

Rudolph Technologies Launches Second-Generation Dragonfly Inspection and Metrology System for Advanced Packaging

Dragonfly G2 system delivers greater than 50 percent higher 2D inspection speed and accommodates multiple sensor options, including Clearfind™ Technology

Wilmington, Mass. (August 29, 2018)—Rudolph Technologies, Inc. (NYSE: RTEC) today announced its new Dragonfly™ G2 platform, which incorporates many of the benefits of the Firefly™ system onto the Dragonfly platform, including higher sensitivity and throughput and the proprietary Clearfind™ Technology. The new system increases the options for advanced packaging customers to meet their wafer-based application challenges on a single platform. To date, customer evaluations have reported throughput increases greater than 50 percent over the first-generation Dragonfly system. The new Dragonfly G2 systems are scheduled to begin shipment in the latter part of the fourth quarter and will be highlighted at the SEMICON® Taiwan trade show September 5-7 in Rudolph's booth N686-4F.



The Dragonfly G2 system achieves significant throughput and productivity increases using proprietary camera technology combined with stage speed and accuracy. Additionally, its modular architecture permits plug-and-play configurability of Rudolph's technologies such as Truebump™ Technology, for more accurate bump height measurement, and Clearfind Technology, for non-visual residue detection. Streamlined software algorithms contribute to the faster throughput and enable the system to handle increasing bump counts, which have already exceeded 80 million bumps per wafer.

“Advanced packaging processes are evolving rapidly, with larger packages, shrinking features, and higher counts of smaller bumps on every wafer, and the Dragonfly G2 system is designed to meet these new challenges,” said Tim Kryman, senior director of corporate marketing at Rudolph Technologies. “At the same time, its increased throughput reduces cost-of-ownership and its

configurable modular design lets one system do the work of two. Based on the positive feedback from customers' beta testing we are expecting strong demand for this latest evolution of our technology. We expect the Dragonfly G2 system to meet our customers' future inspection needs as increasing demands for higher quality products are driving more data with greater integrity and faster throughput to meet the growing volumes of consumer and auto electronics products."

"An important driver for Rudolph Technologies is to increase our pace of innovation to ensure we are anticipating our customers' roadmaps," added Mike Goodrich, vice president and general manager of Rudolph's Process Control Group. "We were very pleased to be able to demonstrate that commitment with the release of this Dragonfly G2 system. Not only have we significantly improved throughput and imaging capability, but we have also provided the powerful Clearfind Technology to make a compelling, no compromise, advanced packaging process control system."

The Dragonfly G2 system can be ordered now with shipments expected to begin in Q4. First-generation Dragonfly systems can be retrofitted on-site with a second-generation upgrade kit.

For more information about Rudolph's process control solutions, visit www.rudolphtech.com.

About Rudolph Technologies

Rudolph Technologies, Inc. is a leader in the design, development, manufacture and support of defect inspection, lithography, process control metrology, and process control software used by semiconductor and advanced packaging device manufacturers worldwide. Rudolph delivers comprehensive solutions throughout the fab with its families of proprietary products that provide critical yield-enhancing information, enabling microelectronic device manufacturers to drive down costs and time to market of their devices. Headquartered in Wilmington, Massachusetts, Rudolph supports its customers with a worldwide sales and service organization. Additional information can be found on the Company's website at www.rudolphtech.com.

Safe Harbor Statement

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 (the "Act") which include the benefit to customers of Rudolph's products, Rudolph's business momentum and future growth and the market demand for semiconductors generally as well as other matters that are not purely historical data. Rudolph 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 Rudolph's control. Such factors include, but are not limited to, Rudolph's ability to plan and manage its resources and production capability, including its supply chain and fluctuations in customer capital spending. Additional information and considerations regarding the risks faced by Rudolph are available in Rudolph's Form 10-K report for the year ended December 31, 2017 and other filings with the Securities and Exchange Commission. As the forward-looking statements are based on Rudolph's current expectations, the company cannot guarantee any related future results, levels of activity, performance or achievements. Rudolph does not assume any obligation to update the forward-looking information contained in this press release.

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