



## AVA-LIBS 100



Avantes new and improved AvaLIBS system is a transportable LIBS system based on a Big Sky Ultra CFR Nd:YAG laser (100 mJ). The system consists a Pelicase™ in which is integrated the main consol containing 4 spectrometer channels. The laser power supply is external to the Pelicase™ unit and connects to the main consol via detachable leads. The LIBS Head is integrated in the Pelicase™ which also contains the sample chamber.

### **Features**

- Compact and field-deployable
- Waterproof and ruggedized instrument case
- 100 mJ Big Sky Ultra laser
- Class 1 laser product (fully-contained laser beam)
- Four spectrometer modules are installed. Wavelength range approx. 200 – 900 nm,
- spectral resolution ( $\lambda/\Delta\lambda$ ) of up to 3000.
- Integral sample chamber with sample holder, XY micro-positioner stage, and laser-safe viewing window
- External laser power supply easily disconnected to facilitate transportation
- May be operated with a laptop PC, PDA or other device running Windows®
- Avasoft LIBS and SPECLINE A included

## AvaSoft operating software

The AvaSoft software controls the exact timing between the laser pulse and the start of the integration time. The timing is controlled by the laser and synchronized with the AvaSpec spectrometer. The spectrometer receives a TTL-input signal from the laser, or simultaneously with the laser. The integration time delay is synchronized with this input signal.

The AvaSoft software allows averaging, setting of integration time delay and integration time.

The saved data can be imported directly into the Plasus analytical software package

## Specline Analytical Software

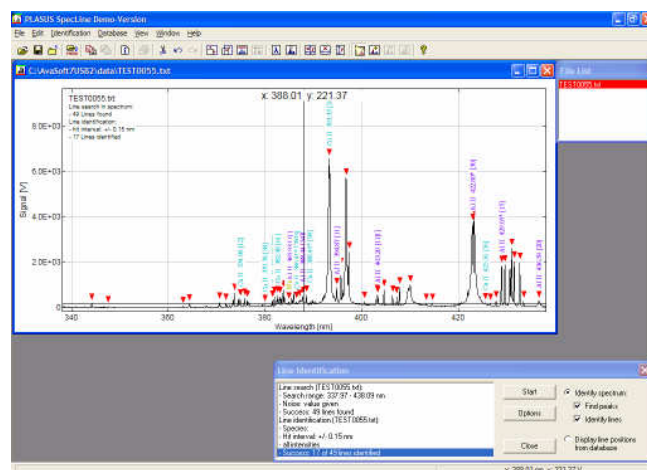
The Specline software has an incorporated Extensive database for atoms, ions and molecules.

The Specline Software can be mainly used for Identification and evaluation of spectral data, imported directly from the AvaSoft software.

The unique database for atoms and molecules makes line identification fast and easy. Many evaluation functions will support you in analyzing and comparing your spectra.

Functionality of Specline software:

- Automatic peak finding Search algorithms for peak finding in the spectra.
- Line identification Identification of atoms, molecules and their ions using the included database.
- Data evaluation Data smoothing, integral, scaling, peak value, calibration, arithmetic of spectra (+, -, \*, /).
- Comparison of data Several spectra - even with different file formats – can be overlaid and compared.
- Selection for database search Periodic table for atoms and ions, wavelength and intensity range.
- Data export Data export to ASCII, Binary and Excel(CSV) format, graphic export to BMP, WMF and WPG format.





## Specifications

Technology: Laser-Induced Breakdown Spectroscopy (LIBS)

Laser source: Q-switched Nd:YAG operating at 1064 nm (Class 4 laser device)

Laser pulse energy: 100 mJ

Laser PRF: Up to 20 Hz

Spectrograph: Four spectrometer modules are installed. Wavelength range approx. 200 – 900 nm and spectral resolution ( $\lambda/\Delta\lambda$ ) of up to 3000

Size: 525 x 436 x 217 mm (excluding external laser power supply)

Sample interface: Integral sample chamber with manually adjustable XY micro-positioner stage

User Interface: External PC, laptop or PDA running Windows® operating system

System Software: Data acquisition, processing and recording via user-friendly

Avasoft/Specline A software

Power requirements: 110-240 VAC, 50-60 Hz, <1.0 KVA

Product Class: Class 1 laser product containing a Class 4 laser device

Wir freuen uns auf Ihre Anfrage:



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