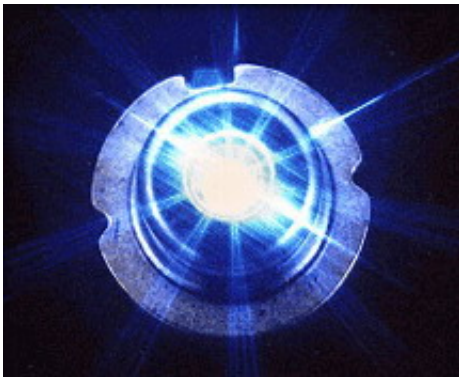


TDK Showcases Quad-Layer 100GB Blu-ray Disc At CES 2006

January 8 2006



At CES 2006, TDK is showcasing its line of innovative Blu-ray Disc products including its prototype recordable Blu-ray Disc with revolutionary 100GB capacity.

Blu-ray is the ultimate solution for archiving and distributing high-definition video projects. It's an economical data backup solution boasting the power of random data access and ultra-fast transfer rates combined with the highest resolution HD capabilities.

By far the most advanced optical media ever developed, the prototype 100GB bare Blu-ray Disc doubles both the capacity and recording speed of the current Blu-ray Disc specification. Blu-ray's industry-leading capacity means a single disc can store a vast assortment of content

without making quality compromises. A single, prototype 100GB Blu-ray Disc can store approximately 9 hours of high definition video on a single side.

TDK's prototype Blu-ray Disc records data at 72 megabits per second, double the 36Mbps rate of the current Blu-ray Disc specification. The initial Blu-ray Disc standard allows for 25GB single layer Blu-ray Discs and 50GB dual layer Blu-ray Discs. To achieve 100GB capacity, the prototype Blu-ray Disc incorporates four 25GB layers.

“Blu-ray is changing the future of high definition digital recording and content distribution as well as proving to be the ideal, cost-effective, removable storage medium for large amounts of data. As the only media company that's a founding member of the Blu-ray Disc Association, TDK is pleased to take the lead in realizing many of the format's most significant advancements,” noted Bruce Youmans, TDK Vice President of Marketing.

TDK's advanced sputtering technology played a key role in enabling the creation of the prototype 100GB Blu-ray Disc. Additionally, TDK specially designed recording materials with revolutionary characteristics to accommodate the Blu-ray Disc format's short 405nm blue-violet laser wavelength and small laser spot size, narrow track pitches and high recording densities. The materials interact with the laser with such stability that TDK has already been able to achieve 6x (216Mbps) recording speed with prototype discs.

TDK Technologies Make Bare Blu-ray Disc a Reality Because Blu-ray Disc media's data tracks are quite narrow even in comparison with DVD media, precise, stable interaction between the laser and the recording material is especially critical to ensuring error-free recording and playback. To enable high density data storage, the Blu-ray Disc's recording layer is close to the disc surface, separated only by a 0.1mm

cover layer. As a result, the disc surface itself must function as a protective shield for the recording layer. That's why TDK developed DURABIS, an innovative hard coating technology that makes bare Blu-ray Disc media a reality by protecting the disc surface against common contaminants such as scratches and fingerprints. DURABIS makes TDK Blu-ray Discs 100 times more scratch resistant than they would be without a protective coating, as demonstrated in standardized laboratory testing.

TDK is the company that pioneered hard coating technology, an essential component of the Blu-ray Disc specification. Hard coating technology pioneered by TDK has eliminated the need for cumbersome cartridges to protect the media's recording layer and is allowing the production of bare Blu-ray Disc media. Eliminating the need for a cartridge not only minimizes manufacturing costs, but also allows for the same user experience as with today's CDs and DVDs.

Just about every business, large or small will benefit from the capacity that Blu-ray media provides. Blu-ray enables backing up every important file on your PC with just one disc. For professional applications, Blu-ray is an economical data backup solution boasting the power of random data access and ultra-fast transfer rates.

Source: TDK

Citation: TDK Showcases Quad-Layer 100GB Blu-ray Disc At CES 2006 (2006, January 8) retrieved 31 March 2023 from <https://phys.org/news/2006-01-tdk-showcases-quad-layer-100gb-blu-ray.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.