QuickSpecs

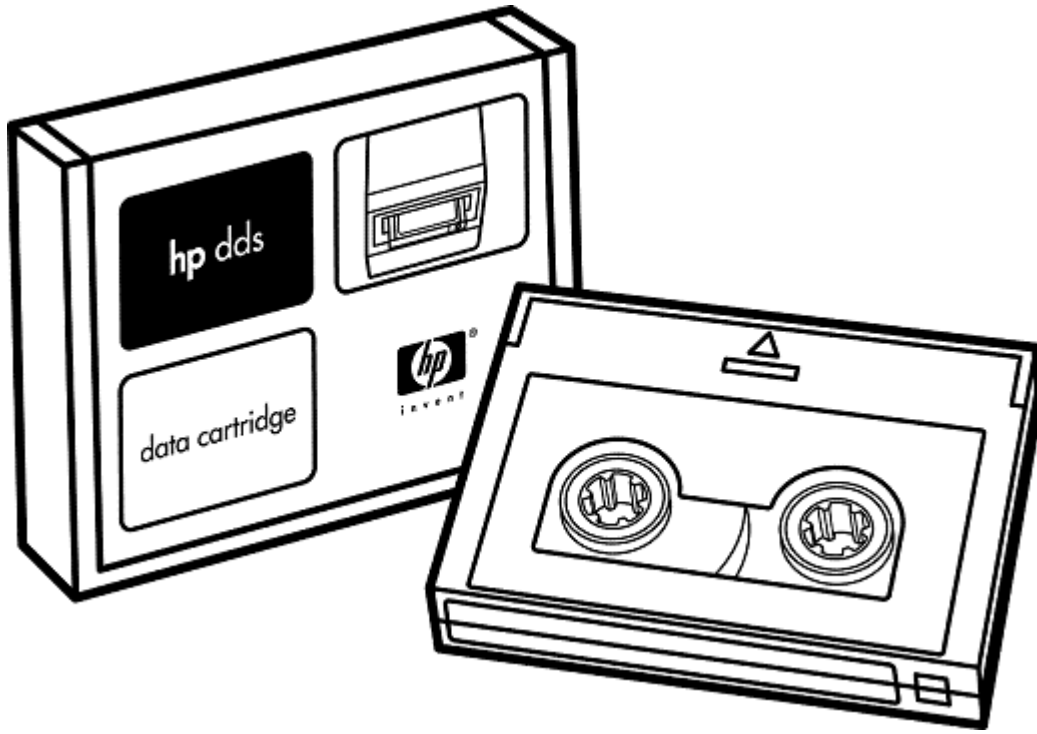*Overview*

Introduction

DDS is historically the most reliable and durable technology ever introduced within the tape market. DDS is ideal for entry-level and small networks looking for higher capacities with lower cost of ownership. DDS is an affordable solution for unattended back ups. HP co-invented DDS technology and was the first company to expand its DDS offering into the 5th generation known as DAT-72. In addition to co-inventing the DDS technology, HP also co-invented DAT 72, DAT 160 and the latest generation of DAT-320. HP's DDS media portfolio is now the most robust within the industry offering DDS-1 90m thru DAT 320 with capacities of up to 320GB on a single cartridge.

What's New

HP DAT 160 and newest generation- DAT 320:
HP has extended an already popular and trusted format by doubling the transfer rate to 12 MB/sec and more than doubling the capacity to 320 GB to create the new DAT 320. There is also a new HP DAT 320 Cleaning Cartridge.

HP's DAT 72 Storage Media Kit:
HP's DAT72 Storage Media Kit provides customers an easy way to purchase a comprehensive portfolio off
DAT 72 storage media products in one easy to buy bundled solution. Each kit contains fourteen HP DAT 72 Data Cartridges (C8010A), one HP DDS Cleaning Cartridge (C5709A), twenty colored labels, a fourteen slot protective carrying case that can be used to securely store or transport cartridges when not in use, a free copy of the easy to read guide "The Essentials of Successful Tape Backup", and a free copy of HP's Storage Works Data Protector Express 3.1 Evaluation Software (60 day free trial).

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HP DAT/DDS Storage Media

Overview

Models		
	HP DDS-1 4GB 90m Data Cartridge	C5706A
	HP DDS-2 8GB 120m Data Cartridge	C5707A
	HP DDS-3 24GB 125m Data Cartridge	C5708A
	HP DDS-4 40GB 150m Data Cartridge	C5718A
	HP DAT 72 72GB 170m Data Cartridge	C8010A
	HP DAT 72 Storage Media Kit	C8012A
	HP DAT160 160GB Data Cartridge	C8011A
	HP DAT 320 320GB Data Cartridge	Q2032A
	HP DDS Cleaning Cartridge	C5709A
	HP DAT 160 Cleaning Cartridge	C8015A
	HP DAT 320 Cleaning Cartridge	Q2039A

NOTE: 50 Cleans when used in an HP drive.

Key Features & Benefits

- **Improved Capacity**: supports capacities up to 320 GB
- **Value-For-Money**: lowest cost of ownership
- **Reliable**: historically the most reliable and durable technology
- **Safe**: limited lifetime warranty

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Product Highlights

Proven Reliability

HP ensures the highest level of quality with media specifications that far exceed industry standards. HP has 20 custom-built testing chambers that are in use 24 hours per day, 365 days per year. 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. Changes in external conditions, which can easily occur when media is moved from different locations, can have a huge impact on error rate performance. Increased error rates jeopardizes backup, and backup disruption jeopardizes business continuity. 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.

DAT/DDS Technology

DDS/DAT is considered the most reliable and durable format of all the tape technologies. DAT320, the latest generation, uses ME (Metal Evaporated) media that has an excellent reliability record. This is achieved through a number of design features, such as a DLC (Diamond Like Coating) layer over the magnetic layer and a lubricant that is applied on top of the DLC layer. These, and other features, enable DAT320 media to achieve excellent durability and a 30-year archival life.

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Options

Related Hardware Options

NOTE: This is a list of related options. Some may be discontinued.

HP 12/24-GB DAT Drive	12/24-GB DAT Drive, Internal (Opal)	295513-B22
	12/24-GB DAT Drive, External (2-5-2)	DS-TLZ10-DB

NOTE: For additional information regarding the 12/24-GB DAT Drive, please see the following URL:
http://h18000.www1.hp.com/products/quickspecs/10239_div/10239_div.HTML
http://h18000.www1.hp.com/products/quickspecs/10239_div/10239_div.PDF

HP 20/40 GB DAT Tape Drive	20/40GB DAT Drive, Internal (Carbon)	157769-B22
	20/40GB DAT Drive, External (Carbon), NA	157770-002
	20/40GB DAT Drive, External (Carbon), Int'l	157770-B32
	20/40GB DAT Drive, External (Carbon), Japan	157770-292
	20/40GB DAT Drive, Hot Plug (Carbon)	215488-B21

NOTE: For additional information regarding the 20/40GB DAT Drive, please see the following URL:
http://h18000.www1.hp.com/products/quickspecs/10426_div/10426_div.HTML
http://h18000.www1.hp.com/products/quickspecs/10426_div/10426_div.PDF

HP DAT 24 Tape Drive for ProLiant Systems	DAT 24i Internal Tape Drive for ProLiant, Internal (Flint)	Q1547A

HP DAT 24 Tape Drive for Open Connect	DAT 24i, Internal Tape Drive (Flint)	C1555D

NOTE: 24 GB internal DDS-3 drive for PC or UNIX

DAT 24e, External Tape Drive (Flint) (WW)   C1556D
NOTE: 24 GB external DDS-3 drove for PC or UNIX)

DAT 24e, External Tape Drive (Flint) (Int'l)   C5653C
NOTE: 24 GB external DDS-3 drove for PC or UNIX)

DAT 24m, Array Module Tape Drive (Flint)   C7498A
NOTE: 24 GB DAT Array module for HP Tape Array 5300

DAT 24, Trade Ready Tape Drive (Flint) (WW)   C1554A
NOTE: No markings on front panel, no learning products, software, cables.

NOTE: For additional information regarding the HP DAT 24 Tape Drive, please see the following URL:
http://h18000.www1.hp.com/products/quickspecs/11883_div/11883_div.HTML
http://h18000.www1.hp.com/products/quickspecs/11883_div/11883_div.PDF

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Options

HP DAT 40 Tape Drive for ProLiant and AlphaServers	DAT 40i, Internal Tape Drive for HP ProLiant and AlphaServer (Carbon)	Q1553A
	DAT 40e, External Tape Drive for HP ProLiant and AlphaServer (Carbon) (US)	Q1554A
	DAT 40e, External Tape Drive for HP ProLiant and AlphaServer (Carbon) (Int'l)	Q1555A
	DAT 40h, Hot-plug Tape Drive for HP ProLiant and AlphaServer (Carbon)	Q1546A

HP DAT 40 Tape Drive for Open Connect	DAT 40i, Internal Tape Drive for Open Connect (Carbon)	C5686B
	DAT 40e, External Tape Drive for Open Connect (Carbon)	C5687C
	DAT 40m, Array Module Tape Drive (Flint)	C7497A
	DAT 40, Trade Ready Tape Drive (Flint) (WW)	C5685C
	NOTE: No markings on front panel, no learning products, no software, no cables.	
	NOTE: For additional information regarding the HP DAT 40 Tape Drive, please see the following URL: http://h18000.www1.hp.com/products/quickspecs/11883_div/11883_div.HTML http://h18000.www1.hp.com/products/quickspecs/11883_div/11883_div.PDF	

HP DAT 72 Tape Drive for ProLiant and AlphaServer systems	DAT 72i, Internal Tape Drive for ProLiant and AlphaServer (Carbon) (WW)	Q1525A
	DAT 72e, External Tape Drive for ProLiant and AlphaServer (Carbon) (NA)	Q1527A
	DAT 72e, External Tape Drive for ProLiant and AlphaServer (Carbon) (Int'l)	Q1528A
	DAT 72h Hot Plug Tape Drive for ProLiant and AlphaServer (Carbon) (WW)	Q1529A
	3U Rackmount Kit, Worldwide	274338-B21
	NOTE: No drives included. Accommodates up to 4 internal DDS drives.	

HP DAT 72 Tape Drive for Open Connect	DAT 72i, Internal Tape Drive for Open Connect (Carbon) (WW)	Q1522A
	DAT 72e, External Tape Drive for Open Connect (Carbon) (WW)	Q1523A
	DAT 72m, Array Module Tape Drive (Flint) (Field Integrated)	Q1524A
	DAT 72m, Array Module Tape Drive (Flint) (Factory Integrated) **NOTE:** DAT 72, Array Modules fit in to HP Tape Array 5300 (C7508A or C7508AZ for factory fitted).	Q1524A-OD1
	DAT 72, Trade Ready Tape Drive (Flint) (WW) **NOTE:** No markings on front panel, no learning products, no software, no cables.	Q1526A
	NOTE: For additional information regarding the HP DAT 72 Tape Drive, please see the following URL: http://h18000.www1.hp.com/products/quickspecs/11883_div/11883_div.HTML http://h18000.www1.hp.com/products/quickspecs/11883_div/11883_div.PDF	

HP Rackmount Tape Drive Kits for ProLiant and AlphaServer	HP 3U rack-mount kit	274338-B21
	NOTE: For additional information regarding the HP Rack Mount Tape Drive Kits, please see the following URL: http://h18000.www1.hp.com/products/quickspecs/10854_div/10854_div.HTML http://h18000.www1.hp.com/products/quickspecs/10854_div/10854_div.PDF	

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HP DAT/DDS Storage Media

Options

HP DAT 40x6 Autoloader for ProLiant and AlphaServer Systems	DAT 40x6 Autoloader (Internal)	Q1550A
	DAT 40x6 Autoloader (External) (US)	Q1551A
	DAT 40x6 Autoloader (External) (WW)	Q1552A

HP DAT 40x6 Autoloader for Open Connect	DAT 40x6 Autoloader for Open Connect (Internal)	C5716A
	DAT 40x6 Autoloader for Open Connect (External) (WW)	C5717C
	DAT 40x6 Autoloader for Open Connect (Trade Ready)	C5715A
	NOTE: For additional information regarding the HP DAT 40x6 Tape Autoloader, please see the following URL: http://h18000.www1.hp.com/products/quickspecs/11785_div/11785_div.HTML http://h18000.www1.hp.com/products/quickspecs/11785_div/11785_div.PDF	

HP 20/40-GB DAT DDS-4 8 Cassette Autoloader	HP DAT 20/40 autoloader (internal)	166504-B21
	HP DAT 20/40 autoloader (external)	166505-001
	NOTE: For additional information regarding the HP 20/40-GB DAT 8 Cassette Autoloader, please see the following URL: http://h18000.www1.hp.com/products/quickspecs/10518_div/10518_div.HTML http://h18000.www1.hp.com/products/quickspecs/10518_div/10518_div.PDF	

HP DAT 320 USB Tape Drive	DAT 320 USB Internal Tape Drive NOTE: 0D1 will appear after this part number on your sales order if factory integration is indicated.	AJ825A
	DAT 320 USB External Tape Drive	AJ823A
	DAT 320 USB 1U Rack	AP835A
HP DAT 320 SAS Tape Drive	DAT 320 SAS Internal Tape Drive NOTE: 0D1 will appear after this part number on your sales order if factory integration is indicated.	AJ830A
	DAT 320 SAS External Tape Drive	AJ828A
HP DAT 160 SCSI Tape Drive	DAT 160 SCSI Internal Tape Drive NOTE: 0D1 will appear after this part number on your sales order if factory integration is indicated.	Q1573A
	DAT 160 SCSI External Tape Drive	Q1574A
	DAT 160 SCSI Array Module NOTE: DAT 40 array modules fit into the HP Tape Array 5300 (C7508A). NOTE: 0D1 will appear after this part number on your sales order if factory integration is indicated.	Q1575A
HP DAT 160 USB Tape Drive	DAT 160 USB Internal Tape Drive NOTE: 0D1 will appear after this part number on your sales order if factory integration is indicated.	Q1580A
	DAT 160 USB External Tape Drive	Q1581A
HP DAT 72 SCSI Tape Drive	DAT 72 SCSI Internal Tape Drive NOTE: 0D1 will appear after this part number on your sales order if factory integration is indicated.	Q1522B
	DAT 72 SCSI External Tape Drive	Q1523B

Options

	DAT 72 SCSI Array Module Field-integrated **NOTE:** DAT 72 array modules fit into the HP Tape Array 5300 (C7508A). **NOTE:** 0D1 will appear after this part number on your sales order if factory integration is indicated.	Q1524C
HP DAT 72 USB Tape Drive	DAT 72 USB Internal Tape Drive **NOTE:** 0D1 will appear after this part number on your sales order if factory integration is indicated.	DW026A
	DAT 72 USB External Tape Drive	DW027A
HP DAT 40 SCSI Tape Drive	DAT 40 SCSI Internal Tape Drive **NOTE:** 0D1 will appear after this part number on your sales order if factory integration is indicated.	C5686C
	DAT 40 SCSI External Tape Drive	C5687D
	DAT 40 SCSI Array Module **NOTE:** DAT 40 array modules fit into the HP Tape Array 5300 (C7508A). **NOTE:** 0D1 will appear after this part number on your sales order if factory integration is indicated.	C7497C
HP DAT 40 USB Tape Drive	DAT 40 USB Internal Tape Drive **NOTE:** 0D1 will appear after this part number on your sales order if factory integration is indicated.	DW022A
	DAT 40 USB External Tape Drive	DW023A

Servers Supported

HP Blade Servers	ProLiant BL20p ProLiant BL40p		
HP ML Servers	ProLiant ML310	ProLiant ML330	ProLiant ML350
	ProLiant ML370	ProLiant ML530	ProLiant ML570
HP DL Servers	ProLiant DL320 ProLiant DL360	ProLiant DL380	
	ProLiant DL560 ProLiant DL740	ProLiant DL760	
HP Servers tc	tc21xx		

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Technical Specifications

General Characteristics	DDS-1	DDS-2	DDS-3	DDS-4
Product Number	C5706A	C5707A	C5708A	C5718A
Compressed Capacity (Assumes 2:1 compression)	4 GB	8 GB	24 GB	40 GB
Performance				
Cartridge Life (Passes)	2,000 passes or 100 full backups	2,000 passes or 100 full backups	2,000 passes or 100 full backups	2,000 passes or 100 full backups
Coercivity (Oersted)	1550	1650	2300	2300
Physical Characteristics				
Cartridge Color	Black	Black	Black	Black
Dimensions (HxWxD)	73.0 x 54.0 x 10.5 mm (2.88 x 2.13 x 0.41 in)	73.0 x 54.0 x 10.5 mm (2.88 x 2.13 x 0.41 in)	73.0 x 54.0 x 10.5 mm (2.88 x 2.13 x 0.41 in)	73.0 x 54.0 x 10.5 mm (2.88 x 2.13 x 0.41 in)
Weight	23g (0.81oz)	23g (0.81oz)	23g (0.81oz)	23g (0.81oz)
Tape Length (meters)	91.5 ± 0.5	123.5 ± 0.5	124.5 ± 0.5	154.5 +/- 0.5
Tape Width (mm)	3.81	3.81	3.81	3.81
Tape Thickness (microns)	9.0 ± 0.8	6.5 ± 0.4	6.5 ± 0.4	5.6 +/-0.3
Manufacturing Materials (Tape Type) Metal	MP	MP	MP	MP
Recording Density (KB/Inch)	61	61	122	122
Recording Surface Density (MB/Inch2)	114	171	342	455
Operating Environment				
Non-Operating	5°C to 45°C, 20% to 80% RH (non-condensing)	5°C to 45°C, 20% to 80% RH (non-condensing)	5°C to 45°C, 20% to 80% RH (non-condensing)	5°C to 45°C, 20% to 80% RH (non-condensing)
Temperature and Relative Humidity	5°C to 32°C 20% to 60% RH (non-condensing)	5°C to 32°C 20% to 60% RH (non-condensing)	5°C to 32°C 20% to 60% RH (non-condensing)	5°C to 32°C 20% to 60% RH (non-condensing)
Transportation Environmental Range	-40°C to 45°C 5% to 80% (non-condensing)	-40°C to 45°C 5% to 80% (non-condensing)	-40°C to 45°C 5% to 80% (non-condensing)	-40°C to 45°C 5% to 80% (non-condensing)
Warranty	limited lifetime	limited lifetime	limited lifetime	limited lifetime
Cleaning Cartridge	C5709A HP DDS Cleaning Cartridge (Black)	C5709A HP DDS Cleaning Cartridge (Black)	C5709A HP DDS Cleaning Cartridge (Black)	C5709A HP DDS Cleaning Cartridge (Black)

Technical Specifications

General Characteristics	DAT-72	DAT-160	DAT-320
Product Number	C8010A	C8011A	Q2032A
Compressed Capacity (Assumes 2:1 compression)	72 GB	160 GB	320 GB
Performance			
Cartridge Life (Passes)	2,000 passes or 100 full backups	2,000 passes or 100 full backups	2,000 passes or 100 full backups
Coercivity (Oersted)	2350	2350	1400
Physical Characteristics			
Cartridge Color	Blue	Red	Yellow
Dimensions (HxWxD)	73.0 x 54.0 x 10.5 mm (2.88 x 2.13 x 0.41 in)	73.0 x 54.0 x 14.7mm (2.88 x 2.13 x 0.57 in)	73.0 x 54.0 x 14.7mm (2.88 x 2.13 x 0.57 in)
Weight	23g (0.81oz)	33g (1.16oz)	32g (1.13oz)
Tape Length (meters)	170 + 0.8/-.2	154.5 +/- 0.5	153 +1.0/-0.0
Tape Width (mm)	3.81	8	8
Tape Thickness (microns)	5.1 +/-0.2	5.6 +/-0.3	5.9 +/-0.3
Manufacturing Materials (Tape Type) Metal	MP	MP	ME
Recording Density (KB/Inch)	162	174	227
Recording Surface Density (MB/Inch2)	761	650	1280
Environment			
Non-Operating (Archival)	5°C to 45°C, 20% to 80% RH (non-condensing)	5°C to 45°C, 20% to 80% RH (non-condensing)	5°C to 45°C, 20% to 80% RH (non-condensing)
Storage (non-Archival)	5°C to 32°C 20% to 60% RH (non-condensing)	5°C to 32°C 20% to 60% RH (non-condensing)	5°C to 32°C 20% to 60% RH (non-condensing)
Transportation Environmental Range	-40°C to 45°C 5% to 80% (non-condensing)	-40°C to 45°C 5% to 80% (non-condensing)	-40°C to 45°C 5% to 80% (non-condensing)
Warranty	limited lifetime	limited lifetime	limited lifetime
Cleaning Cartridge	C5709A HP DDS Cleaning Cartridge (Black)	C8015A HP DAT 160 Cleaning Cartridge (Orange)	Q2039A HP DAT 320 Cleaning Cartridge (Orange)