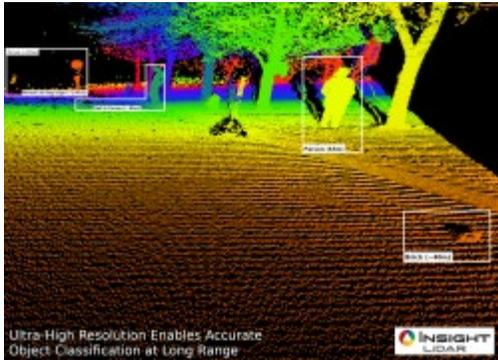




## NEWS RELEASE



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### **Insight LiDAR Enhances its Long Range FMCW LiDAR Offering**

*New Sensor Enables Lowest Cost, High Resolution 360 Degree Coverage*

Boulder, CO – March 16, 2021 – Insight LiDAR, a global leader in Frequency Modulated Continuous Wave (FMCW) LiDAR sensors on a chip, has announced the latest version of its high resolution, long-range FMCW lidar sensor for the automotive market. The new Insight 400 compliments the company's flagship Insight 1600, which offers the industry's highest resolution (0.025 x 0.025 degrees) and unparalleled image quality.

The new Insight 400 retains many of the key features of Insight LiDAR's ground-breaking ultra-high resolution, long-range sensor and has been optimized for long-range rear facing and early ADAS applications. As with the Insight 1600, the Insight 400 delivers instant velocity in every pixel, multiple returns per pixel and industry leading object detection probability in a reduced size and an even lower cost. When combined with the Insight 1600, the Insight 400 enables full 360-degree long-range lidar coverage at a total lidar cost per vehicle of less than \$1500; up to 4X cheaper than other solutions.

Insight is able to achieve this industry -leading performance and cost by putting all the key optical components onto Photonic Integrated Circuits (PICs) and sharing most components between the two models.

## Key Features:

- Highest resolution on the market enabling safe navigation in a variety of environments
- Instant velocity with every pixel, reducing system latency and improving accuracy
- Small size - 13 cm x 5 cm x 5.5 cm
- Proprietary true solid-state, fast axis scan
- Insight's patented tunable laser control algorithms for higher pixel count and much higher resolution
- Wide Field of View, enabling full 360-degree coverage at minimal cost

"High resolution LiDAR is ultimately about safety," said Michael Minneman, CEO Insight LiDAR. "And to get this ground-breaking safety sensor onto the most vehicles, it has to be cost effective. We've worked closely with our automotive and AV partners to design these products with the performance that enables safe AV operation at the cost that enables deployment across an OEM's entire product line."

### **All Roads Lead to Safety**

The introduction of the Insight 400 means that Insight LiDAR now is able to offer full long-range, 360-degree lidar coverage around a vehicle at a price of a single 120 degree sensor from competitors.

Insight's unique sensor combines several patented technologies to deliver a low-cost, chip-scale LiDAR that not only has the sensitivity to range low-reflectivity objects at over 250 meters, but also delivers industry-leading resolution, putting 10-20 times more pixels on objects. This ultra-high resolution, along with direct Doppler velocity, enables perception teams to identify and classify objects much faster than ever before, while additionally providing the critical information necessary to solve difficult autonomous vehicle "edge" cases.

While both models can be used anywhere on the vehicle, the Insight 1600 is best suited for front-mount longer range applications taking full advantage of 4-64x resolution advantage. Oncoming vehicles, pedestrians and even road debris can be identified within stopping distance with over 99.9% probability, even at highway speeds.

The Insight 400 with performance greater than all forward-looking long-range sensors available today, is ideal for providing rear-facing coverage, so important in merging and blind spot monitoring.

Insight LiDAR is a leader in the design and manufacture of Frequency Modulated Continuous Wave (FMCW) lidar, seen by many as the next generation of automotive lidar. Insight's core technology in highly-linear, tunable semiconductor laser sources, Photonic Integrated Circuits and FMCW LiDAR systems enables them to deliver unparalleled performance in a tiny chip-scale package with semiconductor cost efficiencies.

Further information about Insight LiDAR's Digital Coherent LiDAR™ is available at [www.insightlidar.com](http://www.insightlidar.com). Direct inquiries to the company can be made through [info@insightlidar.com](mailto:info@insightlidar.com) or at +1 (303) 604-5160

### **About Insight LiDAR**

Launched in 2016, Insight LiDAR is developing chip-scale, ultra-high resolution, FMCW LiDAR sensors. Based in Boulder, CO., the company and its parent, Insight Photonic Solutions, is an award-winning, global leader in 3D imaging and fast-scan, swept wavelength laser technology. Its products are used in applications ranging from automotive to biomedical imaging, semiconductor manufacturing to material processing.

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