

GE Shows Off 1TB DVD-Sized Disks at the Emerging Tech Conference

September 30 2009, by John Messina



(PhysOrg.com) -- At the September '09 Emerging Tech Conference in Boston, GE announced it has been developing a 1TB DVD size disk that can be read by a modified Blu-ray player.

The first products using this technology will be 1TB drives used for archival storage. GE expects this to reach the market in two to three years with another two or more year before it's available to consumers.

GE is anticipating that this technology can store an entire 3D movie that would be impossible to store on current blu-ray [disk](#). The holographic drives will have a 3ms access time and data transfer rates up to five

times faster than a DVD.

Holographic storage involves holograms, images of data being stored in layers on a DVD size disk. The drives work by splitting a laser beam into a reference beam and a signal beam, which is encoded with data. By crossing the two beams an interference pattern is created which is then stored on the disk.

Older versions of holographic drives store pages of a million bits stacked ten thousand deep at hundreds of locations on a disk. GE researchers discovered by reducing the page size to a single bit, called micro holograms, they could store as much data per unit area but was much easier to read. It turns out that the upper data layers can be read by a standard Blu-ray player and by slightly increasing the tracking range of the Blu-ray read head all layers can be accessed.

GE is planning to license the technology to manufactures for construction of the drives and disk. Peter Lorraine, GE lab manager stated at the Emerging Tech Conference, that license announcements could be expected soon.

Via: [The Inquirer](#) and [The Register](#)

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Citation: GE Shows Off 1TB DVD-Sized Disks at the Emerging Tech Conference (2009, September 30) retrieved 23 April 2024 from <https://phys.org/news/2009-09-ge-1tb-dvd-sized-disks-emerging.html>

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