Lumotive’s Revolutionary Beam Steering Technology for Lidar Systems Recognized by Laser Focus World as “Top 20 Photonics Technology”

Seattle, WA – February 25, 2020 – Lumotive, a leading developer of solid-state LiDAR systems for consumer electronics, industrial automation, robotics and autonomous vehicles, today announced selection of its revolutionary beam steering technology based on patented Liquid Crystal Metasurfaces™ as one of Laser Focus World’s “Top 20 Photonics Technologies for 2019”. Published monthly since 1965 and daily online, Laser Focus World delivers comprehensive global coverage of optoelectronic technologies, applications and markets to optoelectronics professionals worldwide. Lumotive received seed funding from Bill Gates and Quan Funds.

“Among the many advances in automotive lidar this year is the unveiling of a reflecting optical metasurface-based beam steerer by Lumotive (Bellevue, WA) as a part of its all-solid-state lidar system,” said Laser Focus World’s Senior Editor, John Wallace. “In the device, a liquid-crystal coating on the metasurface allows tuning of its resonant subwavelength elements to steer the beam over a 120° angle with a random-access switching time of 25 μs and an aperture of up to 25 × 25 mm. The liquid-crystal metasurfaces (LCMs) are fabricated from silicon in a CMOS foundry using conventional materials and patterning processes. The Lumotive lidar system contains two LCMs, one each for transmit and for receive, helping to reject extraneous light.”

In addition to Lumotive’s technology, Laser Focus World’s top picks include wide-ranging advances in photonics such as precision fabrication and measurement, biosensing and imaging, and the use of artificial intelligence.

“Having Lumotive’s beam-steering solution recognized by Laser Focus World alongside other transformative technologies means a great deal to us,” said Lumotive co-founder and CEO, Dr. William Colleran. “We look to Laser Focus World to help us keep engineers, scientists and technical professionals in the automotive, optoelectronics and other industries up-to-date on our products and ongoing developments.”

Laser Focus World's readers are no strangers to Lumotive as the company has been featured in previous issues in 2019:

Company launch coverage:  

Contributed article by Lumotive co-founder and CTO, Gleb Akselrod.  
About Lumotive
Founded in 2018, Lumotive is a leader in solid-state, 3D-sensing systems, developing high-performance solutions for consumer electronics, industrial automation, robotics and autonomous vehicles. The Seattle-based company’s 3D-sensing solutions leverage revolutionary beam steering technology based on patented Liquid Crystal Metasurfaces™ to deliver an unprecedented combination of high performance (as measured by range, resolution and frame rate) and readiness for mass adoption (measured by cost, reliability and size). Lumotive’s beam steering chips enable this unique combination because they are optically large, enabling high performance, and manufactured with mature semiconductor processes, enabling low cost and high reliability. Lumotive’s investors include Bill Gates and Quan Funds. For more information, go to www.lumotive.com or follow us on Twitter @LumotiveLidar.

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