

TDK Announces Blue Laser Disc Technology to Support 200GB Capacity

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TDK, a world leader in digital recording solutions, has reached a landmark in the development of recordable blue laser technology, achieving a groundbreaking capacity of 200GB. Surpassing existing optical media technologies several times over, a 200GB blue laser disc would double the capacity of TDK's existing 100GB Blu-ray prototype. One of TDK's new 200GB blue laser discs could store approximately 18 hours of high definition video (encoded at 24Mbps).

The initial Blu-ray Disc standard allows for 25GB single layer Blu-ray Discs and 50GB dual layer Blu-ray Discs. However, a recent signal processing innovation stretches the physical limits of optical media, realizing 33.3GB capacity for each of the disc's six layers. As with the 100GB disc, and other Blu-ray Disc media, TDK's 200GB blue laser disc is single sided.

Bruce Youmans, TDK Vice President of Product Research & Development, said: "The ultra-ambitious technology roadmap for Blu-ray has now been confirmed as realistic, with landmarks such as this proving the long term value of the format against its rivals. TDK was the first to develop a prototype 100GB recordable Blu-ray Disc, and yet again, our landmark achievement in creating a 200GB disc is affirming the company's position as a true pioneer in advancing the capabilities of optical media."

TDK's advanced material science played a key role in enabling the development of 200GB blue laser disc technology. The company's 100GB prototype disc uses four 25GB layers to reach 100GB capacity. For the 200GB technology development, TDK has stretched the physical margins of the Blu-ray Disc format, enabling a disc to store up to 33.3GB per layer while staying within the tolerances of the BD playback specifications.

TDK technologies are redefining state-of-the-art optical media specifications and performance.

TDK's new inorganic film formulation provides absolute stability with narrow track pitches and high recording densities, such as those employed by the Blu-ray Disc format. The formulation's optical qualities are so stable that TDK has already been able to achieve 6x (216Mbps) recording speed on a 25GB write-once Blu-ray Disc prototype.

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. That's why TDK developed DURABIS 2, 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 2 increases the scratch resistance of Blu-ray Disc media by a factor of 100 in comparison with a non treated disc surface, as demonstrated in rigorous testing. Because the DURABIS 2 coating technology rapidly discharges static electricity, the discs also resist the accumulation of dust. TDK pioneered hard coating technology, and its DURABIS 2 is the ultimate protective coating for Blu-ray Discs.

Source: TDK

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