

## Precision glass processing supports the trend towards heterogeneous integration

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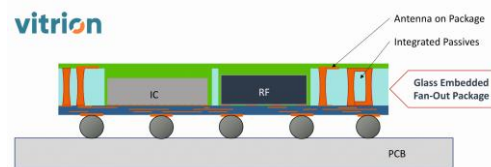
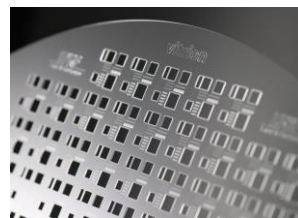
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### Laser Induced Deep Etching (LIDE) for thin glass opens new perspectives

"With the new LIDE precision process, we are enabling microsystems technology to exploit the full potential of glass," explained Dr. Roman Ostholt, Vice President LIDE at LPKF, in a presentation at the 3D Systems Summit 2019 in Dresden, Germany. The examples ranged from through glass vias to glass embedding and glass capping solutions with almost vertical walls.

Due to its properties, glass is one of the most interesting materials for many areas of Advanced IC and Wafer Level Packaging. For a long time, it was considered very difficult to process. Production-related surface defects have given glass the reputation of being susceptible to brittle fracture and thus at best suitable for simple packaging tasks. "Thanks to Laser Induced Deep Etching technology (LIDE), it is possible for the first time to create deep microstructures in glass without causing microcracks, stresses or other surface defects. Machining is extremely precise and the process is fast. With the use of LIDE-processed glass, even more is possible in heterogeneous integration in advanced IC and wafer level packaging than before".

The information from the lecture on the LIDE process and the possibilities it opens up for microsystems technology can be found in a compact format on the [Vitron](http://www.vitron.com) homepage: www.vitron.com.



**Figures:** Glass substrate for embedding fan-out packages featuring additional micro-structures (left); Glass Embedded Fan-Out Package (right)

**About LPKF**

LPKF Laser & Electronics AG manufactures machines and laser systems used in electronics fabrication, medical technology, the automotive sector, and the production of solar cells. Around 20 percent of the workforce is engaged in research and development.