

A close-up, high-angle photograph of a microchip circuit board, showing intricate gold-colored traces and components. The image is partially obscured by a dark blue diagonal overlay on the left side.

# Advanced Laser Solutions for Interconnect and Component Production.

ProVia™

Laser Drilling Systems

RapiTrim™

Laser Resistor Trimming Systems

# PPI

# ProVia Laser Via Drilling & Cutting Systems

ProVia FP-UC      *UV and CO<sub>2</sub> Laser*  
ProVia FP-C      *CO<sub>2</sub> Laser*  
ProVia FP-U      *UV Laser*



## Configured For Any Application

Systems are configured for virtually any application including blind and through-hole via drilling, cutting, routing, skiving, cavity formation and defect repair.

## Designed for Next-Generation High Volume Via Drilling Requirements

The system auto-calibration ensures repeatable job quality with minimal effort on the part of the operator. Optional networking software with automatic file retrieval and job creation as well as optional panel automation with slip-sheet handling is also offered.

## Single or Hybrid Laser Options

The dual-laser hybrid system offers robust processing in the widest range of materials while CO<sub>2</sub> or UV systems provide low cost solutions for specific applications.

## Key Benefits

- Stability ensured through fully automatic run-time calibration
- Flexible processing through multi-step and multi-pass tools
- Automated file conversion and job creation
- Full system diagnostics and data logging
- Unattended job creation
- Ready for Industry 4.0

## Applications

- Blind and through via drilling
- Routing, patterning and skiving
- Cavity formation
- Circuit Excising
- Coverlay routing
- Defect repair

# RapiTrim Laser Resistor Trimming Systems

RapiTrim-C/P/A	<i>Components and Circuits</i>
RapiTrim-R	<i>Chip Resistors</i>
RapiTrim-S	<i>Semiconductor Wafers</i>
RapiTrim	<i>Full-size PCB Panels</i>



## High Accuracy Laser Trimming

Advanced laser and beam control, combined with proprietary high-speed flying probe technology allows RapiTrim to outperform older technology in high volume production as well as low-volume, high-mix operations.

## Precision Process Control

Modern software allows the visualization of all job components in map or camera overlays. Clearly see immediately what and where the process is in real time, including pass and fail indications.

## Modern Software and Hardware

With the complexity of modern applications rapidly increasing, RapiTrim systems must meet specifications for current and future requirements. Window 10™ software ensures systems can communicate with other advanced production systems and databases.

The Future of Resistor Trimming™

## Key Benefits

- Removes limitations on circuit size, orientation or density
- Low cost of operation
- Flying probe, probe card and custom measurement
- High accuracy, high bandwidth real-time measurement system
- Capable of volume production or low-volume, high mix with easy job changeover
- Automation options
- Ready for Industry 4.0

## Applications

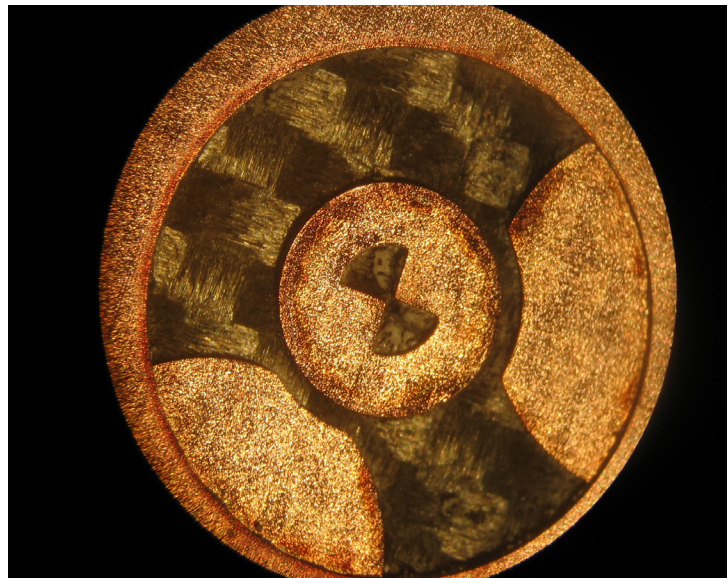
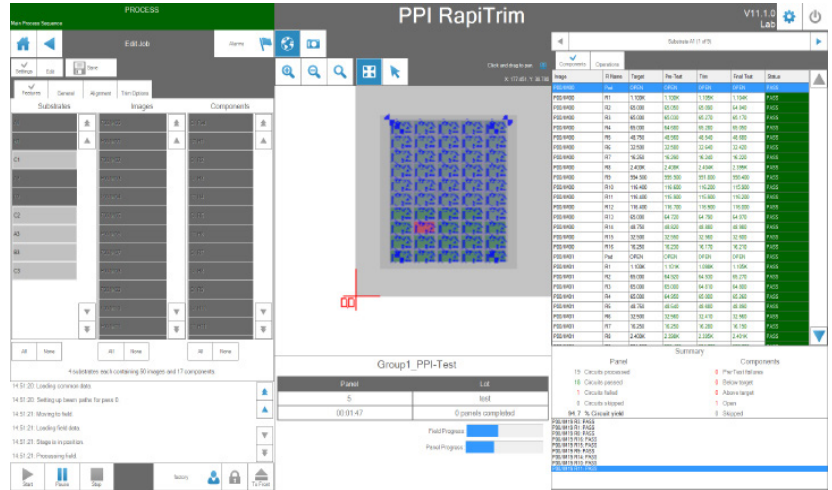
- Thick and thin film hybrid circuit and component trimming
- Chip resistors
- Semiconductor wafers
- RF and ASICs modules
- Embedded Circuits

# ProSys System Software

Intuitive graphical user interface that offers unmatched ease of use for both operators and process engineers. All machine setup and calibration controls, job and process settings, vision and process map, status and diagnostic information are accessible with a single click or tap.

## Laser Resistor Trimming

- Job creation through an interactive graphical map of components, circuit features, alignment targets and trims.
- Extensive DXF and IPC-D356 file import support automates job creation
- Resistor location, orientation, values and limits are automatically defined.
- Probe test points can be automatically defined from DXF metalization information.



## Laser Drilling and Cutting

- Provides a graphical map of job features and facilitates panel orientation.
- Full support of industry standard input files formats including mixed drill and rout tasks in the same job
- Independently controlled laser pulse energy and repetition rate
- Drill process tools allow precise control over all aspects of the laser dose, allowing process optimization in all materials.

## About PPI Systems

As a leading producer of laser material processing solutions since 2003, PPI Systems is passionate about providing world-class equipment and support to its customers. Based in Ottawa, Canada, PPI designs and manufactures turn-key laser drilling and trimming systems for the electronic interconnect and component markets from its 23,000 square foot production facility.

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

