



## PRESS RELEASE

### **EV Group partners with Plessey to drive GaN-on-Silicon monolithic microLED technology for AR applications**

**Plymouth, England – 12 November 2018:** Plessey, a leading developer of award-winning optoelectronic technology solutions, announces a collaboration with EV Group (EVG), a leading supplier of wafer bonding and lithography equipment for the MEMS, nanotechnology and semiconductor markets, to bring high-performance GaN-on-Silicon (GaN-on-Si) monolithic microLED technology to the mass market. microLEDs are the key optical technology for next-generation AR applications.

Plessey has purchased a GEMINI<sup>®</sup> production wafer bonding system from EVG to enable bonding and alignment at Plessey's fabrication facility in Plymouth, UK. This enables Plessey to bond its GaN-on-Si microLED arrays to the panel's backplane at a wafer level, and with the high level of alignment precision necessary to enable very small pixel dimensions.

EVG's patented SmartView<sup>®</sup>NT Automated Bond Alignment System technology is suitable for Plessey's requirements because it allows face-to-face alignment of the wafers with very high precision. A maximum level of automation and process integration is achieved by the GEMINI Automated Production Wafer Bonding System. Wafer-to-wafer alignment and wafer bonding processes up to 300mm for volume manufacturing are all performed in one fully automated platform.

**John Whiteman, VP of Engineering at Plessey**, explained: 'The modular design of the GEMINI system is ideal for our requirements. Having the pre-treatment, clean, alignment and bonding enabled within one system means higher yield and throughput in production. The excellent service provided by EVG has been critical to bringing the system online quickly and efficiently.'

**Paul Lindner, executive technology director at EV Group**, commented: 'We are honoured that Plessey selected our state-of-the-art GEMINI system to support their ambitious technology development roadmaps and high-volume production plans.'

This announcement marks another key milestone for Plessey in investment in production-grade equipment to bring GaN-on-Si based monolithic microLED products to market.

## **About Plessey**

Plessey is a UK-based leading developer of advanced optoelectronic technology solutions. The company provides volume processing of its unique and proprietary GaN-on-Silicon platform for a wide range of optoelectronic devices and systems.

With headquarters located in Plymouth, England, Plessey operates leading-edge 150mm and 200mm wafer processing facilities to undertake design, test and assembly of products, and a comprehensive suite of photonic characterisation and applications laboratories.

Plessey is an award-winning provider of innovative illuminators for display engines (DMD and LCOS) and full-field emissive microLED displays that combine very high-density RGB pixel arrays with high-performance CMOS backplanes to produce very high-brightness, low-power and high-frame-rate image sources for head-mounted displays (HMDs), and augmented reality (AR) and virtual reality (VR) systems.

For further information and datasheets, please visit [www.plesseysemiconductors.com](http://www.plesseysemiconductors.com) or email [sales@plesseysemi.com](mailto:sales@plesseysemi.com). You can also follow Plessey on [Twitter](#), [Facebook](#) and [LinkedIn](#).

## **About EV Group**

EV Group (EVG) is a leading supplier of equipment and process solutions for the manufacture of semiconductors, microelectromechanical systems (MEMS), compound semiconductors, power devices and nanotechnology devices. Key products include wafer bonding, thin-wafer processing, lithography/nanoimprint lithography (NIL) and metrology equipment, as well as photoresist coaters, cleaners and inspection systems. Founded in 1980, EV Group services and supports an elaborate network of global customers and partners all over the world.

More information about EVG is available at [www.EVGroup.com](http://www.EVGroup.com).

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