

LeddarTech to Showcase the First 3D Solid-State LiDAR IC for Autonomous Driving at CES 2018

Award-winning LeddarCore solutions to be demoed alongside automotive ecosystem partners

Quebec City, Dec. 5, 2017 – At CES 2018—from January 9 to 12 in Las Vegas, Nevada—LeddarTech will be presenting the LeddarCore LCA2, the industry’s first 3D solid-state LiDAR (SSL) integrated circuit (IC) enabling mass production of automotive LiDARs, in the [Leddar Ecosystem pavilion](#).

The LeddarCore LCA2 has been named a CES 2018 Best of Innovation Awards Honoree in two categories: Vehicle Intelligence and Self-Driving Technology, and Embedded Technologies. This groundbreaking product is the world’s first solution enabling rapid industrialization of 3D solid-state flash LiDARs that meet the automotive industry’s stringent requirements in terms of cost, performance and reliability. Delivering on LeddarTech’s aggressive product roadmap to support autonomous driving applications, the LeddarCore LCA2 makes commercial SSL deployments by automotive OEMs possible as early as 2020.

The latest SSL solutions based on the company’s flagship LeddarCore solid-state LiDAR ICs will be on demonstration in the Leddar Ecosystem pavilion at CES 2018. These include LCA2 IC engineering samples and LCA2-based 3D Flash LiDAR modules (A-samples). Also on display will be discrete implementations of LiDAR systems showcasing the LeddarCore LCA3, which is currently under development with the first samples to be made available in 2018.

The powerful LeddarCore ICs generate up to 245 000 digitized waveforms per second, from nearly 1.3 billion samples and as many sample-based arithmetic operations. These waveforms are further processed using LeddarTech’s proprietary signal processing algorithms, which perform over 25 billion operations per second; this produces a rich LiDAR data set enabling the most advanced ADAS and autonomous driving applications.

The Right Technology with the Right Business Model

Backed by a recent investment of US\$101 million from strategic partners, in addition to multiple commercial agreements with key automotive industry players, LeddarTech sets itself apart from other LiDAR suppliers with its unique business model based on patented Leddar technology. Through this approach, LeddarTech delivers its core proprietary LiDAR know-how to Tier-1 manufacturers embedded within LeddarCore ICs, and partners with them to develop custom SSL reference designs that meet the specifications of individual OEMs. The strategic investors, who have also signed commercial agreements with LeddarTech, include Delphi, IDT, Magneti Marelli and OSRAM.

“More key suppliers and Tier-1 manufacturers are turning to us over other LiDAR vendors because we deliver on our promises,” said Charles Boulanger, LeddarTech CEO. Added Boulanger, “They now see LeddarTech as a definitive reference in automotive SSL and recognize that the combination of our unique technology and flexible business model represents the safest and fastest path to high-volume production and deployment of LiDARs for autonomous driving applications.”

Leddar Ecosystem Pavilion

LeddarTech will be joined in its pavilion by many Leddar Ecosystem members who supply various specialized components, software and systems for use in the design of SSLs based on LeddarCore ICs.

These exhibiting members include:

- **Optical components:** OSRAM, Hamamatsu, Trilumina
- **R-Car systems on chip:** Renesas
- **Integrated circuits:** IDT
- **Operating systems:** Blackberry QNX
- **Optics simulation tools:** OPTIS
- **Sensor cleaning systems:** dlhBOWLES
- **Integrator:** AutonomouStuff
- **Perception Kit:** Groupement ADAS

A complete list of the Ecosystem members is available [on the LeddarTech website](#).

“The Leddar Ecosystem is a unique consortium of world-renowned suppliers that meets industry requirements for multiple sourcing of critical components used in the development of LiDAR solutions,” said Luc Langlois, LeddarTech’s Vice-President of Marketing. “Its members are truly committed to the LeddarCore program and provide product offerings that fulfill the requirements of Leddar technology for optimal alignment with our roadmap and our customers’ needs,” he added. “This ecosystem benefits our Tier-1 clients by giving them access to a wide variety of design choices, as well as various cost and performance options—allowing them to tailor LiDAR end-products to their intended applications, and not the other way around.”

Product integrations featuring Leddar SSLs will also be displayed in the CES exhibition booths of various LeddarTech Ecosystem members and strategic partners, including Magneti Marelli, OSRAM, Trilumina, Renesas and AutonomouStuff.

Follow LeddarTech news from CES at LeddarTech.com/CES2018.

About LeddarTech

LeddarTech is the developer and owner of Leddar, a patented solid-state LiDAR sensing technology that constitutes a novel approach to light detection and ranging. Developed over 10+ years of R&D, Leddar is a unique combination of advanced light wave digital signal processing and software algorithms that enable the production of solid-state LiDARs delivering superior performance and reliability at a highly competitive price. LeddarTech sensors are used in multiple mobility-related markets including automotive, intelligent transport systems, drones, and industrial vehicles. Its technology contributes to improving safety and quality of life through applications minimizing the risks of accidents, reducing traffic congestion, and improving transport efficiency.

www.leddartech.com

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