

# GPS calibration of TP receiver at the PTB (1102-2017)

## Summary

In November 2017, GNSS equipment owned by the Institute of Photonics and Electronics, Czech Academy of Sciences (UTC acronym TP) was installed at the PTB and calibrated against the Group1 reference station PT02. The method of calibration is the “golden system calibration” which comprises just one period of data taking at the PTB.

The operation and report of measurements at the PTB are described in the [report by the PTB](#).

- **Final results for the calibrated systems**

The INTDLY values of the TP01 receiver given in Table 1 have been computed by the PTB based on the results of the [1001-2016](#) Group 1 trip for PT02 and should not be updated to reflect later changes in the conventional INTDLY values of PT02.

The uncertainty for a P3/PPP link or a C1 link involving TP01 is  $U_{CAL0} = 4.0$  ns at the time of calibration, as given conventionally to “golden system calibrations”.

Changes in the set-up of the receivers after the calibration must be accounted for as described in section A.3.6 of the most recent Calibration guidelines in <ftp://ftp2.bipm.org/pub/tai/publication/gnss-calibration/guidelines/>.

Table 1. Final P1/P2/C1 INTDLY values from the 1102-2017 trip. Values of REFDLY and CABDLY during the calibration are also indicated for reference, see note 1 (all values in ns). “Meas. Date” refers to the first day of the differential calibration, to which the calibration results can be applied. “Impl. Date” is the MJD when the results should be implemented in the receiver.

System	BIPM	Meas. date	INTDLY P1	INTDLY P2	INTDLY C1	REFDLY	CABDLY	Note	Impl. date
TP01	TP01	2017/11/20	<b>13.5</b>	<b>17.6</b>	<b>14.6</b>	28.5	205.0	(1)	58151

Notes:

(1) The REFDLY and CABDLY values represent the set-up during the measurements at the PTB.

### Version history

V1.0 2018/01/30: Publication of results from V2 of the PTB calibration report, to be implemented in TP01 receiver: IMPLEMENTATION DATE = MJD 58151.