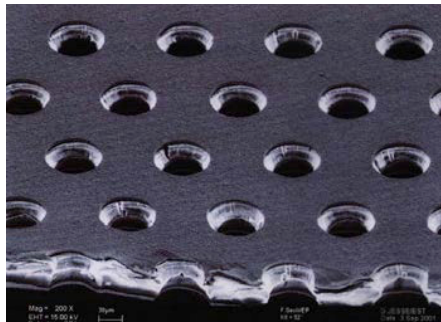


# MICROCHEMICALVIAS



*Previous methods to produce microvias are based on complex technologies such as laser, plasma or photo imaging. Chemical Via is a new chemical method to make microvias for high density printed multilayer circuits. Microvias are used to interconnect adjacent layers and consist of a small diameter hole (usually 70µm) with a thin metallic deposit covering their cylindrical walls to ensure the local conductivity between the bottom and top layers. Microvias of any shapes and dimensions are made possible at low production costs.*

*The technology was used by CERN PCB manufacturing workshop for the production of PCboards for HEP needs.*

## AREA OF EXPERTISE

- Microelectronics
- Material Sciences

## IP STATUS

- Ready for licensing.
- Patented technology, WO03055288.

## CONTACT PERSON

[rita.ferreira@cern.ch](mailto:rita.ferreira@cern.ch)

Find out more at:

[kt.cern](http://kt.cern)

## FEATURES

- Easy elimination of elements (e.g. glue) by dissolving using a chemical process.
- Kapton carving by using a sequence of simple chemical baths.

## APPLICATIONS

- Microelectronics.
- PCBs industry.

## SPECIFICATIONS

- Etching time (9-18 min).
- An isotropic etching technique (Deep reactive ion etching) is used.
- Minimum via diameter (40µm).

## ADVANTAGES

- Vias of several possible dimensions from microns to centimeters.
- Initial fabrication investment to use method is low.
- Vias of any shape (circle, star, square, etc.) can be produced and standardised.
- Process or method compatible with all standard PC assembly lines.



technology

Knowledge Transfer  
Accelerating Innovation