



PRESS RELEASE

Go Big: Limata's X3000 accurately images ultra-large, flexible and endless PCB panels

Laser Direct Imaging (LDI) system offers the highest precision for oversize and flexible panel formats up to 110" x 48", while increasing throughput

Munich/ Ismaning, Germany – October 22, 2020 – [Limata](#), a provider of Laser Direct Imaging (LDI) systems for PCB manufacturing and adjacent markets, has launched the latest generation of its X3000 LDI system. This platform can handle the largest panels for dry-film patterning and solder mask imaging in PCB production without compromising on its highest precision standards in registration and resolution.

While standard PCB panel sizes have typically measured 24" x 18", today there is an increasing demand for larger panels, often 24" x 36" or bigger, as well as a need to produce flexible PCBs in non-standard sizes. These large PCBs support a range of growing applications such as LED displays, 5G communications, aerospace and EV-automotive electronics. Using large PCBs instead of a combination of smaller boards delivers superior signal quality or lower signal attenuation in high frequency applications, while at the same time noticeably reducing assembly and installation costs.

Being able to handle large panel formats, up to 110" x 48", also means that the X3000 can simultaneously image multiple smaller PCBs in a single run, for example twelve standard 24" x 18" boards. This increases throughput, by reducing loading and unloading times, which further equates to reduced costs per panel. In addition, work processes can be set flexibly in manufacturing locations, since the X3000 can be loaded and unloaded from the front- and back-side.

"With the X3000, we have built an impressive system that can handle even the biggest oversize boards, whilst still retaining the outstanding accuracy of our X1000 and X2000 models," said Matthias Nagel, CTO of Limata. "In addition, the X3000 also supports roll-to-roll for the handling of endless flexible boards, with the largest PCB manufactured so far measuring 25 metres in length."

Auto-calibration

The X3000 model is market-proven and installed at multiple customer sites. This latest system generation further builds on the X-Series family's proven reliability, and utilizes an integrated auto-calibration system further delivering extremely high accuracy – unprecedented for a system of this size. The system improves registration quality with linear and nonlinear transformations, which are automatically applied in response to any distortion that it detects. In



LIMATA

addition to PCB production, this accuracy makes the machine well-suited to applications such as chemical milling and industrial etching.

X3000 machine configurations are available with 2, 3 or 4 laser heads, providing a capacity of up to 24 ultra-violet (UV) lasers in total. A high resolution (HR) option provides an adjustable laser spot size for advanced HDI production, reliably handling dams and spaces down to 2 mil / 50 µm. The platform uses cost-efficient high energy UV diode-lasers that achieve lifetimes (MTBF) of over 25,000 hours, thus further reducing TCO.

Faster solder mask imaging

Like all X-series system platforms from Limata, for solder mask direct imaging tasks the X3000 can also be equipped with Limata's innovative LUVIR® technology, which uses a combination of UV and infrared (IR) lasers to reduce UV power consumption. Furthermore, this significantly increases the speed of solder mask (SM) direct imaging and achieves a TCO that is up to 40% lower than competing systems.

###

About Limata

Limata GmbH, headquartered in Munich/Ismaning (Germany), is an innovative provider of Laser Direct Imaging (LDI) System solutions and imaging technologies for the global PCB manufacturing industry and adjacent markets. PCB applications imaged (exposed) on Limata equipment include all standard and advanced PCB product types as well as custom and growing applications in the area of oversized panels. With direct staff, operations and/or value-added distributor partnerships in all key PCB manufacturing regions, Limata serves its key account customer base locally supported by a dedicated engineering and applications team in Munich (Germany) with local service and application teams in the EU, North America and Asia. For more information, please visit www.limata.com.