



LIGHTWAVE LOGIC™

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Lightwave Logic Expands Scope of Prototype Modulator Development To Include Optical Computing Applications

Newark, Delaware – October 13, 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 that the company is developing an amplitude modulator which will produce structures that can be assembled into 1- and 2-dimensional arrays of input-output devices. These arrays are useful for optical computing applications such as encryption and pattern recognition.

The amplitude modulator, which is being developed for the optical computing market, is a perfect complement to the company's initial prototype phase modulator for telecommunications applications, which is scheduled for completion later this month.

“Given a 50,000 improvement in computing power for a given size weight and power, optical computing holds enormous potential for use in telecom and computer applications,” said Terry Turpin, Optical Computing Guru of Lightwave Logic. Optical modems, for example, could greatly expand the bandwidth of existing optical fibers, while user authentication, DNA sequencing and fingerprint matching could benefit enormously from the speed and efficiency of optical computing. Lightwave's technology offers the promise of a low cost, high speed optical modulator, which is a key element in an optical computer. It is the part of the optical computer that takes information and puts it in an optical format at the optical computer input. “A high speed, low cost modulator has been the holy grail of the optical computing community for decades,” Turpin added.

Further, Lightwave has had productive and ongoing dialogue with a number of key potential business and technology partners in an effort to move the company forward. “We continue to make solid progress on all fronts”, said James Marcelli, chief executive officer of Lightwave Logic. ““Powered by Lightwave Logic”” is our vision and our goal, as we target a wide array of OEM products in that multi- billion dollar market.”



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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.

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