

## Time and Frequency Calibration



#### What is Time and Frequency Calibration?

Electrical and low frequency calibration ensures the accuracy of measurement instruments used in these areas. At <a href="Applus+ Laboratories">Applus+ Laboratories</a>, we offer both <a href="on-site">on-site</a> and inlaboratory <a href="calibration services">calibration services</a>, complying with ISO 17025, ensuring traceability and international compliance. Our services ensure that instruments provide accurate and reliable measurements, essential for industrial, research and quality applications.

#### **Time and Frequency Measurement Units**

We calibrate the following quantities and fields of measurement to guarantee the accuracy and reliability of the instruments:

- **Frequency:** Frequency measurement and calibration in electronic and telecommunications equipment.
- Time Interval: Calibration of stopwatches and other devices that measure time intervals.
- Period: Measurement of the period of periodic signals in various test and measurement devices.

#### Most Common Equipment for Time and Frequency Calibration

At Applus+ Laboratories, we offer time and frequency instrument calibration, essential for precise and controlled applications.

• **Tachometers:** They measure the rotational speed of an axis or disc, used in engines and industrial machinery. We ensure their accuracy for critical applications.



- **Chronometers:** Instruments that measure time intervals with high precision, used in scientific studies and industrial applications.
- Frequency meters: Devices that measure the frequency of a periodic signal, essential in the calibration of electronic and telecommunications equipment.
- **Signal and Function Generators:** They produce test signals to calibrate other time and frequency devices, ensuring accuracy in measurements.
- Universal Counters: Instruments that count events in a time interval, used in research and technological development.

### How To Certify Time and Frequency Instruments

To certify measuring instruments in these areas, follow these steps:

- 1. **Select an Accredited Laboratory:** Choose Applus+ Laboratories, accredited to ISO 17025.
- 2. **Send Instruments for Calibration:** Instruments can be sent to our laboratory or our experts can perform on-site calibration.
- 3. **Calibration Process:** We use traceable reference standards to test and adjust instruments, ensuring that your measurements are aligned with recognized benchmarks.
- 4. **Receive Calibration Certificate:** A detailed calibration certificate is issued, confirming that the instrument meets the required standards.

#### Benefits of Time and Frequency Calibration

Calibrating these instruments offers numerous benefits:

- Improved Accuracy: Ensures accurate measurements for critical processes.
- Regulatory Compliance: Meets stringent ISO 17025 standards.
- Reliability: Increases the reliability of measurement data.
- Traceability: Provides documented traceability to national and international standards.
- **Cost Efficiency:** Prevents costly errors and penalties for non-compliance.

# Why Choose Applus+ Laboratories for Time and Frequency Calibration?

Applus+ Laboratories offers several advantages for the calibration of these instruments:

- Accredited Experience: We are accredited by ENAC according to ISO 17025, guaranteeing high standards of accuracy and reliability.
- **Comprehensive Services:** Our calibration services cover a wide range of instruments and measurement variables.



- Advanced Equipment: We use state-of-the-art equipment for accurate calibration.
- **Experienced Professionals:** Highly trained personnel with extensive experience in electrical and frequency measurements.
- Customized Solutions: Services tailored to the specific needs of each customer.
- Quality Assurance: Rigorous quality controls and traceability in all calibration processes.