

PinPoint™ range

Single-box navigation solutions
with 1 cm position accuracy

The PinPoint range of GNSS motion packs delivers highly accurate vehicle positioning and motion measurement, with full compatibility across the AB Dynamics track test ecosystem.

PinPoint motion packs can be configured to meet the specific requirements of your application. The compact PinPoint is ideal for ADAS and vehicle dynamics testing, while PinPoint Plus delivers enhanced accuracy for velocity, heading, and slip angle measurements. Engineered for demanding test environments, PinPoint Plus can also be specified with 16 g accelerometers to support durability and misuse testing.

Both motion packs provide 1 cm positional accuracy, combining quad-constellation GNSS receivers with high-performance inertial sensors to enable consistent, repeatable testing.



PinPoint Plus

Pinpoint



1 cm positioning accuracy by dual survey-grade quad-constellation GNSS receivers



High-accuracy, low-latency outputs using advanced calibration and algorithms



Integrated GNSS and IMU with advanced Kalman filtering maintains smooth, accurate positioning



Dual receiver mode available, enabling static initialisation and improving heading accuracies



Robust positioning by using four satellite constellations simultaneously



ITAR-free architecture for simplified global shipping



IP65-rated enclosure for protection against dust and water



ISO 17025 accredited calibration available

Specification

Performance	PinPoint	PinPoint Plus
Positional accuracy (RTK 1 σ)	0.01 m	0.01 m
Velocity accuracy (RMS)	0.1 km/h	0.025 km/h
Roll/pitch angle accuracy (1 σ)	0.05°	0.01°
Heading accuracy (1 σ)	0.1 (dual antenna w/ 2 m baseline)	0.04 (dual antenna w/ 2 m baseline)
Slip angle accuracy (1 σ)	0.25 (@ 50 km/h)	0.05 (@ 50 km/h)
GNSS	GPS L1, L2C GLONASS L1, L2 Galileo E1, E5b BeiDou B1, B2	GPS L1, L2C GLONASS L1, L2 Galileo E1, E5b BeiDou B1, B2

Hardware

Dimensions	142 x 77 x 41 mm	120 x 120 x 71 mm
Weight	435 g	690 g
Input voltage	10 - 31 Vdc	10 - 48 Vdc
Power consumption	<9 W	6 W
Operating temperature	-40 °C – 70 °C	-40 °C – 70 °C
Environmental protection	IP65	IP65
Output rate	100 Hz	100 Hz
Internal storage	32 GB	32 GB
Vibration	10-500 Hz 1.42 g RMS	5-500 Hz 7.00 g RMS
Ethernet	10/100 Base-T	10/100 Base-T
CAN	1 Mbit/s (optional)	1 Mbit/s (output)

Sensors – Accelerometers (MEMS)

Range	8 g	8 g or 16 g version available
In-run bias stability (1 σ)	0.08 mg	5 μ g
Scale factor (1 σ)	0.08 %	0.02 %

Sensors – Gyroscopes

Range	480°/s	490°/s
In-run bias stability (1 σ)	5°/hr	0.8°/hr
Scale factor (1 σ)	0.30 %	0.08 %

About AB Dynamics

AB Dynamics is a leading global provider of automotive test and verification solutions that facilitate the development of vehicles that are safer, more efficient and sustainable. As part of the AB Dynamics Group of companies we enable customers to develop and test in virtual environments, validate on the track and then evaluate vehicles on public roads.

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