

MKS Sees Strong Early Market Adoption in Asia for its Newest HDI PCB Laser Manufacturing Solution

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Multi-system order for ESI® Geode™ system will enhance Meiko Electronics, Japan's HDI PCB manufacturing capabilities

PORTLAND, Ore., Sept. 02, 2020 (GLOBE NEWSWIRE) -- <u>MKS Instruments, Inc.</u> (NASDAQ: MKSI), a global provider of technologies that enable advanced processes and improve productivity, today announced that Meiko Electronics Co. Japan has purchased multiple ESI[®] Geode[™] systems to enhance its high-volume HDI PCB manufacturing capability. The recently released CO2-laser-based systems will be deployed at Meiko's high-end manufacturing facility in Vietnam.

"We are pleased with the market adoption of the Geode system," said MKS President and CEO John T.C. Lee. "Geode is well-positioned to take advantage of the growing market for HDI PCB processing solutions, as electronics manufacturers continue the path of miniaturization in order to meet the demand for smaller and more capable devices."

The Geode system delivers many benefits for high-end applications, such as 5G. According to Atsushi Sakate, Executive Officer, General Manager of Production at Meiko, "Beyond the Geode system's higher drilling throughput and accuracy, the system's smaller footprint and lighter weight enables us to plan capacity expansion with much more flexibility. Add to this the broad range of applications and materials that Geode can process, and the decision is clear."

Developed by MKS' Equipment & Solutions Division, already a market leader in flex PCB laser drilling solutions, the Geode system is optimized to process the rigid HDI PCBs and package substrates widely used in consumer electronics, such as smartphones and other handheld devices. Building on MKS' technology leadership in laser processing for flexible printed circuits, Geode's new CO2 laser technology and control capabilities deliver breakthrough performance. Its superior throughput, refined power control and small system footprint meet the needs of high-volume PCB manufacturers.

About MKS Instruments

MKS Instruments, Inc. is a global provider of instruments, systems, subsystems and process control solutions that measure, monitor, deliver, analyze, power and control critical parameters of advanced manufacturing processes to improve process performance and productivity for our customers. Our products are derived from our core competencies in pressure measurement and control, flow measurement and control, gas and vapor delivery, gas composition analysis, electronic control technology, reactive gas generation and delivery, power generation and delivery, vacuum technology, lasers, photonics, optics, precision motion control, vibration control and laser-based manufacturing systems solutions. We also provide services relating to the maintenance and repair of our products, installation services and training. Our primary served markets include semiconductor, industrial technologies, life and health sciences, research and defense. Additional information can be found at <u>www.mksinst.com</u>.

About the ESI Brand

ESI[®] is a brand within the MKS Instruments Equipment & Solutions Division. The ESI portfolio consists of laser-based micro manufacturing systems and component test systems that are used worldwide by manufacturers in the electronics industry to process the materials and components that are an integral part of the electronic devices and systems in use today. Leveraging over 40 years of laser-material interaction expertise and applied laser technology, ESI solutions enable customers to optimize production by providing more control, greater application flexibility and more precise processing of a wide range of materials. The result is higher production quality, increased throughput and higher back-end yields at a lower total cost-of-ownership. Additional information can be found at <u>www.esi.com</u>.

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About Meiko

Meiko Electronics Co., Ltd. Japan, is a leader in the design, manufacture and sale of printed circuit boards and auxiliary electronics. Its PCB Business provides state-of-the-art products such as AnyLayer HDI—which enables connectivity between all layers—adapted to the shrinking size of mobile phones and other handheld devices. Meiko also provides high-heat-dissipation PCBs and high-electric-current PCBs capable of withstanding harsh environments, such as those found inside car engines and solar power generators.

MKS Contact: Dale Paulin Marketing Operations Manager Phone: 503-671-5510 Email: dale.paulin@mksinst.com

