

## Leddar Technology Enables Cost-Effective Automotive-Grade Lidars In Headlamps And Rear Lamps For Adas Applications

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**QUEBEC CITY, CANADA, December 18, 2015 – LeddarTech will be demonstrating how Leddar detection and ranging technology can be integrated into standard automotive components such as headlamps, rear lamps, or side view mirrors, to enable the development and deployment of highly-optimized ADAS (*Advanced Driver Assistance Systems*) sensing solutions.**

Examples of lighting system assemblies demonstrating Leddar integration for ADAS sensing will be showcased during the CES conference to be held in Las Vegas, January 6-9, 2016, in collaboration with OSRAM Opto Semiconductors. Sensor performance assessment data and on-road trial results will also be presented.

Available to OEMs and sub-system manufacturers for integration into mainstream automotive products, the cost-effective Leddar optical time-of-flight technology delivers unmatched range-to-power ratio for superior sensing performances in a compact, flexible format, thus accelerating the deployment of reliable active safety systems from luxury to economy car segments alike.

According to Frost and Sullivan's Praveen Chandrasekar, Consulting Director & Research Manager in Automotive & Transportation for North America, *"ADAS/Automation is the fastest growing segment in the European and US automotive markets. The overall uptake rate or number of new cars shipped with ADAS systems are expected to exceed 30% of all vehicles sold in North America by 2020, and an even higher percentage in Europe"*. Chandrasekar expects ADAS global demand to grow at a CAGR of 24% over the next 5 years.

Various sensing technologies considered for ADAS show promising detection capabilities, but many fall short when it comes to meeting key automotive requirements such as range, form factor, robustness, or cost. *"Recent market studies reveal that consumers do value the advent of new automotive safety features but remain very price sensitive. Hence, ADAS solutions will have to be very cost-effective without compromising on performance in order to achieve a high rate of adoption by the mainstream car buyers"* states Michael Poulin, Director of product management at LeddarTech.

LEDDAR solutions bridge the cost, performance and form factor gaps experienced with previous ADAS optical time-of flight sensors. *"LeddarTech has developed a unique, patented optical detection technology that can be integrated into ICs and which makes optimal use of every photon to deliver the best range-to-power ratio in the industry"*, mentions Poulin, adding that *"since light sources and optics represent a significant portion of the cost of an optical sensor, Leddar's superior sensitivity means you can use more affordable optical components to achieve the required level of performance"*.

Leddar sensor modules integrating OSRAM Opto Semiconductor light sources such as the SFH4725S high-power infrared emitter and SPL-LL90 pulsed laser diodes are readily available. Providing a distance range which can exceed 150 m and multi-segment detection over fields of view from 9 to 180 degrees, Leddar technology overcomes many limitations of traditional fixed-beam Lidars. According to OSRAM's Product Marketing Manager Rajeev Thakur, *"Leddar sensors' performance may be further enhanced with the addition of new OSRAM product concepts being developed for*

*ADAS, such as a new high power pulse laser with integrated driver in a SMD package (905 nm, 75 W - in the future >100 W--, 5 ns switching time) and an upcoming 2x8 photodiode array which would add to Leddar's versatility".*

Leddar sensing technology provides highly reliable detection and ranging capabilities for a variety of obstacles (i.e. vehicles, structures, pedestrians, cyclists) over a wide field of view without any moving parts in virtually any weather, temperature, or lighting conditions, making it a logical choice for automotive ADAS.

*"Leddar truly represents a technological breakthrough which enables the high-volume deployments of optical time-of-flight sensing as part of various ADAS systems targeting the mainstream automotive market segments", said Charles Boulanger, CEO of LeddarTech. "We see tremendous interest from automotive OEMs and sub-system manufacturers to integrate Leddar sensing in either dedicated active safety applications or as part of a more comprehensive sensor fusion solution aiming towards autonomous vehicles", added Boulanger.*

**LeddarTech and OSRAM Opto Semiconductors will be showcasing examples of Leddar-enabled lighting system assemblies to select automotive clients and members of the press during CES in Las Vegas, January 6-9. To schedule a meeting, please send an email to:**

[communications@leddartech.com](mailto:communications@leddartech.com).

## **About LeddarTech ([www.leddartech.com](http://www.leddartech.com))**

Founded in 2007 as a successful spin-off of Canada's leading optics and photonics research institute, LeddarTech® is the world's only supplier of advanced detection and ranging systems based on patented, leading-edge sensing technology that performs time-of-flight measurement using pulses from infrared light processed through innovative algorithms, detecting a wide range of objects in various environmental conditions. Leddar™ technology is highly adaptable, serves multiple markets and comes in different formats, providing brand owners and OEMs with a solution that meets their needs while ensuring quick and simple integration.

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## **About OSRAM**

OSRAM, based in Munich, is a globally leading lighting manufacturer with a history dating back more than 100 years. The portfolio ranges from high-tech applications based on semiconductor technology, such as infrared or laser lighting, to smart and connected lighting solutions in buildings and cities. OSRAM had around 33,000 employees worldwide at the end of fiscal 2015 (September 30) and generated revenue of almost €5.6 billion in that fiscal year. The company is listed on the stock exchanges in Frankfurt and Munich (ISIN: DE000LED4000; WKN: LED 400; trading symbol: OSR). Additional information can be found at [www.osram.com](http://www.osram.com).

LeddarTech®

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