



## CALIBRATION CERTIFICATE 10/2015

## Astrogeodynamical Observatory Space Research Centre (SRC) certifies that:

- From September 21<sup>st</sup> 2015, 00:00 UTC, till October 04<sup>th</sup> 2015, 10:38 UTC the following set of instruments supplied by:

Piktime Systems Ltd company having its registered office at: Cytrynowa 22, 62-002 Poznań, Poland

was calibrated by a **Common View** method at the Time and Frequency Laboratory of the Observatory:

- TTS-5 receiver, s.n. 1003,
- RingAnt–G3T antenna, sn. 00647,
- RingAnt-G3T antenna, sn. 00640,
- Antenna cable assembly (TTS5-1003).
- The calibration was carried with respect to the main GPS/GLONASS s.n. 112 TTS-4 receiver at the Observatory.
- The s.n.112 receiver was several times calibrated against traveling receivers from BIPM Time Section.

## The calibration yielded the following results:

- Differential delay of the calibrated receiver for RingAnt-G3T antenna, sn. 00647:

GPS, L1C: -41.13, RMS: 0.50 ns

GLONASS, L1C: -250.64, RMS: 1.09 ns

- Differential delay of the calibrated receiver for RingAnt-G3T antenna, sn. 00640:

GPS, L1C: -40.51, RMS: 0.43 ns

GLONASS, L1C: -250.41, RMS: 1.14 ns

- Antenna cable assembly TTS4-1001: 205.90, RMS: 0.5 ns

After the calibration, the results obtained for RingAnt-G3T sn. 00647 antenna were implemented into the receiver.

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