Calibration Sources

Frequency stabilized, narrow linewidth laser sources down to ±11 kHz absolute accuracy
Stabilized Laser References (SLR series)
HighFinesse Stabilized Laser References incorporate absorption spectroscopy systems, which yield extremely accurate frequency stabilizations, ideal for calibration of our wavelength meters in the visible and infrared wavelength regimes.

Plug and Play Functionality
The SLR-series features extremely short warm-up time (< 2 min.), narrow linewidth and high stability, allowing the calibration of all wavelength meters.

- Fiber coupled laser output
- Wavelengths: 780, 852 and 1532 nm (other wavelengths on request)
- Output power (adjustable): 0 – 5 mW
- Frequency stability and absolute accuracy: better than ± 2 MHz at constant temperature
- Self (re-)calibration
- Compact design

Automatic Calibration
It is possible to automatically re-calibrate the wavelength meter at user defined intervals, ranging from several weeks to the time between single measurements. This automatic procedure requires no user intervention and takes less than one second before returning to the measurement. When used in conjunction with the PID option, no loss of control of the laser is experienced.

External Calibration Sources
HighFinesse offers a variety of frequency stabilized, narrow linewidth laser sources for different applications down to ± 1 kHz absolute accuracy. They are ideal for quick and accurate calibration of the complete series of our HighFinesse Wavelength Meters.

Integrated Calibration Sources
Standard HighFinesse Wavelength Meters up to an absolute accuracy of 60 MHz feature auto-calibration by integrated calibration sources. This way highest accuracy and stability of measurements with our wavelength meters is guaranteed.
HighFinesse Precision Current Sources have been developed for experiments and quantum technologies in the areas of Cold atom physics and solid-state-physics. The linearly regulated BCS (Bipolar Current Source) and UCS (Unipolar Current Source) series deliver highly stable, low noise source currents for high precision magnetic field control. The current output is floating or is on a user defined potential. Ultrafast response to control signals and trigger functions, clear grounding, connection and signal isolation schemes make the integration of the current sources into complex experimental systems easy.

HighFinesse/Ångstrom Laser Spectrum Analyzers offer the capability for a very accurate simultaneous measurement of both the center wavelength and the linewidth of a laser source with a compact and versatile instrument. The product series covers the ranges from 192 nm to 110000 nm. The grating based technology allows the analysis of laser sources over a large linewidth range. Utilizing the principle of non-moving parts just like the well-known HighFinesse WS-series wavemeters, the LSA offers the time-tested robustness and ability to measure both pulsed and cw lasers.

HighFinesse/Ångstrom offers sensitive and compact wavelength meters with a large spectral range for high speed measurement of lasers. The optical unit consists of temperature-controlled Fizeau-based interferometers that are read out by photodiode arrays. The high absolute accuracy is achieved by use of solid state, non-moving optics. The optical unit and associated electronics are housed in a compact, thermal casing. The connection to a computer or notebook is realized via a highspeed USB 2.0 port, which allows a high data read-out rate. The analyzing software displays all the interferometer information.

Additional information and distributors:
www.highfinesse.com

HighFinesse GmbH
Wöhrdstraße 4
72072 Tübingen, Germany
T + 49 (0) 7071 - 53 918 0
F + 49 (0) 7071 - 53 918 99
M info@highfinesse.com