PIKSI MULTI FIRMWARE 2.4.15 RELEASE

December 11, 2020

Updates to Swift Navigation's Multi-Band, Multi-Constellation Centimeter-Accurate RTK GNSS Receivers

Overview

Swift Navigation is proud to release the latest firmware upgrade to the Piksi® Multi GNSS Receiver, its ruggedized version, Duro® and Swift's Inertial solution, Duro® Inertial. Firmware version 2.4 has improved urban canyon GNSS and GNSS/INS performance in terms of position accuracy and availability. It also introduces a heading forwarding feature that enables users to use two Swift receivers in a moving baseline heading pair, while receiving precise position and the latest heading from only one device.

In the Getting Started Guide, refer to Section 7 entitled Piksi Multi—Upgrading Firmware for detailed instructions on how to upgrade your device. Firmware release binaries and product support documents are available at support.swiftnav.com.

Changes from Firmware Version 2.3

Improvements to the Starling® Positioning Engine—Solution availability and accuracy have improved in all navigation modes.

Skylark™ OSR Support—Piksi Multi, Duro and Duro Inertial are now compatible with the OSR endpoint of Skylark, enabling widelane fixing in all areas where Skylark is available.

Heading Forwarding Feature—A new feature enables users to receive precise position and a heading or moving baseline estimate from only one receiver of a dual receiver moving baseline pair. Refer to the RTK Heading GNSS Compass Configuration article for setting details.

Improved Urban Canyon Performance—The GNSS positioning engine now provides more appropriate estimates of accuracy in heavy urban canyons. Additionally, Duro Inertial has much improved urban canyon navigation performance due to tuning and new development.

Stillness Detection and No-Sideslip Constraint—Duro Inertial has two new supported features that can greatly improve positioning and attitude estimation for some vehicles. Stillness detection automatically determines when a vehicle is at rest and avoids growth of IMU biases during that period. The No-Sideslip constraint can be used on some vehicles like cars that have nonholonomic dynamics.

Minor Bug Fixes

Swift Console

Together with the new firmware, a new Swift Console version 3.0 is also released. For the best experience Swift recommends users to upgrade the Swift Console before upgrading and using the new firmware.