

## Smart Print

### Maskless lithography system for rapid-prototyping

Microelectronics  
Optics

Biotechnologies  
Optoelectronics

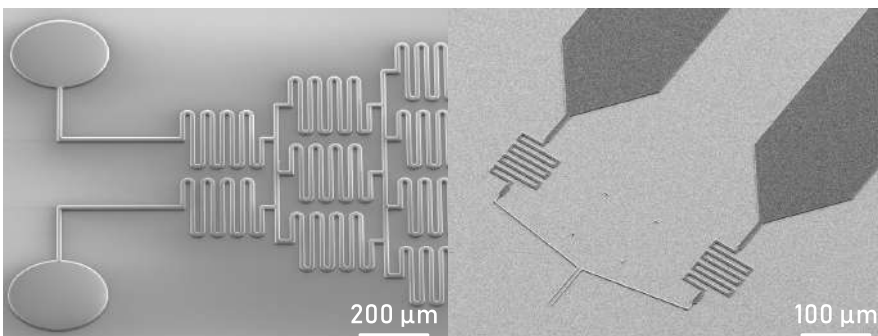
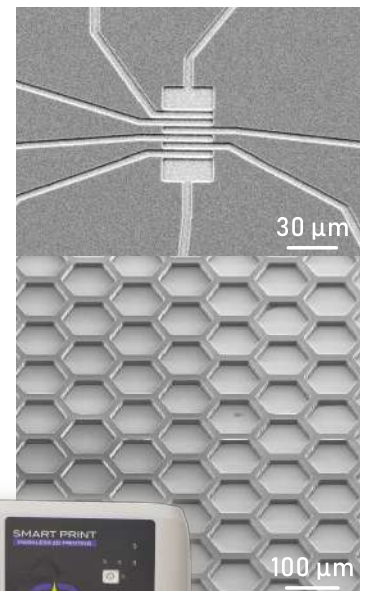
**SMART PRINT** is a maskless lithography equipment, based on a  $\mu$ LCD projection technology, compatible with a wide range of resists and substrates. Our system can produce any 2D shapes at micron resolution without the need for a hard-mask.

#### Key features

- Writing resolution down to  $2\ \mu\text{m}$
- Adjustable writing field and resolution with exchangeable objectives
- Compatible with CAD files or bitmap images
- Compatible with g-line photoresists
- Compatible with a wide range of substrates (silicon, glass, metal, plastic,...)
- Compatible with any sample size up to 4" wafer
- Camera feedback for alignment steps

#### Key benefits

- Time and money saving due to the absence of a hard-mask
- Intuitive alignment method with direct overlay of the design on the sample
- Table-top with very small foot print
- Technology well suited for microelectronics, 2D-materials, microfluidics, optoelectronics, optics or any other 2D microfabrication application



# Smart Print

## Specifications

### Microfabrication system

|                       |                                       |
|-----------------------|---------------------------------------|
| Light source          | Exposure: 435 nm; alignment: 525 nm   |
| Minimum feature size  | Adjustable from 2 to 23 $\mu\text{m}$ |
| Alignment resolution  | Down to 1 $\mu\text{m}/\text{cm}^2$   |
| Maximum exposure area | 75 x 75 $\text{mm}^2$                 |
| Substrate size        | Up to 4" wafers                       |
| System dimensions     | W: (36 cm); D: (36 cm); H: (60 cm)    |

### Software package

|                   |   |
|-------------------|---|
| All-in-one PC     | With Win 10, 24" full HD  |
| SFTprint software | Machine control, step-and-repeat, automatic dose test, stitching, alignment                   |
| SFTconverter      | Conversion of standard formats (gdsii, dxf, cif, oas) to bitmap images. CAD software included |

### Options and Accessories

- > Multiple-sample holder (glass-slide, 4" wafer,...)
- > Objectives (see below)
- > Manual or motorized Z stage with tilt correction
- > Manual rotation stage (360°)

| Objective                          | 1X         | 2.5X      | 5X        | 10X         |
|------------------------------------|------------|-----------|-----------|-------------|
| Writing field (mm)                 | 13.6 x 7.7 | 5.4 x 3.0 | 2.7 x 1.5 | 1.35 x 0.75 |
| Smallest feature ( $\mu\text{m}$ ) | 23         | 8         | 4         | 2           |