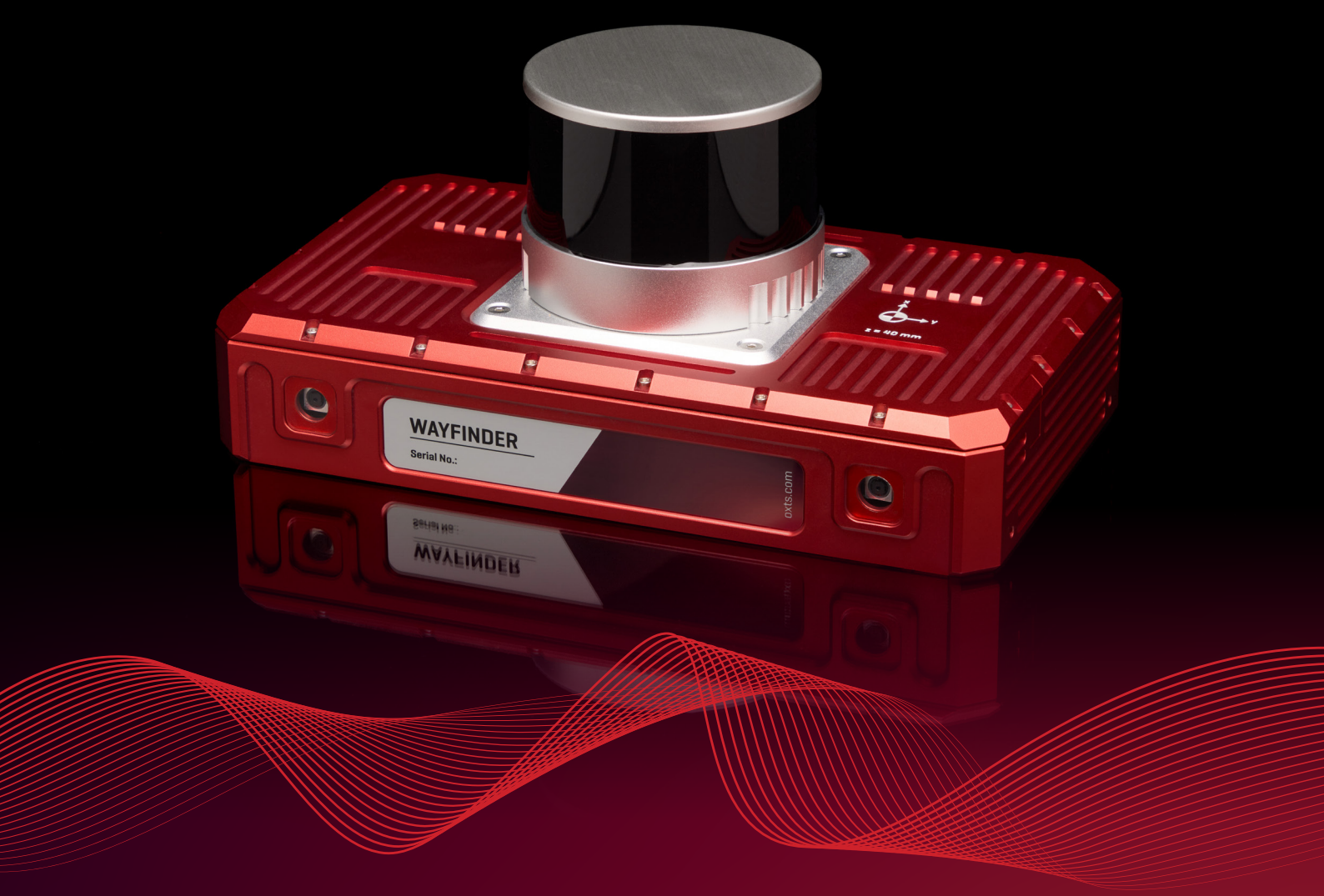


DATASHEET

WayFinder

Locate and navigate, where others can't

WayFinder is a multi-sensor navigation system for accurate localisation in challenging GNSS conditions.

Get accurate localisation out of the box, with GNSS, IMU, LiDAR and cameras pre-integrated for effortless localisation.

Key features:

+ Infrastructureless GNSS-denied navigation
+ Pre-integrated sensors with processing hardware
+ All sensors pre-configured for rapid out-of-the-box evaluation and deployment
+ Straightforward vehicle installation

OXTS

Technical Specification

Model	WayFinder
Positioning	GPS L1, L2C (QZSS) GLONASS L1, L2 BeiDou B1, B2 Galileo E1, E5
Antenna configuration	Single/Dual
Export controlled	No

Physical characteristics	
Input voltage	0-28 V dc
Power consumption	28 W
Dimensions	280 x 160 x 130 mm
Mass	3.25 kg
Internal storage	32 GB (INS) + 250 GB

Performance [1] [3] (RMS)	Without GNSS			With GNSS
	Real-time	Post-process	LiDAR map aided	Real-time
X,Y Position (RMS)	0.42 m	0.22 m	0.03 m	0.01 m
Position error as % of distance travelled	0.14%	0.07%	0.01%	N/A
Altitude (RMS)	0.30 m	0.13 m	0.03 m	0.01 m
Velocity (RMS)	0.13 km/h	0.06 km/h	0.05 km/h	0.05 km/h
Roll & Pitch (1σ)	0.03°	0.02°	0.02°	0.02°
True Heading (1σ) [2]	0.08°	0.05°	0.05°	0.05°

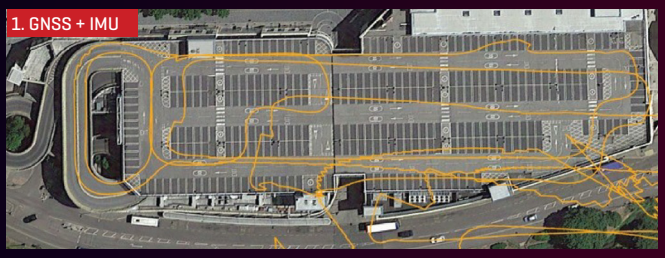
Interfaces	
Ethernet	3 x 10/100 Base-T
Serial	1 x RS232
Digital I/O	Quadrature wheelspeed input PPS/PTP output 2 x Trigger input/output

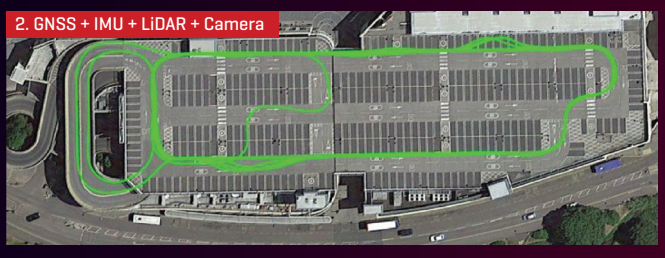
[1] With differential corrections and LiDAR odometry input
[2] With two-meter antenna separation
[3] 60 second GNSS outage

Example data

The data here was collected in a multi-storey car park. Example one uses position updates from GNSS and IMU, whereas example two adds LiDAR and camera updates.

Ten laps of the route were recorded.





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