Laser technology for the Aerospace and Defense Industry

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Industry branches

Aerospace and Defense

Security and Target Acquisition	Optical Pumping	LiDAR
Laser sources that improve the precision and efficiency of defense systems in security and military applications such as dazzling, guidance, illumination or target designation.	Diode laser technology that amplifies solid-sate lasers through optical pumping.	LiDAR laser technology for different kinds of measurements in the Metrology, Automotive, Aerospace and Renewable Energy industries.

Lasers for Security and Target Acquisition

- Dazzling
- Guidance
- Target designation
- Ranging
- Defensive countermeasures
- Underwater communications

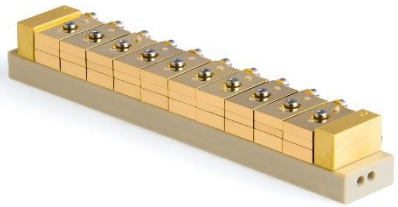
Lasers for Security and Target Acquisition

Diode lasers (640 nm - 2100 nm)

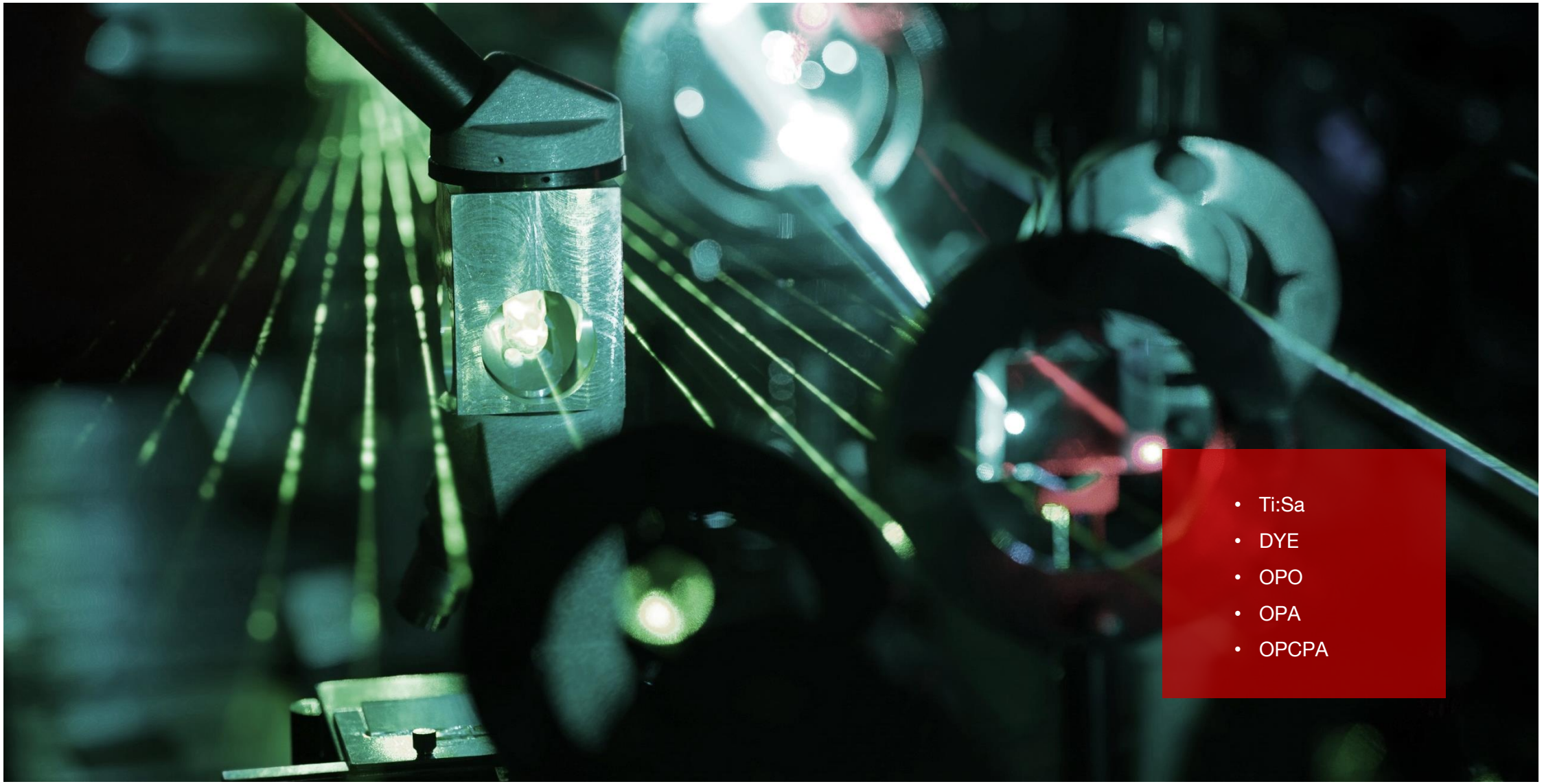
Our lasers greatly improve the accuracy and efficiency of defense systems in applications such as temporarily blinding and disorientation (laser dazzlers), laser guidance, laser sight, target designation and ranging, defensive countermeasures. We also supply laser sources for use in underwater communications for secure and timely transmission of information.

Wavelength: 640 – 2100 nm

Indicated for: dazzling, guidance, target designation, ranging, defensive countermeasures, underwater communications



Laser technology for Optical Pumping



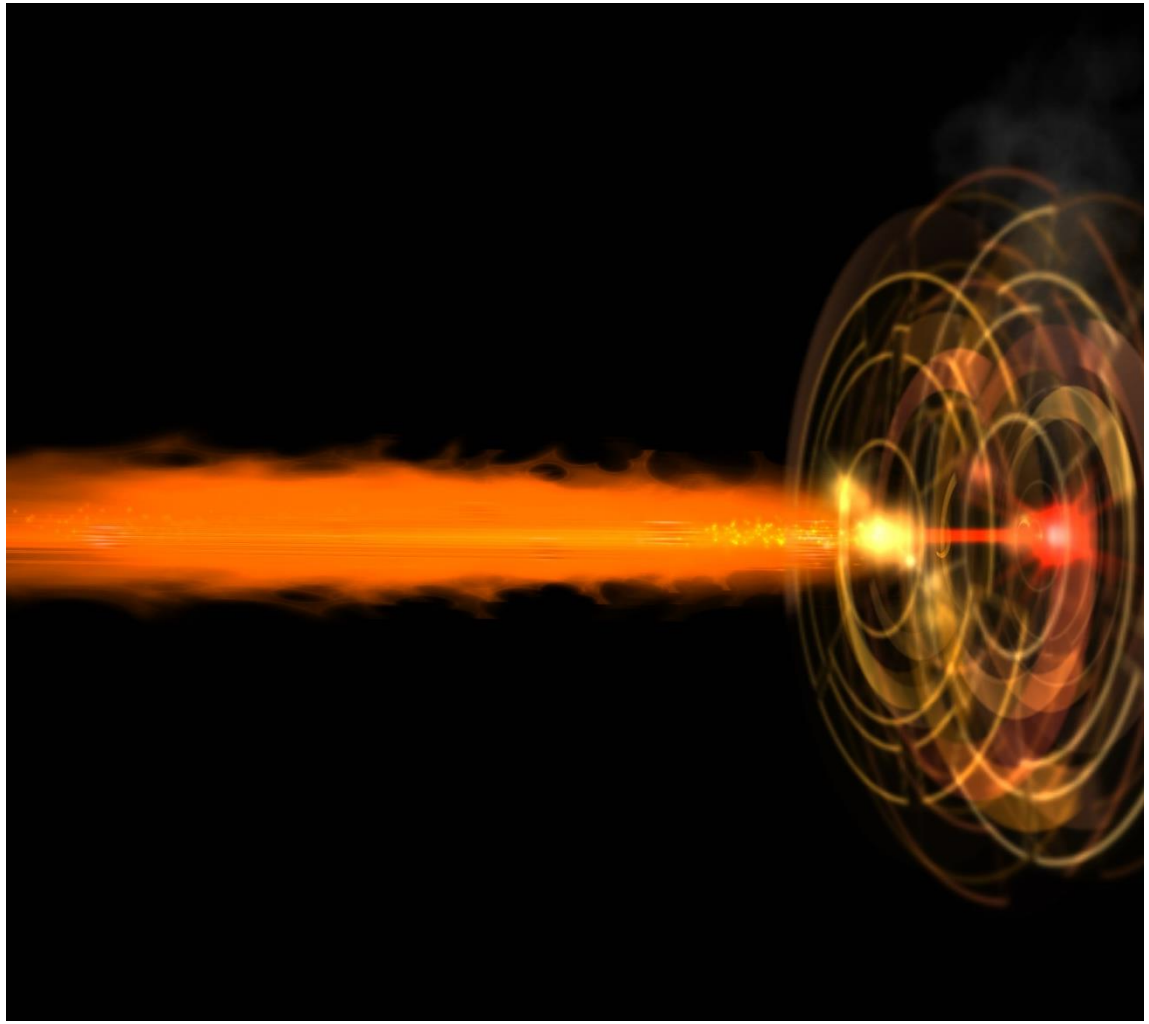
Laser technology for Optical Pumping

Pumping Sources CW

Monocrom offers pump heads that are based on arrays of emitters (laser bars and minibars) and arrays of laser bars (vertical and horizontal stacks). We also offer individual emitters to explore exotic wavelengths in solid state lasers (Pr: YLF)

Wavelength: 808 nm (Nd:YAG-Nd:YLF)
960/1450 nm (Er:YAG)
785 nm (Tm:YAG)

Indicated for: Ti:Sa, DYE, OPO, OPA, OPCPA



Laser sources for LiDAR technology

- Seabed mapping / bathymetry
- Automotive / autonomous driving cars
- Agricultural industry
- Meteorology – velocity profile of wind
- Meteorology – temperature profile of atmosphere
- Meteorology – trace gas detection
- Electricity producing industry – wind profile determination
- Aerospace industry – turbulences and wake – vortexes

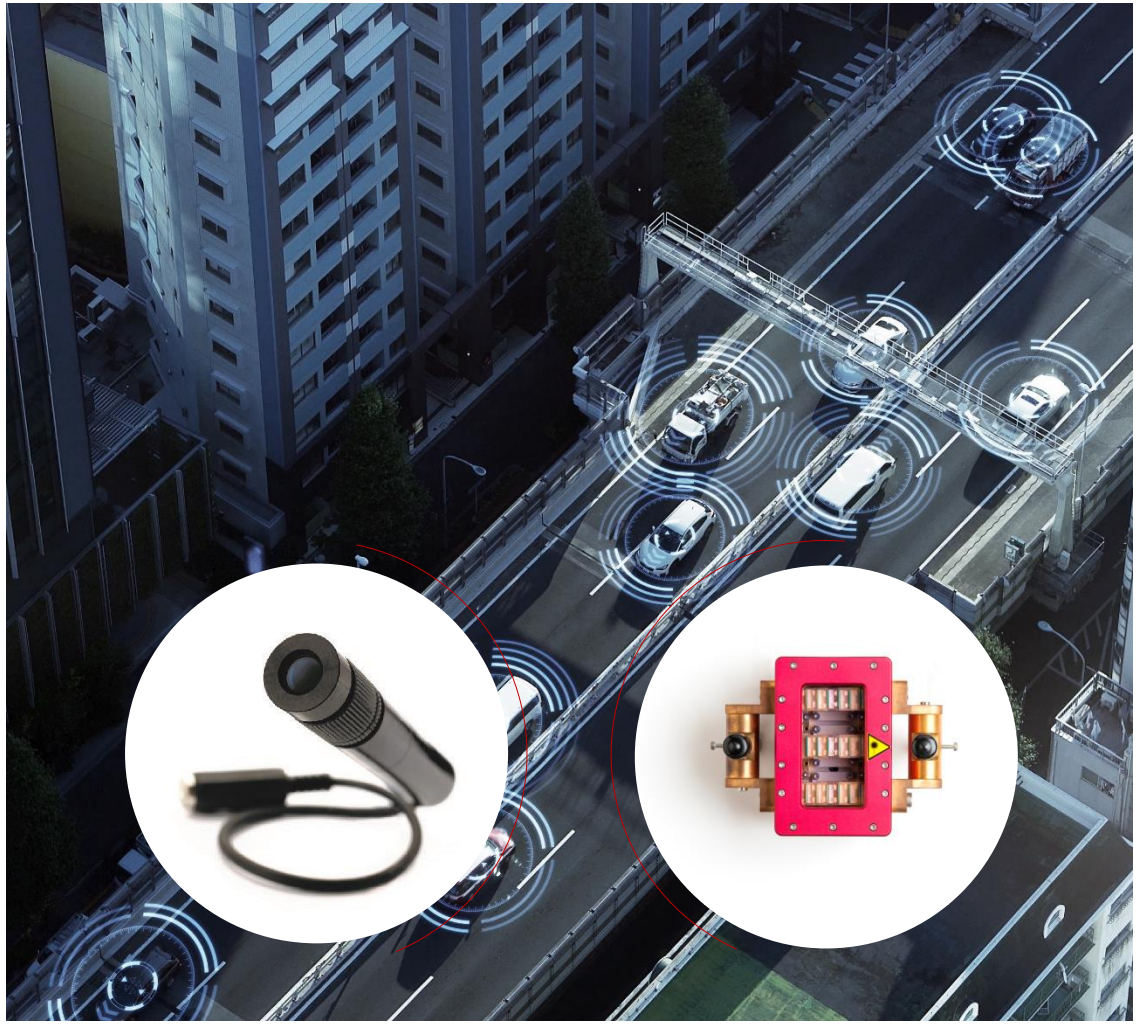
Laser sources for LiDAR technology

LIDAR Laser Sources

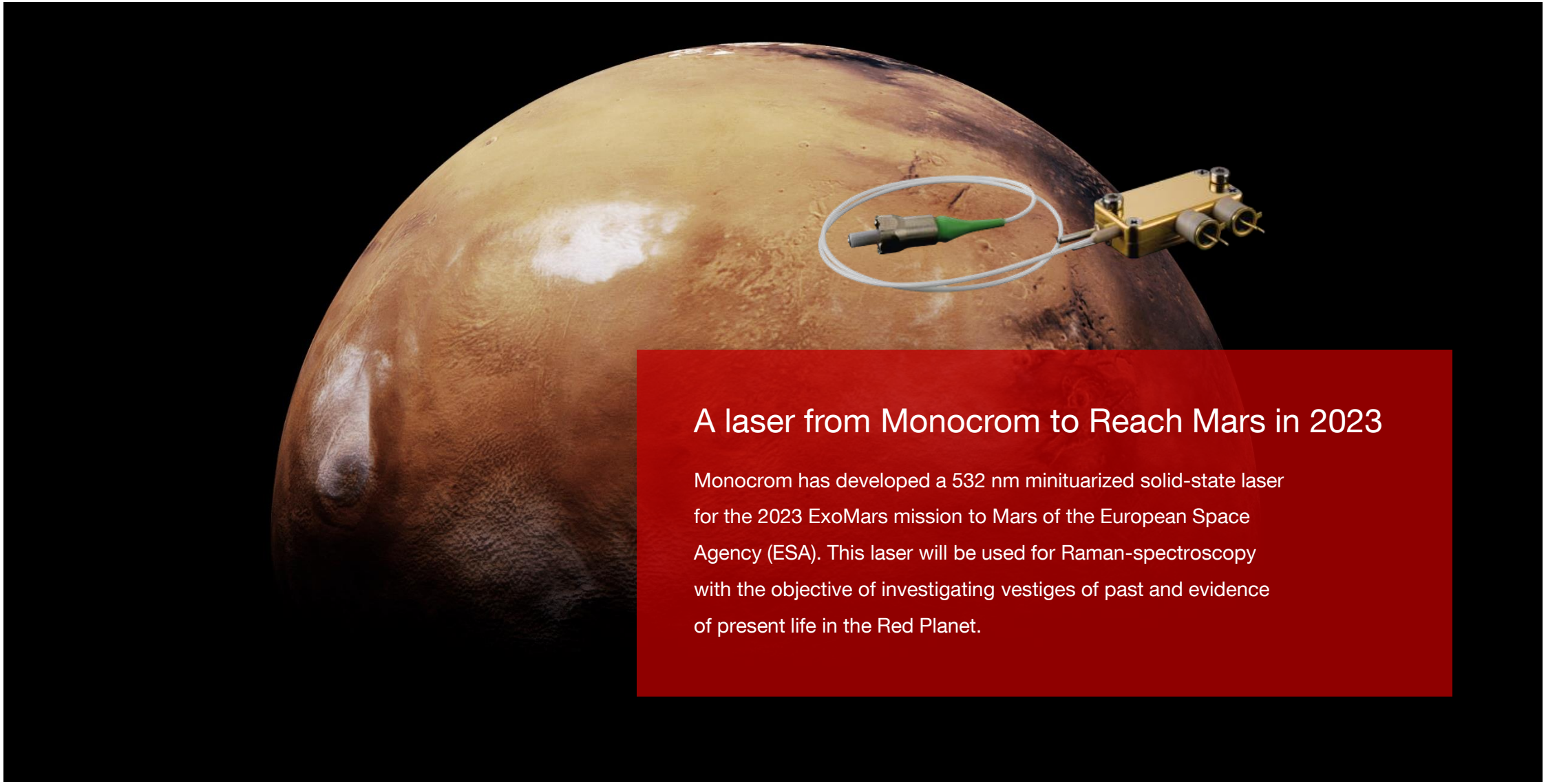
Monocrom supplies LiDAR Laser Technology for different kinds of measurements mainly for the Metrology, Automotive, Aerospace and Renewable Energy industries.

Wavelength and type of LiDAR end-use application:

- 405 / 450 / 527 / 532 nm (Seabed mapping / bathymetry)
- 15xx nm (Automotive / autonomous driving cars)
- 1053 / 1064 nm (Agricultural industry)
- 351 / 355 nm (Meteorology – velocity profile of wind)
- 1053 / 1064 nm (Meteorology – temperature profile of atmosphere)
- 2010 nm (Meteorology – trace gas detection)
- 1053 / 1064 / 15xx nm (Electricity producing – wind profile)
- 1053 / 1064 / 2010 nm (Aerospace – turbulences – vortexes)



Laser technology for Space Exploration

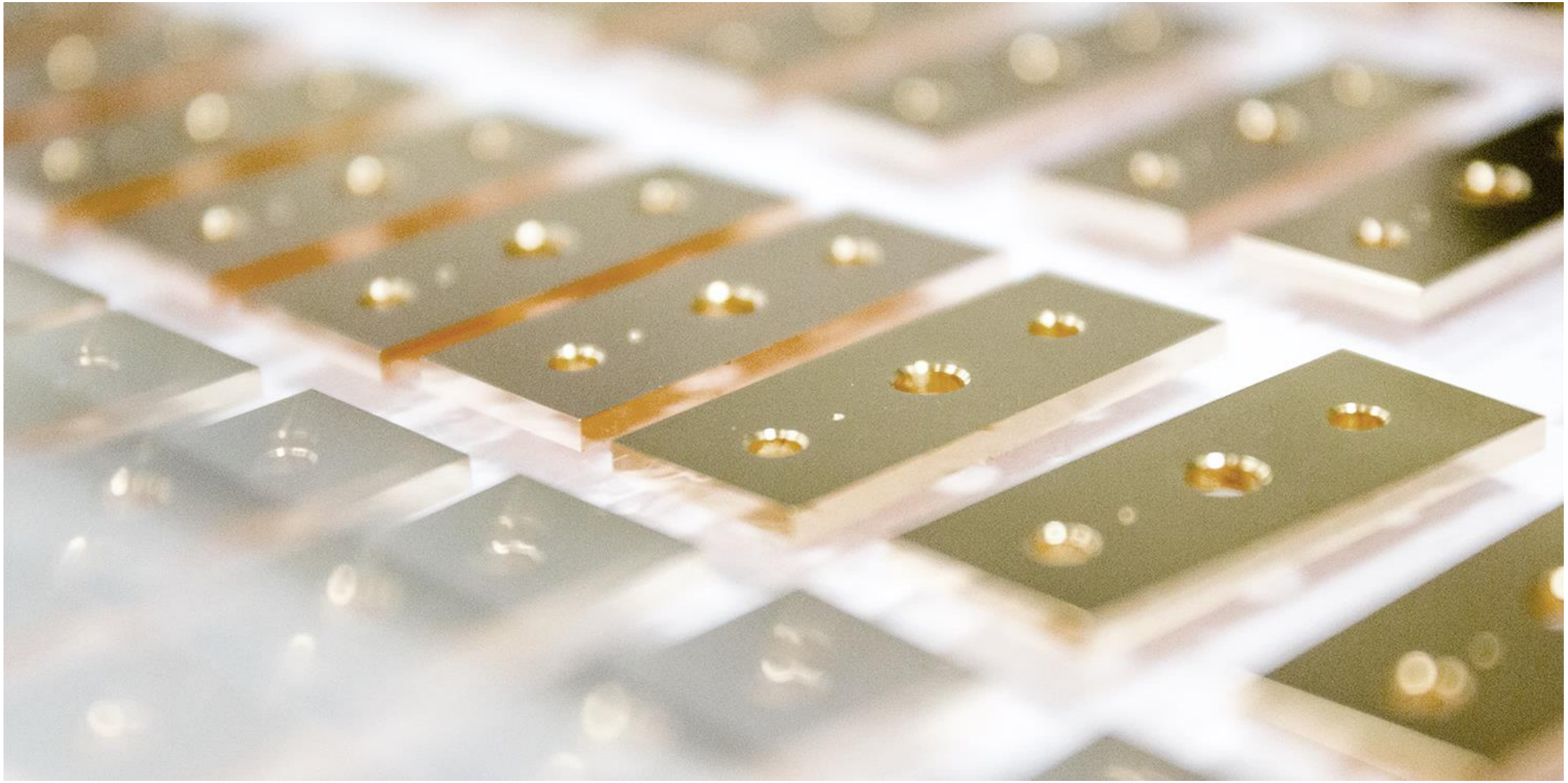


A laser from Monocrom to Reach Mars in 2023

Monocrom has developed a 532 nm minituarized solid-state laser for the 2023 ExoMars mission to Mars of the European Space Agency (ESA). This laser will be used for Raman-spectroscopy with the objective of investigating vestiges of past and evidence of present life in the Red Planet.

Thank you!

Visit us at www.monocrom.com



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