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TTM Technologies Speeds Up PCB Solder Mask Processing With Orbotech Neos™ 800 Additive Printing Solution

Innovative, environmentally friendly inkjet processes transform the way solder mask is applied to PCBs for advanced electronics

YAVNE, Israel, July 21, 2021 /PRNewswire/ --[Orbotech](#), a KLA (NASDAQ: KLAC) company, today announced that [TTM Technologies](#), a global manufacturer of printed circuit boards and radio frequency components and assemblies, purchased and installed an Orbotech Neos™ 800, transforming the way solder mask is applied to PCBs. The recently available Orbotech Neos 800 inkjet solution replaces conventional solder mask (SM) processing with innovative additive SM printing. In this new installation, TTM cut the SM sequence by half compared to the existing conventional process, making it more efficient, reducing chemical waste and significantly cutting manufacturing turn-around time – an important capability in today's fast-moving electronics industry.



TTM selected the [Orbotech Neos 800](#) for its Stafford, Connecticut site following a rigorous testing and qualification program. TTM's global PCB customers include leaders in aerospace, defense, automotive, computing and medical.

"We are very excited to have brought this groundbreaking, environmentally-friendly technology in-house," said Phil Titterton, chief operating officer at TTM Technologies.

"Additive printing of solder mask is a significant improvement for us, as it eliminates process steps compared to the way we typically apply solder mask. This high-speed solution is 100% additive with no mess, less power, fewer chemicals, and substantial material savings. The Orbotech Neos enables us to increase our productivity in a smaller footprint on the factory floor while providing high-quality products to our customers."

Currently available in the U.S. and Europe, the Orbotech Neos 800 combines several SM

processing steps into a single multi-functional system, eliminating several manufacturing stages such as coating, tack-drying, exposure and developing. This streamlined, environmentally friendly, additive process increases productivity and ensures the consistent, high-quality printing that is critical to high volume manufacturing. It also enables reduced material and power consumption, as well as the associated labor and equipment maintenance costs, thereby decreasing the total cost of ownership.

"The Orbotech Neos 800 is another example of a disruptive technology coming to market from Orbotech, validating our innovative approach to manufacturing," said Yair Alcobi, president of the PCB division at Orbotech. "In the short time since it has been available, this technology has gained traction with customers. We're hearing from them that as the demand for advanced PCBs rises, shorter time to market and increased productivity with less waste and energy are the main drivers in their decisions to bring the Orbotech Neos on board."

At the core of the Orbotech Neos are two proprietary technologies: the new Structural Printing Technology™, enabling 3D-like quality printing, and the field-proven DotStream Pro Technology™, enabling precise solder mask printing at high speeds. Orbotech Neos can also print serialization data including 2D barcodes at multiple levels for advanced traceability capabilities.

For more information on the Orbotech Neos 800, please go to:
<https://www.orbotech.com/pcb/products/orbotech-neos-series>

For the Orbotech Neos product video, please go to:<https://youtu.be/OI9HjUOJfF4>

About Orbotech Ltd.:

Orbotech Ltd., a KLA company, is a leading global supplier of yield-enhancing and process-enabling solutions for the manufacture of electronics products. Orbotech provides cutting-edge solutions for use in the manufacture of printed circuit boards (PCBs) and flat panel displays (FPDs), as well as software for PCB computer aided manufacturing (CAM), engineering and Industry 4.0. Orbotech's solutions are designed to enable the mass production of innovative, next-generation electronics and improve the cost effectiveness of existing and future electronics production processes. For more information, visit www.orbotech.com or www.frontline-pcb.com.

About KLA:

KLA develops industry-leading equipment and services that enable innovation throughout the electronics industry. We provide advanced process control and process-enabling solutions for manufacturing wafers and reticles, integrated circuits, packaging, printed circuit boards and flat panel displays. In close collaboration with leading customers across the globe, our expert teams of physicists, engineers, data scientists and problem-solvers design solutions that move the world forward. Additional information may be found at kla.com (KLAC-P).

About TTM

TTM Technologies, Inc. is a leading global printed circuit board manufacturer, focusing on quick-turn and volume production of technologically advanced PCBs and backplane assemblies as well as a global designer and manufacturer of high-frequency radio frequency (RF) and microwave components and assemblies. TTM stands for time-to-market, representing how TTM's time-critical, one-stop manufacturing services enable customers to

shorten the time required to develop new products and bring them to market. Additional information can be found at www.ttm.com.

Forward Looking Statements: This press release contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements, including statements regarding the expected performance of the Orbotech Neos™ series of solutions and its expected operational, economic and environmental benefits, are subject to risks and uncertainties. Factors that may cause actual results to differ materially from those projected and anticipated in the forward-looking statements in this press release include delays in the adoption of new technologies (whether due to cost or performance issues or otherwise), the introduction of competing products by other companies or unanticipated technology challenges or limitations that affect the implementation, performance or use of Orbotech's and KLA's products, and other risk factors included in KLA's annual report on Form 10-K for the year ended June 30, 2020 and other filings with the Securities and Exchange Commission (including, without limitation, the risk factors described therein). KLA and Orbotech assume no obligation to, and do not currently intend to, update these forward-looking statements.



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