



Microelectronics Assembly Technologies

**FOR IMMEDIATE RELEASE**

**Promex Industries Expands Best-in-Class Capabilities, Installing Laser Depaneling and Advanced SPI Systems on Manufacturing Line**

*New Capabilities Support Higher-Density Assemblies, Flex Substrates, and Emerging Chiplet Architectures with Precision and Scale*

**SANTA CLARA, Calif. – May 1, 2025** – [Promex Industries, Inc.](#), a Silicon Valley-based provider of advanced design, packaging, and microelectronics assembly services, today announced it has expanded its manufacturing line, adding two advanced systems designed to support the industry’s most demanding microelectronics applications. The newly installed LPKF CuttingMaster 2127 ultraviolet (UV) laser depaneling and Koh Young aSPIre 3 automated solder paste inspection (SPI) systems bring heightened flexibility, quality, and throughput to the company’s advanced, best-in-class assembly process offerings.

The new tools represent key next steps in Promex’s efforts to enable continued high-level integration – from the chip/wafer level all the way to finished boards – on a wide variety of substrate materials. “These investments reinforce our commitment to helping customers build more advanced, compact, and reliable electronic assemblies,” said Dave Fromm, chief operations officer, Promex. “Together, the new laser and SPI systems expand our core capabilities and allow us to deliver higher quality, yield, and consistency— from prototype to production—reflecting our commitment to not just meeting but staying ahead of industry and customer needs.”

**UV laser depaneling**

The LPKF CuttingMaster 2127 system delivers ultra-precise UV laser singulation, micromachining, and cutting for a wide range of organic and composite materials common in many microelectronics products, especially those employing heterogeneous integration to co-package electronic and non-electronic components. Materials processed include polyimide and liquid crystal polymer (LCP) flexible circuit boards, FR4 circuit boards, organic/laminate substrates and interposers, and overmolded plastics/composites. With a <20 µm spot size and ±25 µm positional accuracy, the laser allows engineers to design boards with complex form factors and tighter layouts. This precision reduces up to 30% of dead space between components on the panel, maximizing design efficiency.

Enabling clean, stress-free singulation of flex and rigid-flex circuits is key to meeting customer demand for chip-on-flex and flexible packaging solutions. Offering this capability in-house allows Promex to improve turnaround times, enhance process control, and ensure consistent quality for critical applications.

**Inline SPI metrology**

To meet the stringent demands of fine-pitch surface mount technology (SMT), Promex has also added the Koh Young aSPIre 3 SPI system. Designed to perform 100% inline metrology, the system inspects solder paste deposits at every location on every panel—across rigid and flexible substrates—capturing detailed statistical data and building paste libraries for each design.

This data-driven approach delivers the highest standard in the True 3D SPI market, enhancing yield, enabling predictive quality control, and supporting tighter process windows essential to assembly of advanced components such as ball grid arrays (BGAs), chiplets, and high-density interconnects. These capabilities are especially critical for advanced assembly on thin, flexible circuit boards, where solder printing cannot be assumed to be consistent across the print area (as it would be for traditional, rigid circuit boards).



*Promex has expanded its core capabilities, adding an LPKF CuttingMaster 2127 laser depaneling system (left) and a Koh Young aSPIre 3 solder paste inspection system (right) to its manufacturing line.*

The new tools are already in use at the Promex site, supporting customer programs in emerging areas such as artificial intelligence, medical electronics, and space systems. Combined with the company's existing laser micromachining and advanced assembly capabilities, they position Promex to deliver fully integrated, high-quality solutions at scale.

### **About Promex**

Promex Industries, Inc. specializes in advanced design, packaging and assembly services for key subsystems used in a wide range of applications, such as optical, photonics, diagnostics, life sciences, medical and MEMS devices. The company is skilled at heterogeneous integration of tiny components with unique functionality and complex, custom or detailed assembly requirements. Founded in 1975, Silicon Valley-based Promex provides design-for-manufacturing services coupled with materials science expertise and broad assembly capabilities for small- to mid-volume onshore production. Services provided in the company's Class 100/Class 1000 cleanrooms include RoHS-optimized SMT, wafer thinning, dicing, die bonding, wire bonding, flip chip, and combining microelectronic and non-microelectronic components. Promex is ISO 13485:2016 and ISO 9001:2015 certified, IPC certified and ITAR registered. <https://promex-ind.com/>

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