

PRESS RELEASE

Laser World of Photonics: SCANLAB presents new scan head generation and innovative software for laser process control

Scan systems of the new intelliSCAN IV series with high system dynamics and innovative cooling concept // SCANmotionControl software for the highest precision and process control

Puchheim, Germany, June 22, 2023 – SCANLAB GmbH, the world's leading scanning solutions provider, will exhibit its latest innovations at Laser World of Photonics 2023. The company will showcase the powerful intelliSCAN IV series and SCANmotionControl software, which takes laser process control to a new level of precision and flexibility.

intelliSCAN IV series – compact high-performance scan heads



The scan heads of the new intelliSCAN IV series set standards in terms of compactness, performance, and integration capability. Thanks to reduced dimensions and integrated water cooling, they offer greater stability and an impressive 20 percent increase in dynamics compared to previous models.

The intelliSCAN IV is characterized by its ease of integration into a wide range of system concepts.

The housing is dust- and water-protected, meeting the IP66 protection class, and includes an interlock connection for integration into a safety circuit. An outstanding feature is the novel cooling concept. The housing integrates water cooling channels, which ensure optimal temperature stability for the galvanometer scanners, beam inlet, and electronics.

The new scan head generation is compatible with all RTC drive boards from SCANLAB. Users can choose between classic scanner control with a tracking error or the SCANahead control known from the excelliSCAN series to exploit the full dynamic potential of the scan head.

In addition, the intelliSCAN IV is 'ready for SCANmotionControl'. The new software enables unprecedented process control while minimizing processing times.

SCANmotionControl for state-of-the-art laser process control



SCANmotionControl is a trajectory planning software designed for scan systems, that accurately tracks dynamic-limited setpoints. Through the simultaneous adjustment of laser power and scan speed, SCANmotionControl offers superior process control and maximizes throughput. The software ensures precise application of laser energy, maintaining the defined intensity at the desired location and time. Additionally, the inclusion of simulation and parameter optimization significantly reduces process development time.

The new software can be integrated with both excelliSCAN and intelliSCAN IV systems. Particularly in demanding applications, such as additive manufacturing, the combination of scan heads and software enables precise and highly dynamic movements that are synchronized with the laser. Essentially, these solutions are attractive to customers who require maximum productivity with the highest quality.

Extended modular portfolio for flexible scanning solutions

"Our customers desire solutions that are optimally tailored to their requirements, and they value our extensive choice in scan systems," emphasizes Georg Hofner, CEO of SCANLAB. "The intelliSCAN IV is a highly attractive addition to our portfolio, and with the innovative SCANmotionControl software, we are adding a new dimension to the SCANLAB modular system."

SCANLAB's CTO Christian Sonner adds: "Our product innovations are the result of strong teamwork. We are delighted that the SCANmotionControl software has been nominated for the Photonics Innovation Award 2023. Knowing that the flexible combinability of our scan solutions is important to our customers, all future scan heads will be 'ready for SCANmotionControl'."

Visit SCANLAB at Laser World of Photonics 2023 in Hall A3, Booth 233, to experience the product innovations live and learn more about the new possibilities in laser process control.

Image material is available to download at

<https://www.scanlab.de/en/news-events/image-library>

About SCANLAB:

SCANLAB GmbH is a leading and independent OEM manufacturer specializing in scanning solutions for deflecting and positioning laser beams in three dimensions. With its headquarters in Puchheim near Munich, the company employs 490 professionals dedicated to continuous innovation and has a production capacity of over 40,000 systems annually.



The exceptional speed and precision of SCANLAB's high-performance galvanometer scanners, scan heads, and scan systems make them highly sought-after in various industries, including industrial materials processing, electronics, food and beverage, biotechnology, and medical technology.

Over 33 years, SCANLAB has consistently expanded its international technological edge through progressive developments in electronics, mechanics, optics, and software, all while upholding the highest quality standards.

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