

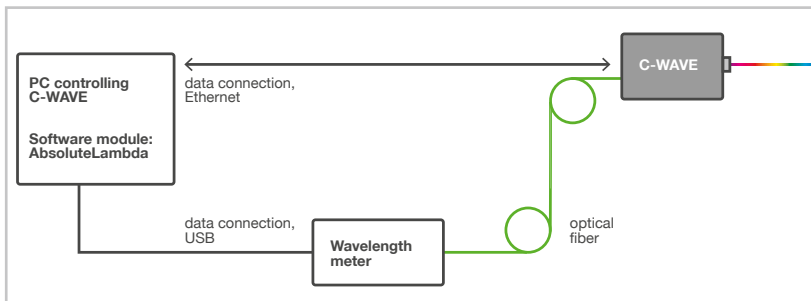
The frequency stabilization for C-WAVE



Frequency stabilization – Precision you can count on

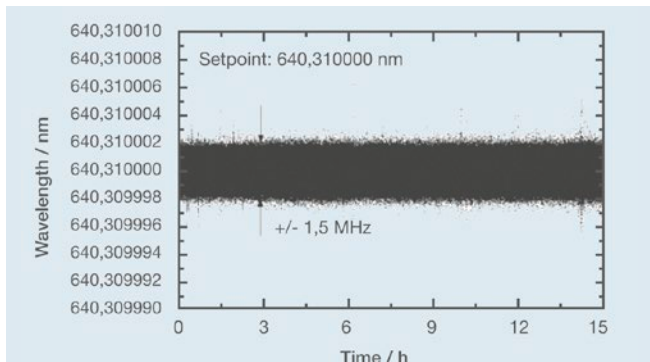
The frequency stabilization scheme of the tunable laser light source C-WAVE makes the laser system deliver high quality cw output with typical linewidths of < 500 kHz corresponding to typical coherence lengths well above 100 m throughout both the visible and the near infrared tuning range. A long-term frequency stability of < 150 MHz over hours is routinely achieved at typical lab conditions. For applications with highest demands, the performance characteristics can be even further improved by operating the system in closed-loop mode, using Absolute Lambda.

Absolute Lambda comprises an external wavelength measurement device in conjunction with a software package to provide enhanced absolute wavelength accuracy as well as precise frequency stabilization.



Schematic overview of an experimental setup with C-WAVE using AbsoluteLambda.





Exemplary measurement of stabilized wavelength using AbsoluteLambda.

AbsoluteLambda gives you the opportunity for an automated selection of a wavelength with high accuracy and drift-free wavelength stabilization, essentially only limited by the measurement resolution of the wavemeter device itself. An exemplary measurement of stabilized wavelength can be seen in the figure showing high stability over multiple hours.

Available models

Model	Specifications
AbsoluteLambda A3000	Abs. accuracy: 3000 MHz Resolution: 1000 MHz
AbsoluteLambda A600	Abs. accuracy: 600 MHz Resolution: 100 MHz
AbsoluteLambda A200	Abs. accuracy: 200 MHz Resolution: 50 MHz
AbsoluteLambda X60	Abs. accuracy: 60 MHz Resolution: 10 MHz Integrated calibration laser
AbsoluteLambda X30	Abs. accuracy: 30 MHz Resolution: 5 MHz Integrated calibration laser
AbsoluteLambda X10	Abs. accuracy: 10 MHz Resolution: 2 MHz Integrated calibration laser
Software AbsoluteLambda w/o Wavemeter	pls. contact sales for compatible wavemeter devices

Dimensions

Length	425 mm
Width	436 mm
Height	135 mm

Technical data

Computer interface	USB 2.0
Power supply	110 V / 230 V



HÜBNER Photonics
HÜBNER GmbH & Co. KG
Heinrich-Hertz Strasse 2,
34123 Kassel, Germany

Phone: +49 561 998 0
Fax: +49 561 998 1515
E-mail: photonics@hubner-germany.com

www.hubner-photonics.com

Cobolt AB
Vretenvägen 13,
SE-171 54 Solna, Sweden

Phone: +46 8 545 912 30
Fax: +46 8 545 912 31
E-mail: info@coboltlasers.com

www.coboltlasers.com