# PRESS RELEASE

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**Heidelberg Instruments Reports Major Order for VPG⁺ 1850 FPD Volume Pattern Generator from Leading Asian Display Photomask Manufacturer**

*Heidelberg, Germany* — Heidelberg Instruments has received a substantial order from a top-tier photomask manufacturer in Asia for a VPG⁺ 1850 FPD system, developed on the established platform of its flagship VPG⁺ 1400 FPD Volume Pattern Generator. Delivery is scheduled for Q1/2027.

“The new VPG⁺ 1850 FPD will be the largest system in Heidelberg Instruments’ portfolio, engineered specifically for large-format photomask applications beyond G8, supporting mask sizes up to 1400 x 1850 $mm^2$”, says Matthias Wahl, strategic product manager of the VPG series. The VPG FPD series is optimized for display photomask generations typically ranging from G5 to G8.6. With exceptional throughput and precision, the system sets a new industry standard for scalable, high-accuracy photomask production in this field.

This system upgrade reflects Heidelberg Instruments’ ongoing dedication to innovation in high-performance display manufacturing, serving the rising demand for advanced patterning solutions in the flat panel display (FPD) industry. “The recent order represents another key achievement for Heidelberg Instruments, highlighting our strong market position in display technology, and reaffirming our commitment to driving innovation and excellence in photomask production systems”, states Alexander Forozan, VP of global sales and business development.

As a trusted partner for photomask manufacturers, particularly in the display industry, Heidelberg Instruments provides reliable systems that are pivotal for enabling next-generation flat panel display production with excellent precision and high throughput. The high-end solutions are specifically engineered to meet the rigorous demands of large-scale manufacturing environments, ensuring consistent quality, economical operation, and outstanding performance across a wide range of advanced applications.

Further information: https://heidelberg-instruments.com/product/vpg-1400-1850-fpd/

**Contact:**
Sonja Pfeuffer, press(at)heidelberg-instruments.com
https://heidelberg-instruments.com/

**About Heidelberg Instruments**

With over 40 years of experience and more than 1,500 systems installed across 50+ countries, Heidelberg Instruments is a global leader in the design, development, and production of high-precision laser lithography systems, maskless aligners, and nanofabrication tools. The product portfolio ranges from compact tabletop solutions to high-end photomask manufacturing equipment. This flexibility makes the systems indispensable to leading universities, R&D institutes, and industrial facilities worldwide. The versatile systems enable precise surface structuring on the micro- and nanoscale, supporting both 2D patterning and 2.5D features through grayscale lithography for applications in photonics and micro-optics, electronics, semiconductors, quantum technology, MEMS, microfluidics, 2D materials, and beyond.

## Selected Images with Captions

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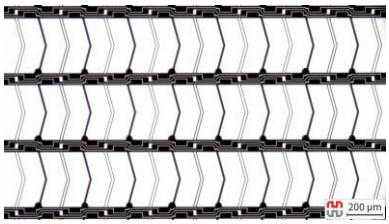
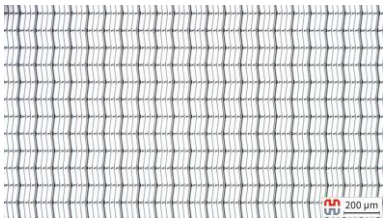
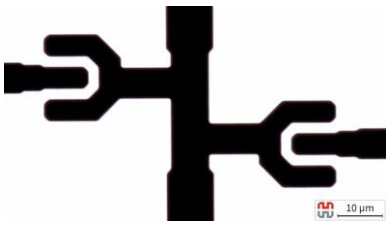
|  | *The Heidelberg Instruments VPG⁺ 1850 FPD Volume Pattern Generator is designed for photomask production on large substrates in display applications for high-quality and fast exposures with extremely accurate alignment.*<br>*The system features a differential interferometer with a resolution down to 1.2 nm. Mura optimization ensures excellent CD uniformity and resolution, while the closed-loop environmental chamber complies with the most stringent requirements for advanced photomask fabrication.*<br>*Source: Heidelberg Instruments Mikrotechnik GmbH* |
|  | *Display application pattern on chrome mask after etching and resist stripping.*<br>*Source: Heidelberg Instruments Mikrotechnik GmbH* |
|  | *Display application pattern on chrome mask after etching and resist stripping.*<br>*Source: Heidelberg Instruments Mikrotechnik GmbH* |
|  | *Display application pattern on chrome mask after etching and resist stripping.*<br>*Source: Heidelberg Instruments Mikrotechnik GmbH* |