Laser Direct Imaging

PLI 800 Twinline Speedlight 2D
PLI 800

**TECHNICAL SPECIFICATIONS**

**Throughput (18 mJ/cm²)**

- 720 exposures/hour (or 360 two-sided panels/hour)

**Resist pattern**

- Minimum feature (line/space): 25 µm*
- Roughness: ± 2.5 µm
- Data resolution: 2 µm
- Depth of field: ± 300 µm

**Registration**

- Front to back side: up to ± 10 µm

**Panel format**

- Size, max.: 660 x 650 mm (expandable to 660 x 850 mm)
- Thickness: 0.05 mm – 8 mm
- Exposure field width, max.: 650 mm

**Panel weight**

- Max. 6 Kg

**Light source**

- Laser diodes with 405 nm wavelength

* Requires appropriate resists as well as appropriate upstream and downstream process designs.

**FEATURES**

- Max. throughput of up to 720 exposures/hour, the highest performance in the industry.
- Dynamic utilization of LDIs: Two LDIs can be operated independently, for absolute flexibility in maximizing the utilization.
- “One panel Job” functionality, job-switching “on-the-fly”. Unnecessary to empty the LDI system, it can handle the production of jobs down to job size „1“ in parallel.
- Pilot panel scaling: Up to 10 pilot panels.
- Traceability: Flexible serialization. Various possibilities to expose the serial number of the panel, or individual regions of the panel with ascending numbers. Even with several different sequences of numbers.
- Multispool: Handling spool data for several imaging systems.
- Order statistics.
- Failure resistance: If a fault/maintenance occurs on a single LDI, all outstanding exposing jobs will be done by the remaining LDI.
- Registration accuracy peaking in ± 5 µm @ 3 Sigma** with laser drilled through holes or vias.
- „Step and Repeat“: Partial registration of up to 64 regions with all registration methods mentioned.
- Smart Service Concept.

* Offers a wide range of customization options.

**Depending on method and registration mark quality and accuracy.

- MultiScan technology (9 polygons, 288 diode lasers) for high-throughput/high accuracy exposures.
- Conductive pattern determined in real time for each exposure.
- Registration/alignment and scaling in real time.

6-axis robots for high speed, high accuracy handling.

Registration of a large variety of position marks.