

Holographic Storage

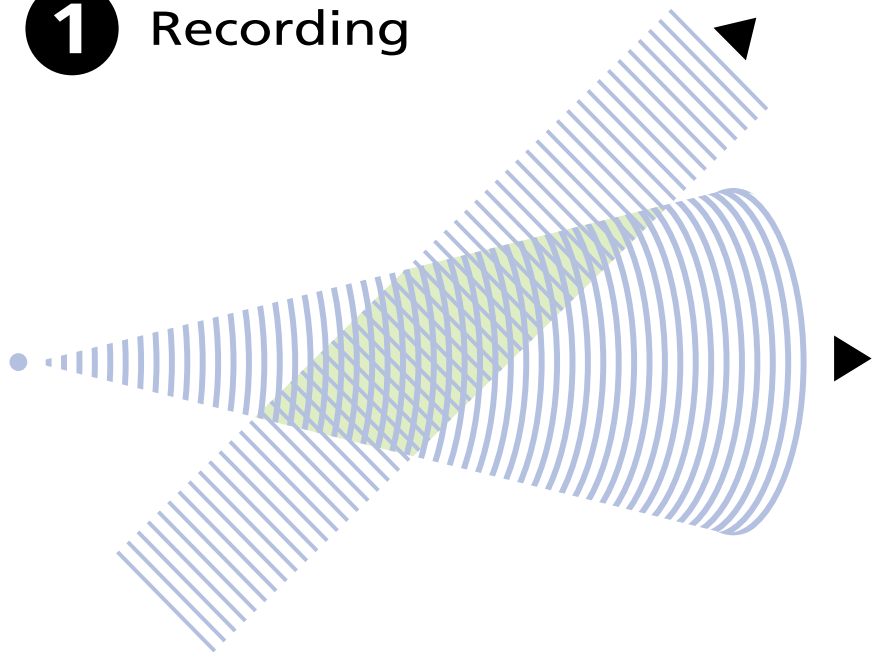
Holographic Storage is an optical technology that allows **1 million bits** of data to be written and read out in single flashes of light. **Thousands of Holograms** can be stored in the same location throughout the entire depth of the medium.



InPhase
TECHNOLOGIES

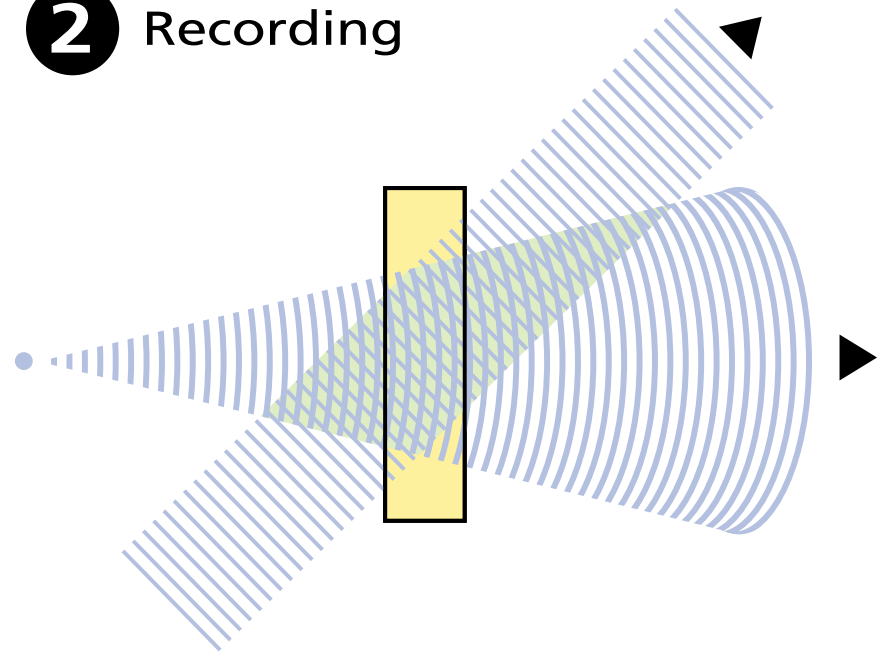
What is a Hologram?

1 Recording



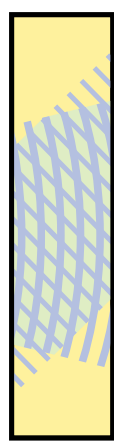
The intersection of two beams creates an interference pattern of bright and dark regions.

2 Recording



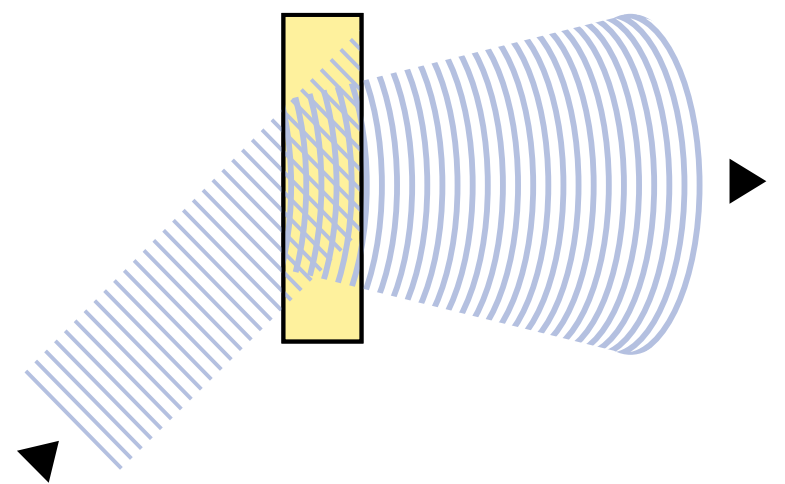
A photosensitive medium records the interference pattern.

3 Recording



The hologram is the image of the interference pattern stored within the medium.

4 Reading



Light from one beam shining on the hologram reconstructs the data pattern.

Holographic Storage System

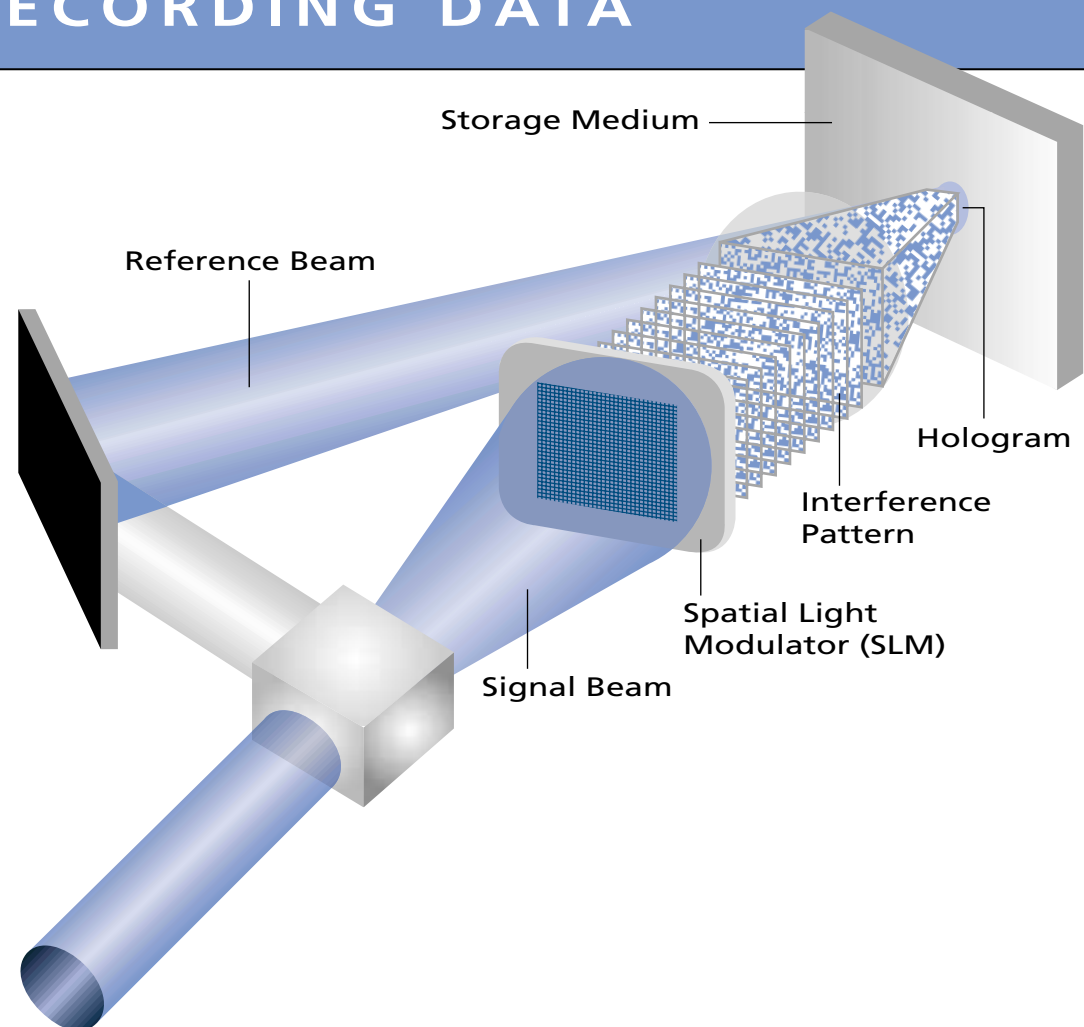
FEATURES

- Parallel access to data
- Multiplex data pages in one location

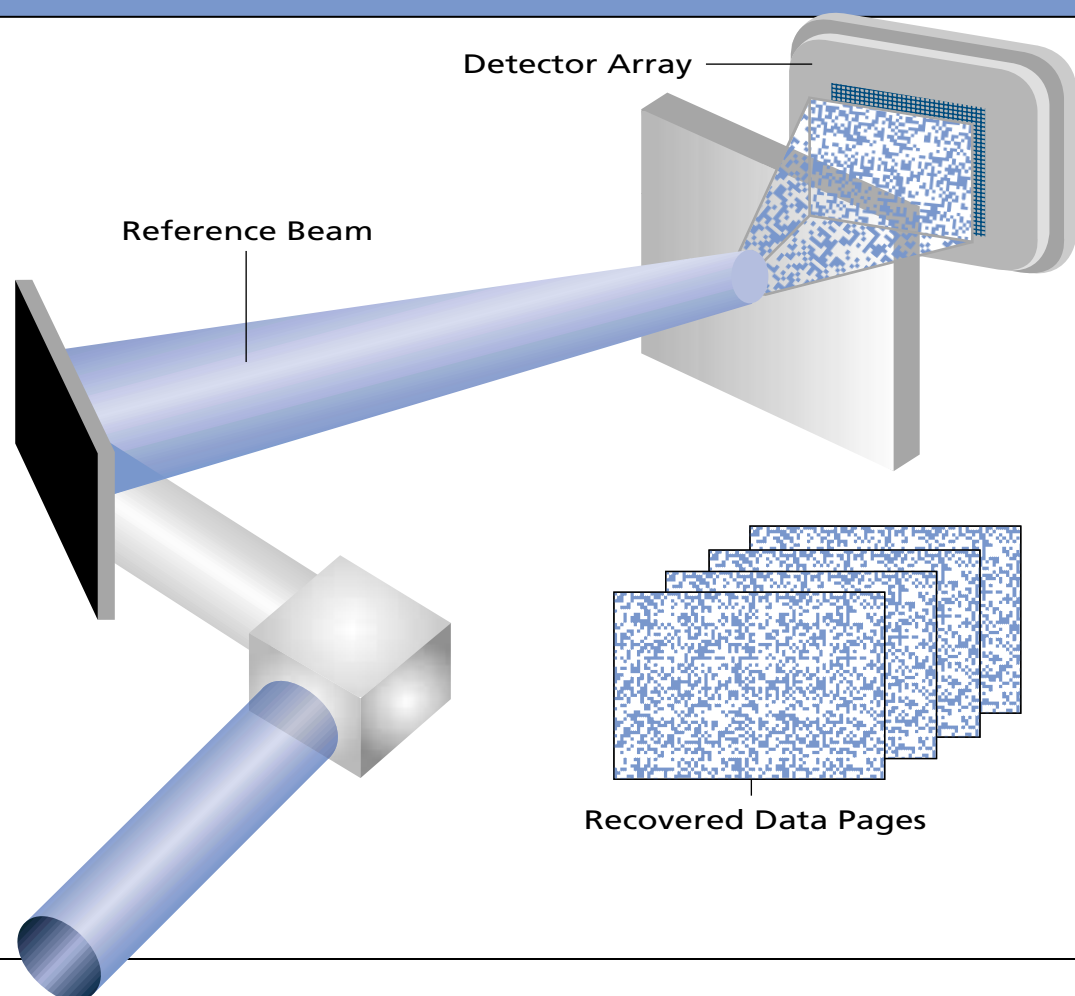
BENEFITS

- Fast data transfer rates
- Ultrahigh storage densities

RECORDING DATA



READING DATA



InPhase
TECHNOLOGIES

Media is the Key...

- Dynamic Range**
High storage densities and rapid read rates
- Photosensitivity**
Rapid read rates
- Millimeter Thickness**
High storage densities
- Dimensional Stability**
High fidelity data recovery
- Optical Flatness**
High fidelity imaging of data pages
- Low Scatter**
Low levels of noise in data recovery
- Processing**
Heat/Solvent free
- Non-volatile readout**
No unwanted erasure
- Long shelf-life of media**
Approximately five years
- Long archival life of stored data**
Thirty years
- Environmental/thermal stability**
Competitive with other optical technology

The **2 CHEMISTRY MEDIA** makes it all possible.