ESTIMATION OF COORDINATES ACCURACY DETERMINATION BY EFT M3 GNSS AND EFT M4 GNSS SATELLITE RECEIVERS IN RTK MODE

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The paper presents the test results of satellite receivers EFT M3 GNSS and EFT M4 GNSS in Real Time Kinematic (RTK) mode. At ten points near the NSKW permanent operating base station, measurements were made in the RTK mode by the tested receivers and in the "static" mode by the Trimble 5700 receiver. In addition, the normal heights of points from leveling of class II with the N-05 level were determined. The points are removed from the base station at distances from 39 m to 1227 m. The accuracy was estimated by the differences of double non-equal measurements in the RTK and "static" modes. For additional control of the accuracy estimation in determining the heights, differences of normal and geodetic heights are used. The work shows that the mean square error of measurements in the RTK mode does not exceed 16 mm in plan and height. In RTK mode, modern GNSS receivers EFT M3 GNSS and EFT M4 GNSS can achieve a centimeter level of accuracy in determining the spatial coordinates of points. The errors of the tested receivers in RTK mode are comparable.

Key words: GNSS, RTK, statics, accuracy estimation, geometric leveling.

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