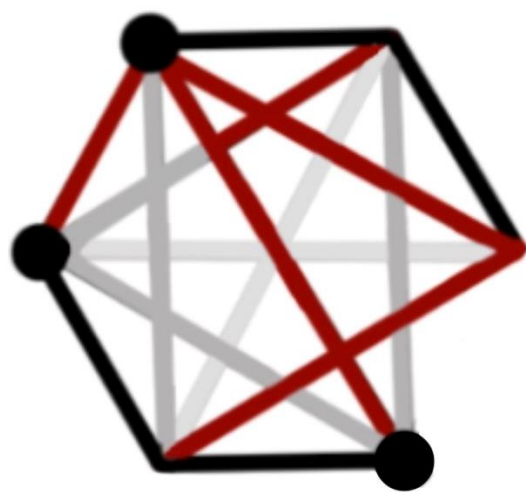


Product Catalog 2024



SEJONG
SCIENTIFIC INSTRUMENTS

Sejong
Scientific
Instruments
Inc.

Maskless lithography Laser Direct Writer UVW02

Product Information

- Photolithography for various devices
 - Manufacturing unit devices for research
 - Semiconductor devices, solar devices,
 - Microfluidic channel, lab-on-a-chip
- Optical microscope + 405 nm laser focus
- Objectives: 5x, 10x, 20x, 50x, 100x
- automatic switching
- Laser focus, sample focus switchable
- Autofocus function included as standard

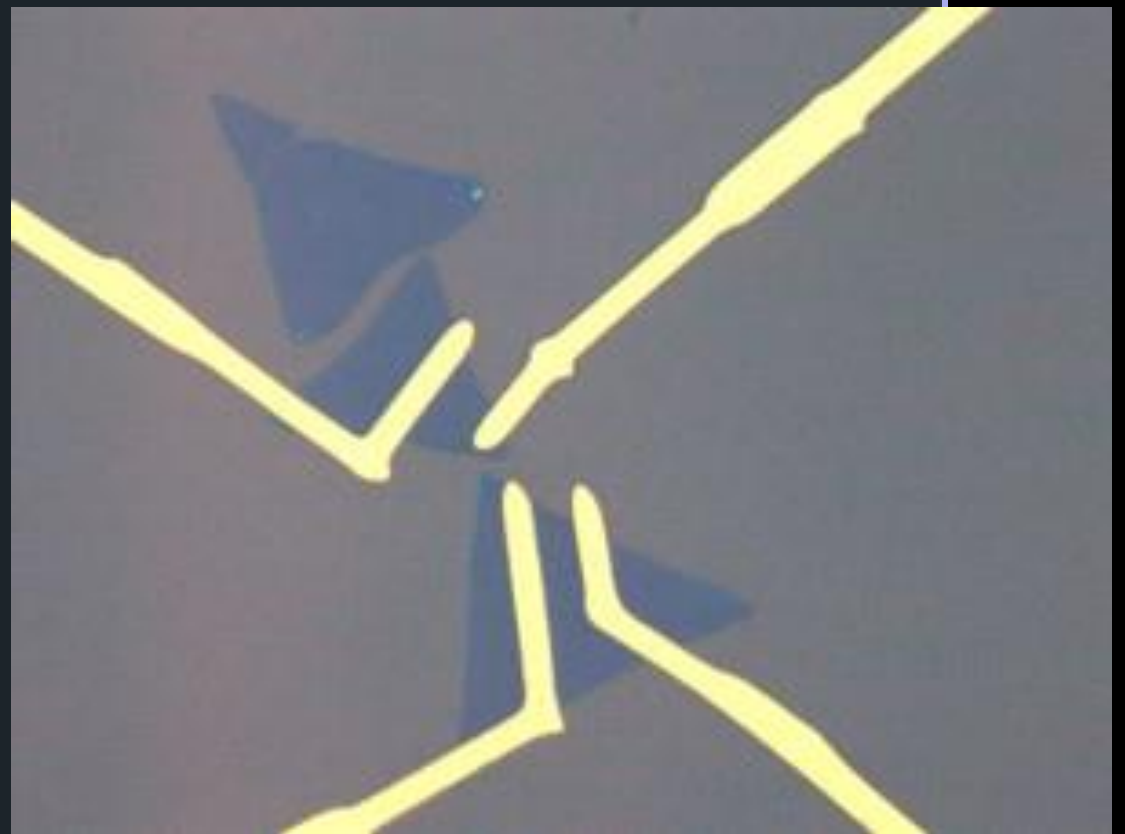
Performance

- Minimum linewidth: $\sim 1 \mu\text{m}$
- Sample stage resolution: $0.125 \mu\text{m}$
- Scannable range: up to $25 \text{ mm} \times 25 \text{ mm}$



Features

- Affordable price for small-scale research
- Open design specialized research through modification
- Compact design (height: 47cm), USB connection → Glove box insertable



Usage

- Various semiconductor devices
- Production of solar energy devices
- Microfluidics, Lab-on-a-chip

convenience features

- ✓ Load pattern image file
- ✓ Draw lines directly with the mouse
- ✓ Auto-focusing!
- ✓ fine patterns and contact pads at once
- ✓ Keyboard operation → position adjustment
- ✓ Mouse operation → move to a specific location on the sample

Scanning Photo Current Microscope SPCM02

Product Information

- Photocurrent mapping for pn junction device, optoelectronic device
- Optical microscope functionality (objective lens 50x)
- Simultaneous measurement of confocal image and photocurrent map
- I-V curve measurement based on laser irradiation
- Measurement of photocurrent change over time
- Characteristics of nano devices and solar cells

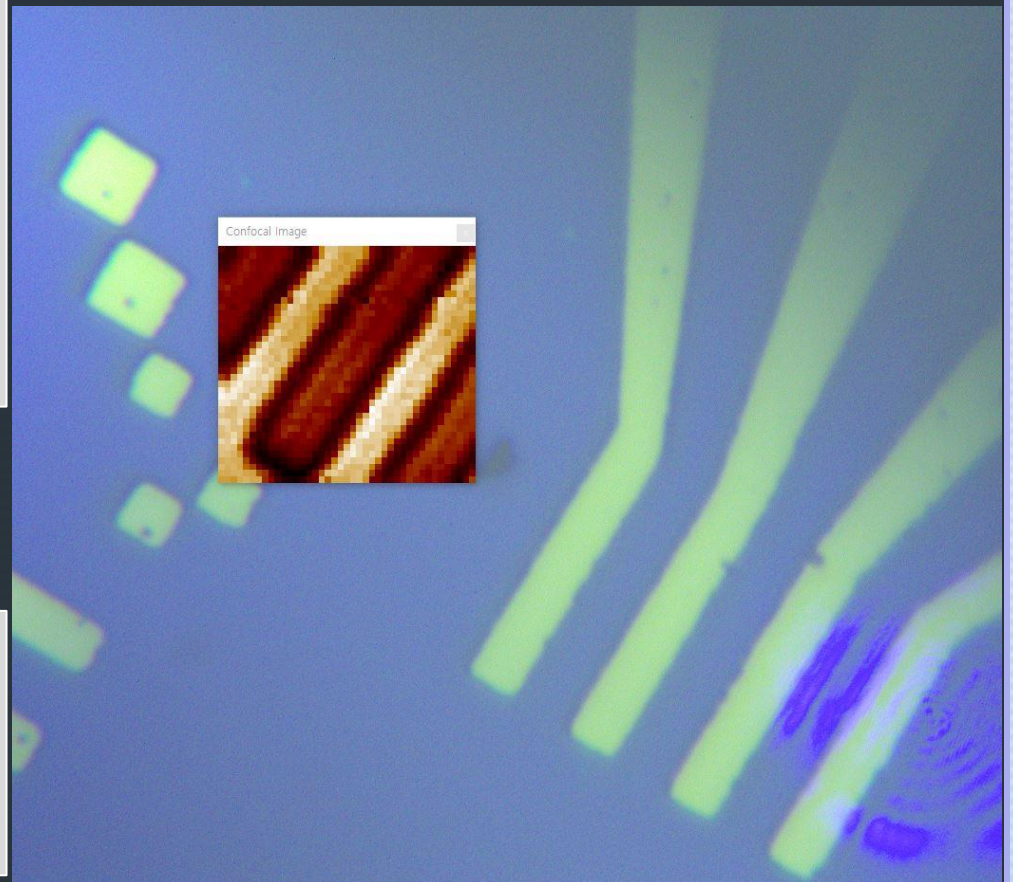
Performance

- Minimum resolution: ~ 700 nm
- Sample stage resolution: 0.125 μm
- Scannable range: up to 25 mm x 25 mm



Features

- Affordable price for small-scale research
- Open design specialized research through modification
- Compact design (height: 47cm),
- USB connection → Glove box insertable



Usage

- Performance evaluation of semiconductor pn junction devices
- Solar cell design
- LED device performance evaluation

convenience features

- ✓ Auto-focusing!
- ✓ Large area scanning stage
- ✓ Magnet holder for electric lead contact
- ✓ Device protection using jumper wire on bread board
- ✓ Keyboard operation → position adjustment
- ✓ Mouse operation → move to a specific location on the sample

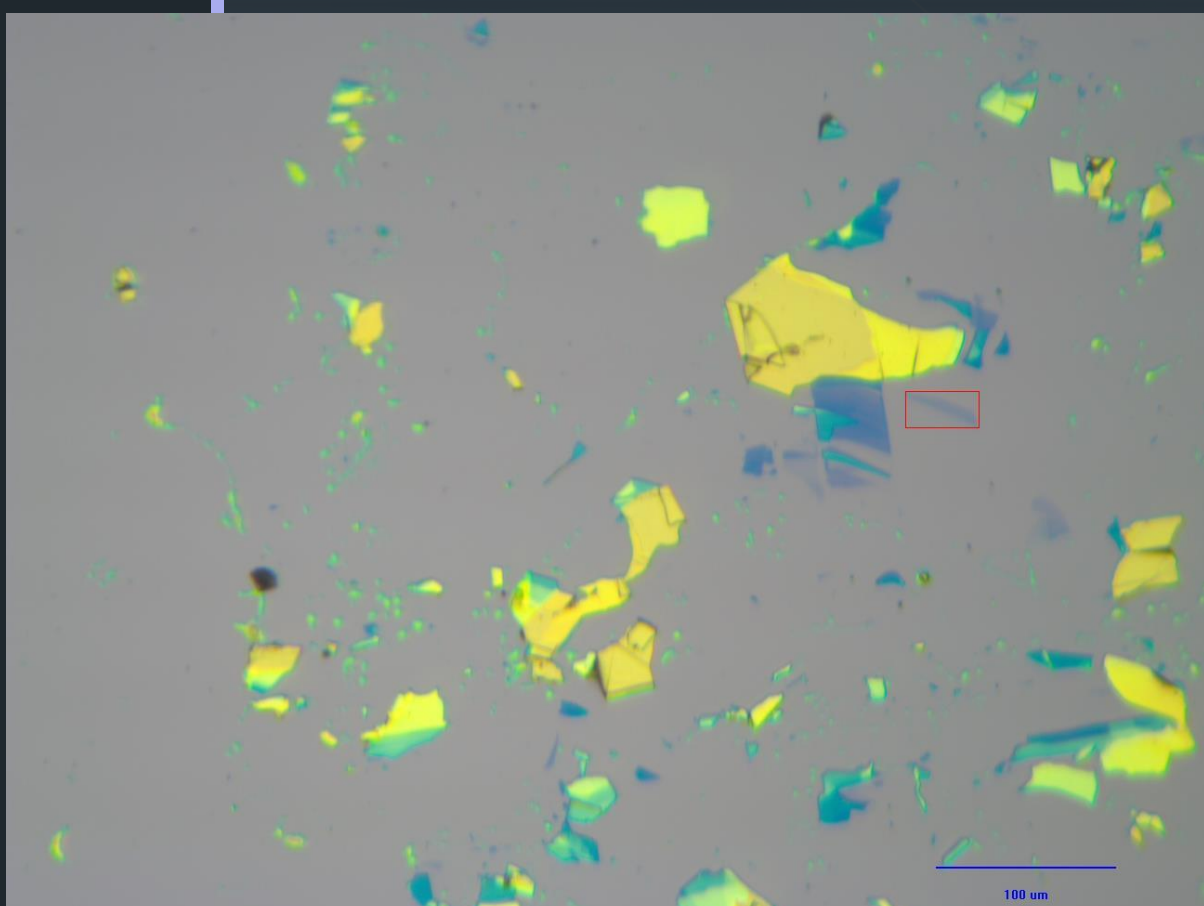
2D material Detector SLG64

Product Information

- scan range: 5cm x 5cm maximum
- materials: graphene, hBN, TMDC, etc. including all 2d materials
- substrate: SiO₂/Si, glass,
- scan speed: 200 um/sec.
- accuracy: singlelayer (for graphene)
- Saved image format: jpg file
- coordinate: recorded in file name

Performance

- Searches using an optical microscope and saves the location and image.
- Scan time: 15 minutes to scan 25 cm²
- measuring changes in the preset RGB values due to interference effects.
- Can be used for research on discovering unknown two-dimensional materials.



Features

- Affordable price for small-scale research
- Open design specialized research through modification
- Compact design → Glove box insertable



Usage

- Finding Exfoliated 2d materials
- Grown crystal detection
- Searching large flakes after synthesis

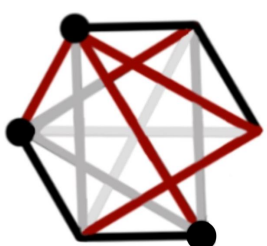
convenience features

- Automatically detects 2D materials created through mechanical exfoliation.
- ✓ Auto-focusing and tilt correction
- ✓ Keyboard operation → position adjustment
- ✓ Mouse operation → move to a specific location on the sample
- ✓ Marking on the microscopic image

Sejong Sci Inst's philosophy

Achieving Total Independence in Research Equipment!

- ✓ We use only standardized parts, empowering users to fully customize them for their unique research needs.
- ✓ Built on an open-source platform, our system is designed for seamless modification and specialized research applications.
- ✓ We provide a robust software library, giving customers full control to tailor the program exactly as they require.
- ✓ We offer custom program modifications (available as a premium service) to precisely address individual user demands.
- ✓ We stand by our commitment with a full year of complimentary service and support, plus 10 years of guaranteed software updates to adapt to any PC changes.



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