

Modulight opts for AIXTRON system for tailor-made solutions

Laser specialist from Finland scales up production of epi wafers /
Deposition tool provides best-in-class product yield and low
production cost

Herzogenrath/Germany, October 22, 2020 – Modulight takes the next step to better serve its growing customer base. The Finnish developer and manufacturer of lasers and medical equipment adds an MOCVD tool to their in-house production of epi wafers as add-on to existing epitaxial growth capability. To make this step successful, Modulight relies on the proven MOCVD technology of AIXTRON SE (FSE: AIXA), a world-leading provider of deposition equipment to the semiconductor industry.

With the deposition system [AIX 2800G4-TM](#), the ISO certified semiconductor company uses the market-leading reactor for high-volume manufacturing of optoelectronic and radio frequency (RF) devices, based on Gallium arsenide and Indium phosphide (GaAs/InP) semiconductors. The AIXTRON system has a unique true horizontal flow Planetary Reactor® for best uniformity and highest efficiency, an all graphite process chamber for lowest particles and highest repeatability performance, and a triple process gas injection for maxed out yield optimization.

Epitaxial wafers of highest quality

The AIXTRON system will be installed in Modulight's fully owned semiconductor laser chip fab in Tampere, Finland. Modulight is currently expanding the fab with a 1,000 m² increase to production space. The AIX 2800GM4-TM deposition system allows the company to truly guarantee supply, change control and tailor-made solutions.

"The quality requirements in this sensitive application sector are extremely high. Therefore, the epi wafers must have highest deposition uniformity control, lowest particle count, best yield, and lowest production cost. The MOCVD technology of AIXTRON guarantees us the fulfilment of these high demands on epi wafers, and helps us to benefit from higher scalability," comments Seppo Orsila, Chairman and Chief Executive Officer (CEO) of Modulight, Inc.

The product range of Modulight includes various types of lasers from visible to infrared (400 – 2000 nm) with output power levels from milliwatts to hundreds of watts. The company has over 20 years' experience in designing and manufacturing FDA & CE approved lasers and providing value-added solutions to optical applications. Their lasers are used for

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medical, industrial and environmental applications due to their high efficiency and brightness compared to conventional light sources, the possibility of contactless material processing and monitoring from a distance and shorter cycle times due to fast processing.

The lasers, which are based on epi wafers of excellent quality, are also applied in the automotive industry, for example for reliable distance measurement, and autonomous driving. High-performance driver assistance systems play an important role in vehicles that will drive partially or fully autonomously in the future.

Growth market medical technology

Modulight lasers are also used in medical applications ranging from surgery to non-invasive therapeutic procedures, particularly in oncology, ophthalmology, and genetics. Tailoring of the wavelength adds versatility and offers a high degree of customization of output power and beam delivery. The laser platform of the company is used by leading institutes and companies in oncology as their laser of choice due to extreme versatility and simplicity of use.

“Due to the advantages of medical lasers, this market is growing very strongly. In the coming years, the billion-dollar mark is expected to be exceeded. However, excellent laser quality is essential for medical lasers. Modulight is one of the world's leading specialists in the laser market especially for medical applications, and we are very pleased that they have chosen our deposition system”, says Dr. Bernd Schulte, President of AIXTRON SE.

To download photos please click [here](#).

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About AIXTRON

AIXTRON SE is a leading provider of deposition equipment to the semiconductor industry. The Company was founded in 1983 and is headquartered in Herzogenrath (near Aachen), Germany, with subsidiaries and sales offices in Asia, United States and in Europe. AIXTRON's technology solutions are used by a diverse range of customers worldwide to build advanced components for electronic and opto-electronic applications based on compound or organic semiconductor materials. Such components are used in a broad range of innovative applications, technologies and industries. These include Laser and LED applications, display technologies, data transmission, SiC and GaN power management and conversion, communication, signaling and lighting as well as a range of other leading-edge technologies.

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For further information on AIXTRON (FSE: AIXA, ISIN DE000A0WMPJ6) please visit our website at www.aixtron.com/en.

About Modulight Inc.

Modulight, Inc. is a leading biomedical laser company for genetics, oncology, and ophthalmology. Modulight products are used by many pharmaceutical companies as well as leading cancer centers in the world to cure, develop, and diagnose the most demanding indications and therapies. While the majority of Modulight's products are sold in the US, the company is proud of their loyal customer base spanning over the entire globe. Modulight's support extends beyond the hardware – every week Modulight lasers are installed, trained and calibrated in various hospitals around the world. Modulight team is also assisting number of customers with most demanding regulatory and quality topics. Modulight is also often called when completely new, ground-breaking technology is needed. With 15 years and more than 1 million lasers manufactured, Modulight offers laser products and services from chip to complete turnkey laser solution, at wavelengths from visible to infrared. Modulight is one of the few medical laser companies who actually manufactures lasers.

Further information: www.modulight.com and Twitter [@modulight](https://twitter.com/modulight)

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This document may contain forward-looking statements regarding the business, results of operations, financial condition and earnings outlook of AIXTRON. These statements may be identified by words such as "may", "will", "expect", "anticipate", "contemplate", "intend", "plan", "believe", "continue" and "estimate" and variations of such words or similar expressions. These forward-looking statements are based on our current assessments, expectations and assumptions, of which many are beyond control of AIXTRON, and are subject to risks and uncertainties. You should not place undue reliance on these forward-looking statements. Should these risks or uncertainties materialize, or should underlying expectations not occur or assumptions prove incorrect, actual results, performance or achievements of AIXTRON may materially vary from those described explicitly or implicitly in the relevant forward-looking statement. This could result from a variety of factors, such as actual customer orders received by AIXTRON, the level of demand for deposition technology in the market, the timing of final acceptance of products by customers, the condition of financial markets and access to financing for AIXTRON, general conditions in the market for deposition plants and macroeconomic conditions, cancellations, rescheduling or delays in product shipments, production capacity constraints, extended sales and qualification cycles, difficulties in the production process, the general development in the semi-conductor industry, increased competition, fluctuations in exchange rates, availability of public funding, fluctuations and/or changes in interest rates, delays in developing and marketing new products, a deterioration of the general economic situation and any other factors discussed in any reports or other announcements, in particular in the chapter Risks in the Annual Report, filed by AIXTRON. Any forward-looking statements contained in this document are based on current expectations and projections of the executive board based on information available the date hereof. AIXTRON undertakes no obligation to revise or update any forward-looking statements as a result of new information, future events or otherwise, unless expressly required to do so by law.

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