

BROCHURE

SPECTROSCOPY FIELD KITS





Water and Soil contamination

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Measure Air Contaminants

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Analyze Crop Growth

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Fluorescence Properties of Lichen

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Measure Crop Health

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Solar Radiation Levels

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Mineral Identification

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Snow Albedo Measurement

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APPLICATION EXAMPLES

Irradiance/Radiometry

Environmental Monitoring: Using spectrometers to measure solar radiation levels in different environments to study the impact of climate change on ecosystems. This could involve assessing changes in UV radiation levels, which can affect plant growth and biodiversity.

UV Radiometry: Spectrometers are used for ultra-violet radiometry to measure UV emitting sources for power density.

Horticulture: Spectrometers can be used in greenhouses, vertical farming operations to measure daily light integrals and other important parameters related plant illumination condition.

Absorbance/Fluorescence

Atmospheric Science: Spectrometers can be configured to measure air contaminants such as NO_x and SO_x employing differential optical absorbance (DOAS) techniques.

Environmental Monitoring: Spectrometers can be used to measure water and soil contamination with cuvettes or probes in the field. Both fluorescence and absorbance techniques can be employed for such measurements directly in the field.

Reflection/Transmission

Agriculture: Spectrometers can be used to analyze crop health through leaf/foliage reflection measurements

Biological Research: Spectrometers can be used to measure reflection and fluorescence properties of leaves, lichen, insects and other animal species via totally non-destructive optical sampling.

Geological Fieldwork: Reflection spectroscopy is used for rapid sampling of minerals, rocks, soils, and other geological material.



SETUP EXAMPLES/APPLICATION

STARTING PRICE: \$4995

SPECTROMETER: Avaspec-Nexos 2048CL, 200-1100 nm

FIBER/PROBE: FC-UVIR600-1-BX

BATTERY OPTION: Long life battery pack

ACCESSORIES: COL-90-UV/VIS; CC-Cradle - 90 Degree Cosine Corrector

SOFTWARE: Avasoft-All

OPTIONS: Irradiance Calibration; Tablet Computer

STARTING PRICE: \$6500

SPECTROMETER: Avaspec-Nexos 2048CL, 200-1100 nm

LIGHT SOURCE: AvaLight-Xe-Mini Xenon Source

FIBER/PROBE: FC-UVIR200-1-BX

BATTERY OPTION: Long life battery pack

ACCESSORIES: CUV-DA-UV/VIS (cuvette cell)

SOFTWARE: Avasoft-All

OPTIONS: Tablet Computer

STARTING PRICE: \$6500

SPECTROMETER: AvaSpec-NEXOS 2048CL 200-1100 nm OR AvaSpec-Mini-NIR (900-1700)

LIGHT SOURCE: Avalight-XE-Mini xenon source OR Avalight-HAL-S-Mini (360-2500 nm)

FIBER/PROBE: FCR-7UVIR200-2-ME Reflection Probe

BATTERY OPTION: Long life battery pack

ACCESSORIES: Probe Holders

SOFTWARE: Avasoft-All

OPTIONS: Tablet Computer



ABOUT AVANTES

We are Avantes, a leading player in the compact spectrometer industry. We operate in various industries; from (bio)medical and agriculture to semiconductor and consumer electronics. Our instruments are found in world-class research laboratories, are embedded in devices, or play a crucial part in quality control during production.

With a long history of consulting with clients across diverse industries and applications, Avantes is an experienced partner, equipped to guide customers who want a solution tailored to their application and research needs. Through our headquarters in the Netherlands and offices in the USA and China, our sales engineers work closely with our customers to find the most ideal measurement solution. In addition to our direct offices, Avantes has a worldwide network of distributors in over 35 countries who are ready to assist you. All of our products are made in our own production facility in the Netherlands.

Curious how our solutions can empower your application? Visit our website or contact our technical support. We are happy to help you!

Click [here](#) to contact us directly

PRODUCT PORTFOLIO

Beside spectrometers, we offer a wide range of products to complete your measurement setup.

Light Sources

Avantes' light source options include deuterium, tungsten halogen, and LED for spectral ranges from 190nm – 2500 nm. The AvaLight line consists of several calibration sources for irradiance and spectral line calibrations. All light sources are fiber optic coupled with SMA connectors.

Fiber Optics

We offer an extensive line of fiber optic cables, bundles, and probes. Our in-house production facility manufactures fiber optics for deep UV, UV/VIS, and VIS/NIR applications using high-quality silica fibers. Custom configurations for fiberoptic reflection, absorption, and fluorescence probes are always negotiable.

Software

AvaSoft software is a 32 and 64-bit compatible application-oriented software package that enables complete control over our spectrometers. Application-specific software solutions are available. Our in-house engineers can work with customers to support standard and custom application needs (DLL).

Accessories

We offer a wide range of fiber optic coupled sampling accessories such as cuvette holders, integrating spheres, filters, filter holders, and flow cells. In addition, Avantes offers a variety of fiber optic accessories, including collimating lenses, cosine correctors, and vacuum feedthroughs.

SPECTROMETERS

Since spectroscopy is used for numerous applications, we have defined our spectrometers in different lines:



CompactLine

Compact
Easy integration
CMOS detector
2048 or 4096 detector
190-1100 nm
NIR-version available
900-1750 nm
USB powered



StarLine

High-performance
General applications
Stray light rejection
2048 or 4096 detector
190-1100 nm
High resolution
Improved sensitivity
USB powered



SensLine

High-sensitivity
Demanding applications
Low noise
Ultra-high resolution
190-1160 nm
Stray light rejection
High stability
Thermo cooled



NIRLine

High-performance
Cooled & uncooled
Cooling to -25 °C
For harsh environments
900-1750 nm
Enhanced stability
Low noise
Compact option available

Click [here](#) to see all available products.

SUPPORT & ADVICE

Providing high-quality equipment is only part of what we do. The other equally important factor is the high level of service we deliver. Our organization includes various specializations to provide you with the best service and advice.

Feasibility studies

Our sales engineers perform free feasibility studies to find your most ideal measurement setup.

Support team

Our support team never sleeps and provides you with the best service.

Demo program

Our demo program allows you to try our products for free to ensure you find the perfect solution.

MyAvantes

Personal platform where you'll find AvaSoft Software and other material for you to download.

Online support

Helpful documents and tutorial videos for extra help with your products.



CONTACT

WE'RE HAPPY TO HELP

Curious how spectroscopy can help you reveal answers by measuring all kind of materials, in-line, at your production facility, in a lab or even in the field? Please visit our website or contact one of our technical experts, we're happy to help you.

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