Mapper Ultra

Technical Sheet

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Instrument details

Integrated Touchscreen interface	3.5''
2x CFExpress Storage	2x 512 Go
Press the yellow button to start the machine	

Technical specifications

GNSS inertial solution	SBG Quanta Micro
Precision (2) (3)	2.5 cm
Accuracy (2) (3)	2.5 cm
Typ. flight speed	10 m/s
Typ. flight height (5)	120 m
Max. rec. flight height	240 m
Point density	300 pts/sqm @ 50m AGL 10m/s
Laser range	640 m
Laser wavelength	1535 nm
Scanner field-of-view	75°
Max. data generated (4)	3 500 000 points/sec
Echoes per shot	7
Shots per second	500 000

Scanning frequency	50-250 lines per second
RGB camera	Embedded global shutter
Weight	1950 g (4.30 lbs) batt. excl.
	2174 g (4.80 lbs) with batt.
Size	L 25.1 x W 13.3 x H 14.7 cm
Battery autonomy	1 hour typ.
Power	10-34 V
Power consumption	50 W
Operating temperature	-10 to +40 °C

(1) Precision, also called reproducibility or repeatability, accounts for the variation in successive measurements taken on the same target.

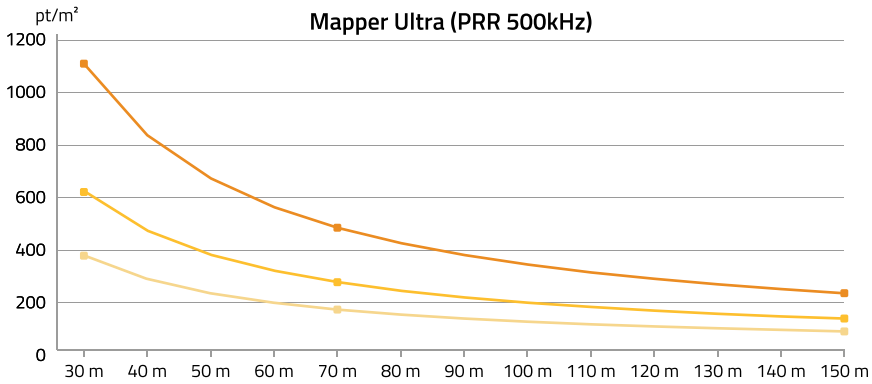
(2) Accuracy is the degree of conformity of a measured position to its actual (true) value.

(3) 1s@ 50 m, nadir.

(4) Theoretical maximum of points with all shots yielding the maximum number of echoes. May vary depending on flight and survey conditions, and surveyed environment.

(5) Maximum flight height varies depending on selected PRR. Value given at 100 kHz PRR.

Typical mission parameters



	30 m	70 m	150 m
10 m/s	1086	465	217
18 m/s	603	259	121
30 m/s	362	155	72

Point density (pt/m²)

Package includes

Hardware

- YellowScan Mapper Ultra
- 2 Batteries
- Rugged pelicase
- GNSS antenna and cable
- 2 CF Express Cards
- Documentation

Services

- 1-year warranty & unlimited technical support
- In-person or online training
- Boresight calibration certificate

Software

SBG Qinertia
Post-process GNSS and inertial data for highest

CloudStation Essential
Visualize, inspect, colorize from orthophotos, and export your data.

Optional accessories and enhancements

Hardware

- Stand-alone mounting bracket and quick release adapters
- YellowScan LiveStation: the real-time in-flight LiDAR monitoring kit (includes software & 2 radio-modems)
- Single- or Dual-camera modules (RGB)

Services

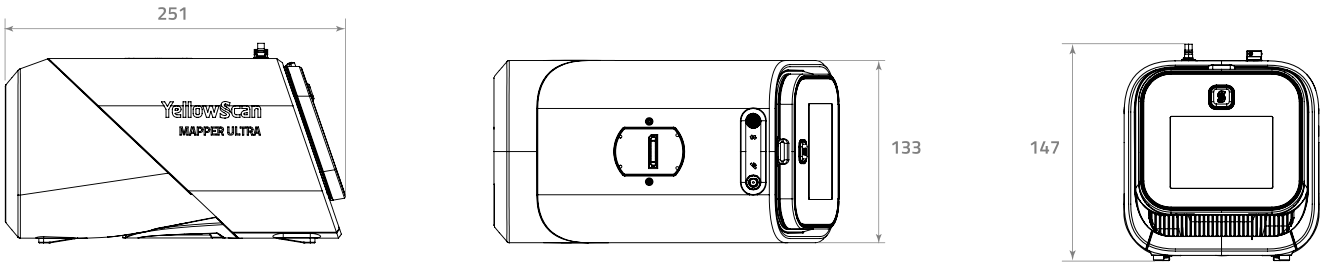
- Warranty and technical support extensions

Software

CloudStation Pro
Visualize, inspect, refine your data quality, enrich your data with classification and color, and unlock more export features.

CloudStation Ultimate
Zero compromise, all features activated. Includes Orthophoto generation and Command Line (ytk) processing for automation & batching.

Dimensional drawings



Dimensions expressed in millimeters

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