

OxTS Survey

Hardware comparison guide



The following hardware comparison guide compares the key features of OxTS' survey-specific Inertial Navigation Systems.

For a more detailed overview of each product please refer to the applicable datasheet available for download from the OxTS website.



Performance	Survey+ v3	xNAV550	xNAV650
Overview	Our flagship INS for land-based mobile and manned aircraft mapping. Ideal for poor GNSS environments, such as dense urban areas.	Our high performance, lightweight INS. Ideal for a wide range of land-based and aerial survey applications.	Our smallest and lightest INS yet with the performance you can rely on. Ideal for drone and UAV based mapping applications.
Heading accuracy (1σ)	0.05°	0.1°	0.1°
Pitch/Roll Accuracy (1σ)	0.03°	0.05°	0.05°
Positioning	GPS L1, L2 GLONASS L1, L2 BeiDou B1, B2 Galileo E1, E5	GPS L1, L2 GLONASS L1, L2 BeiDou B1, B2 (optional)	GPS L1, L2C GLONASS L1, L2 BeiDou B1, B2 Galileo E1, E5
Position accuracy (CEP)			
DGPS	0.4 m	0.4 m	0.4 m
RTK	0.01 m	0.02 m	0.02 m
GNSS-outage drift (60 s)*	0.30 m	0.75 m	0.95 m
Board set available	No	Yes	No
Hardware			
Dimensions	184 x 120 x 71 mm	132 x 77 x 36 mm	77 x 63 x 24 mm
Mass	1500 g	395 g	130 g
Input voltage	10 - 48 V dc	10 - 31 V dc	5 - 30 V dc
Power consumption	14 W	9 W	4 W
Interfaces	Ethernet (x3), Serial (x3)	Ethernet, Serial	Ethernet, Serial
IP Rating	IP65	IP65	-

*This is for a mobile mapping vehicle using a wheelspeed sensor.

All three Inertial Navigation Systems have the same internal storage (32 GB), onboard data-logging rate (3 MB/s) and offer dual antenna as standard. Precision Time Protocol is also offered as an optional upgrade on all three.

All devices output the same data format and are used the same way with OxTS' complimentary post-processing software and OxTS Georeferencer.



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