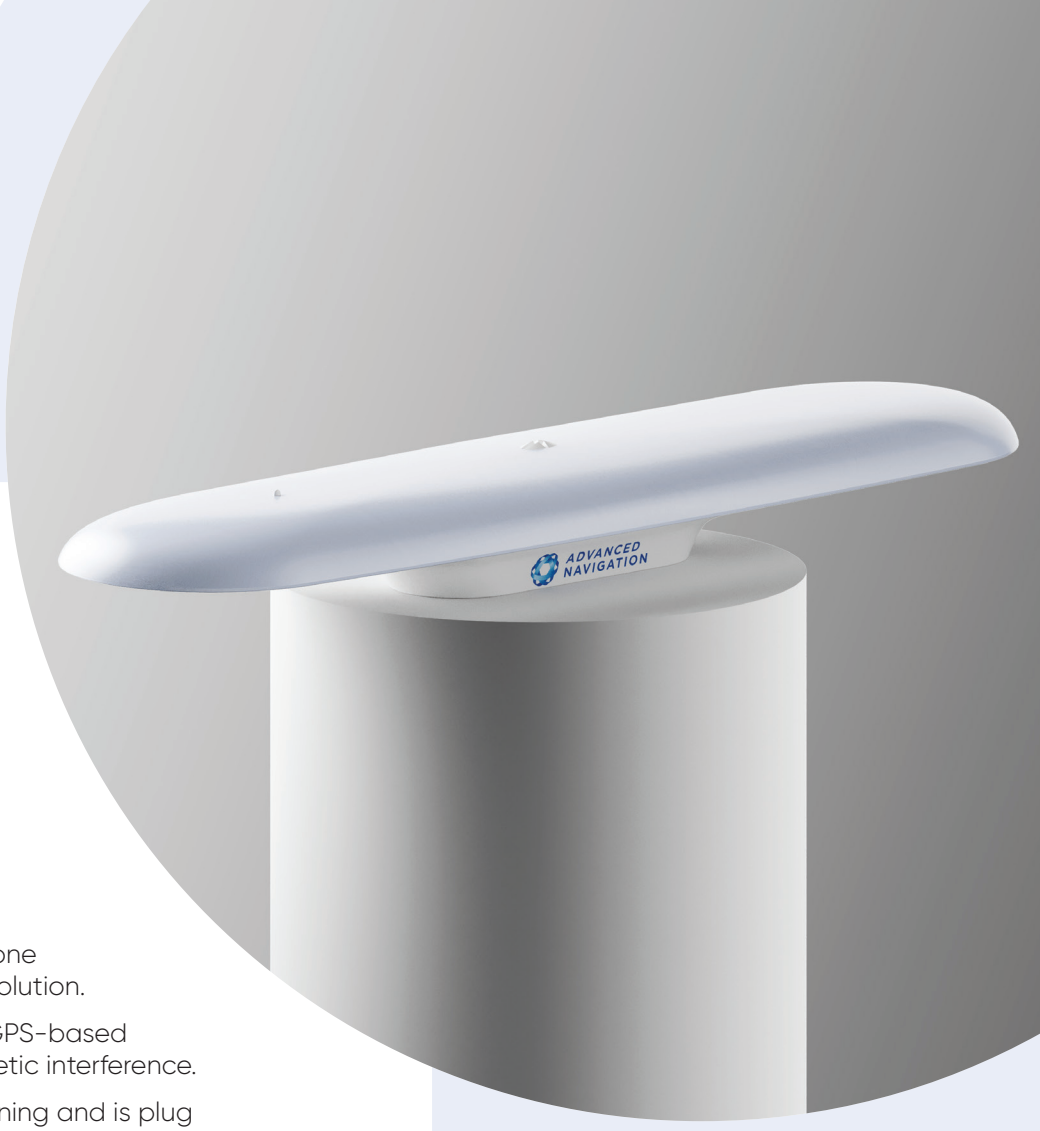
ADVANCED NAVIGATION




# GNSS COMPASS
## SATELLITE COMPASS

GNSS Compass is a low-cost all-in-one GNSS/INS navigation and heading solution.

It provides accurate dual-antenna GPS-based heading that is not subject to magnetic interference.

It features high accuracy RTK positioning and is plug and play with NMEA 0183, NMEA 2000, and Ethernet interfaces.

## PERFORMANCE

- 0.4 ° Roll and Pitch
- 0.2 ° Heading
- 0.01 m RTK Positioning
- Heave: 5 % or 0.05 m (whichever is greater)

## KEY FEATURES

- Dual Antenna Heading
- GPS, GLONASS, Galileo & BeiDou
- Ethernet & Serial Options
- Easy to interface with hydrographic packages

ITAR FREE

## APPLICATIONS

SEA
- Marine Navigation
- Hydrography

LAND
- Autonomous Agriculture
- Antenna Targeting

# SPECIFICATIONS

## NAVIGATION

| | |
|---|---|
| Horizontal Position Accuracy | 1.5 m |
| Vertical Position Accuracy | 2.0 m |
| Horizontal Position Accuracy (with RTK) | 0.01 m |
| Vertical Position Accuracy (with RTK) | 0.015 m |
| Velocity Accuracy | 0.05 m/s |
| Roll & Pitch Accuracy | 0.4 ° |
| Heading Accuracy | 0.2 ° |
| Heave Accuracy (whichever is greater) | 5 % or 0.05 m |
| Range | Unlimited |
| Hot Start Time (orientation) | 500 ms |
| Output Data Rate | Up to 200 Hz |

## GNSS

| | |
|---|---|
| Supported Navigation Systems | GPS L1, L2<br>GLONASS G1, G2<br>GALILEO E1, E5b<br>BeiDou B1, B2 |
| Acceleration Limit | 4 g |
| Hot Start First Fix | 6 s |
| Cold Start First Fix | 30 s |
| Heading Fix (after valid position) | 10 s |

## COMMUNICATION (Ethernet)

| | |
|---|---|
| Interface | Ethernet |
| Speed | 10 / 100 |
| Protocol | NMEA 0183<br>AN Packet Protocol<br>TSS1<br>Simrad<br>RTCM |
| Ports | Up to 4 TCP or UDP ports |
| Timing | PTP Server<br>NTP Server |
| Timing Accuracy (PTP) | 50 ns |
| Timing Accuracy (NTP) | 1 ms |

## COMMUNICATION (Serial)

| | |
|---|---|
| Interface | RS422 or RS232<br>CAN bus |
| Speed | 2400 to 1M baud |
| Protocol | NMEA 0183<br>NMEA 2000<br>AN Packet Protocol<br>TSS1<br>Simrad<br>RTCM |
| Timing | 1PPS Output |
| Timing Accuracy | 20 ns |

## HARDWARE (Ethernet)

| | |
|---|---|
| Power Input | Power over Ethernet (PoE)<br>802.3af or 802.3at |
| Power Consumption | 1.3 W |
| Operating Temperature | -40 °C to 85 °C |
| Environmental Protection | IP67 |
| Shock Limit | 75 g 11 ms |
| Dimensions | 672 x 190 x 73.9 mm |
| Weight | 1450 grams |

## HARDWARE (Serial)

| | |
|---|---|
| Operating Voltage | 9 to 36 V |
| Power Consumption | 1.4 W |
| Operating Temperature | -40 °C to 85 °C |
| Environmental Protection | IP67 |
| Shock Limit | 75 g 11 ms |
| Dimensions | 672 x 190 x 73.9 mm |
| Weight | 1450 grams |