

Results of differential calibration of geodetic-type receivers at the SP

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1. General description of the calibration

This report concerns the calibration of the hardware delays incurred by time signals for different geodetic-type GPS systems operated at the SP in Borås.

The systems (receiver+antenna) are designated by a 4-letter acronym.

The link between acronym and actual hardware references may be found [here](#).

The results presented in Section 3 should be used for time transfer with other equipment calibrated using the same procedure. The standard uncertainty on such a link calibration is taken to be 5 ns (1 σ).

2. Calibration procedure

The calibration is a differential calibration with respect to a travelling receiver which is either a reference receiver from the BIPM or a receiver calibrated vs. a BIPM reference receiver. The BIPM reference receiver is presently BP0C, an Ashtech Z12-T (see [TM116](#) for the original calibration of the reference receiver).

The calibration operational procedure is available [here](#). Note that different versions of the document were used, depending on the epoch of calibration; see the annex “Revision history” in the most recent version.

3. Calibration results

Results are presented in a computation sheet which is available through the link in the column “Results P1-P2/ns”. Explanatory information on the computation sheet is available [here](#).

System	Period	Calib. dates	Reference	Results P1-P2/ns	Operations report
SP01	2009/02	54861-54866	BP0C	375.4 – 386.1 ¹	Report2009 SP.pdf

¹ Delay values include antenna cable.