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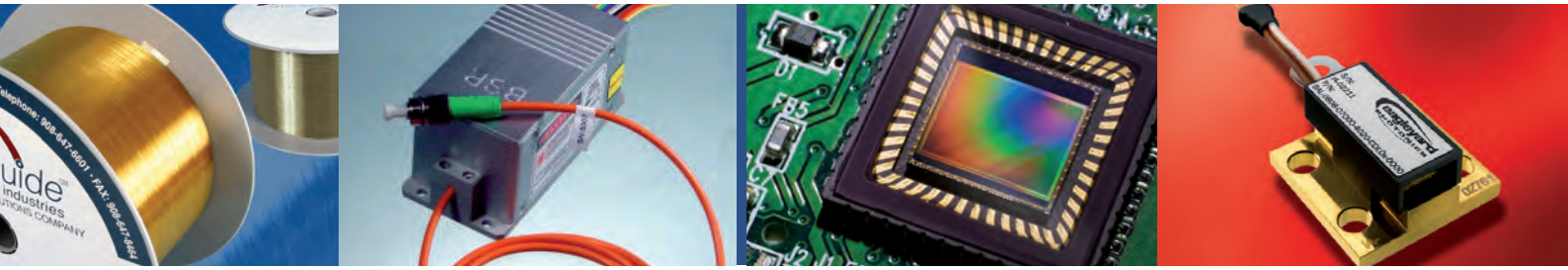
where technologies meet solutions

Solutions for Research & Scientific Applications

Light sources, Spectrometers, Optics, Mechanics and Cooling



- Light Sources
- Fibers
- Optics
- Optomechanics
- Accessories
- Receiving
- Interrogating
- Measuring
- Cooling

Photo by Andre Montaud/Fotolia

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AMS TECHNOLOGIES – where technologies meet solutions

AMS Technologies is Europe's leading solution provider and distributor for Optical, Power and Thermal Management Technologies. Our university-educated sales engineers fully comprehend and competently apply key technologies to transform your needs into cost-effective solutions.

Founded in 1982, AMS Technologies is a pan European distributor of high tech components and systems with leading consulting capabilities today. With a long tradition in the fiber optics arena the offering of AMS Technologies comprises an extensive range of products. Wide choice of products - You can select among a comprehensive range of products starting from optical aggregation and transport for regional, metro and access networks ranging to Plug and Play CWDM and DWDM solutions. Furthermore high performance switches and the corresponding transceivers like GBIC, SFP, SFP+ and XFP are a fix part of the product offering. Moreover, AMS Technologies offers tooling for operators of fiber optic networks. Microscopes and connector cleaning tools and test and measurement equipment for field a pplications complete the portfolio. Focus on customer requirements - You will find at AMS Technologies the right solution for your application requirements. Thanks to the expertise in the optical domain AMS Technologies and the leading companies we represent can even tailor dedicated solutions for special needs. Our commitment: identifying the best solution for your project enabling you to become your customers' first choice.

Light Sources for Research & Scientific

Light sources from AMS Technologies cover a broad spectrum – discrete laser wavelengths, broad linewidth LEDs and SLEDs (generally a few tens of nm linewidth) and wide or multi-band emission from incoherent light sources. Further products include amplified lasers and IPL lamps. Multiple choices are available in each category, with wavelengths from the ultraviolet across the visible band and into the near infrared, and with optical powers ranging from a few mW to several hundred watts. AMS Technologies can additionally provide tailored solutions designed to meet your specific requirements, regardless whether chip – or module-based, free-beam sources or fiber-coupled solutions.

- Diode Lasers
- Fiber Lasers
- DPSS Lasers

For further informations visit our website

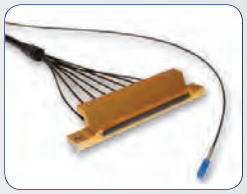
Light Absorption, Reflection, and Transmission

■ Fibers

The range of fiber products available from AMS Technologies comprises fibers and fiber assemblies as well as a variety of fiber-based components. Single fibers and fiber assemblies are available in many different configurations: multimode, singlemode and polarisation maintaining, with or without connectors, standard or tailor-made. The optical spectrum ranges from the UV across the visible range to the NIR, the thermal operation spectrum from -269 to +700°C, the power spectrum from a few milliwatts to a multitude of watts.

The portfolio of fiber-based components includes wavelength division multiplexers (WDMs), circulators, fiber-optic delivery systems as well as fixed and adjustable attenuators, among others. We also provide an extensive choice of couplers: power combiners, tap couplers, wavelength combiners/splitters, multimode, singlemode and polarisation maintaining couplers. Furthermore, we supply isolators that can be free space and fiber pigtailed, that are useable over a broad range of wavelengths and that can handle powers up to 80 watts.

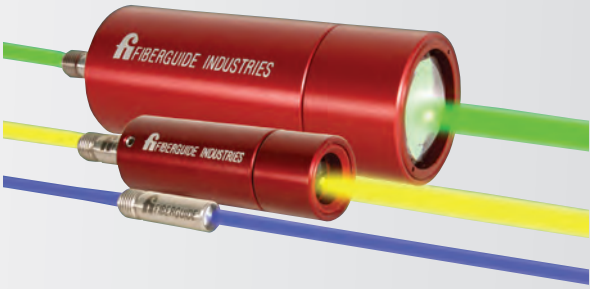
- Single fibers
- Fiber Assemblies
- Couplers/Combiners
- Multiplexers
- Circulators
- Attenuators
- Compensators
- Isolators
- Fiber Optic Delivery Systems

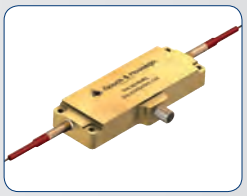


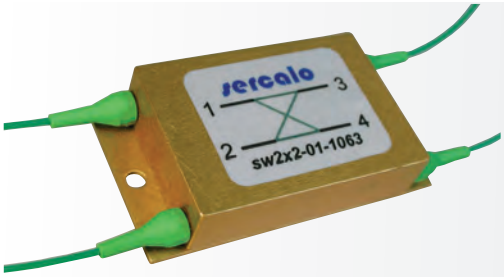
■ Optics

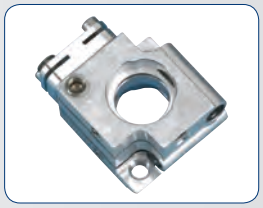
A multitude of optical components is available from AMS Technologies. All of our lens products – whether specialised collimating/focusing systems or diffraction-limited aspherics – each cover a wide spectral range and are available at centre wavelengths from UV to the NIR. Our acousto optics products excel by exhibiting high damage threshold and extremely fast rise and fall times, but simultaneously remain flexibly adaptable to individual requirements. Our electro optic Pockels cells enable rotation of polarization at high average power and high repetition rate. The 3D MEMS micro-mirrors are available as a single component or in array configurations and feature a very low drift, as well as offering rotation into two different angles. For ultimate flatness of surface, special AR coatings or even exotic surface shapes, you can rely on our tailor-made precision optics. The product range is completed by filters (fixed, manual adjustable, digital tunable) and modulators (available from 2.5 up to 40Gb/s). Lenses

- Lenses
- Collimators & Focusers
- Acousto Optics
- Electro Optics
- Filters
- Mirrors
- Precision Optics
- Modulators
- Gratings









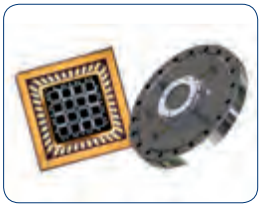
■ Optomechanics

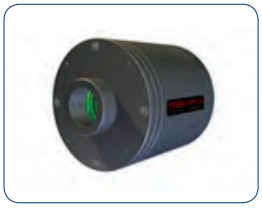
The optomechanical products we carry consist of an array of precision mechanical components and MEMS switches. All optical setups rely on a stable mounting, free from vibration or drift. We offer high-precision holders and positioners for tiny movements as well as platforms and stages for simple and flexible mounting of holders. For very precise adjustment on single axes we provide laser and fiber positioners and mirror mounts. MEMS switches are available in a variety of configurations: singlemode, polarization maintaining and multimode, latching/non-latching. The switches feature solid state reliability, accurate precision and fast response time.

- Laboratory Mechanicals
- MEMS Switches

UV/VIS/NIR Spectrometers

Collaborating with the world´s leading manufacturers secures access to state-of-the-art UV-VIS-NIR spectrometers, whether transmission, reflection and Czerny-Turner configurations, and that are carefully chosen to meet both standard and custom specifications for sophisticated applications in the lab and in process analysis.





UV-VIS-NIR Spectral range

- Si and InGaAs Photo-diodes and Arrays (190-2200 nm)
- Si- PSDs (400-1100nm)
- Si- and InGaAs APDs and InGaAs APD Arrays (400-1700nm)
- Photo-multipliers
- highly integrated systems: single-photon counters & range finding front-end receivers

MWIR/LWIR Spectral range (2-10 µm)

- PbS and PbSe Photo-Diodes and Arrays, cooled and uncooled
- pyro-electric detectors

X-Rays (15 – 600 keV)

- CMOS photo-diode arrays and line-scan cameras
- CMOS and CCD Cameras
- Image Intensifiers /MCPs

For further informations visit our website

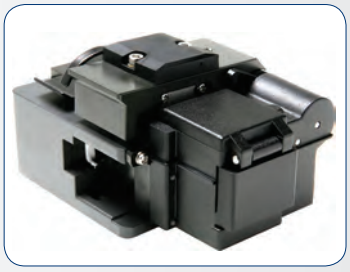
Interrogating

- UV-VIS-NIR spectrometer (190 – 2200 nm)
- USB controlled multi-channel spectrometers (380-780 nm)
- FBG analyzers
- Turn-key solutions for Raman-Spectroscopy and OCT

Measuring

Small and lightweight test equipment for measurement of the transmitted power in an optical fiber is needed wherever technicians handle optical fibers. Our product portfolio comprises light sources for various wavelengths, power meters for the visible and infrared and integrated solutions for sources and meters as well as optical time domain reflectometers (OTDR) coupled with visible wavelength light sources for easy fault detection within a fiber optic link

- Fiber Optic Light Sources
- Fiber Optic Power Meters
- Fiber Optic Loss Test Sets
- Fiber Optic Attenuators
- Fiber Optic Temperature Sensor
- Return Loss Meters
- Network Tester
- OTDRs
- Optical Spectrum Analyzers
- Measurement Kits
- Fault Locators



Accessories

- Fiber Optic Cleaning Tools
- Laser Safety
- Drivers
- Controllers
- Fiber Accessories

AMS Technologies' portfolio comprises accessories for a broad range of products and applications. In line with our range of light sources, we supply ultra-stable, high precision drivers and controllers for laser diodes, diode laser modules, LEDs, SLEDs and flashlamps. The controllers for laser diodes and diode laser modules are microprocessor-based and available as PCB versions, modules for OEM integration or complete stand-alone devices. Motion controllers for motorised control of stages and positioners and drivers for piezo actuators complete the product range.

An assortment of different cleaning tools is available for the endfaces and ferrules of fiber optic connectors, as well as for the endfaces of plugged connectors through an adapter. These cleaning tools feature a special microfiber tissue that removes and secures all contaminations.

Protection eyewear, such as laser safety glasses and goggles, are also available.

Cooling Solutions

- Solid State Cooling
- Air Cooling
- Liquid Cooling
- Thermal Design Consultancy

AMS Technologies provides extensive development services for medical equipment, instrumentation, automotive and other applications. We also offer a complete thermoelectric solutions portfolio, including design consultancy and all components for thermoelectric modules, heat sinks, temperature controllers, assemblies air-to-air, plate-to-air, liquid–to-air and others. Furthermore, thermoelectric recirculating chillers are available with extraordinarily high efficiency and quiet operation.
Our cooling solutions are available in air-to-air, plate-to-air, air-to-liquid and liquid-to-liquid configurations with cooling capacities ranging from 30 to 650 W. Most of the assemblies we provide are custom or customised solutions. We partner with companies whose special skills in assembling guarantee performance and long life.

The actual air flow inside a cabinet, a limited power supply, space constraints and other special requirements can be met using our portfolio of various heat sinks, cold plates and thermoelectric modules tailored to a custom assembly. Conception and design are made with the help of our in-house thermal design team, while assembly and testing is undertaken by our partners.

Our plate-to-air thermoelectric assemblies are used for laser diode modules or bioreagent cooling. Laser diodes need precise temperature stabilisation at room temperature and higher heat loads. Bioreagents often need to be temperature controlled over a wide temperature range.

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enabling your ideas.

Optical, Power and Thermal Management Technologies

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