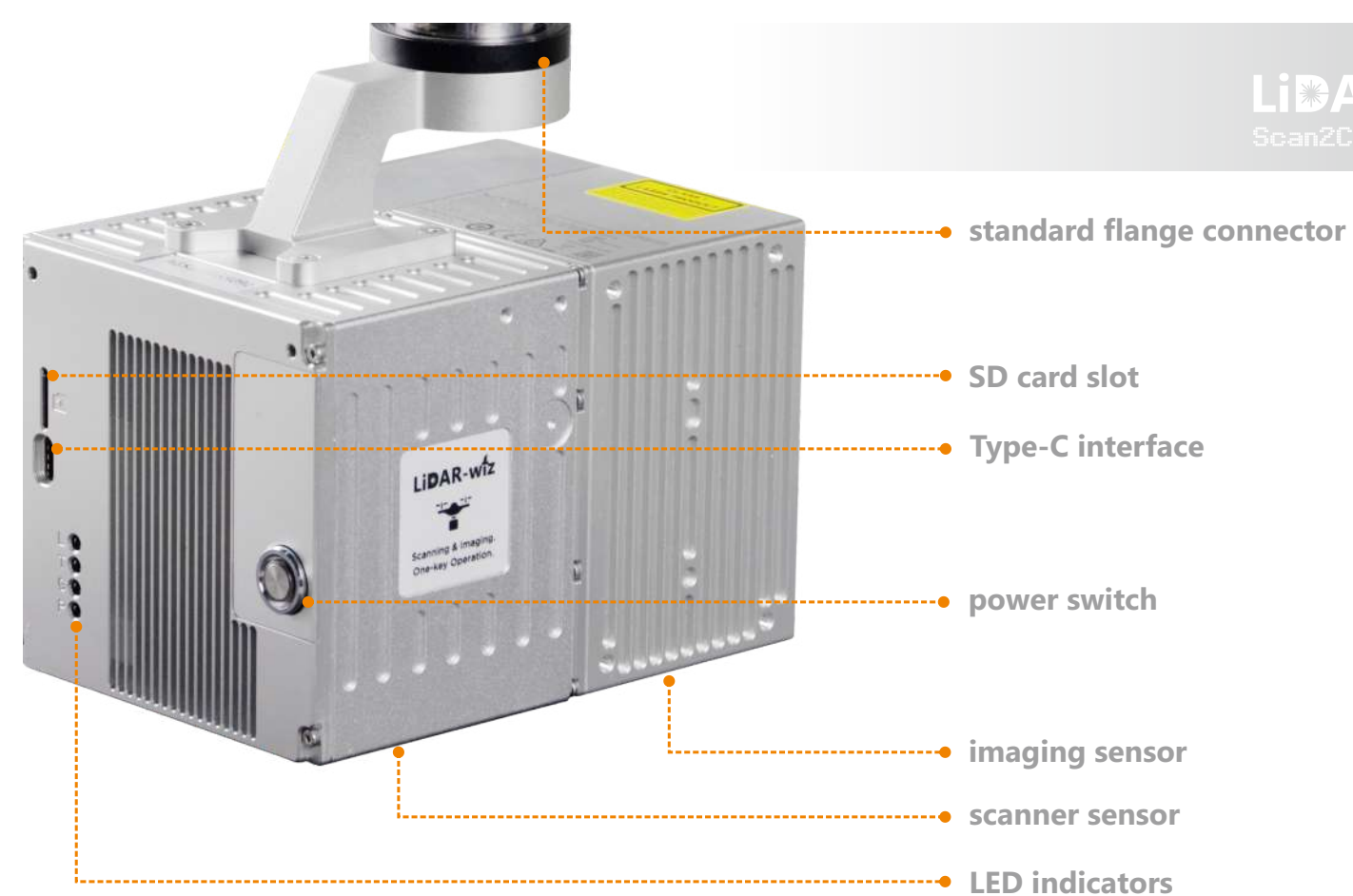
✓ FEATURES

- 🔧 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
- STEP 1 ▶ one-step process straight to colorized point cloud

Geo-referenced Point Cloud

Orthophoto Map

Colorized Point Cloud

✓ PLATFORM

Platform A:
Drone-eco Plus, Fly2Map Series
Dimensions (LxWxH):
450x424x290 mm
Endurance (with LiDAR):
approx. 25-30 min

Payload interface:
flange connector
LiDAR-wiz to connect:
ready to fit (as default)

👉 Official Recommendation

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)

👉 Extra Customization Needed