



LIGHTWAVE LOGIC™

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Lightwave Logic Develops a Successful Fabrication Process and Completes Production of its First Prototype Phase Modulators

Newark, Delaware – October 30, 2009: Lightwave Logic, Inc. (OTC Bulletin Board: LWLG) a technology company focused on the development of electro-optic polymer materials for applications in high speed fiber-optic telecommunications and optical computing, today announced the successful completion of the fabrication stage of their prototype phase modulator, demonstrating a commercially viable process for the manufacture of optical devices using Lightwave’s ‘Next Generation Electro-Optic Material Platform.’

This multi-step manufacturing process involved exposing its proprietary Perkinamine material to extreme conditions that are found in standard commercial manufacturing settings. A step-by-step analysis throughout the fabrication process showed that Lightwave’s proprietary material can successfully withstand each step of the manufacturing process without damage. With the help of its strategic partner Photon-X, LLC, the first run of the fabrication process yielded 100 individual prototype Phase Modulators.

These proof-of-principle prototype Phase Modulators, which were produced in concert with our strategic partner, are in the process of being optically and electrically interconnected for electrical and optical performance testing. The large number of electro-optic devices produced provides the opportunity to measure for statistical verification.

“We are very encouraged by the results of our fabrication campaign in the last few weeks,” said Dr. David Eaton, CTO of Lightwave Logic. “The performance of our material during the stresses of the various fabrication processes pleased us and our partner Photon-X”.

“We believe we have reached a significant milestone on the road to the commercialization of our ‘Next Generation Electro-Optic Material Platform’” stated Jim Marcelli, Lightwave Logic’s CEO, “‘Powered by Lightwave Logic’ is our vision and our goal as we target the Telecommunications, Computer and Military Aerospace industries’ wide array of products in those multi-billion dollar markets.”



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About Lightwave Logic, Inc.

Lightwave Logic, Inc. is a development stage company, moving toward prototype demonstration and commercialization of its high-activity, high-stability organic polymers for applications in electro-optical device markets. Electro-optical devices convert data from electric signals into optical signals for use in high-speed fiber-optic telecommunications systems and optical computers. Please visit the Company's website, www.lightwavelogic.com, for more information.

Safe Harbor Statement

The information posted in this release may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You can identify these statements by use of the words "may," "will," "should," "plans," "explores," "expects," "anticipates," "continue," "estimate," "project," "intend," and similar expressions. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. These risks and uncertainties include, but are not limited to, general economic and business conditions, effects of continued geopolitical unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in completing various engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering technological innovations, shortages in components, production delays due to performance quality issues with outsourced components, and various other factors beyond the Company's control.