



SCS Directory

Accreditation number: SCS 0079

International standard: ISO/IEC 17025:2017
Swiss standard: SN EN ISO/IEC 17025:2018

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| <p>Lab 2 Leica Geosystems AG Mönchmattweg 5 5035 Unterentfelden AG SWITZERLAND</p> | <p>Internet: http://www.leica-geosystems.com Initial accreditation: 02.06.1997 Current accreditation: 16.04.2020 to 15.04.2025 Scope of accreditation see: www.sas.admin.ch (Accredited bodies)</p> |

Scope of accreditation as of 16.04.2020

Calibration laboratory for Length and Angle

Calibration and Measurement Capability (CMC)

| Measured Quantity / Instrument or Gauge | Measurement Range | Measurement Conditions | Best Measurement Capability \pm ¹⁾ | Remarks | Lab |
|---|-------------------|------------------------|---|-------------------------------------|-------|
| ELECTRO-OPTICAL DISTANCE MEASURING INSTRUMENTS | | | | | Lab 1 |
| Distance (to prism) | 60 m | Laboratory | 0,16 mm | Measurement of linearity deviations | |
| | 120 m | | 0,26 mm | | |
| Distance (non prism) | 60 m | Laboratory | 0,17 mm | | |
| | 120 m | | 0,26 mm | | |
| Distance (to prism) | 500 m | Terrain | 0,07 mm | Standard deviation of a single | |



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| Measured Quantity / Instrument or Gauge | Measurement Range | Measurement Conditions | Best Measurement Capability \pm ¹⁾ | Remarks | Lab |
|---|---|------------------------|---|---|----------------|
| Distance (to prism) | 1000 m | Terrain | 0,10 mm | measurement, according to ISO 17123-4 | |
| | 2000 m | | 0,18 mm | | |
| | 3000 m | | 0,26 mm | | |
| Distance (non prism) | 500 m | | 0,13 mm | | |
| | 1000 m | | 0,15 mm | | |
| | 2000 m | | 0,21 mm | | |
| FREQUENCY | 3000 m | 0,28 mm | | | |
| | 100 MHz | Temperature range | 10,0 Hz | Deviation of the modulation | Lab 1 |
| | 50 MHz | -20 °C ... +50 °C | 5,0 Hz | | |
| 15 MHz | 1,5 Hz | | frequency in function of the temperature | | |
| LEVEL | | | | | Lab 1 |
| Horizontal optical line of sight | Deviation of line of sight from horizon | Laboratory | 2,6 " | according to Leica calibration instruction 666 951 | |
| | Repeatability | | 0,18 " | | |
| THEODOLITES | | | | | Lab 1 |
| Angles | Hz full circle | Laboratory | 0,08 " | Standard deviation of a dual face | |
| | V \pm 126 ° (Zenith angle) | | 0,08 " | | |
| LASER TRACKER INSTRUMENTS | | | | According to instructions "Customer Information Leica Laser Tracker Calibration Method" | Lab 1 Lab 2 |
| Spatial length to retro reflector | 1400 mm | Laboratory | 5 μ m | Using laser rail with interferometer | |
| Spatial length with tactile probe | 2300 mm | Laboratory | 12 μ m | Between centres of two probed points using scale bar | |



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| Measured Quantity / Instrument or Gauge | Measurement Range | Measurement Conditions | Best Measurement Capability \pm ¹⁾ | Remarks | Lab |
|---|--|-----------------------------|---|--|----------------|
| Spatial length with optical probe (scanning) | 2300 mm | Laboratory | 14 μ m | Between two sphere centres using scale bar | Lab 1 Lab 2 |
| Scale of Interferometer (IFM, Wavelength) | 633 nm | Laboratory | 0.00002 nm (0.03 ppm) | Deviation of the wavelength from the reference | |
| Laser Tracker Instruments and Absolute Distance Meters | | | | | |
| Scale of Absolute Distance Meter (Frequency) | 25 MHz | Laboratory | 0.75 Hz (0.03 ppm) | Deviation of the modulation frequency from the reference | |
| Distance Offset of Absolute Distance Meter | 6 m | Laboratory | 7 μ m | | |
| Meteo Station - Temperature - Pressure - Humidity | One discrete measurement at current conditions | Actual laboratory condition | 0.06 °C 0.7 hPa 2.5 % r.H. | | |

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