OUSTER

Ouster Introduces Chronos: The Best-in-Class Automotive Digital Lidar Chip

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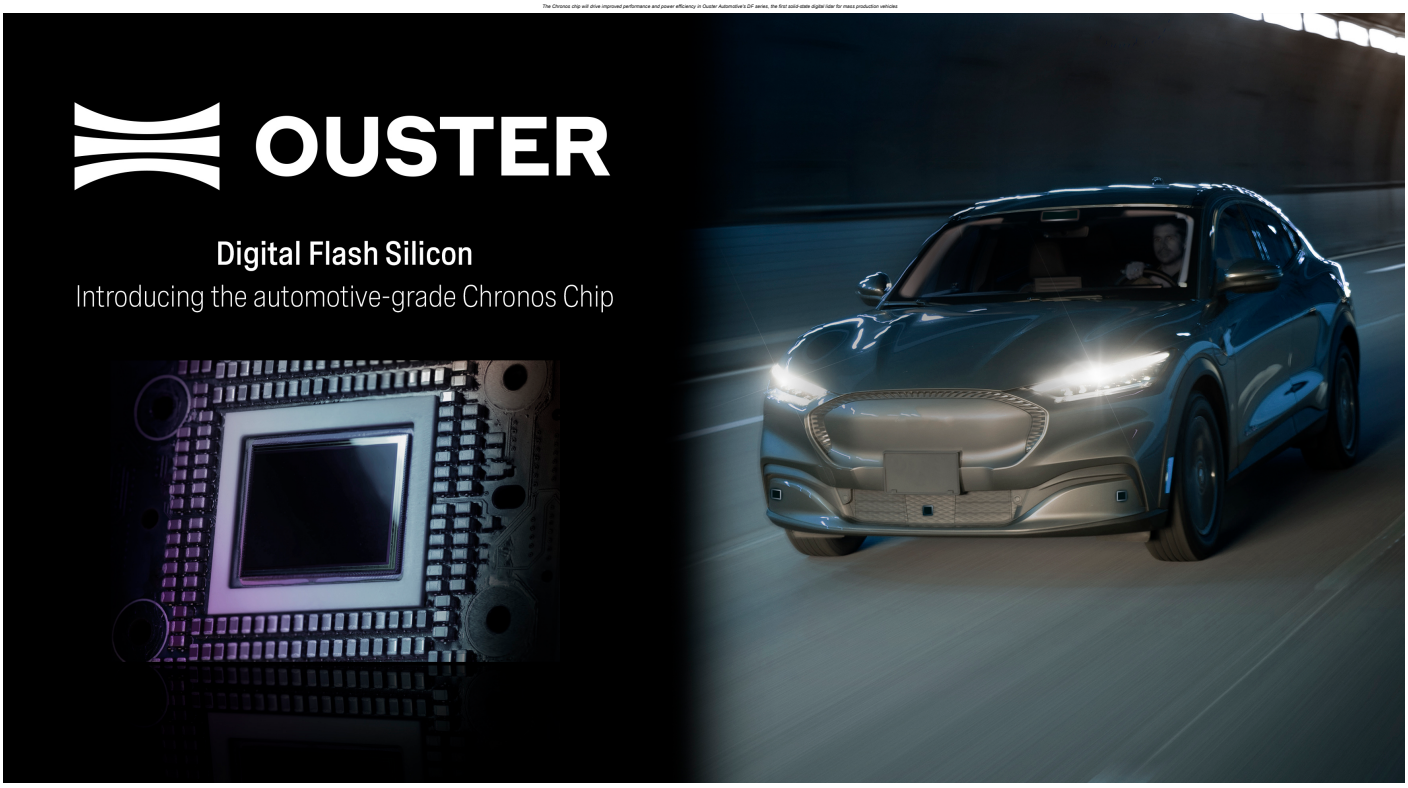
The Chronos chip will drive improved performance and power efficiency in Ouster Automotive's DF series, the first solid-state digital lidar for mass production vehicles.



Ouster's automotive-grade Chronos chip will power its Digital Flash (DF) series. (Graphic: Business Wire)

SAN FRANCISCO--(BUSINESS WIRE)-- Ouster, Inc. (NYSE: OUST) ("Ouster" or "the Company"), a leading provider of high-resolution digital lidar sensors, today announced the introduction of the Chronos chip, an automotive-grade, fully custom digital lidar silicon receiver that will power its DF solid-state sensor suite. The state-of-the-art Chronos chip is the foundation of the DF architecture and enables Ouster to deliver more performant, power efficient, and compact digital lidar sensors that enable L2 to L5 automation in high-volume automotive series production vehicles.

The Chronos chip harnesses Ouster's proprietary digital lidar architecture and some of the latest advancements in semiconductor technology. This design allows Ouster's DF sensors to benefit from the same dramatic performance improvements that made the digital camera ubiquitous across industries. With superior logic and performance capabilities, the Chronos chip delivers improved memory, dynamic range, and detection accuracy. Ouster expects the Chronos chip to be the most powerful SPAD-based lidar chip produced to date, reiterating the Company's leading edge in digital lidar semiconductors and systems.

As the backbone of Ouster's DF series sensors for automotive series production programs, the Chronos chip is designed to meet ASIL-B automotive functional safety requirements according to ISO 26262 and AEC-Q100 automotive qualifications. Ouster intends to tapeout the Chronos chip in late 2022, and to integrate the chips into the first sample units in 2023. Ouster expects the DF series to be available for mass-market passenger vehicles starting production in 2025.

"Unlike lidar technologies which require the complex integration of numerous off-the-shelf components, our proprietary and cutting-edge digital lidar technology produces simple and powerful sensors that automotive OEMs can trust to achieve new levels of safety and autonomy," said Ian Levy, VP of Ouster Automotive. "Ouster Automotive's Chronos chip represents the latest in SPAD technology, making our solid-state digital lidar sensors highly performant, reliable, power efficient, compact, and easily manufacturable."

"Since Ouster's inception, we knew that digital VCSEL/SPAD technology would be the future of lidar and usher in a new era of autonomy across our four industry verticals. We consistently leapfrog current performance with each chip tapeout for our OS sensors, and we are on track to do the same with our DF sensors," said Mark Frichtl, Ouster's Chief Technology Officer. "We believe our DF sensors powered by the new Chronos chip will be a major catalyst for growth over the coming years, and position us for automotive production program wins."

About Ouster

Ouster (NYSE: OUST) is building a safer and more sustainable future through its high-resolution digital lidar sensors for the automotive, industrial, smart infrastructure, and robotics industries. Ouster's sensors offer an excellent combination of price and performance with the flexibility to span hundreds of use-cases and enable revolutionary autonomy across industries. With a global team and high-volume manufacturing, Ouster supports approximately 600 customers in over 50 countries. Ouster is headquartered in San Francisco, CA with offices in the Americas, Europe, Asia-Pacific, and the Middle East. For more information, visit www.ouster.com or connect with us on Twitter or LinkedIn.

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, including but not limited to, statements regarding Ouster's financial outlook, market positioning, and anticipated results. Forward-looking statements give Ouster's current expectations and projections relating to its financial condition, competitive position, results of operations, plans, objectives, future performance and growth, potential revenue opportunity from Strategic Customer Agreements, including the potential for doubling performance and revenue in 2022, future orders, total addressable market, and business. Any statements regarding the doubling of the Company's contracted revenue opportunity do not speak to expectations for any periods beyond 2022. You can identify forward-looking statements by the fact that they do not relate strictly to historical or current facts. These statements may include words such as "anticipate," "estimate," "expect," "project," "plan," "intend," "believe," "may," "will," "should," "can have," "likely" and other words and terms of similar meaning in connection with any discussion of the timing or nature of future operating or financial performance or other events. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we expected, including: Ouster's limited operating history and history of losses; the negotiating power and product standards of its customers; fluctuations in its operating results; cancellation or postponement of contracts or unsuccessful implementations; the adoption of its products and the growth of the lidar market generally; its ability to grow its sales and marketing organization; substantial research and development costs needed to develop and commercialize new products; the competitive environment in which it operates; selection of our products for inclusion in target markets; its future capital needs; its dependence on its use of outsourced contract manufacturers, including its dependence on key third party suppliers, in particular Benchmark Electronics Inc., and manufacturers; ability to maintain inventory and the risk of inventory write-downs; accurate forecasts of market growth; its ability to manage growth; the uncertain COVID-19 macroeconomic risks related to transactional operations; risks of product delivery problems or defects; costs associated with product warranties; its ability to keep its competitive edge and maintain competitive average selling prices or high sales volumes or reduce product costs; conditions in its customers industries; its ability to recruit and retain key personnel; its use of outsourced employer organizations; its ability to timely and adequately protect and enforce its intellectual property rights; its ability to effectively respond to evolving regulations and standards; risks related to operating as a public company; risks related to the COVID-19 pandemic, and other important factors discussed in the Company's final prospectus and definitive proxy statement, dated February 12, 2021, filed with the Securities and Exchange Commission (the "SEC"), as updated by the factors disclosed in the section titled "Risk Factors" in its final prospectus filed with the SEC and dated August 19, 2021 and in Form 10-K filed with the SEC on February 28, 2022. Any such forward-looking statements represent management's estimates and beliefs as of the date of this press release. While Ouster may elect to update such forward-looking statements at some point in the future, other than as required by law, it disclaims any obligation to do so, even if subsequent events cause its views to change.

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