PinPoint 2G
Economic solution for 2cm accuracy

Introduction

Optimised for use with AB Dynamics ADAS targets and driving robots, the Pinpoint 2G offers a compact and economic solution for 2 cm positional accuracy.

The Pinpoint 2G uses dual survey-grade GPS & GLONASS receivers and high-performance inertial sensors to give a single-box navigation solution that fits in the palm of your hand. Using industry-standard OxTS technology, the Pinpoint 2G has a plug-and-play Ethernet interface for use with AB Dynamics ADAS targets and driving robots. The precision of its low-latency outputs makes it ideal for path-following and general use on the proving ground.

Key advantages

- High-accuracy, low-latency outputs thanks to state-of-the-art calibration and advanced algorithms.
- Single-box solution – no need to connect multiple units together, meaning faster and simpler installation.
- Fully-integrated GPS and IMU using highly-sophisticated Kalman filters – copes with GPS outages without sudden positional jumps.
- Reliable plug-and-play Ethernet output to AB Dynamics ADAS targets and driving robots.
- Dual GPS receivers to give accurate heading angle even at low speeds or when stationary.
- Small size and low weight (0.435kg), easy to mount in the vehicle.
- Rugged (60g shock survival) and waterproof (IP65).
- Low cost.
- Includes cables, antennae and software.
- Perfect for use with AB Dynamics driving robots (including for path-following).
- Free of export restrictions – can be shipped worldwide without an export licence.
- CAN output available (optional).
# Specification

<table>
<thead>
<tr>
<th>Performance</th>
<th>Hardware</th>
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<tbody>
<tr>
<td>Position accuracy (RTK)(^1)</td>
<td>Dimensions 143 x 77 x 41 mm</td>
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<tr>
<td>Velocity Accuracy (RMS)</td>
<td>Weight 0.435 kg</td>
</tr>
<tr>
<td>Roll/pitch angle accuracy (1σ)</td>
<td>Input voltage 10-31 V dc</td>
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<tr>
<td>Roll/pitch range</td>
<td>Power consumption 12 W</td>
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<tr>
<td>Heading (yaw) angle accuracy (1σ</td>
<td>Operating temperature -40 °C to +70 °C</td>
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<tr>
<td>with 2 m antenna separation)</td>
<td>Environmental protection IP65</td>
</tr>
<tr>
<td>Heading (yaw) range</td>
<td>Output rate 100Hz</td>
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<tr>
<td>Slip angle accuracy (1σ at 50 km/h)(^2)</td>
<td>Shock survival 60g</td>
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</tbody>
</table>

### GNSS

- GPS & GLONASS L1, L2 for use with RTK base-station corrections

### Technology

- Accelerometers
- Gyroscopes
- Internal storage 32GB
- MEMS
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- Ethernet 10/100 Base-T with AB Dynamics interface
- CAN (optional) Up to 1Mbit/s

### Range

- 10 g
- 300 °/s
- 3 °/hr

### Bias stability

- 0.08 mg
- 0.05 %

### Linearity

- 0.05 %
- 0.05 %

### Scale factor

- 0.05 %
- 0.05 %

\(^1\) Horizontal position accuracy. Vertical accuracy approximately 0.03 m. Requires RTK fixed base station

\(^2\) Slip angle error is dependent on velocity, velocity accuracy and heading accuracy