
Avicena Acquires Micro-LED Fab, Engineering Team from Nanosys

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Avicena, a manufacturer of high-performance micro-LED-based chip-to-chip interconnects, has acquired a micro-LED fabrication facility and associated engineering team from quantum dot technology company Nanosys. The acquisition enhances Avicena's capabilities in the development and manufacture of high-speed gallium nitride (GaN) micro-LEDs optimized for parallel multi-Tbit/s interconnects, the company said.

The GaN micro-LED fab was previously owned by glo, which invested over \$200 million in the development of micro-LED displays, including in manufacturing capabilities. Nanosys acquired glo in 2021. [Avicena](#) had been using the Nanosys fab for the development of micro-LEDs.

The acquired facilities include epitaxy, wafer processing, and lift-off and transfer tools to post-process silicon ICs with optical interfaces. Together with Avicena's internal application-specific integrated circuit team, the company plans to deliver optical chiplets with high capacity and extremely low power. Compared to laser or silicon photonics-based interconnects, micro-LED optical interconnects are well suited for integration with silicon ICs, lower power, lower cost, and target reaches up to 10 m.

In August, Avicena raised \$25 million in series A funding to develop high-capacity micro-LED-based optical interconnects. In 2021, the company unveiled its LightBundle solution — a chip interconnect technology featuring highly parallel optical links with power efficiency of 0.1 pJ/bit, bandwidth density of 10 Tbit/s/mm², and reach of up to 10 m.

In July, Nanosys said it raised over \$50 million in series B equity and debt financing. The company said that the round supports the continued expansion of its QDEF and xQDEF quantum dot technologies for liquid crystal displays, and drives the commercialization of Nanosys' micro-LED technology platform as well as the development of next-generation

nano-LEDs.

Read the [original article](#) on Photonics Media.