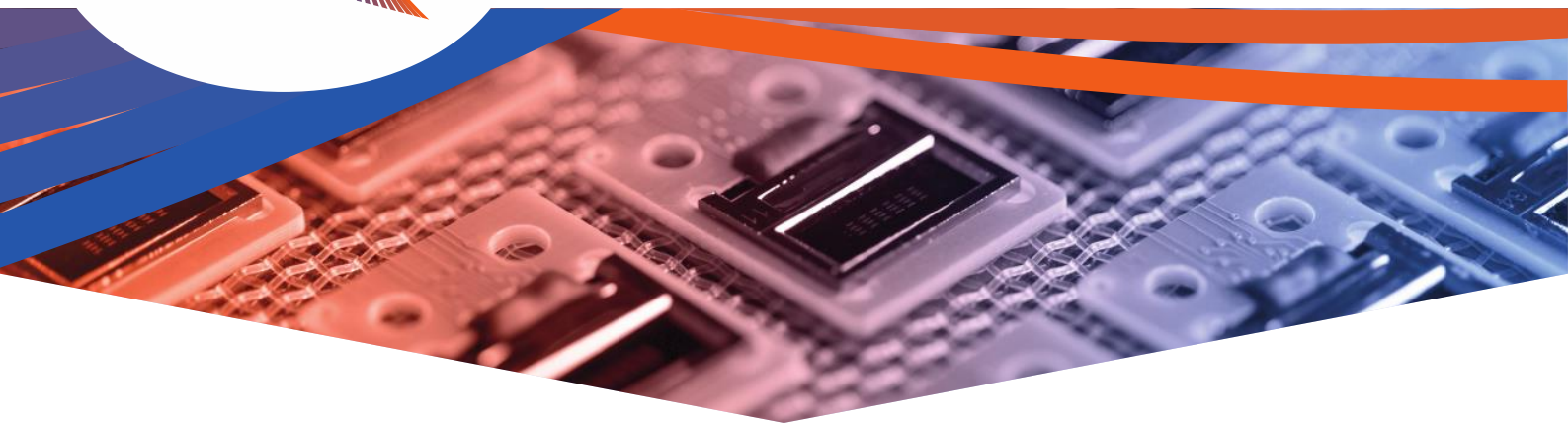
PHOTONICS ASSEMBLY

CONTACT
PHIX B.V.
PO Box 3504
7500 DM Enschede
The Netherlands

PHONE
+31 53 483 6850

E-MAIL
sales@phix.com



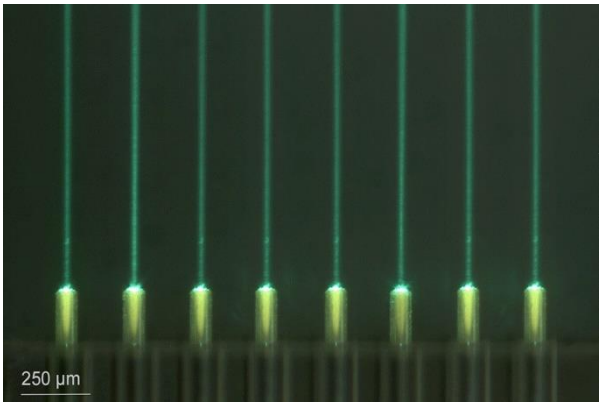
PHIX partners with Nanoscribe to drive industrial innovation in the photonics packaging market

Enschede/Karlsruhe, January 26th 2020

The photonics assembly service provider PHIX builds on Nanoscribe's high-performance 3D printing solution with alignment capabilities to offer 3D-printed standard lensed fiber arrays.

Nanoscribe, a BICO company, and the Dutch photonics packaging foundry PHIX B.V. have announced a collaboration to provide on-fiber printing services to the photonics packaging industry. With Nanoscribe's new high performance 3D microlens printing technology with nano-precision alignment capabilities, PHIX relies on this new technological approach in their manufacturing services of standard lensed fiber arrays (LFAs). The PHIX service portfolio will then contain the manufacturing of Free Space Micro-optical Coupling (FSMOC) components printed directly on fiber arrays and photonic integrated circuits (PICs). This extends PHIX's portfolio for bringing hybrid integration into mass production.

Both partners take a multidisciplinary approach to the development of photonic packaging solutions: from simulation to design and assembly. Nanoscribe's *Quantum X align* production tool automatically aligns and prints advanced optical lenses on fiber arrays, facilitating optimized optical coupling on PIC platforms. In addition, this is a reliable solution for passive alignment of chip modules. PHIX is thus adding a state-of-the-art manufacturing technology to provide solutions for hybrid integration of chip-to-chip and fiber-to-chip modules to its portfolio of assembly services for all major PIC platforms.



"We are confident in Nanoscribe's new, aligned 3D printing technology for producing lensed fiber arrays and lensed chips with virtually limitless optical designs," stated **Joost van Kerkhof**, COO of PHIX. *"This will enable us to further advance integrated photonics packaging."*

CONTACT
PHIX B.V.
PO Box 3504
7500 DM Enschede
The Netherlands

PHONE
+31 53 483 6850

E-MAIL
sales@phix.com

"PHIX's extensive expertise in assembly and packaging of photonic integrated circuits is a compelling fit for Nanoscribe to jointly validate and further advance our technology in an industrial environment," said Jörg Smolenski, Business Developer at Nanoscribe. *"We are excited to take manufacturing quality to the next level with our new approach of aligned high-precision 3D printing for manufacturing standard LFAs."*

About Nanoscribe

The medium-sized company develops and produces 3D printers and grayscale lithography systems as well as specially developed printing materials and application-specific solutions for various microfabrication applications. The specialist for additive manufacturing of high-precision structures and objects on the nano-, micro- and mesoscale was founded in 2007 as a spin-off of the Karlsruhe Institute of Technology (KIT) and has been part of the BICO Group since June 2021. More than 3,000 users and operators at top universities and innovative companies worldwide benefit from the groundbreaking technology and application tailored solutions for 3D Microfabrication. Nanoscribe has created its strong market leading position through high quality engineering and agility to continuously develop its products to meet customers' high expectations.
www.nanoscribe.com

About PHIX

PHIX offers assembly services and contract manufacturing for photonic integrated circuits (PICs) and MEMS. We build optoelectronic modules based on all major PIC technology platforms, such as Indium Phosphide, Silicon Photonics, Silicon Nitride, and Planar Lightwave Circuit. We specialize in chip-to-chip hybrid integration, coupling to fiber arrays, and interfacing of DC and RF electrical signals. By offering our knowledge already at the chip design stage, we ensure ease of scale-up for volume manufacturing. PHIX provides a one-stop-shop for PIC and MEMS assembly, from design to volume production. We have a state-of-the-art production facility located at the High Tech Factory in Enschede, the Netherlands, supporting the global industrial development of PIC and MEMS enabled modules.
www.phix.com

About BICO

Founded in 2016, BICO (formerly CELLINK) is the leading bio convergence company in the world. By combining different technologies, such as robotics, artificial intelligence, computer science, and 3D bioprinting with biology, we enable our customers to improve people's health and lives for the better.
The company has a focus on developing technologies that will advance Health 4.0 Next Generation Core Industry Ecosystems that enable tissue engineering, diagnostics, multiomics, and cell line development. BICO's technologies enable researchers in the life sciences to culture cells in 3D, perform high-throughput drug screening and print human tissues and organs for the medical, pharmaceutical, and cosmetic industries. We create the future of health.
The Group's instruments in the field amounts to 25,000, including all the top 20 pharmaceutical companies, are being used in more than 65 countries, and have been cited in more than 9,500 publications. BICO is listed on Nasdaq Stockholm under BICO.
bico.com

Right of use

Press contact

Nanoscribe: Alena Kirchenbauer, media@nanoscribe.com
PHIX: Gijs van Ouwerkerk, g.vanouwerkerk@phix.com