



**Kevin Curtis**

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### **Holographic storage data densities of 200Gb/in<sup>2</sup> and beyond**

Holographic storage has long promised high density and fast transfer rate storage. Simultaneously achieving high write transfer rate, read transfer rate and high data density has been difficult due to both system and media limitations. Density must be shown over large enough areas of media to completely eliminate overlap issues in order for the density to translate into high capacities [1].

For high numerical aperture (N.A.) systems with media thicker than several hundred microns this typically requires storing thousands of holograms. High density and fast write times both contribute to lower diffraction efficiency which conflicts with fast readout rates without using expensive and unpractical lasers. For the first time, a practical holographic storage system with a commercially realizable photopolymer media will be described that achieves all three parameters simultaneously.

Kevin Curtis is Chief Technology Officer and founder of InPhase Technologies in Longmont Co. In this role, Kevin manages and provides the technical direction for the advanced research and development of InPhase's holography-based technologies for storage.

Prior to founding InPhase, Kevin was a member of the technical staff at Bell Laboratories where he directed the efforts of the holographic storage program upon which InPhase was founded. This included business development, and raising the Series A investments to start InPhase. Kevin has worked at Caltech, Northrop, and Bell Labs on holographic optical systems for over 16 years.

Dr. Kevin Curtis received his BS, MS, and Ph.D. degrees in electrical engineering in 1990, 1992, and 1994, respectively, all from the California Institute of Technology, Pasadena, California. He has authored approximately 50 publications and 42 US patents awarded on holographic storage and optical information processing.