

PRESS RELEASE

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Heidelberg Instruments Reports Major Orders for the VPG⁺ 1400 FPD Volume Pattern Generator from Leading Asian Photomask Manufacturers

Heidelberg, Germany – Heidelberg Instruments has secured two major orders for its VPG⁺ 1400 FPD Volume Pattern Generator from leading photomask manufacturers in Asia, with a total order value between EUR 9 million and EUR 10 million. Deliveries are scheduled for 2025.

“These significant order intakes mark major milestones for the company, reinforcing our market position and driving further innovation and growth in the display technology sector”, says Alexander Forozan, VP of Global Sales and Business Development.

The VPG⁺ 1400 is Heidelberg Instruments’ largest system, specifically designed for large-format photomask patterning in the flat panel display (FPD) industry. It supports mask sizes up to 1400 x 1400 mm², making it ideal for various flat panel display generations (G4 to G8). The VPG⁺ 1400 sets a new standard for high-throughput photomask production, offering the precision and scalability required for large displays. Additionally, it delivers the accuracy needed to produce large-area halftone photomasks for flat panel displays.

Equipped with advanced metrology and alignment features, including Cognex AI-based image recognition, the system ensures precise alignment for multilayered masks. Its linear and nonlinear coordinate corrections further enable precise overlay across tools.

By addressing the diverse exposure needs of customers, Heidelberg Instruments' large-area VPG⁺ Volume Pattern Generators have proven to be valuable assets in display photomask production lines.

Further information: [VPG⁺ 1400 FPD Volume Pattern Generator | Heidelberg Instruments](https://www.heidelberg-instruments.com/vpg-1400-fpd-volume-pattern-generator)

Contact:


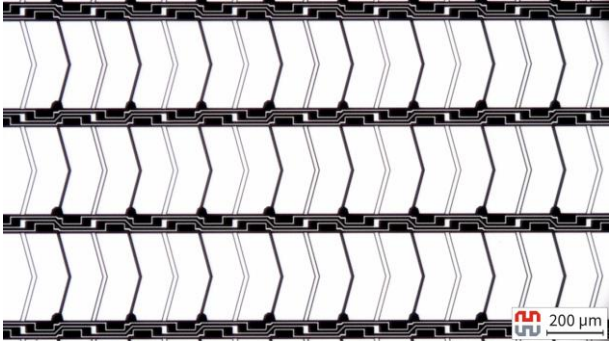
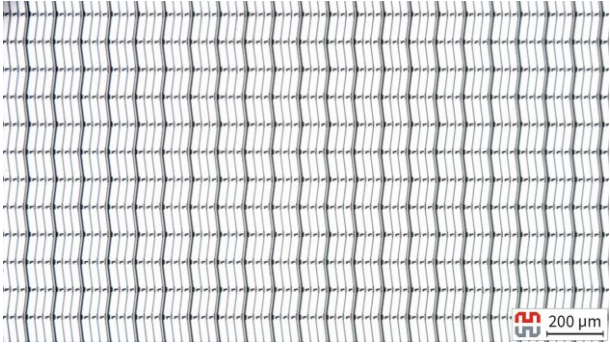
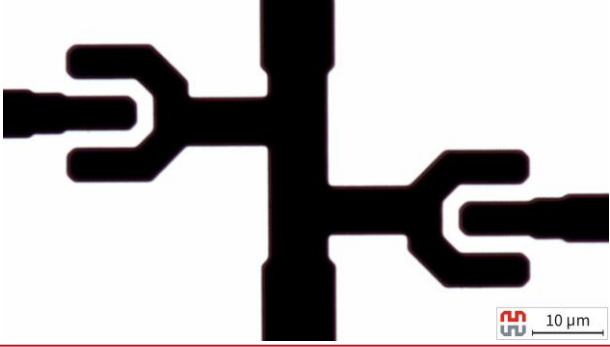
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About Heidelberg Instruments

Founded in 1984, with over 1,400 systems installed across more than 50 countries, Heidelberg Instruments is a global leader in the design, development, and production of high-precision laser lithography, maskless aligners, and nanofabrication systems. Its solutions range from tabletop tools to high-end photomask manufacturing equipment. These versatile systems enable micro- and nanoscale surface structuring, including 2D-patterning, 2.5D Grayscale lithography, and 3D structuring via Two-Photon Polymerization. Renowned universities, R&D institutes, and industrial facilities worldwide trust these systems for applications in micro-optics, photonics, electronics, semiconductors, quantum devices, MEMS, microfluidics, 2D materials, and beyond.

Selected Images with Captions

	<p><i>The Heidelberg Instruments VPG+ 1400 FPD Volume Pattern Generator designed for photomask production on large substrates in display applications for high-quality and fast exposures with extremely accurate alignment.</i></p> <p><i>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.</i></p> <p><i>Source: Heidelberg Instruments Mikrotechnik GmbH</i></p>
	<p><i>Display application pattern on chrome mask after etching and resist stripping.</i></p> <p><i>Source: Heidelberg Instruments Mikrotechnik GmbH</i></p>
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