

Developing & manufacturing solutions

OEM SOLUTIONS

that perfectly align with your needs

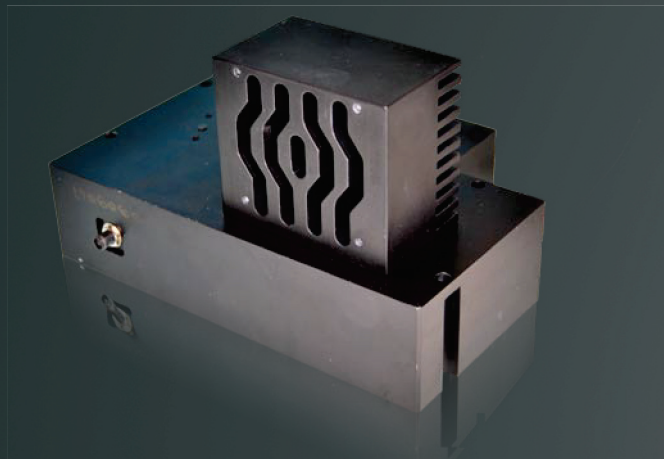
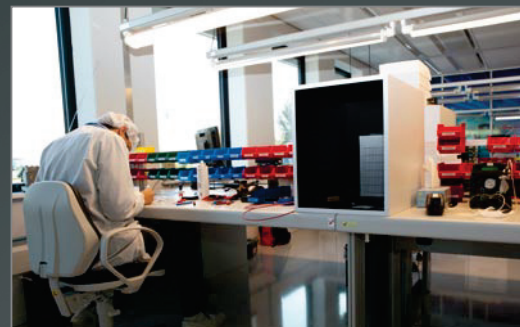
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Your challenge, our solutions

AVANTES takes pride in partnering with our Original Equipment Manufacturers (OEMs). Whether you need a custom configured optical bench or a spectrometer specialized fiber optic probe, we can develop and manufacture the solution that is right for you. Our partnership approach to working with OEMs is at the core of our success and philosophy as a business. Avantes Sales Engineers follow a methodical discovery process with our OEM customers to ensure we develop a solution that closely aligns with your needs.



Avantes' new state-of-the-art manufacturing facilities in Apeldoorn, The Netherlands, is 3,000 square meters in size. Allowing for increased production capacity and has state of the art engineering facilities. Our manufacturing operates according to ISO 9001 standards and we are currently working toward ISO 9001 certification in our facilities. Additionally, our instruments are all CE certified. Avantes quality procedures provide for 100% traceability of all components and subcomponents. Avantes' world headquarters in The Netherlands is the center of product development, manufacturing and marketing activities. With additional offices in the USA, China, the UK, and a network of distributors in over 30 countries, we are able to provide outstanding local support.

Industries served

We have almost 20 years of experience applying spectroscopy and optical sensing technologies to numerous environments and industries:

- ▶ Lighting
- ▶ Semiconductors
- ▶ Safety & security
- ▶ Mining & Metallurgy
- ▶ Agriculture
- ▶ Chemical/Petrochemical
- ▶ Bio-medical/Medical
- ▶ Environmental

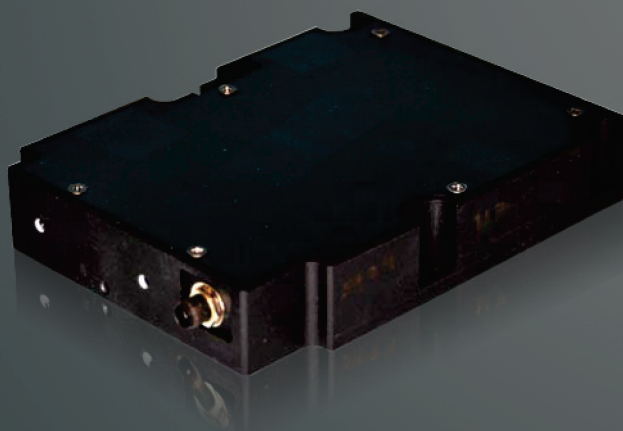
Product architecture

Avantes unique architecture has independent optical and electronics platforms to provide maximum flexibility for our customers.

AvaBench Optical Benches

The AvaBench line of optical benches offers a robust selection of designs and configuration to meet the form factor and technical specifications for each application. Now available in five configurations with 16 standard detector options, the AvaBench is configurable to meet your needs.

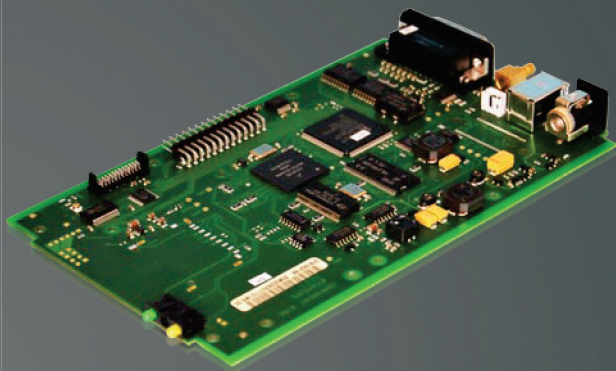
Independent Optics & Electronics for greater flexibility and modularity. Available as enclosed instruments or OEM modules.



Our innovative ultra-low stray light (ULS) optical bench provides superior stray light rejection in a design which has superb thermal and structural stability. The new high sensitivity (HS) optical bench is designed for superior throughput but also boasts excellent thermal and structural stability. The AvaBench optical benches are available independently for integration with a customer's own electronics or in conjunction with our AS5216 USB2 electronics.

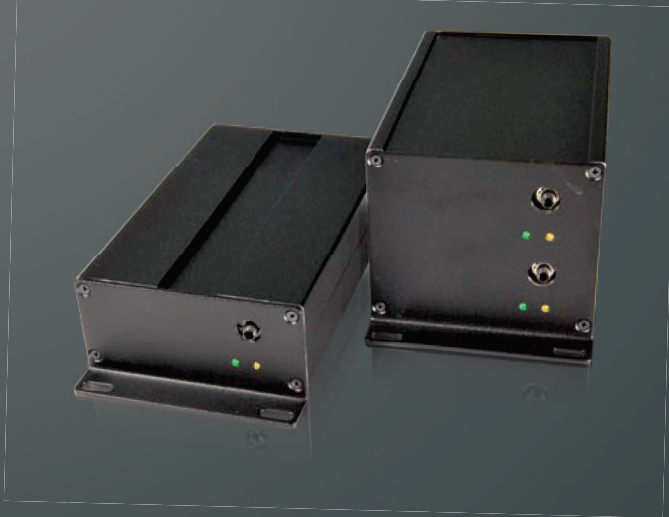
Electronics Controllers

Avantes optical benches can be controlled via our USB2 AS5216 microprocessor board. The AS5216 electronics board is available in two configurations and is a multi-purpose controller with the flexibility to interface with all of our AvaBench configurations. The AS5216 supports USB and RS-232 communication standard and is also available with a wireless communication module. The controller has digital and analog input/output capability as a standard option as well as an on board field programmable gate array (FPGA) which is used to control the timing of the board.



Housing Options

For OEMs that require housed spectrometers, Avantes provides a number of single and multi-spectrometer housing options.



Software

Avantes instruments can be controlled via our proprietary AvaSoft software which is a 32 and 64-bit application-oriented package. Most OEM customers prefer to develop their own controlling software and for this reason we offer a 32 and native 64 bit dynamic linking library (DLL) interface and software development kit including sample programs in LabView, C#, C++, Visual Basic, MatLab, and Delphi. Avantes Software Engineering team is also experienced with developing customer specific application software for customers that require this service.

Fiber Optics

We offer an extensive line of standard fiber optic cables, bundles and probes to enable the sampling of liquids, solids, plasmas and irradiance sources. Our in-house design and production facilities enable us to manufacture custom fiber optics for deep UV, UV/VIS and VIS/NIR applications using high quality silica fibers. Avantes also offers standard and custom fiber optics for high temperature, vacuum and other environmental conditions.

Light Sources

AvaLight light sources are high quality sources for UV/VIS and NIR applications ranging from 190 nm to 2500 nm. Our light sources include tungsten halogen, deuterium halogen, pulsed xenon, and LED based source. Avantes also offers wavelength calibration line sources for the UV/VIS and NIR as well as intensity/irradiance calibration sources. All light sources are available in enclosures as well as OEM modules for mounting within customer enclosures.



Avantes OEM Customer Examples

Safety and Security

- ▶ Fluorescence based counterfeit detection systems for bank note and official document printing
- ▶ Explosive detection systems employing Raman and/or LIBS

Chemical/Petrochemical

- ▶ In situ fluorescence detection systems for adhesive curing
- ▶ Spectral analyzers for motor oil contamination

Lighting

- ▶ Integrated LED characterization systems
- ▶ Inline/in process LED characterization systems

Medical/Biomedical

- ▶ Blood parameter analyzers
- ▶ Non-invasive tissue reflectance analyzers

Mining/Metallurgy

- ▶ Laser induced breakdown spectroscopy systems
- ▶ Arc spark spectroscopy systems

Agriculture/Environmental

- ▶ Intelligent fertilizer application systems
- ▶ Remote sensing fire detection systems
- ▶ Protein/moisture content analyzers for food/beverage



Semiconductor

- ▶ End point detection systems for plasma etch monitoring
- ▶ Inline process control systems for thin film deposition monitoring on solar cells
- ▶ Optical emission spectroscopy systems for end point detection

AVANTES
solutions in spectroscopy

For product support or
questions, contact us at:

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