

Spectrometer

High Definition Spectrum Analyzer (HDSA)



HighFinesse
Laser and Electronic Systems

Available measurement range

HDSA Standard	450 – 1000 nm
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Absolute accuracy¹⁾

5 GHz

Wavelength Deviation Sensitivity/Measurement Resolution

2 GHz

Resolving Power ($\lambda/\Delta\lambda$)²⁾

25000 @ 633 nm

Measurement Speed³⁾

Data Acquisition	7.5 Hz
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Wavelength Calculation	7.5 Hz
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Spectrum Calculation	7.5 Hz
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Required Input Energy and Power⁴⁾

2 nJ/nm @ 633 nm

Dynamic range

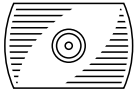
37 dB

1) According to 3σ criterion

2) Spectral resolution $\Delta\lambda = \lambda / R$; R = resolving power. According to Rayleigh criterion.

3) Depending on PC hardware and settings. Without autocalibration usage

4) The cw power interpretation in [μ W] compares to an exposure of 1s (generally the energy needs to be divided by the exposure time to obtain the required power)



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Calibration

Calibration Period

1 week

Warm-up Time

No warm-up time under constant ambient conditions. Otherwise until thermal and air pressure equilibrium is reached

Dimensions L × W × H

360 × 210 × 120 mm

Weight

~4.5 kg

Interface

USB 3

Power Supply

Directly via USB-cable

Customization

Various modifications available: other spectral ranges, resolution, accuracy. For example: HDSA UV: Down to 192 nm, HDSA IR: Up to 1700 nm, HDSA Custom: With enhanced resolution over a smaller range.

Further Information

For further technical information, application examples, diagrams and for customisation of the HDSA please contact:

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