



# Trimble BX992

## DUAL-ANTENNA HEADING RECEIVER WITH OPTIONAL INERTIAL NAVIGATION SYSTEM

The BX992 is a dual antenna GNSS receiver offering precise heading capability and multifrequency support for all known constellations. Additionally, with support for MSS L-Band OmniSTAR, Marinestar or RTX services, the BX992 delivers location without the use of a base station.

### GNSS AND INERTIAL TIGHT INTEGRATION

Taking advantage of Trimble's expertise in both GNSS and the optional Inertial technology, the Trimble® BX992 module has been designed for applications requiring continuous centimeter accuracy and heading in a compact package. By integrating inertial sensors on the same module, robust high accuracy positions and attitude/orientation are produced in all environments.

### TRIMBLE MAXWELL 7 TECHNOLOGY

The Trimble BX992 supports multi-frequency for the GPS, QZSS, GLONASS, BeiDou and Galileo constellations. As the number of satellites in the constellations grows, the BX992 is ready to take advantage of the additional signals. This delivers the quickest and most reliable RTK initializations for precise positioning.

For applications that do not require centimeter accuracy, the BX992 integrated GNSS-Inertial engine also delivers high accuracy GNSS, DGNSS positions in the most challenging environments such as urban canyons.

#### With the latest Trimble Maxwell™ 7 Technology, the BX992 provides:

- ▶ 2 x 336 Tracking Channels
- ▶ Trimble Everest Plus multipath mitigation
- ▶ Advanced RF Spectrum Monitoring and Analysis
- ▶ Proven low-elevation tracking technology

With the option of utilizing Marinestar or RTX services, the BX992 delivers varying levels of performance down to centimeter level without the use of a base station\*.

### MORE THAN JUST A GNSS RECEIVER

The Trimble BX992 integrates the latest in precision inertial sensors in a compact package of robust navigation solution, including:

- ▶ High update rate position and orientation solution
- ▶ Dual-antenna for rapid heading alignment
- ▶ Continuous positioning in GNSS denied environments with the optional INS option installed
- ▶ Lever arm calculation from antenna to navigation point of interest
- ▶ Robust Moving Baseline RTK for precision heading on moving platforms

### FLEXIBLE INTERFACING

The Trimble BX992 was designed for easy integration and rugged dependability. Customers benefit from the Ethernet connectivity available on the board. USB, CAN and RS-232 are also supported. Just like other Trimble embedded technologies, easy to use software commands simplify integration and reduce development times. An intuitive 3D interactive graphical web page allows easy input of lever arms. Dynamic and graphic models for various vehicle types can also be selected.

Different configurations of the module are available. These include everything from a DGPS L1 unit all the way to a four constellation triple frequency RTK unit. All features are password upgradeable, allowing functionality to be upgraded as your requirements change.

### Key Features

- ▶ Optional upgrade for onboard inertial sensor package integrated with GNSS for precise position and orientation
- ▶ Flexible RS232, USB and Ethernet interfacing, allowing high speed data transfer and configuration via standard web browsers
- ▶ Scalable accuracies up to centimeter level position accuracy
- ▶ Environmentally sealed IP67 with enclosure built to withstand harsh environments
- ▶ Small form factor makes it ideal for installation and use in applications where space is limited
- ▶ LED indicators on the receiver provide immediate performance feedback for Power, RTK Corrections, and satellite tracking status
- ▶ Trimble RTX and Marinestar Support



\* Check Marinestar and RTX subscriptions for Marine applications with your Trimble Marine dealer.

# Applications



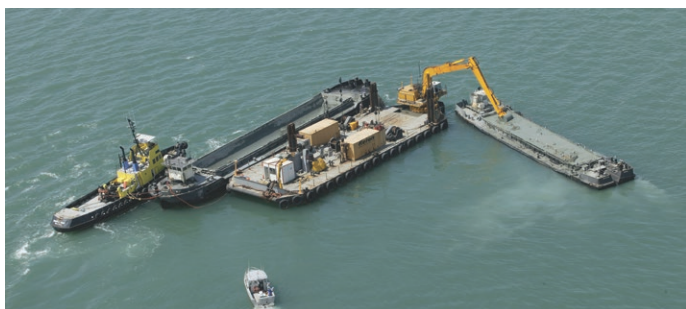
## Hydrographic surveying

Due to its compact size and precise heading capability, the Marine BX992 is a reliable and easy to use tool for hydrographic surveying. Not only it has simple User Interface (UI), but it is also durable and accurate (~1 cm, RTK; heading: better than 0.09° on short antenna baselines).



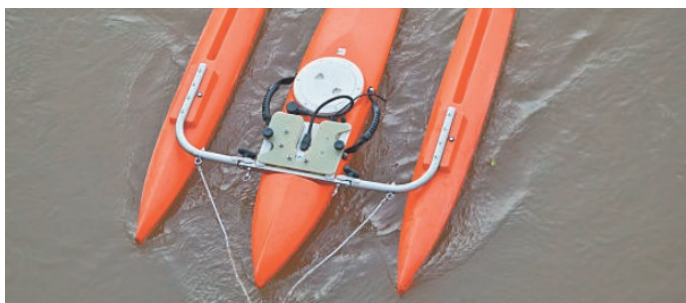
## Unmanned surface vehicle (USV)

The Marine BX992 supports all known constellations as well as MSS L-Band RTX and Marinestar corrections. Additionally, its small form-factor makes it ideal for use on lightweight unmanned surface vessels.



## Marine Construction

The Marine BX992 provides precise (.09°) RTK heading and positional accuracy to within 1-2 cm. Additionally, it tracks tugboats location <1m, heading accuracy to 0.75° transmitted over NMEA via radio. It also offers TMC dredge system integration option.\*



## Acoustic Doppler Current Profiler (ADCP)

Monitor water currents through inland waterways. When using a second antenna, get precise heading to 0.09° on short antenna baselines. The Marine BX992 also provides standard 30/30 accuracy and L-Band corrections.

\* Requires an ethernet switch when using SNM941 for internet connectivity

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