



LIGHTWAVE LOGIC™

For Immediate Release

Lightwave Logic, Inc. Announces The Launch of Its Game Changing “Next-Generation Electro-Optic Material Platform”

NEWARK, Delaware, June 5, 2009/ PRNewswire-FirstCall/-Lightwave Logic, Inc. (OTC Bulletin Board: LWLG- News; <http://lightwavelogic.com>), a technology company focused on the development of electro-optic polymer materials for applications in high speed fiber-optic telecommunications and optical computing, announced today the beginning of application specific “Next-Generation Material Platform” to support several new applications over the next several years for the Military, Aerospace, Fiber-Optic Telecommunication and Optical computing market segments.

Lightwave is beginning the initial prototype of a phase modulator using our prototype photonic chip, scheduled for completion by the end of the third quarter 2009. The phase modulator will demonstrate the superior performance of our electro-optic material technology to our target markets. “Our Next-Generation Electro-Optic Polymer Material Platform” demonstrates small form factor, high speed and bandwidth as well as high temperature stability.

The company’s business plan projections is to finish development and build functional prototypes of 40 Gb/s and 100 Gb/s modulators during the first and second quarter of 2010. As an electro-optic materials company we will now pursue partners and joint ventures to support the production and distribution of these products lines.

Our material test results have indicated the company now has the performance needed to move forward with commercialization of our game changing “Next-Generation Electro-Optic Material Platform” with both optical and thermal stability required to meet the performance requirements.

Jim Marcelli, Lightwave’s CEO stated, “we believe we have created a true game changing technology with the first electro-optic polymer material platform to exhibit the ability to support a broad range of applications through the fine tuning of our Perkinamine class of materials.”

About Light wave 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.

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