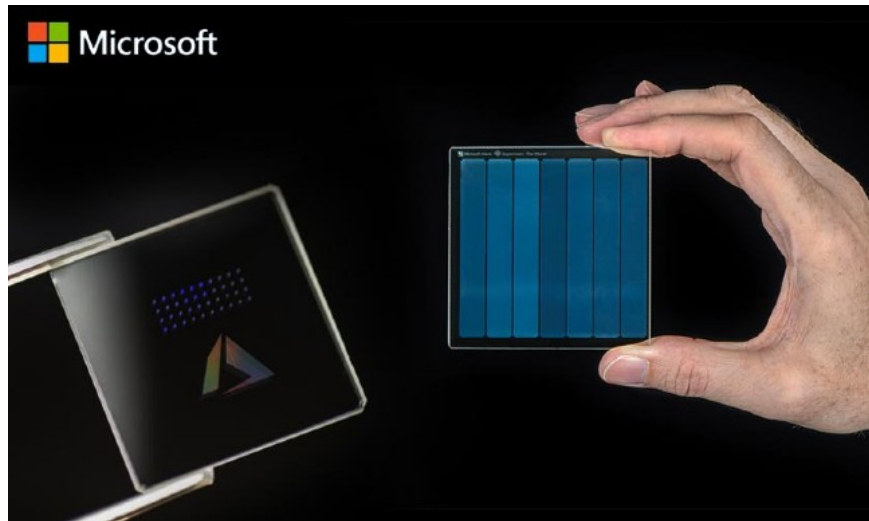


The world's first petabyte drive can use glass storage technology

In the context of the growing demand for high-definition video and the strong growth of the IoT network, IDC predicts the world will generate 175 zettabytes (ZB) of data by 2025. This number is 6 times greater, compared to 2018.

1 ZB is equivalent to 1 billion TB so humanity will reach 1 trillion TB milestone by the end of this decade. Therefore, storage device manufacturers around the world are aggressively looking for new, more advanced storage solutions. Glass storage solutions are considered by most companies to be the most feasible solution.



Microsoft glass storage

Microsoft is the first to offer a glass storage solution with Project Silica. Researchers from the world's largest software company have found a way to store 75.6TB of data on a piece of silica quartz glass the size of a 2.5-inch hard drive.

This is an amazing achievement because currently the largest hard drive market is 20TB and its size is much larger than 3.5 inches.

In a statement sent to IEE Explore, Seagate's CTO John Morris confirmed that Seagate's R&D center is also working on glass storage. *"The biggest challenge in developing a way to store glass is to design a system that can read and write with reasonable throughput,"* says Morris.

Companies like Western Digital, Toshiba and even Samsung may be developing similar technology.

However, there are still some challenges that scientists and firms need to address. First, Microsoft's Project Silica has only recently figured out how to write data on quartz glass panels. The method of reading the recorded data is currently undeveloped.

Secondly, it will take several decades for us to have terabit-speed internet per second. Therefore, backing up the hard drive huge capacity will make carriers providing cloud computing services extremely time consuming.

When all of the problems are resolved, Microsoft and the manufacturers of storage devices will soon release petabytes of hard drive models using glass storage technology.

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