



SPACE
RESEARCH
CENTRE
POLISH
ACADEMY
OF SCIENCES

Borowiec, 02.09.21

CALIBRATION CERTIFICATE 08/2019

Astrogeodynamical Observatory Space Research Centre (SRC) certifies that:

- From June 01st 2019, 00:00 UTC, till June 6th 2019, 00:00 UTC the following set of instruments supplied by:

Piktime Systems Ltd
company having its registered office at:
Mazowiecka 59, 60-623 Poznań, Poland

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

- TTS-5 receiver, s.n. 1002,
 - RingAnt–G3T antenna, sn. 0650,
 - Antenna cable assembly (TTS5-1002).
- 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. 00650**:
GPS, L1C: +39.02, RMS: 0.45 ns,
GPS, L2C: +45.79, RMS: 0.49 ns,
GPS, L1P: +39.68, RMS: 0.48 ns,
GPS, L2P: +46.00, RMS: 0.49 ns,
GLONASS, L1C: +41.30, RMS: 0.85 ns,
GLONASS, L2C: +40.69, RMS: 1.04 ns,
GLONASS, L1P: +41.63, RMS: 0.64 ns,
GLONASS, L2P: +40.60, RMS: 1.01 ns
- Antenna cable assembly TTS5-1002 (total 3 cables): 324.56, RMS: 0.5 ns

After the calibration, the obtained results were implemented into the receiver.

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