

Tags Embedded in Discs Will Fight Piracy, Says Disc Maker

DVD and CD manufacturer U-Tech, along with RFID vendors RiRF and IPICO, have developed a means by which movie studios can manage digital rights to fight piracy.

By Mary Catherine O'Connor

Sept. 25, 2006—U-Tech, a Taiwanese maker of recorded DVDs and CDs and a subsidiary of optical-disc manufacturer Ritek, says it has developed a technology that will enable movie studios to deter film piracy by embedding RFID tags into DVDs. To develop the technology, U-Tech partnered with tag maker IPICO and with RiRF, a Ritek-owned provider of RFID tracking systems.

The technology, dubbed "chip-on-disc," or COD, will most likely be used for high-definition DVD (HD-DVD) and Blu-ray Disc (BD) media, according to Alwyn Hoffman, executive vice president of IPICO, and such discs will be playable only on RFID-enabled HD-DVD and BD players that U-Tech and its partners are also developing, using IPICO interrogator modules. The players will not work with pirated versions of movies since they will not contain the required RFID tags. The system will need buy-in from the movie studios for which U-Tech makes movie discs, including Warner, Disney and Fox.

The embedded tags will also be usable to track the prerecorded media throughout the supply chain, using a tracking system such as the electronic product code, says Gordon Westwater, president of IPICO. Westwater notes that U-Tech is likely to use IPICO tags, which can be designed to operate at ultrahigh, high or low frequency, or a combination of low and high frequencies. This will allow them to track CD and DVD products as they move through the supply chain, headed for retailers, before bringing the RFID-embedded discs to market. For this product-tracking application, tags will be attached to disc packaging rather than embedded in the discs. Westwater will not comment, however, as to the particular frequency or tag memory specifications U-Tech plans to use for either the non-embedded or embedded tags, nor if it will use an EPC numbering system or a different type of identifier. U-Tech has not responded to requests from *RFID Journal* for an interview to discuss its exact plans.

According to Westwater, U-Tech expects RFID tags to be used for more than the product-tracking applications being implemented by Wal-Mart and other retailers. He does not believe tags compliant with EPC standards will be the only ones used widely for product tracking, or for other purposes. "We think there will be multiple standards," he says, adding that U-Tech may use either read-only or read-write versions of IPICO's IP-X tag. IPICO recently submitted the IP-X protocol to the International Standards Organization (ISO), to be considered for standardization (see IPICO Submits Its IP-X RFID Air Interface to ISO).

U-Tech plans to begin a closed-loop pilot of the discs at its manufacturing plant in Taiwan, followed by a larger pilot involving its manufacturing plants, a distribution center in Australia and several major movie-industry customers. One or more DVD-player manufacturers will be brought in on a final pilot of the full system, designed to test the players' ability to authenticate and play RFID-embedded, according to a U-Tech press release.

RiRF is currently working with IPICO to design media players with embedded interrogators, says Westwater.

In late July, Brooks Automation's RFID division announced that it had developed a similar COD system with German CD and DVD replicator CDA Datentraeger Albrechts. Last year, researchers at WINMEC, an academic-industry consortium based at UCLA, said they were also researching the use of RFID to manage digital media rights by embedding tags in discs to authenticate the media in RFID-enabled players (see Group Studies RFID to Stop Digital Piracy).

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