



New onsemi Hyperlux Image Sensor Family Leads the Way in Next-Generation ADAS to Make Cars Safer

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Industry-leading 150dB ultra high dynamic range (HDR) and LED flicker mitigation (LFM) establish Hyperlux™ as a key technology for safety-critical ADAS and autonomous driving (AD) solutions

SCOTTSDALE, Ariz.--(BUSINESS WIRE)--May 9, 2023-- **onsemi** (Nasdaq: [ON](#)), a leader in intelligent power and sensing technologies, today announced the launch of its [Hyperlux™ automotive image sensor family](#). With a 2.1 µm pixel size, industry-leading 150dB ultra high dynamic range (HDR) and LED flicker mitigation (LFM) across the full automotive temperature range, the Hyperlux family provides high performance, speed and advanced features to propel the next generation of Advanced Driver Assistance Systems (ADAS) forward. It also enables a smooth transition to Level 2+ driving automation, which requires the driver to only take over when alerted by the technology.

The Hyperlux family spans products with resolutions from 3 megapixel (MP) to 8 MP and higher, catering to both sensing and viewing camera applications. With an HDR of 150 dB, it captures high quality images under the most extreme lighting conditions without sacrificing lowlight sensitivity. The LFM capability of the platform ensures that pulsed light sources do not appear to flicker and thereby avoids flicker-induced machine vision issues.

"The simultaneous HDR and LFM capabilities ensure that the potential hazard can be identified in either very dark or bright scenes, critical to ADAS and in-cabin applications," said Huohong Jiang, Deputy General Manager of the Intelligent Driving Sensor Business Unit at Desay SV. "With the new Hyperlux technology, automotive OEMs and tier ones can expect proven high performance in all operating conditions to accelerate more advanced safety and convenience features."

Reinforcing onsemi's position as a market leader in automotive grade image sensors, the Hyperlux product family boasts the industry's lowest power consumption and smallest footprint. By using up to 30% less power and having an up to 28% smaller footprint than competing devices, the automotive image sensors deliver energy-efficient designs with the lowest system material cost. As more electronic content, including image sensors, gets added to cars, it is crucial that the content is as small as possible to fit in existing designs while not disrupting the internal and external style of the vehicle.

"As vehicles become more connected and move closer to autonomy, the importance of safety and security is more critical than ever," said Chris Adams, vice president, Automotive Sensing Division at onsemi. "Our knowledge of automotive applications and trends, along with our engineering expertise in image sensing enable our customers to develop next-generation products that bring us closer to the Vision Zero initiative, a strategy to eliminate all traffic fatalities and severe injuries."

Hyperlux is designed to meet the stringent safety requirements of Automotive Safety Integrity Level D (ASIL D) systems, while integrated security gives the highest coverage to cybersecurity threats. These sensors also offer a dual output stream at differing resolutions, allowing sensing and other functions to be performed simultaneously. Designers can benefit from the flexible architecture for the use of a single camera for multiple functions, reducing design time, risk and cost.

The first two sensors of the Hyperlux product family, [AR0823AT](#) and [AR0341AT](#), are now sampling for early access customers. onsemi will be showcasing Hyperlux alongside other intelligent power and sensing technologies at AutoSens Detroit, May 9-11, 2023.

About onsemi

onsemi (Nasdaq: ON) is driving disruptive innovations to help build a better future. With a focus on automotive and industrial end-markets, the company is accelerating change in megatrends such as vehicle electrification and safety, sustainable energy grids, industrial automation, and 5G and cloud infrastructure. **onsemi** offers a highly differentiated and innovative product portfolio, delivering intelligent power and sensing technologies that solve the world's most complex challenges and leads the way to creating a safer, cleaner, and smarter world. **onsemi** is recognized as a Fortune 500® company and included in the S&P 500® index. Learn more about **onsemi** at www.onsemi.com.

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