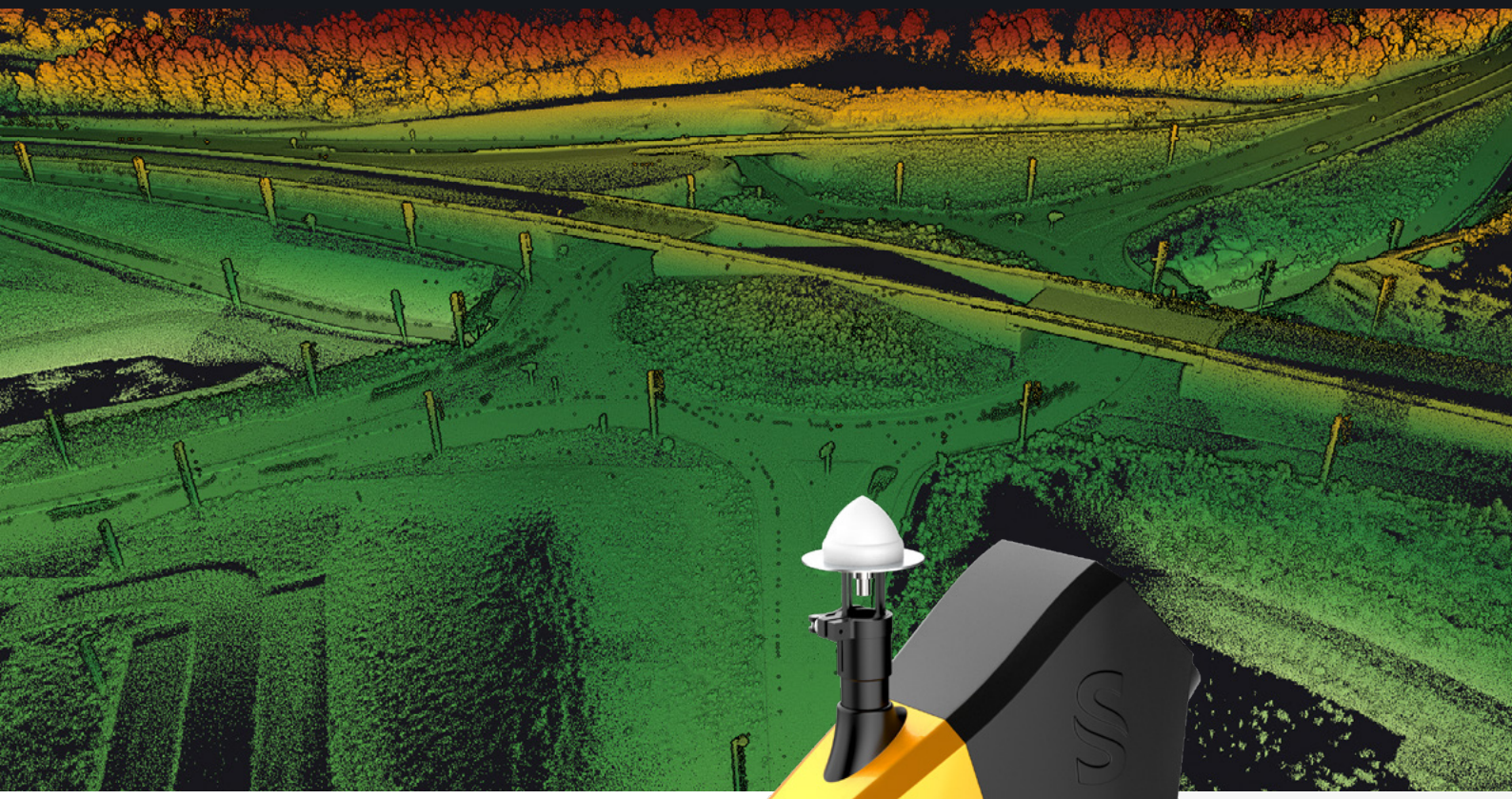


YellowScan Fly & Drive.

Fly when you can, Drive when you must.

The YellowScan Fly & Drive LiDAR solution is a versatile land vehicle-mounted or UAV-mounted mobile mapping system.

It combines high resolution laser scanning and accurate positioning to collect geo-referenced point clouds for a wide range of applications.

Key features

- Multi-purpose mobile (ground) and UAV (airborne) mapping system
- Precision positioning using high end GNSS and IMU coupled system
- Easy to use, lightweight, and low power consumption
- Installation on a wide variety of UAVs and vehicles with roofbars

Integrations

- Multi-rotor UAV
- VTOL UAV
- Land vehicle

System integration options.

LiDAR unit

LiDAR system [1]	Surveyor Ultra
Scanner	Hesai XT32M
Precision [2] [4]	2 cm
Accuracy [3] [4]	3 cm
Scanner field of view	360°
Typical range	Up to 100m
Shots per second	640 000
Typical driving speed	Up to 90km/h

IMU / GNSS

GNSS-Inertial solution	SBG Quanta Micro
Multiconstellation	GPS, GLONASS, GALILEO, BEIDOU
Dual dynamic model	Airborne / Mobile mapping
Antenna	GNSS L1/L2 survey grade

(1) For more information about each LiDAR system, please refer to their respective datasheets.
(2) Precision, also called reproducibility or repeatability, accounts for the variation in successive measurements taken on the same target.
(3) Accuracy is the degree of conformity of a measured position to its actual (true) value.
(4) Post-processed solution, without GNSS outage.

General specifications

Weight: Airborne config.	1.18 kg battery included
Weight: Mobile config.	5.6 kg battery included
Dimension: Airborne config.	L 160 x W 105 x H 140 mm
Dimension: Mobile config.	L 574 x W 315 x H 443 mm

LiDAR system
YellowScan
Surveyor Ultra

GNSS antenna
GNSS L1/L2
survey grade

Mounting bracket gremsy

Car pod
Aluminum chassis
and fiberglass
aerodynamic pod

LiveStation add-on
Real-time LiDAR
monitoring solution

Package configuration.

Open air

Ideally suited for mobile scanning scenario in open air area.

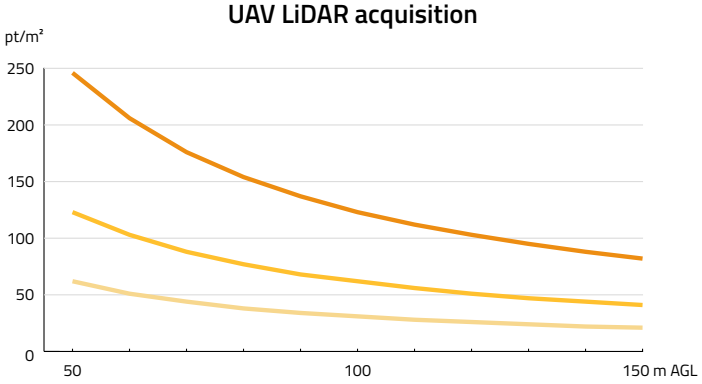
Canyon

Optimized for urban area with canyoning GNSS critical signal.

FLY&DRIVE PACKAGE	OPEN AIR	CANYON
LiDAR unit		
Surveyor Ultra	✓	✓
UAV & vehicle add-ons		
Universal Mounting bracket	✓	✓
Odometer (DMI)	Option	✓
Roofbars adaptor for Fly & Drive POD	✓	✓
Software included		
CloudStation Essential	✓	✓
LiveStation	✓	✓
Terrasolid TerraScan	✓	✓
Terrasolid TerraMatch	✓	✓
Qinertia Pro (GUI)	✓	✓
LiDAR Quanta Micro firmware	✓	✓
Typical scenarios		
Basic open area mobile scanning	✓	✓
Stop and Go (traffic lights)	✓	✓
Tunnels (GNSS denied areas) by car	✗	Up to 100m
Urban area with few canyoning GNSS	✓	✗

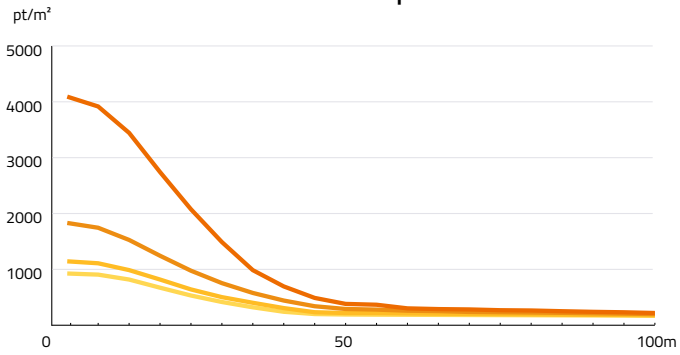
Typical mission parameters.

UAV LiDAR acquisition



	50 m	100 m	150 m
5 m/s	246	123	82
10 m/s	123	62	41
20 m/s	62	31	21

Car LiDAR acquisition



	5 m	10 m	20 m
30 km/h	1489	367	302
50 km/h	754	280	260
70 km/h	503	218	212
90 km/h	232	189	187

Dimensional drawings.

ⓘ Dimensions expressed in millimeters