

Tier 1 US LED Manufacturer selects AIXTRON's AIX G5+ C for Micro LEDs

Micro LED technology is on the verge of revolutionizing the display industry / AIXTRON tool of record qualified for the tightened Micro LED market requirements / AIX G5+ C impressive track record extended

Herzogenrath/Germany, March 30, 2021 – Greater colors, brighter images, higher energy-efficiencies. These are the properties of the ultimate display technology for tomorrow's mobile devices and televisions. Micro LED technology enables these features and is on the verge of revolutionizing the display industry. The Micro LED technology is on the roadmap of all LED players.

AIXTRON (FSE: AIXA, ISIN DE000A0WMPJ6), a worldwide leading provider of deposition equipment to the semiconductor industry, supplies a qualified MOCVD (Metal-Organic Chemical Vapor Deposition) solution developed for meeting the tightened Micro LED market requirements. As a result, another Tier 1 US LED manufacturer, and one of the world's technology leaders in the field of advanced LED technology, has selected the AIX G5+ C, continuing AIXTRON's impressive track record.

Micro LEDs calls for tight uniformity control – ending the wafer binning era

This next generation of LED displays requires millions of micrometer-range LEDs to be transferred onto one single display, which has urged LED suppliers to develop new mass transfer technologies. To enable this, large arrays of LED are taken directly from the processed LED wafers, preventing any upfront wafer binning or sorting of defective chips. As a consequence, it is essential that all epitaxial wafers produced have very tight wavelength distribution and very low level of defects on their surfaces, calling for innovative and new MOCVD approaches.

The AIX G5+ C system from AIXTRON uses in this regards wafer-level control (based on Auto-Feed Forward) of the film surface temperature during the epitaxial process in combination with Ultraviolet (UV) pyrometry. This warrants a very accurate control of the Indium incorporation into the Multi-Quantum wells (MQW), which will ultimately define the wavelength consistency among all produced wafers. A cassette-to-cassette transfer module coupled with in-situ cleaning complement then the technical solution to ensure that no particle will contaminate the films during handling or the epitaxy process.

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Micro LED technology is a game changer for the display industry

"We are very pleased that this key player in the market has selected our AIX G5+ C for the further development of groundbreaking Micro LED production processes. We are looking forward to further accelerate the roll out of Micro LEDs for displays. Micro LED technology is disrupting the existing LED eco system embracing methods and approaches seen to date only in the LCD or semiconductor industry and our AIX G5+ C platform perfectly backs these stringent epitaxial requirements" says Dr. Bernd Schulte, President of AIXTRON SE.

"Micro LED technology is a game changer for the display industry, outperforming existing Liquid Crystal Displays (LCD) and Organic Light Emitting Diode (OLED) technologies on power consumption while exhibiting superior pixel density, contrast ratio and brightness. There is no doubt now it will open new horizons for consumer mobile products as well as premium television displays and we are proud to work hand in hand with all the industry leaders to make this scenario happen," explains Arthur Beckers, Senior Product Marketing Manager of AIXTRON SE.

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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 optoelectronic 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 applications.

Our registered trademarks: AIXACT®, AIXTRON®, Atomic Level SolutionS®, Close Coupled Showerhead®, CRIUS®, Gas Foil Rotation®, OVPD®, Planetary Reactor®, PVPD®, TriJet®

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

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