



First EIE SA

General specifications EDI line

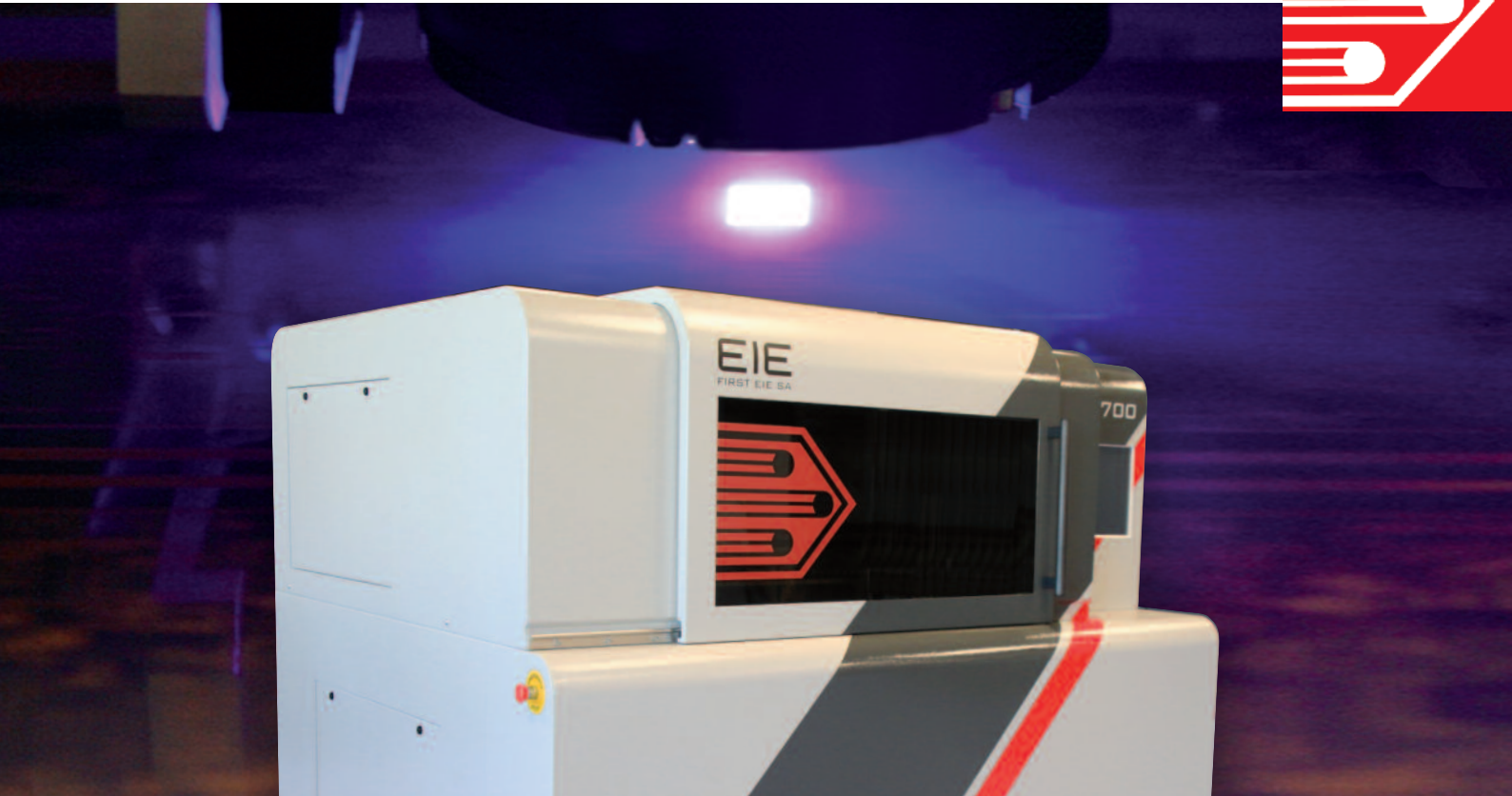
■ Flexibility ■ Simplicity ■ High quality ■ Easy maintenance ■ Optimized investment

|                                  |   |  | EDI500 | EDI700 |
|----------------------------------|---|--|--------|--------|
| Exposure unit                    | Max. image size   | 620 x 690 mm (24.4" x 27.2")<br>788 x 920 mm (31" x 36.2")   | •      | •      |
|                                  | Compatible panel sizes  | Any size up to : 620 x 720 mm (24.4" x 27.6")<br>Any size up to : 800 x 1000 mm (31.5" x 39.4")                    | •      | •      |
|                                  | Panel thickness   | 0.1 to 10 mm (0.004" to 0.4")  | •      | •      |
|                                  | Substrate type  | Most common Etch Resists   | •      | •      |
|                                  | Panel holding   | First EIE vacuum table<br>First EIE Panel clamping system  | •      | •      |
|                                  |   |  | Option |        |
|                                  | Minimum Line Width  | 30 µm (1.2 mil)  | •      | •      |
| Optical Engine                   | Technology  | DMD with advanced UV Lens  | •      | •      |
|                                  | Light source type   | Very high pressure arc lamp  | •      | •      |
|                                  | Light spectrum  | 365 to 450 nm (UV-A)   | •      | •      |
|                                  | Exposed energy  | 4 to 1000 mJ/cm²   | •      | •      |
| Photoimagable Substrate          | Type  | Compatible with all used etch resists<br>Compatible with all used solder masks<br>UV-sensitive silver halide films | •      | •      |
|                                  |   |  | •      | •      |
|                                  |   |  | •      | •      |
| Built-in Raster Image Processor  | Data input formats  | RS274D, RS274X, DPF and EIE RPL  | •      | •      |
|                                  | Optional input formats  | ODB++, PostScript, TIFF-PACKBITS, PDF, AI (ADOBE ILLUSTRATOR)  | •      | •      |
|                                  | Via third party software  | DXF, DWG, other upon request   | •      | •      |
|                                  | Network compatibility   | Network File System TCP-IP   | •      | •      |
| User Interface                   | Operator-friendly user interface with touch panel including First EIE MPS and Remote Queue Manager Software |  | •      | •      |
| Panel Pack                       | CAM Software to EDI500 data automatisisation for minimal operator interaction                               |  | Option | Option |
| Wizards                          | For equipment easy calibration and adjustment   |  | •      | •      |
| Panel Alignment and Registration | Automatic registration and side alignment with on-board CCD camera  |  | •      | •      |
|                                  | Or manually with locating pins  |  | •      | •      |
|                                  | Unique rotation table   |  | •      |        |
| Serialization Dynamic Data       | Serial numbers, time-code, barcodes 1D or 2D (QR-Code, DataMatrix and others) by D-code mapping             |  | Option | Option |
| Exposure Time (20" x 16")        | Less than 90 seconds  | Varies on resist sensitivity and exposure energy   | •      | •      |
| Overall Accuracy                 | ± 15 µm   |  | •      |        |
|                                  | ± 5 µm  |  |        | •      |
| Repeatability                    | ± 5 µm  |  | •      |        |
|                                  | ± 2 µm  |  |        | •      |
| Operating Conditions             | Temperature relative humidity   | 20 ± 2°C 50% ± 10% (non-condensing)  | •      | •      |
|                                  | Stainless steel Enclosure for Clean Room  |  | Option | Option |
|                                  | Power requirements  | Single phase : 230 VAC ± 10%, 2000 Watts   | •      | •      |
|                                  | Compressed air Dry and oil free   | Minimum : 6 bars, 56L/min (90 psi, 2 cfm)  | •      | •      |
| Size and Weight                  | Width x Depth x Height  | 1560 x 1890 x 1470 mm<br>2300 x 2000 x 1700 mm   | •      | •      |
|                                  | Weight  | 850 kg   | •      |        |
|                                  |   | 2400 kg  |        | •      |

The Latest Imager Technology

EDI series

Quality & Reliability



© 08 2018 First EIE SA SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



First EIE SA • Ch. de la Vuarpillière 27 • CH-1260 Nyon • Switzerland  
Tel. +41 22 307 0630 • sales@FirstEIE.com • www.FirstEIE.com

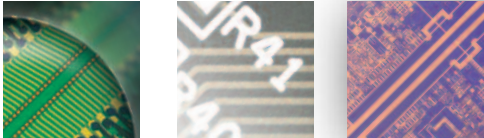


The True Figures



SWISS QUALITY

The True Figures





■ Affordable ■ Flexibility ■ Simplicity ■ Data Processing Experience ■ High quality ■ Reliability ■ Easy maintenance ■ Optimized investment



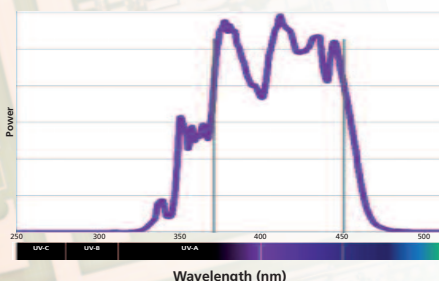
# Direct Imagers EDI series

## First EIE SA using Latest proven Technology

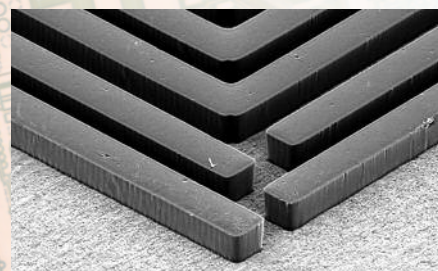
### Main features

- Smart design for **simple head adjustment**
- Modular design for **easy maintenance**
- Laser auto-focus system
- Integrated registration camera
- Rotation table for improved file to panel adjustment.

### Established UV source



Broad UV spectrum, **from 365 nm to 450 nm** makes it compatible with all industry standard Etch Resists, Solder Masks and Legends.



### Panel holding

First EIE **Granite/Glass** table with vacuum **zoning** system.

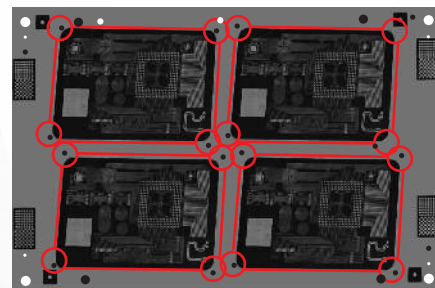
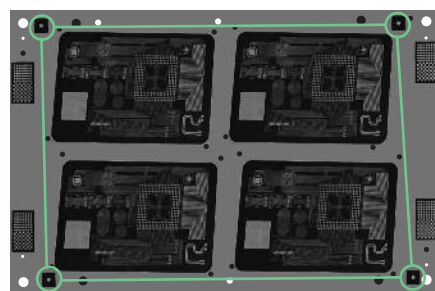


### Registration / Alignment



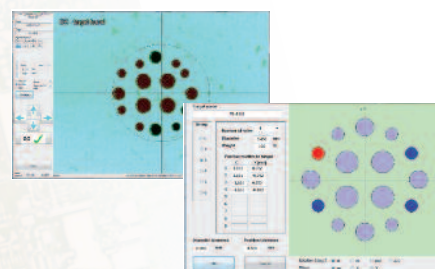
Automated A/B sides registration and scaling using image recognition or locating pins.

### Local Scaling option



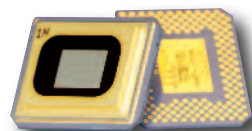
**Composite target.** To align a single image to multiple sets of hole patterns that have been drilled at different times with potentially different scaling and coordinate origins.

The typical reason for this is when blind vias, microvias, filled vias and through holes are all drilled into the same panel.



### DMD Technology

State of the Art Direct Image Projection, using TI's DLP® chip, our Direct Imager brings to the market a compact and simple direct exposure equipment that is equipped with **DMD technology**.



### Software solutions

The EDI500 software offers a very operator friendly interface and superior flexibility in your language. It brings to the system **the vast experience** of First EIE in file management and data processing.



**Panel Pack** from CAM to Panel in two clicks.

### Optimized Cost

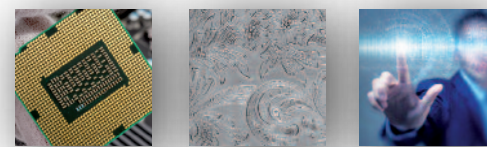
The **EDI500** Direct Imager **is compact** with a small foot-print, low power consumption, and minimal maintenance requirements.

Optimized Light Source Unit designed for easy lamp replacement.

The **EDI700** Direct Imager is based on gantry technology with linear motors. It's unique vacuum table built with a **granite-glass** structure brings optimum panel holding, with zone system, and very high accuracy.

Enhanced **thermal management** is embedded in the machine, there is no need of an external cooling unit.

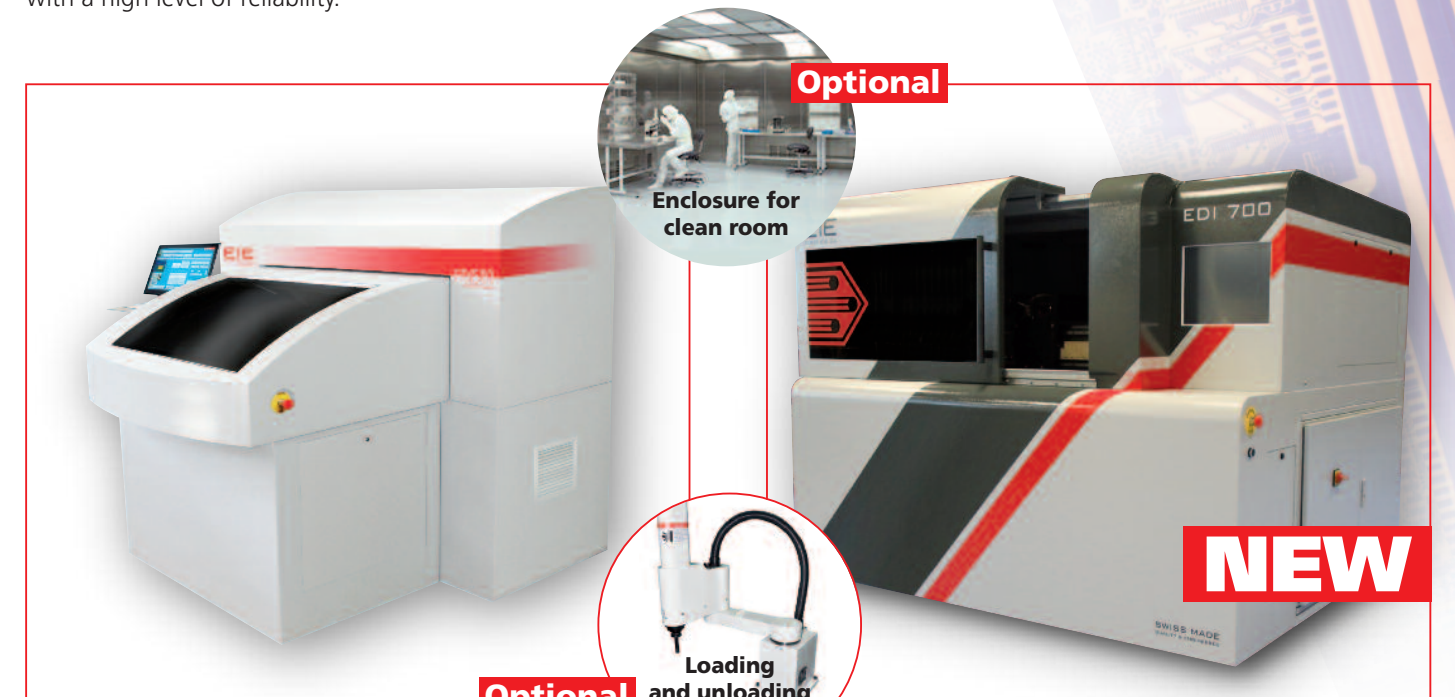
The Direct Imager series benefits from **the wide expertise** of First EIE, a leading supplier of Photoplotting and Inkjet Printing solutions. An equipment that will address most requirements of production shops that provides Quick-Turn PCBs at an **affordable price**.



Developed **in close collaboration** with **our partners**, our new Direct Imager series integrates an industry proven DMD Optical Head, which is based on **TI's DLP chip** with a dedicated active thermal management to improve **DMD life time**. The specifically designed optical lens is optimized to offer the highest image accuracy.

**Swiss Quality** With smart design and First EIE qualified components. **Designed to protect** your investment, our machines will always be upgradable to the next level.

**Accessible** This new Direct Imager has been designed to provide even **more operational and maintenance simplicity** with a high level of reliability.



EDI500 **Cost effective**  
620 x 690 mm 24.4" x 27.2"

EDI700 **Quality & Engineered**  
788 x 920 mm 31" x 36.2"



Customized Direct Imagers : **Roll-to-roll, sizes over 1000 mm - 34", ...**