



LS LASER
SYSTEMS



MEMBER OF

**PHOTONICS
SYSTEMS**

GROUP



LS-9600TD Laser Trimmer

... for adjusting thin- and thick film, as well as hybrid- and SMD circuits by **active and passive** trimming of resistors, capacitors and inductivities.

LS Laser Systems GmbH

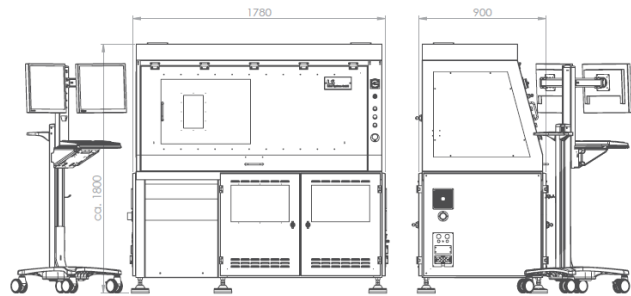
Justus – von – Liebig – Ring 9
D-82152 Krailling

P: +49 89 / 502 002-0

F: +49 89 / 502 002-30

www.ls-laser-systems.com

info@ls-laser-systems.com



LASER SOURCES*

- ▶ 532 or 1064nm wavelength
- ▶ ns and ps-pulse length
- ▶ Up to 6W average power
- ▶ 0 - 100% pulse energy attenuation
- ▶ Spot sizes (cut width) between 10 – 40µm

MOTION SYSTEM*

- ▶ x/y stage with linear motors
 - Travel range up to 330 x 630mm
 - e.g. Ceramics substrate of up to 6"x8"
 - e.g. FR4 customizable
 - Resolution 1µm
 - Acceleration 5m/s²
- ▶ Motorized theta axis
 - Up to +/- 90°
 - Resolution 0.001°
- ▶ Motorized or manual z-axis
- ▶ Motorized z-axis for probe unit

VISION SYSTEM*

- ▶ GigE CMOS Camera
- ▶ Edge Detection, Area Search, Model Finder
- ▶ Illumination
 - Grazing incidence
 - Coaxial
- ▶ In-situ setup

SOFTWARE*

- ▶ HTML front pages for easy operation
- ▶ LabView environment for program generation and measurement features
- ▶ LS-MaTriCS for laser source & galvanometer control
- ▶ WIN 10 based

MEASUREMENT SYSTEM*

- ▶ Active and passive trimming
- ▶ Active Guarding
- ▶ Source Measurement Unit (SMU)
 - max. 60V/ 0.5A
 - 100fA, 100nV resolution
 - Up to 1.8MS/s
- ▶ Digital Multimeter (DMM)
 - Max. 300V/ 1A
 - min. 10µH, 300pF
 - Up to 1.8MS/s
- ▶ Switch Matrix
 - Free selection of Force & Sense
 - Up to 138x8 slots @ up to 1A

PROBE CARDS*

- ▶ LS Probe Card (40 pins),or
- ▶ Accuprobe SK65 (48, 70, 100 pins), or
- ▶ Customized

TRIM CUTS*

- ▶ P, L, J, D - Cut
- ▶ Meander Cut
- ▶ Shave Cut (symmetrical)
- ▶ Raster Cut

OPTIONS*

- ▶ Flying Probes
- ▶ Hybrid System with probe card and flying probes
- ▶ Substrate Height Sensing
- ▶ Automation (semi or full)
- ▶ Automatic sliding door
- ▶ IEEE Bus (GPIB)
- ▶ Uninterruptable Power Supply (UPS)
- ▶ General system customization

* Depending on application requirements

