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## BluGlass demonstrates feasible reliability of laser diodes

### Highlights

- BluGlass has demonstrated feasible reliability of its gallium nitride laser diodes
  - Lasers have passed 500 hours of continuous operation with stable optical and electrical performance
- Reliability feasibility is a critical milestone needed for beta production and product launches
- Key technical milestone enables BluGlass to increase engagement with potential customers

Global semiconductor developer BluGlass Limited (**ASX: BLG**) advises its gallium nitride (GaN) laser diodes have achieved feasible reliability, successfully demonstrating more than 500 hours of continuous operation with stable optical power and voltage in reliability testing.

BluGlass' lasers maintained good performance and light-output during testing at 20-25°C, demonstrating light-output with less than 20% degradation - a key commercial standard for laser diodes. Reliability testing of these lasers is ongoing.

Reliability feasibility is a critical prerequisite milestone for beta production and commercial product launches. These performance metrics enable BluGlass to increase its engagement with potential customers awaiting alpha and beta products, and indicate the design is ready for increased volume.

Improvements in reliability are directly attributable to enhanced metals, facets, and bonds, completed by BluGlass' contract manufacturers. Newer iterations with further improvements to the four key components of laser diodes are currently progressing through BluGlass' supply chain, and the Company is working to increase manufacturing quality and yields with its Silicon Valley production facility and team.

BluGlass President Jim Haden said, "Demonstrating reliable laser diodes is a significant milestone, reflecting the suitability of our lasers for use in a vast number of applications. Commercial reliability is not a one-size fits all approach, varying greatly depending on the application. At one end of the spectrum, we have single-use applications such as pyrotechnics, which require one-shot reliability and good 'shelf-life.' At the other end of the spectrum are very sophisticated space-based and industrial applications, which often require reliability of more than 10,000 hours and even years of operation. Many applications, including medical and scientific applications, require less than 1,000 hours' reliability.

"Reliability testing is ongoing and with our recent achievements and progress, we are moving toward a fixed beta design. This reliability milestone also enables us to increase our engagement with customers who are eagerly awaiting products to meet unmet market needs.

"Encouragingly, we have achieved these results with older iterations made by our contract manufacturers. We expect current iterations featuring new epitaxy designs and enhanced processing through our Silicon Valley fab will demonstrate improved yield, reliability, and performance as we continue to refine our laser diodes ahead of product launches."

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

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**For more information, please contact:**

Stefanie Winwood | +61 2 9334 2300 | [swinwood@bluglass.com.au](mailto:swinwood@bluglass.com.au)

**About BluGlass**

Developing leading-edge semiconductor manufacturing technology and devices for more than a decade, **BluGlass Limited (ASX:BLG)** is a provider to the global GaN photonics industries, delivering cutting-edge, custom **laser diode** development across the industrial, defence, bio-medical, and scientific markets.

Listed on the ASX, we are an Australian public company established to power the smarter, cleaner, more efficient photonics of tomorrow with our proprietary low temperature, low hydrogen, **remote plasma chemical vapour deposition** (RPCVD) manufacturing technology.

Backed by an extensive network of supply-chain partners, BluGlass is developing a suite of laser diode products, from small-batch custom lasers to medium and high-volume off-the-shelf products.