

Fall 2024

PPI

Newsletter

www.ppisystems.com

Resistor Trimming Solutions

Resistor Trimming on Pressure Sensors

The Future of Resistor Trimming

The RapiTrim family of resistor trimming systems can be delivered in a variety of configurations suited to different applications. The flying probe version is ideally suited to high-mix, quick-turn production. The probe card version is more appropriate for high volume production of only a few part layouts. While both system configurations can be of use in the manufacture of pressure sensors, custom solutions also play a role.

Pressure sensors are used in a wide variety of applications including automotive, process equipment, and industrial and medical equipment (e.g. for respirators for Covid patients).

Read more...

<https://www.ppisystems.com/wp-content/uploads/2024/06/Solution-Pressure-Sensors.pdf>

Events



IMS 2025
San Francisco, CA
June 15-20, 2025



EuMW 2025
Utrecht, Netherlands
Sept. 21-26, 2025

RapiTrim-S Semiconductor Wafer Trimming System

The RapiTrim-S is a high performance, turnkey laser trimming system for the optimization of linear and mixed-signal IC devices on semiconductor wafers. Spots sizes range from 6 to 12 microns.

- IR laser trimming and wafer probe system with superior laser control ensuring better precision and accuracy when compared to older designs
- Simplified integration of industry standard automated testing equipment (ATE) through hardware and advanced ProSys wafer trimming software allowing control of the trimmer through testers
- Compatible with industry standard probe cards
- Intuitive ProSys software to facilitate rapid job setup and new process development
- 300x300 mm vacuum chuck for up to 12" wafers
- Automatic run-time calibration for optimum process integrity
- Industry standard wafer loader/unloader options to facilitate the transfer of your wafers safely and efficiently during the manufacturing process.

<https://www.ppisystems.com/systems/rapitrim-laser-resistor-trimming/rapitrim-semiconductor-wafer-trimming-systems/>

Product Insights

Resistor Trimmer Automation

As more and more electronics production facilities employ "lights-out manufacturing" concepts and move towards I4.0, becoming fully automated with little or no human presence, PPI's RapiTrim laser resistor trimming systems are at the forefront of automation choices.

Stack Loaders

Automatic part stack loading systems load and unload substrates with sizes up to 200x200 mm using a vacuum pickup. Cup locations are adjustable to accommodate small to maximum size substrates. Slipsheet handling is also available. Systems contain two pickup heads, one for loading and one for unloading substrates. These substrate stacks (load and unload) are located at the front of the machine for easy access and exchange.


Read more...

<https://www.ppisystems.com/how-automation-in-laser-resistor-trimming-is-meeting-standard-production-and-industry-4-0/>



Options include:

- Manual load with individual substrates up to 300x300 mm
- Automatic part stack loading systems load and unload substrates with sizes up to 200x200 mm using a vacuum pickup
- PPI offers SMEMA-compatible solutions compatible with a range of magazine automation suppliers.
- In-line automation using the same SMEMA compatible hardware as the magazine loader
- PPI engineers can propose solutions for your unique needs, from custom fixturing to custom automation



Is It Time To Upgrade Your Resistor Trimming System?

As resistor trimming systems designed in the 1980's and 1990's reach their end of life, manufacturers are increasingly forced to choose between continuing to perform repairs and commit to increasing time spent performing maintenance, versus purchasing new equipment. Avoiding unplanned downtime and the high cost of repairing obsolete manufacturing equipment must be balanced against the cost of new capital equipment.

Modern resistor trimming systems, with continuous development, integrate present-day electrical, mechanical and software features that are required by manufacturers. Equipment must be able to meet the speed and accuracy requirements of today's production line as well as future manufacturing needs.

PPI Systems works with customers at every stage of the purchase to assist in making the decision to upgrade, designing systems to fit into their production line, providing a complete installation, training and support plan.

Articles and Case Studies

PPI Releases New Wireless Probe Card Design

<https://www.ppisystems.com/corporate/contact/news/ppi-systems-releases-new-wireless-probe-card-design/>

RapiTrim Solution: Trimming Temperature Sensors

<https://www.ppisystems.com/wp-content/uploads/2024/06/Solution-Temperature-Sensors.pdf>

RapiTrim Case Study: Benefit Analysis of Flying Probes

<https://www.ppisystems.com/wp-content/uploads/2021/12/RapiTrim-Case-Study-3.pdf>

Designed to meet today's applications, our laser processing systems are complete turnkey 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

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