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## BluGlass showcases enhanced products at Laser World of Photonics

### Highlights

- BluGlass is presenting improved gallium nitride (GaN) products at Europe's leading laser conference
  - Significant improvements in light emission, power conversion efficiency, and voltage
  - Expanding GaN laser portfolio, inclusive of new 397nm (Ultra-Violet) alpha product
- BluGlass will also feature an updated RPCVD distributed feedback laser (DFB) white paper at Laser World
- Vertical integration nearing completion
  - Four out of five contract manufacturers (CMs) now transferred in-house
  - Final stages of integrating last back-end contract manufacturer

Global semiconductor developer BluGlass Limited (**ASX: BLG**) is showcasing enhanced gallium nitride (GaN) laser products at Europe's pre-eminent industry conference, Laser World of Photonics in Munich, Germany.

BluGlass' updated GaN lasers feature significant performance improvements in light emission, power conversion efficiencies, and voltage. The Company's blue 450nm single-mode and multi-mode devices feature significant increases in power conversion efficiencies from those launched at Photonics West, up more than 55% and 42% respectively. These improvements enable their use in more demanding customer applications, such as quantum computing, robotics and biotechnology.

Customers can inspect BluGlass' enhanced performance data at Laser World across the 405nm, 420nm and 450nm wavelengths in single-mode and multi-mode devices. BluGlass is also using the conference to launch a new 397nm ultra-violet single-mode alpha product to market. Ultra-violet lasers are increasingly being sought after for quantum sensing applications, advanced disinfection technologies, water and surface purification applications, and medical devices. BluGlass' product suite now includes six commercial and three prototype products, and are available in a range of form factors including TO Cans of different sizes, and Chip-on-Submounts.

### DFB update

BluGlass, together with its collaboration partner the University of Santa Barbara California (UCSB), has made significant improvements to its GaN Distributed Feedback Laser (DFB) demonstrations using its proprietary RPCVD technology for longer-wavelength devices. The Company improved DFB side-mode suppression ratio by more than 50% since Photonics West, delivering advanced single frequency performance at 450nm and demonstrating longer-wavelength DFB lasers up to 478nm.

DFB lasers are a highly promising single frequency laser technology commonly utilised in non-visible wavelengths to enable devices that require narrow spectral width and high-spectral purity, such as quantum applications. GaN-

based DFB lasers are currently not commercially available in visible wavelengths. BluGlass is releasing an updated GaN DFB white paper at Laser World.

### **Vertical integration**

BluGlass is nearing vertical integration completion with production moved from four out of five contract manufacturers (CMs) into its Silicon Valley fab. The Company is now in advanced stages of completing the integration of the final back-side contract manufacturer.

Since acquiring its laser diode fabrication facility in Silicon Valley and commencing operations in July last year, BluGlass has accelerated development and production, mitigated reliability challenges to launch a suite of GaN lasers, advanced long-term roadmaps, and commenced shipping products to customers.

BluGlass CEO Jim Haden said, "Our enhanced GaN laser products are shifting our market position from an emerging alternative supplier to an agile player that is focused on providing high quality and competitive GaN lasers. As a dedicated GaN laser supplier, we are focused on launching innovative products that address gaps in the market whilst also improving the baseline performance of our existing lasers as we strive to meet or exceed competitor benchmarks. This strategy broadens our target customer base while building our reputation as a partner-of-choice in the industry. Performance improvements are a direct result of greater operational control, and we are nearing completion of vertical integration of our front-end contract manufacturers. Given our aggressive improvement curve, we remain confident in our ability to gain market share in a rapidly growing category with very few players and high barriers to entry."

BluGlass' Laser World booth is located in Hall B2, stand 539.

*This announcement has been approved for release by the BluGlass Board.*

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### **About BluGlass**

**BluGlass Limited (ASX:BLG)** is a leading supplier of GaN laser diode products to the global photonics industry, focused on the industrial, defence, bio-medical, and scientific markets.

Listed on the ASX, BluGlass is one of just a handful of end-to-end GaN laser manufacturers globally. Its operations in Australia and the USA offer cutting-edge, custom laser diode development and manufacturing, from small-batch custom lasers to medium and high-volume off-the-shelf products.

Its proprietary low temperature, low hydrogen, remote plasma chemical vapour deposition (RPCVD) manufacturing technology and novel device architectures are internationally recognised, and provide the potential to create brighter, better performing lasers to power the devices of tomorrow.

BluGlass' technical innovations are protected by 93 internationally granted patents and 17 trademarks in key semiconductor manufacturing jurisdictions.