

## InnoScience powers GaN device development with multiple AIXTRON MOCVD systems

AIX G5+ C high-volume manufacturing platform paves way to high-performing 650V GaN-on-Si<sup>1</sup> devices

**Herzogenrath/Germany, November 21, 2018** – AIXTRON SE (FSE: AIXA), a worldwide leading provider of deposition equipment to the semiconductor industry, will deliver multiple AIX G5+ C MOCVD systems to InnoScience Technology Co., Ltd. (China) for the development of GaN (gallium nitride) power devices which are more and more favored over Si (silicon) power devices in various applications due to their superior performance at high frequency. All AIXTRON cluster tools will feature a 5x200 mm configuration and will be shipped until Q2/2019.

GaN power devices have very low conduction loss, switching loss and off state loss compared to the traditional Si-based power chips due to a higher breakdown strength, faster switching speed, higher thermal conductivity and lower on-resistance. GaN power devices are being used already today for applications such as efficient power supplies for PC and servers or LiDAR (*Light Detection And Ranging*) and wireless power transfer requiring high-speed switching higher than 1 MHz. In addition, they also have advantages for electric vehicles applications like On-Board Chargers (OBC) because of significantly reduced system size by superior thermal properties and reduction of the passive components.

In the scope of the increasing number of applications, AIXTRONs AIX G5+ C platform can play out its advantages in the manufacturing process since the system allows for scalable processes, tight uniformity and particle control of the epitaxial wafers to enable highest yield and maximum throughput at the lowest cost of ownership.

Jay Son, CEO of InnoScience Technology, says: "We have chosen the AIX G5+ C as it has proven to provide excellent thickness and wafer uniformity due to the superior capabilities of the Planetary<sup>®</sup> batch reactor concept. The newly acquired systems will enable us to ramp up manufacturing of our high-end products such as 650V GaN-on-Si devices with the best cost per wafer in the market."

"Market demand for power electronics, especially for GaN-based devices is picking up speed with AIXTRON having the most capable system available in the market. We are pleased that InnoScience leads the way in China and has decided to select this system which convinces not only by performance but also by making the production of GaN power devices commercially viable," comments Dr. Felix Grawert, President of AIXTRON SE.

<sup>1</sup> GaN-on-Si = Gallium Nitride-on-Silicon

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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 Laser and LED applications, display technologies, data transmission, SiC and GaN power 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 Innoscience Technology**

Innoscience Technology Co., Ltd. was co-founded in December 2015 by scientists and experts from the U.S., Korea, Taiwan, and China. Innoscience is devoted to the R&D and manufacture of wide-bandgap semiconductors. The first fab is located in Zhuhai National Hi-Tech District (China). Innoscience has established China's first mass production line of 8-inch E-mode GaN-on-Si power devices. The key products include 30V-650V GaN-on-Si power devices. The product's design and performance have reached the world advanced level. Innoscience aims to build a world leading company in power devices in China and is committed to devote to China's semiconductor industry.

## **Forward-Looking Statements**

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