

Permanent Optical Tape Storage

ID: 2012-065

Executive Statement:

A revolutionary method for achieving permanent digital data storage on tape.

Technology Overview:

This technology introduces a novel approach to digital data storage, utilizing a Mylar-based optical tape that promises a lifespan of approximately 1,000 years. By employing a laser for data recording, this invention aims to surpass the limitations of current magnetic tape storage solutions, offering a permanent and cost-effective alternative.

Key Advantages:

- Extended data longevity of up to 1,000 years
- Utilization of existing tape formats and manufacturing processes
- Cost reduction through the use of laser recording technology
- Guaranteed permanence of stored data, unlike reversible magnetic tapes

Problems Addressed:

- Non-permanence and reversibility of current magnetic tape storage solutions
- High costs associated with traditional data storage methods
- Limited lifespan of existing digital storage media

Market Applications:

- Long-term archival storage for governmental, historical, and legal records
- Data preservation in libraries, universities, and research institutions
- Secure storage solutions for industries requiring data permanence, such as healthcare and finance