ESP-7000 Encoder

High-speed, advanced-design formatter for mastering prerecorded and recordable optical disc formats.

The ESP-7000 is an advanced-design formatter capable of mastering prerecorded and recordable DVD, CD, Blu-ray, and HD-DVD formats. Its software-based format engine and high-speed, ultra-low noise hardware are compatible with all existing formats. The ESP-7000 is designed for flexible, easy adaptation to new formats. It is compatible with all LBRs including single and dual-beam systems.

Features

Hi Speed / Low Noise Design

ESP-7000 can cut in CLV mode at up to 2R HD-DVD and Blu-ray, 8R DVD, and 20X CD speeds. Housed in its own enclosure and isolated from stray electronic noise found in computer cases, the carefully designed output channels produce a measurably lower jitter than existing formatters. The result is a wider mastering process window that can help compensate for other less optimized process steps.

CAV Recording

By running the turntable at its inner, or fastest speed, ESP-7000 can help you obtain 80% faster cut times by using its high-speed CAV-mode. Built for precision and speed, ESP-7000 supports DVD turntable speeds up to an unprecedented 85 rps resulting in a mastering speed comparable to 6R DVD.

ImageCopy Read-in

When reading-in masters, an upgradeable database of more than 1,000 configurable rules ensures that images are thoroughly analyzed by ImageCopy at the start of the mastering process. Format errors are repaired when possible and operators are notified when further inspection is necessary. As they are analyzed, images are moved to the ESP-7000's large local hard drive or to a network server until scheduled for cutting. Up to four master images can be analyzed and read-in concurrently.

ECLIPSE
DATA TECHNOLOGIES

ESP7000 High-speed Formatter

Built-in Scheduler

ESP7000 contains a built-in job scheduler giving the operator easy access to read-in and schedule jobs at mastering. The simple user-interface controls up to four image load operations, scheduling and mastering from one screen.

Advanced Pit Shaping

True pit shaping can be obtained with an optional advanced pulse shaping module. With the ESP-7000, different pit segments can be retimed, or reshaped in amplitude allowing creation of optimal shapes to further tighten your process. Pits shapes can also be changed based on the two adjacent pits to compensate for inter-symbol interference. Up to 32 pit-shaping bands can be defined for a single cut creating a useful tool for process optimization. Advanced pulse shaping (n-1 or PWM) for PTM is also supported.

ImageIntegrity Protection

Every image is protected against data transfer corruption by means of ImageIntegrity's checksums. Once applied, this checksum provides continued protection as it stays with the image throughout the process. For added assurance, ESP-7000's ImageIntegrity feature gives you the option of verifying the copied image back to the original master. This automatic step gives you further confidence that the image was read correctly from the source drive should the read-in drive be faulty.

LBR Integration

With more than 20 programmable I/O channels,, connecting to any LBR or PTM is simple. The ESP 7000 can control the turntable speed with up to 4096 pulses per revolution or it can run in slave mode, synchronizing to the turntable tach pulses

Advanced Graphics

Precise inner and outer radius graphics are easily designed, edited, and mastered at up to 3000dpi. Visible character bands can contain user selectable fonts and type sizes, bar codes, and imported graphics files. Cutting can be done in CLV or CAV mode.

Simple Networking

Using Windows 2000 or XP operating system, ESP-7000 comes ready to connect to your network system. The ESP-7000 can move images to and from your server. In addition, multiple ESP-7000 and ImageEncoders can be networked together to share images.

Supported Formats

Prerecorded	Recordable
CD-ROM (All Books)	CD-R(W)
DVD-ROM, Video	DVD-R(W), RAM
HD DVD	HD DVD-R(W), RAM
Blu-ray	BD-R(e)