NEWS RELEASE

Onto Announces New EB40 All-Surface Inspection Module for Wafer Fabs and Advanced Packaging

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Eleven customers pre-ordered 75 Dragonfly G3 systems with new EB40 modules for high-speed, all-surface wafer inspection

New EB40 tool expands the Company’s process control market for advanced logic and memory wafers

WILMINGTON, Mass.--(BUSINESS WIRE)-- Onto Innovation Inc. (NYSE: ONTO) (“Onto Innovation,” “Onto,” or the “Company”) today announced its first shipment of the Company’s Dragonfly® G3 system with the new EB40™ module to a top three semiconductor manufacturer. Together, the system and module offer all-surface wafer inspection to address the yield loss caused by defects on the wafer edge and backside across front-end and back-end processes.

All-surface inspection is becoming critical for quality assurance at foundries and IDMs producing advanced packages. The prevalence of edge-handling equipment needed to accommodate thinner wafers can produce chips and cracks that potentially propagate into the die near the wafer’s edge, which becomes a costly loss on a finished wafer. That’s where the 30% greater sensitivity and twice the throughput of the integrated Dragonfly G3 system and EB40 module come in.

Onto Innovation’s new EB40 solution provides not only the required sensitivity to identify these defects at high speed but also offers the analytics software, such as Onto’s ADC (automatic defect classification), to determine the defect type, impact and, in some cases, origin. Yole Group estimates AI and HPC architectures will grow by greater than 30% over the next three years. Based on these estimates and the strong positive customer reception we have seen in the initial release of the Dragonfly G3 system with the EB40 module, we expect this new capability to result
in a process control SAM expansion for advanced logic and memory.

Wafer fab in-line process control requirements and BEOL final outgoing quality inspection are needed for the development of advanced node architectures in logic as well as emerging memory segments. This new market opportunity is in addition to the advanced packaging market where the combination of the Dragonfly G3 system and EB40 module is adding all-surface inspection to the Dragonfly G3 system’s tool-of-record status at the top manufacturers.

“A top-tier memory customer commented that front-end wafer processing cycle times are extending to several months, and they are trying to ensure that yield issues are not going undetected at their fabs. As a result, a lot of focus is now being placed on early detection of potential yield issues and inspection, including edge and backside,” commented Damon Tsai, director of product management within Onto Innovation’s inspection business.

He continued, “Early inspection of the wafer edge is especially critical since small edge cracks can potentially propagate into the die near the wafer perimeter. This is particularly important since the large size of these new devices means there are fewer chips per wafer, so any yield loss resulting from rejected die can be significant. Of course, the Dragonfly G3 system is also ideal for final outgoing quality assurance since the tool offers the final product inspection point for wafers moving to the packaging facility.”

The integration of the Dragonfly G3 system with the EB40 module not only introduces backside edge bead-removal metrology, but also offers a significant shift in sensitivity enabled by a new algorithm for defect detection, allowing this powerful duo of tools to exceed on-wafer needs and find backside scratches, color variations and large particles that can cause advanced packaging defects. The Dragonfly G3 system with the EB40 module is capable of doubling the number of wafers per hour offered by previous tools, while allowing manufacturers to detect residue and particles on the wafer surface with superior precision.

Volume purchase agreements and orders for the Dragonfly G3 system and EB40 module are part of the Company’s previously stated outlook for 2022.

About Onto Innovation Inc.

Onto Innovation is a leader in process control, combining global scale with an expanded portfolio of leading-edge technologies that includes un-patterned wafer quality, 3D metrology spanning chip features from nanometer scale transistors to large die interconnects, macro defect inspection of wafers and packages, metal interconnect composition, factory analytics, and lithography for advanced semiconductor packaging.

Our breadth of offerings across the entire semiconductor value chain helps our customers solve their most difficult
yield, device performance, quality, and reliability issues. Onto Innovation strives to optimize customers’ critical path of progress by making them smarter, faster and more efficient.

Headquartered in Wilmington, Massachusetts, Onto Innovation supports customers with a worldwide sales and service organization.

Additional information can be found at [www.ontoinnovation.com](http://www.ontoinnovation.com).

**Forward Looking Statements**

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 (the “Act”) which include statements relating to Onto Innovation’s business momentum and future growth; the benefit to customers and the capabilities of Onto Innovation’s products and customer service; Onto Innovation’s ability to both deliver products and services consistent with our customers’ demands and expectations and strengthen its market position, Onto Innovation’s beliefs about market opportunities as well as other matters that are not purely historical data. Onto Innovation wishes to take advantage of the “safe harbor” provided for by the Act and cautions that actual results may differ materially from those projected as a result of various factors, including risks and uncertainties, many of which are beyond Onto Innovation’s control. Such factors include, but are not limited to, length, severity and potential business impact of the COVID-19 pandemic, the Company’s ability to leverage its resources to improve its position in its core markets; its ability to weather difficult economic environments; its ability to open new market opportunities and target high-margin markets; the strength/weakness of the back-end and/or front-end semiconductor market segments; fluctuations in customer capital spending and any potential impact as a result of the novel coronavirus situation; the Company’s ability to effectively manage its supply chain and adequately source components from suppliers to meet customer demand; its ability to adequately protect its intellectual property rights and maintain data security; its ability to effectively maneuver global trade issues and changes in trade and export license policies; the Company’s ability to maintain relationships with its customers and manage appropriate levels of inventory to meet customer demands; and the Company’s ability to successfully integrate acquired businesses and technologies. Additional information and considerations regarding the risks faced by Onto Innovation are available in Onto Innovation’s Form 10-K report for the year ended January 1, 2022 and other filings with the Securities and Exchange Commission. As the forward-looking statements are based on Onto Innovation’s current expectations, the Company cannot guarantee any related future results, levels of activity, performance or achievements. Onto Innovation does not assume any obligation to update the forward-looking information contained in this press release.

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