

IN-VISION launches 4K-Projector for maskless lithography and advanced additive manufacturing

Optics-Specialist IN-VISION announces the all-new PANDIA Light Engine, designed for dynamic exposure with multiple wavelengths!

GUNTRAMSDORF, VIENNA, ÖSTERREICH, November 7, 2023 /EINPresswire.com/ -- The PANDIA high-performance system offers unseen capabilities for customizing, extraordinary power, and true 4K native resolution.



PANDIA front (credit: Nejc Kilar for IN-VISION)

(Vienna/Boston) Austrian optics specialist [IN-VISION Technologies AG](#) announces the next big step in the delivery of ultra-precise structured light at Formnext in Frankfurt: the all-new PANDIA Light Engine, designed for dynamic exposure with multiple wavelengths. "While already our

current systems deliver industrial-grade performance and reliability, we are opening up with PANDIA new opportunities for digital imaging," explains Christof Hieger, CTO of IN-VISION. The working areas for the new UV Light Projector are PCB-lithography, advanced packaging, and advanced additive manufacturing.

PANDIA comes with a 2K native resolution. As a Texas Instruments Design House partner, IN-VISION provides the Light Engine to be upgradable to the latest 4K Chipset from TI as it comes to the market.

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Christof Hieger - CTO IN-VISION

Some of the main features of the flagship system will be:

- Scrolling availability for larger building areas: PANDIA is designed for moving exposure while calculations are done onboard.

- Stackability for more productivity: The small width of the system allows projectors to be lined up down to very small pixel sizes to build systems with large building areas.

- An open system with unlimited options for customizing: The built-in FPGA allows users to customize their applications or use prepared Software. The onboard FPGA opens up to 7 Gigabytes for image storage, programming logic, and DSP slices for customization.

- Multiple wavelengths for working with multi-materials: two independent illumination modules provide up to three different wavelengths.

- Variability: Pandia comes with a telecentric lens with a pixel size of 10um; any other resolutions can be easily realized with custom lens developments in-house at IN-VISION.

- Watercooled system for highest optical power: The optimized water cooling provides full power for all applications – up to 9 watts per wavelength.
- High-Speed Data Interface: Maximum transfer rates are realized using Gigabit Ethernet or an optical data interface, which is flexible, lossless over long distances, and immune to electromagnetic interference.
- Field changeability of the illumination modules: The customer can easily swap out the two LED modules, which does not require further calibration or set-up. This can be done after thousands of hours of up-time without degradation.
- Onboard User-Interface for operators: An onboard HMI informs the operator about the operating status and critical parameters.



PANDIA back (photo credit: Nejc Kilar for IN-VISION)



Florian Zangerl, CEO and Christof Hieger, CTO of IN-VISION (credit: Thomas Topf)

"PANDIA opens up unparalleled adaptability to the needs of the industry," says Florian Zangerl, IN-VISION's CEO, "the system redefines the boundaries of DLP technology in Additive Manufacturing and lithography." The all-new System is available immediately.

About In-Vision

IN-VISION Technologies AG develops and manufactures high-precision optical systems for industrial applications. The company is located in Guntramsdorf, south of Vienna, Austria. In-Vision's world-leading DLP UV projectors are mainly used for additive manufacturing, bioprinting, 3D metrology, and lithography applications. The company manufactures exclusively at the production site in Austria and has two research and development departments in Austria and Boston, USA.

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