

## Unmatched resolving power



One of the most common usages of our LSA and HDSA devices is monitoring the line-shape of lasers during their optical adjusting. With their unmatched measurement speed, our devices are uniquely suited for this task. In the same way, these devices can also be used in production certification of laser linewidths and shapes.

The echelle grating based HighFinesse/Ångstrom High Definition Spectrum Analyzer offers unrivaled capability for simultaneously measuring large wavelength ranges with an unmatched measurement speed. Nowhere else can you find a device that records its whole spectral range up to 60 times a second.

Utilizing the principle of non-moving parts just like the well known HighFinesse WS-series wavemeters, the HDSA offers the time-tested robustness and ability to measure both pulsed and cw lasers! Most importantly, a multitude of possibilities are open for tailoring the resolving power and spectral bandwidth of the device according to our customers' needs.

Our spectrum analyzers are connected to the PC by either a USB or an Ethernet cable. After a simple software installation the device is ready for use. All optical and electrical components of the device are safely packed in a compact, thermally insulating housing.

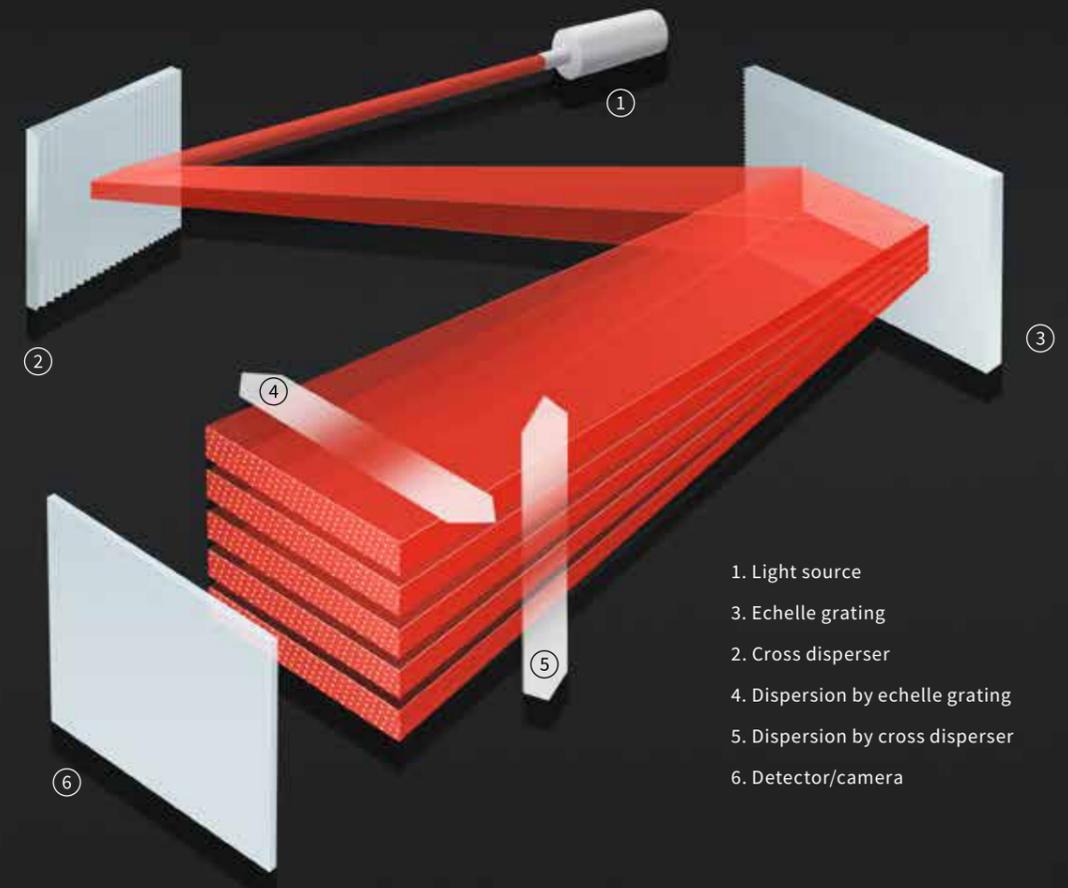
Attention to detail!



## Echelle spectrometers

The design of our spectrum analyzers is based on different combinations and configurations of low order and echelle diffraction gratings. The spectra are read out by CCD arrays, resulting in exceptionally high measurement speeds.

Since these devices incorporate no moving parts, you can expect the usual high accuracy and stability of our devices, as well as the capability to measure pulsed lasers in addition to CW.



1. Light source
2. Cross disperser
3. Echelle grating
4. Dispersion by echelle grating
5. Dispersion by cross disperser
6. Detector/camera

### LSA:

The LSA utilizes an echelle grating and a low order grating in two separate beam paths. The echelle grating provides the LSA with high resolving power, enabling high accuracy measurements. The first order grating makes it possible to overcome the wavelength indeterminacy of the echelle grating.

The auto-calibration function of the LSA ensures that you never have to worry about routine maintenance.

### HDSA:

Using gratings in a cross-dispersion configuration means that you do not have to sacrifice the measurement range for accuracy. The HDSA delivers high accuracy and resolution for its whole range at once. Combined with measurement rates of up to 60 Hz in some ranges, this instrument can easily satisfy most spectroscopic needs.