

## Overview



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## Introduction

Like Magneto Optical (MO), Ultra Density Optical (UDO) satisfies professional archival needs and is ideal for companies or industries who must meet international, commercial and governmental archival regulations, who process large volumes of documentation and who must access stored/archived files quickly. Markets likely to utilize UDO are: Financial services and health care with federally regulated requirements for email and static content like x-rays. Federal, State and Local governments that must comply with regulatory standards, securities, insurance, consumer products, construction materials, food, transportation and pharmaceutical industries that rely on permanence. HP quality control tests for Write-Once and Rewritable disks include 40,000 load/unload cycles per disk. This level of testing greatly improves product quality, thus ensuring total file access.

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## Key Features & Benefits

- **Lower Cost of Ownership:** 84% less per GB than Magneto Optical.
- **Higher Capacities:** 30 GB of capacity on a single disk. Minimizes the number of disks required to store permanent data.
- **Permanence:** Phase Change Write Once prevents customers from overwriting data or altering files, making UDO ideal for customers who need to comply with international regulatory requirements.
- **Higher Performance:** 33% faster file access over its predecessor, Magneto Optical (MO)
- **Durable and Secure:** in excess of 50 years archival life
- **Standard:** 5.25" ISO standards



# QuickSpecs

## HP Ultra Density Optical Storage Media

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### Models

HP Ultra Density Optical Storage Media	HP UDO 30GB Write-Once disk	Q2030A
	HP UDO 30GB Rewritable disk	Q2031A



## Product Highlights

### Proven Reliability

HP ensures the highest level of quality with media specifications that far exceed industry standards. No other media supplier carries out such exhaustive qualification of the drive and media as HP. This is because no media supplier conducts extensive drive based tests on a daily basis and moreover, supports hardware warranty initiatives in the field with a vested interest in reducing all media-induced hardware issues. HP conducts tests on multiple batches of media using multiple drives to ensure performance and data integrity in different environmental conditions, such as variations of high/low temperature and humidity. HP customers are many and varied; this is why HP specifies stringent durability and reliability metrics that the media must satisfy before it is good enough to bear the HP logo.

### UDO Technology

Ultra Density Optical technology, commonly referred to as UDO, is the ideal successor to Magneto Optical (MO) archival storage because it adheres to the 5.25" ISO standard form factor. UDO offers customers more than three times the capacity of MO, with 33% faster file access, 8 MB/sec read transfer rates and a lower longer term cost of ownership; roughly 84% per GB less than MO. UDO will deliver the highest level of data integrity and trustworthiness with phase change write once recording and is considered the new 30 GB standard for professional optical storage; ideal for customers who must meet international, commercial and governmental archival regulations.

Phase Change Technology utilizes the heat from a blue laser to write data on the recording surface of optical media. The laser records data marks by altering the reflective quality of the recording surface. This is done by changing the physical state of the media's recording layer from a crystalline to an amorphous state, which produces bright to dark marks on the media. The same laser, set at a lower intensity, is then used to read the media. UDO Write Once optical technology prevents data from being overwritten or altered. UDO uses a non-contact recording to provide robust and reliable performance and is insensitive to exposure to magnetic fields.

UDO has a solid three generation road map with capacities reaching 120 GB on a single disk. With each new generation, the cost of trustworthy archival storage will continue to provide cost effective professional archive storage.



## Related Options

## Hardware Models

## HP UDO Jukeboxes

Part Number	Model Number	Description
AA961A	HP optical 30ux	30 GB subsystem
AA962A*	HP optical 700ux	24 slot, 1 UDO drive jukebox
AA963A*	HP optical 7000ux	24 slot, 2 UDO drive jukebox
AA964A*	HP optical 1100ux	38 slot, 2 UDO drive jukebox
AA965A	HP optical 1000ux	32 slot, 2 UDO drive jukebox
AA966A	HP optical 1900ux	64 slot, 4 UDO drive jukebox
AA967A	HP optical 2300ux	76 slot, 2 UDO drive jukebox
AA968A	HP optical 1900ux	64 slot, mixed, 2 UDO, 2 MO drive jukebox
AA969A	HP optical 3800ux	128 slot, 4 UDO drive jukebox
AA970A	HP optical 3800ux	128 slot, 6 UDO drive jukebox
AA971A	HP optical 7100ux	238 slot, 6 UDO drive jukebox
AA972A	HP optical 7100ux	238 slot, 10 UDO drive jukebox
AA973A	HP optical 7100ux	238 slot, 4 UDO drive jukebox
AA974A	HP optical 7100ux	238 slot, mixed, 6 UDO, 4 MO drive jukebox
* <a href="#">products available soon</a>		



# QuickSpecs

## HP Ultra Density Optical Storage Media

### Technical Specifications

UDO Media	Media Specifications	Write Once / Rewritable
	Disk Diameter	130mm
	Disk Thickness	2.4mm
	Cartridge Size	5.25 inch - ISO Standard 135 x 153 x 11mm
	Capacity	30GB
	Sector Size	8KB
	Number of User Sectors /Side	1,834,348
	Data Area	27.0-62.5mm
	Recording Layer	Phase change
	Recording Format	Land and groove
	Recording Side	Both sides
	Recording Density	7.4 Gb/in <sup>1</sup>
	Data Encoding	RLL (1,7)
	Rewrite Cycles (Rewritable Media)	10,000
	Media Life	50+ years
	Archival Temperature	5-55° C
	Archival Relative Humidity	3-90 %

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