

# HP StorageWorks Ultrium 215 tape drive



With ultimate reliability in mind, even at 100% duty cycles, the rugged design of the HP StorageWorks Ultrium 215 tape drive builds on superior LTO technology and adds advanced features to create a new level of data protection.

The tape drive uses data rate matching to adjust to the speed of the host, reducing wear and tear on both drive

and media and increasing performance, even on slower speed hosts. Compared to previous solutions, the highly reliable HP leader-capture mechanism increases the success of backup and restore operations. If data is critical to your business, protect it with the HP StorageWorks Ultrium 215 tape drive.

*\* Assuming 2-1 data compression*

The HP StorageWorks Ultrium 215 tape drive is the entry point for the HP StorageWorks Ultrium tape drive family. With superdrive capacity in a compact half-height form factor it easily integrates into a desktop workstation or a server. An ideal solution for network backup where capacity and low cost of ownership are critical, the Ultrium 215 tape drive stores 200 GB of compressed data on a single tape at up to 54 GB per hour\*.

The HP StorageWorks Ultrium 215 tape drive stores 200 GB on a single tape cartridge at 54 GB per hour, all in an easy-to-integrate half-height form factor.



**Key features and benefits**

- *Dependable*: sets new standards for data integrity and state-of-the-art reliability
- *High-capacity*: stores up to 200 GB on a single cartridge\*
- *Fast*: minimizes network interruption by storing 54 GB of data per hour\*
- *Compact*: packs superdrive capacity into a half-height form factor for easy integration
- *Easy*: supports HP One-Button Disaster Recovery (OBDR), simply the easiest way to restore data in the event of a disaster
- *Affordable*: ideal for the user who values high capacity and low cost of ownership
- *Manageable*: includes superior management capability that makes it easy to install, use and support
- *Well-connected*: compatible with leading operating systems, backup software and servers
- *Future proof*: delivers a compelling technology roadmap, doubling speed and capacity each generation
- *Open*: based on LTO technology, which delivers the competitive benefits of an open format

\* Assuming 2-1 data compression

## HP StorageWorks Ultrium 215 tape drive



<b>Capacity</b>	100 GB (200 GB with 2:1 compression)		
<b>Sustained transfer rate</b>	7.5 MB/s (15 MB/s with 2:1 compression)		
<b>Burst transfer rate</b>	80 MB/sec (with Ultra2 SCSI wide)		
<b>Data rate matching range</b>	6 to 7.5 MB/s (native)		
<b>Data access time (from BOT)</b>	142s typical on 100 GB tape (native)		
<b>Load to BOT</b>	<16s typical		
<b>Unload from BOT</b>	<16s typical		
<b>Rewind time from EOT</b>	284s on 100 GB tape (native)		
<b>Rewind tape speed</b>	2.05m/s		
<b>Reposition time</b>	2.5s		
<b>Memory buffer</b>	16 MB		
<b>Compression technique</b>	LTO-DC dual-mode compression (an enhanced version of ALDC)		
<b>Logical recording format</b>	LTO (Linear Tape-Open) Ultrium generation 1 (U-18)		
<b>Recording technology</b>	8-channel linear serpentine recording on half-inch media		
<b>Media compatibility</b>	LTO Ultrium 1		
<b>Error detection/correction</b>	Reed-Solomon		
<b>Corrected error rate</b>	1 in $1 \times 10^{17}$ bits		
<b>Interface</b>	Wide Ultra2 SCSI (LVDS)		
<b>SCSI connector</b>	Internal: 68-pin LVDS External: 68-pin HD LVDS Array module: 80-pin SCA (SCSI and power)		
<b>MTBF</b>	250,000 hours at 100% duty cycle		
<b>Form factor</b>	5.25-inch half-height		
<b>Power requirements</b>	Internal: +5V @ 3.5A (typical) +5V @ 4.0A (max) +12V @ 0.3A (typical) +12V @ 1.7A (max) External: 100-240 VAC, 50/60 Hz, auto-ranging, 0.7A max, 21 watts typical, power connection IEC 320 Array module: +5V @ 3.5A (typical) +5V @ 4.0A (max) +12V @ 0.3A (typical) +12V @ 1.7A (max)		
<b>Dimensions (HxWxD)</b>	Internal: 1.6 x 5.8 x 8.7 in (4.1 x 14.6 x 22.1 cm) External: 2.7 x 8.1 x 11.4 in (6.8 x 20.8 x 29.0 cm) Array module: 1.7 x 6.5 x 11.2 in (4.3 x 16.5 x 28.4 cm)		
<b>Weight</b>	Internal: 3.35 lb (1.52 kg) External: 10.45 lb (4.74 kg) Array module: 4.1 lb (1.87 kg)		
<b>Temperature range</b>	Operating: 50 to 95° F (10° to 35° C) Storage: -40 to 151° F (-40° to 66° C)		
<b>Humidity range</b>	Operating: 20 to 80% relative humidity (non-condensing) Storage: 10 to 95% relative humidity (non-condensing)		

### Ordering information

Part number	Product name	Description
Q1543A	Ultrium 215i for HP ProLiant servers (Worldwide)	Half-height internal tape drive, carbon, for customers with HP ProLiant servers
Q1544A	Ultrium 215e for HP ProLiant servers (NA)	External tape drive, carbon, for customers in North America
Q1545A	Ultrium 215e for HP ProLiant servers (International)	External tape drive, carbon, for customers outside North America
C7420A	Ultrium 215i	Half-height internal tape drive, flint grey, for customers with HP-UX or third-party servers
C7421B	Ultrium 215e	External tape drive, flint grey
C7492A	Ultrium 215m	Array module for HP Tape Array 5300 rack enclosures

# HP StorageWorks Ultrium 215 tape drive

## Supplies – ordering information

### Media

C7971A	HP Ultrium 200 GB data cartridge
C7978A	HP Ultrium universal cleaning cartridge

### Rackmount options

274338-B21	3U Rackmount Kit (holds up to four Ultrium 215 internal drives - Q1543A); for more information visit: <a href="http://h18006.www1.hp.com/products/storageworks/3urackmount">http://h18006.www1.hp.com/products/storageworks/3urackmount</a>
C7508A	HP Tape Array 5300 (holds up to four Ultrium 215 array modules - C7492A); for more information visit: <a href="http://www.hp.com/products1/storage/products/tapebackup/tapearrays/tapearray5300">www.hp.com/products1/storage/products/tapebackup/tapearrays/tapearray5300</a>
C7496A	Redundant, warm-swap power supply and fan for Tape Array 5300

### Cable Kits and Rail Kits for HP ProLiant Models – (Q1543A, Q1544A, Q1545A)

341177-B21	68-pin HD/68-pin VHDCI, 12 ft/3.66 m SCSI cable for external drives
328215-001	68-pin HD/68-pin HD, 16.40 ft/5 m SCSI cable for external drives
328215-002	68-pin HD/68-pin HD, 32.81 ft/10 m SCSI cable for external drives
168048-B21	68-pin HD/VHDCI LVD SCSI cable kit (for use with 3U Rackmount Kit)
242381-B21	68-Pin HD/68-Pin HD SCSI cable kit (for use with 3U Rackmount Kit)

### Accessories for “open-connect” models (C7420A, C7421B) – ordering information

C5741A	0.9m external SCSI cable (68-pin high density to 68-pin high density, LVD/SE Ultra2)
C5743A	2.5m external SCSI cable (68-pin high density to 68-pin high density, LVD/SE Ultra2)
C5738A	External SCSI terminator (LVD/SE multimode)
C7423A	Internal cable adapter (68-pin to 50 pin male ribbon cable adapter)
C7424A	1.0m internal SCSI cable (4 connector, 68-way, terminated, LVD/SE Ultra2)
C5731A	Rail kits for Dell PowerEdge servers 2100 & 2200

## What's included

**Internal drives:** HP StorageWorks Tape CD-ROM (includes HP StorageWorks Library & Tape Tools utilities and user manuals); backup software on CD-ROM; HP Ultrium 1 data cartridge (200 GB); Ultrium cleaning cartridge; multi-language labels; mounting rails; documentation

**External drives:** HP StorageWorks Tape CD-ROM (includes HP StorageWorks Library & Tape Tools utilities and user manuals); backup software on CD-ROM; HP Ultrium 1 data cartridge (200 GB); Ultrium cleaning cartridge; multi-language labels; 1.5m power cord; 68-pin HD to 68-pin VHDCI multi-mode SCSI cable (5183-2675); documentation

**Array modules:** HP StorageWorks Tape CD-ROM (includes HP StorageWorks Library & Tape Tools utilities and user manuals); backup software on CD-ROM; HP Ultrium 1 data cartridge (200 GB); Ultrium cleaning cartridge; multi-language labels; documentation

## Warranty and support

3-year parts exchange, next-business-day response, 9x5 phone support

**Support Services:** HP Services provides a three-year, limited warranty, fully supported by a worldwide network of resellers and service providers and 9x5 hardware technical phone support during the warranty period. In addition, available service offerings include a full range of optional packaged hardware and software services: installation and start up, extended coverage hours and enhanced response times, system management and performance services, and availability and recovery services.

**Warranty Upgrade Options:** Response – Upgrade on-site response from next business day to same day 4-hours; Coverage – Extend hours of coverage from 9 hours x 5 days to 24 hours x 7 days

**CarePaq Information:** Applies to models Q1543A, Q1544A, and Q1545A; CarePaq is defined as an upgrade to the product warranty attribute, available for a specific duration and hours of coverage; CarePaq is not available for less than the product's warranty duration; CarePaq is available for sale anytime during the warranty period for most products, but the commencement date will be the same as the Warranty Start Date (delivery date to end user customer). Proof of purchase may be required; CarePaq services are prepaid: 3-years, next business day response, 9x5 on-site coverage – 127258-002 – FM-T1XEC-36; 3-years, 4-hour response, 9x5 on-site coverage – 127261-002 – FM-T14EC-36; 3-years, 4-hour response, 24x7 on-site coverage – 127264-002 – FM-T17EC-36; Hardware installation – 127334-002 – FM-T1INS-EC

**For additional hardware installation and maintenance information visit:**

CarePaq Installation: [www.compaq.com/services/carepaq/us/install](http://www.compaq.com/services/carepaq/us/install)

CarePaq Maintenance: [www.compaq.com/services/carepaq/us/hardware](http://www.compaq.com/services/carepaq/us/hardware)

**SupportPack Information** applies to models C7420A, C7421B, and C7492A: The following SupportPacks are available as options:

3-years, Express Exchange – H5511A/E; 3-years, next business day response, on-site coverage – H3157A/E; 3-years, same-day response, on-site coverage – H4617A/E; 3-years, 24x7 coverage, on-site coverage – H4622A/E

## For more information

For more information on HP StorageWorks Ultrium products, contact any of our worldwide sales offices or visit: [www.hp.com/go/ultrium](http://www.hp.com/go/ultrium)

© 2003 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.