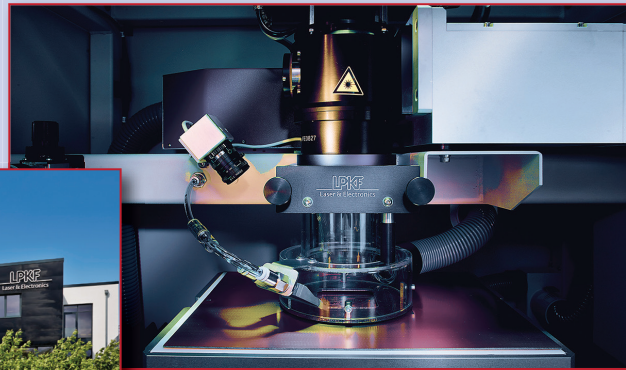
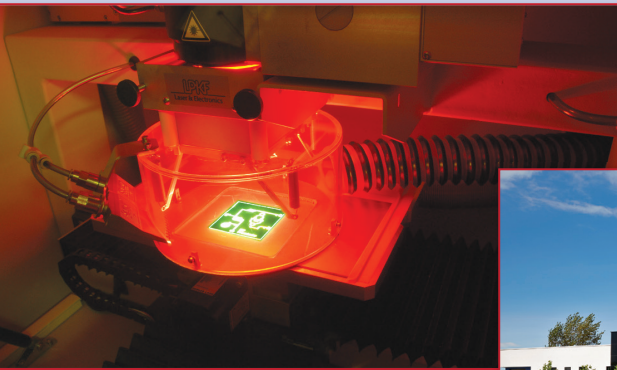


# FAB\$ and LAB\$S

## LPKF Continues to Make a Global Name for Itself



Those familiar with LPKF, the technology it uses and the products it manufactures would be justified in thinking that the first two letters of the name might stand for 'Laser' and 'Prototyping'. In fact, LPKF stands for *Leiterplatten-Kopierfräsen*, which translated means circuit board copy milling and refers to the establishment of the company in 1976 when it began to make a name for itself with its unorthodox procedures for the prototyping of printed circuit boards, establishing its CAD controlled milling technology as an efficient and pollution free alternative to etching.

Headquartered in Garbsen, Germany, LPKF Laser & Electronics AG has continued to innovate and expand its horizons, both technically and geographically. Currently the company boasts around 800 employees, serving customers worldwide via subsidiaries and/or commercial representatives. Around 20 percent of the workforce is engaged in research and development.

*Microwave Journal* readers are likely to be most familiar with LPKF's PCB prototyping capability. They use high-energy light as a tool and offer very advanced capabilities. Modern lasers can work in the 50  $\mu\text{m}$ /15  $\mu\text{m}$  range, which is put into perspective by the fact that a human hair is approximately 120  $\mu\text{m}$  thick!

There are different mechanisms for laser machining: The laser vaporizes tiny amounts of material with each pulse. It can also heat up partitions, expose light sensitive layers or even weld parts by melting them. The one thing that LPKF processes have in common is that the micro-machining process puts high demands on precision, with less emphasis on pure laser power.

As the main site for PCB production systems and Rapid Prototyping (RP) systems, the Garbsen head-

quarters is staffed by approximately 300 people. It houses the R&D centers for different business units, several laboratories for material and applications tests, the business development division, which is geared up to recognize and meet market requirements, as well as the production and service departments.

In 1994 LPKF set up a wholly owned subsidiary in Slovenia, which is responsible for producing and developing PCB and SMT systems, working in conjunction with the team in Garbsen. The facility also develops and produces laser sources exclusively for its own prototyping and production systems.

LPKF has key branches in U.S., Japan and South Korea and recognized the potential and significance of the China market by establishing LPKF Tianjin Co. Ltd. as a new subsidiary in 2000. Since then China has become LPKF's largest service location, positioned in six different cities as well as Hong Kong. Almost 100 service technicians and sales representatives are employed to attend to installed systems and the needs of customers. LPKF offers 24/7 services all around the world and runs a customs warehouse with spare parts.

On the heels of its 40<sup>th</sup> anniversary, LPKF can celebrate significant development since its inception and its ambitions do not stop there. The company has set a goal of freeing laser technology from its image as an expensive, elite product, and establishing it as an economical production technology. LPKF is entering new markets and evolving to cater for the latest technologies. For instance, any modern smartphone uses Laser Direct Structuring (LDS) parts for connection purposes or as antenna. The progression from CAD controlled milling continues.

[www.lpkf.com](http://www.lpkf.com)