



LASER TRIMMER PAL

The unique passive alignment technology of MicroContact allows the trimming of all resistors in a single process step. Therefore it is significantly faster and more efficient than conventional solutions. The substrate is fixed between the pressure bell and the rigid needle adapter. The compressed air in the pressure chamber counteracts the contacting force. All resistors are now contacted from below and are exposed at the top, which means they can all be trimmed through the pressure glass in one process.



Advantages of the PAL laser trimmer

- All resistors can be trimmed in a single cycle.
- The substrate is processed in only one processing step.
- Only one machine is required (space saving).
- Only one adapter per substrate is required (cost saving).
- Quicker adjustment - only one adapter needs to be adjusted.
- Quicker batch processing time.
- No limitation of the resistor density.
- Test points with a minimum of $\varnothing 150\mu\text{m}$ are required.
- Due to suction cleaning of the trim combustion in the pressure chamber, the substrate, the adapter and the machine are not contaminated.
- Vision system for laser trimming and aligning.
- Panels can be stepped through in X and Y direction.
- Cost-effective system (1 trimmer and not 5-8 devices).

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Specifications

machine type	fully automated passiv alignment laser trimmer
substrate feed	inline, blister, magazine
measurements	-
adapter type	rigid needle adapter
contacting way	one side from below
contacting area	50 x 50mm to 100 x 100mm
contacting force	≤ 800N
test point size	≥ 150µm
test point pitch	≥ 200µm
PCB- / carrier size W x L	200 x 220mm
marker system, optional	-
PCB cleaning, optional	cleaning roll or airknife for bare substrates
changing system	screwed adapter grid with quick clamping systemscrewed adapter grid with quick clamping system
fixating of PCB	clamps
PRS / camera	Cognex with PatMax
control	brick.technology with Windows
user interface	brick.touch on 17" screen
communication	-
dimension (W x D x H)	3000 x 1900 x 2000mm
weight	≥ 1600kg
supply	3 x 400V, 50/60Hz, 6kW 6 bar compressed air