HexScan® 1010 SDE

ANVIK

Microlithography on Large Substrates

High-Resolution Lithography System for Microelectronics, Displays and Optoelectronics

The Anvik HexScan®1010 SDE microlithography system represents a revolutionary advance in large-format lithographic patterning systems. It offers the unique combination of high-resolution *projection* imaging and large-area substrate handling, making it the ideal microlithography tool for high-volume, cost-effective production of high-definition flat-panel displays, large-format microelectronics, MEMS and optoelectronic products requiring micron-level patterning.

Large-Format Substrate Handling

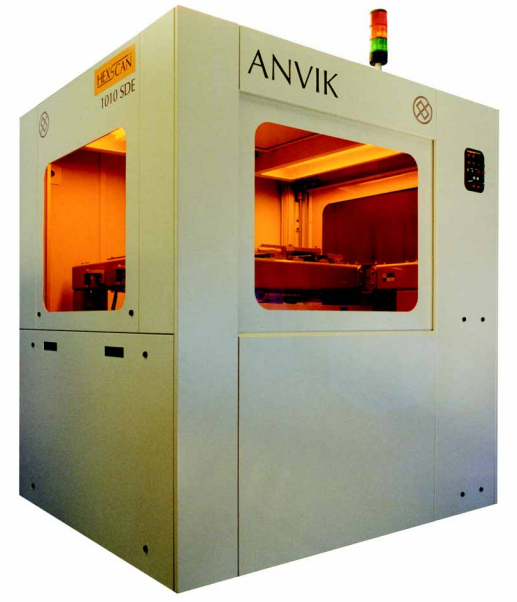
- **Designed for projection imaging of 150 mm dia. wafers and up to 200 x 200 mm substrates**
- **Capable of handling substrates of a wide range of thicknesses**
- **Fully automated handling and mask-substrate alignment minimizes overhead time**

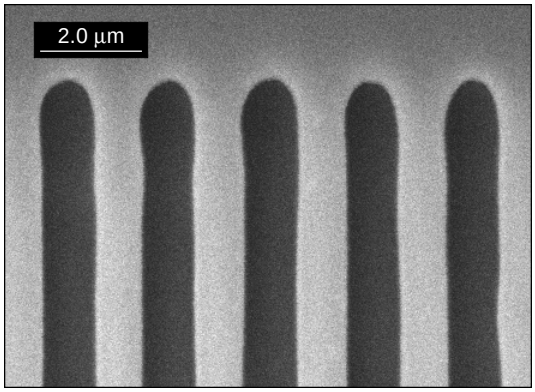
High Resolution

- **Double-telecentric projection lens provides diffraction-limited resolution of 1 µm**
- **Patented seamless scanning technology delivers lens resolution over entire panel**
- **High resolution produces lines and holes with excellent edge definition and wall profiles**

Very High Exposure Throughput

- **Exposure throughput of 120 wafers/hr (150 mm dia.) with conventional resists, made possible by:**
- **Seamless scanning with hexagonal illumination beam**
- **High-power excimer laser illumination system**
- **Single-planar, high-speed, high-precision x-y scanning stage**





Scanning electron micrograph showing patterning of 1 µm wide lines and spaces with the Anvik HexScan® 1010 SDE high-resolution, large-area lithography system in 1 µm thick photoresist.

Versatility

- **Delivers very high throughput for high-resolution lithography in photoresists**
- **Capable of photoetching various polymeric dielectrics**
- **Available with Anvik's patented Variable Area Substrate Tiling (VAST™) technology**

Modularity and Upgradability

- **Modular design enables user to define optimum system configuration**
- **Customer may specify resolution and substrate size parameters**
- **Upgradability of key subsystems extends system life over multiple product generations**

HexScan® 1010 SDE Specifications

Imaging Technique	Seamless scanning projection
Resolution	1 micron
Projection System	1:1 magnification refractive lens
Depth of Focus	5.8 microns
Substrate Size	150 mm dia. wafers and substrates up to 200 x 200 mm
Illumination Source	XeF excimer laser
Exposure Wavelength	351 nm
Alignment Precision	0.3 micron
Alignment System	Automatic
Wafer Handling	Automatic
Exposure Throughput	120 wafers/hr (150 mm dia.)

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