

Calibration Report No. 2001-2023/UFE
Laboratory of the National Time and Frequency Standard
(Designated Institute of the Czech Metrology Institute)

Instrument: Name: **GNSS Time Transfer Receiver**
Type: GTR 51
SN: 2204007

Antenna: Type: Novatel NOV-704-WB
SN: NMHB16390010R

Antenna Cable: Type: Belden 50Ω LOW LOSS H155 PVC
Length: 30 m

Reference: Signal: 1 PPS and 10 MHz signals of UTC(TP) generated from
the Cesium clock 5071A SN 2476
Receiver: GPS Time Transfer Receiver GTR 55, SN 1711887,
calibrated by BIPM, Cal. ID 1013-2021

Measurement Date: 16 Feb 2023, 00:00:00 – 23:59:59 UTC

Measurement Results:

Internal Receiver Delays:

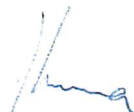
GPS L1 C/A: (29.4 ± 1.0) ns
GPS L1P: (29.3 ± 1.0) ns
GPS L2P: (27.0 ± 1.5) ns
Galileo E1: (30.8 ± 1.0) ns
Galileo E5a: (23.9 ± 1.5) ns

Measurement performed by: Alexander Kuna, Ph.D.

Attachment: Graphs with measured values of raw differences.

Prague, 27 February 2023

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Alexander Kuna, Ph.D.
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Calibration Report No. 2002-2023/UFE
Laboratory of the National Time and Frequency Standard
(Designated Institute of the Czech Metrology Institute)

Instrument: Name: **GNSS Time Transfer Receiver**
Type: GTR 51
SN: 2204006

Antenna: Type: Novatel NOV-704-WB
SN: NMHB16390010R

Antenna Cable: Type: Belden 50Ω LOW LOSS H155 PVC
Length: 30 m

Reference: Signal: 1 PPS and 10 MHz signals of UTC(TP) generated from
the Cesium clock 5071A SN 2476
Receiver: GPS Time Transfer Receiver GTR 55, SN 1711887,
calibrated by BIPM, Cal. ID 1013-2021

Measurement Date: 18 Feb 2023, 00:00:00 – 19 Feb 2023, 23:59:59 UTC

Measurement Results:

Internal Receiver Delays:

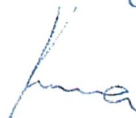
GPS L1 C/A: (28.3 ± 1.0) ns
GPS L1P: (28.3 ± 1.0) ns
GPS L2P: (25.8 ± 1.5) ns
Galileo E1: (29.8 ± 1.0) ns
Galileo E5a: (22.7 ± 1.0) ns

Measurement performed by: Alexander Kuna, Ph.D.

Attachment: Graphs with measured values of raw differences.

Prague, 27 February 2023

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