

## Miniaturization of power supplies: AIXTRON delivers key MOCVD technology to NexGen Power Systems

Company focuses on vertical transistors for small, efficient GaN<sup>1</sup>-on-GaN power conversion systems for various applications

**Herzogenrath/Germany, July 19, 2018** – AIXTRON SE (FSE: AIXA), a worldwide leading provider of deposition equipment to the semiconductor industry, will provide high-end MOCVD technology to NexGen Power Systems Inc. for the continued development of GaN-based electronic devices enabling more compact, lighter and cost-efficient power conversion systems. For this purpose NexGen has ordered AIXTRON's AIX G5 HT planetary platform, scheduled for shipment in Q3/2018.

Considering yield and cost of ownership, the AIX G5 HT platform is the tool of record for all advanced GaN applications. As the only MOCVD system in the market embedding wafer level control, the AIX G5 is the most efficient tool for the epitaxy of GaN-on-GaN, GaN-on-Si<sup>2</sup> and GaN-on-SiC<sup>3</sup> used for power electronic and RF applications. The fully-automated tool offers in-situ cleaning for best process robustness and defect control while it is also equipped with the latest Laytec InSide P400 UV Pyrometer for non-contact temperature measurement. Coupled with AIXTRON's Auto Feed-Forward (AFF) individual on-wafer temperature control, this enables a matching of all epitaxial wafers - within a run as well as run-to-run.

Dinesh Ramanathan, CEO of NexGen Power Systems, says: "Our disruptive True GaN™ VJFET<sup>4</sup> technology is able to outperform silicon, silicon carbide or GaN-on-Silicon technology by providing higher breakdown voltage, lower on-resistance and higher switching frequency. NexGen's True GaN™ power devices enable the design of compact power conversion systems while increasing their efficiency with applications in data center power supplies, motor drivers, solar inverters and electric car drive-trains. AIXTRON's planetary technology in combination with its batch reactor concept will provide us both the performance control we need as well as the cost effectiveness to ensure a rapid adoption of our groundbreaking power devices."

"We are looking forward to support NexGen's efforts to revolutionize existing power conversion systems. In recent years, our AIX G5 HT planetary tools have built a solid reputation as precise, reliable and cost-efficient manufacturing equipment in the semiconductor industry – unlocking a more rapid adoption of GaN devices against their silicon equivalents", comments Dr. Felix Grawert, President of AIXTRON SE.

<sup>1</sup>GaN = Gallium nitride, <sup>2</sup>Si = Silicon, <sup>3</sup>SiC = Silicon carbide, <sup>4</sup>VJFET = Vertical Junction Field Effect Transistor

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## About AIXTRON

AIXTRON SE is a leading provider of deposition equipment to the semiconductor industry. The Company was founded in 1983 and is headquartered in Herzogenrath (near Aachen), Germany, with subsidiaries and sales offices in Asia, United States and in Europe. AIXTRON's technology solutions are used by a diverse range of customers worldwide to build advanced components for electronic and opto-electronic applications based on compound, or organic semiconductor materials. Such components are used in a broad range of innovative applications, technologies and industries. These include LED applications, display technologies, data storage, data transmission, energy management and conversion, communication, signaling and lighting as well as a range of other leading-edge technologies.

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For further information on AIXTRON (FSE: AIXA, ISIN DE000A0WMPJ6) please visit our website at: [www.aixtron.com](http://www.aixtron.com).

## About NexGen

NexGen Power Systems was founded in 2017 and is headquartered in DeWitt, New York, USA. The company focuses on the development and manufacturing of technology solutions utilizing GaN-on-GaN discrete semiconductor devices, modules, and systems that increase efficiency and reliability of power conversion systems while extensively reducing their cost, size, and weight. Power conversion systems play a key role in almost every electronic device from home appliances to data centers, laptops, and electric cars.

For further information, please visit: [www.nexgenpowersystems.com](http://www.nexgenpowersystems.com)

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