## QuickSpecs

## Overview

## **HPE RDX Removable Disk Cartridges**

The HPE RDX Removable Disk Cartridge is a rugged and removable hard disk drive cartridge that provides easy offsite data protection and quick access to your most critical data. When used with an HPE RDX internal or external dock, the HPE RDX backup system becomes an ideal entry level backup solution for small businesses with a single server or branch offices with little or no IT resources



## What's New

• RDX 4TB Removable Disk Cartridge

#### Models

HPE RDX 500 GB Removable Disk Cartridge	Q2042A
HPE RDX 1 TB Removable Disk Cartridge	Q2044A
HPE RDX 2 TB Removable Disk Cartridge	Q2046A
HPE RDX 3 TB Removable Disk Cartridge	Q2047A
RDX RDX 4 TB Removable Disk Catridge	Q2048A

## **Key Features & Benefits**

- Easy scalability with a choice of 500 GB, 1 TB,2 TB, 3 TB and 4 TB cartridge capacities.
- Portability with a shock proof cartridge style hard drive
- Dramatically increase your data capacity by spanning data across multiple cartridges
- Designed for durability with over 5,000 load/unload insertions over the lifetime of the disk.
- Cartridges are interchangeable in any HPE RDX Removable Disk Backup System

## **Related Hardware Options**



#### Overview

#### **HPE RDX Internal Docking Station**

C8S06A

RDX Removable Disk Backup System Internal Docking Station installation poster/flyer, internal USB cable, power cable. Is backwards and forwards compatible with any RDX capacity media.



## **HPE RDX External Docking Station**

C8S07B

RDX Removable Disk Backup System External Docking Station installation poster/flyer, external USB Y-cable. Is backwards and forwards compatible with any RDX capacity media



HPE Server/ HP StoreEver 1U USB Rack-mount Kit

A8007B

**Storage**1U USB Rack-Mount Kit holds up to two internal HPE RDX/HPE RDX+ Removable Disk Backup Systems



## **Product Highlights**

## The Flexible Way to Protect Your Business Data Faster and More Securely

- The HP RDX Removable Disk Cartridge delivers flexibly meeting both budget and capacity requirements with a choice of 320 GB, 500 GB, 1 TB and 2 TB removable disk cartridges. The HP RDX Removable Disk Backup System works with current and future higher capacity cartridges for backward compatibility.
- Backs up data at fast hard drive speeds (up to 360 GB/hr) and restores critical files in seconds instead of hours with the benefit of random disk access versus a tape drive solution.
- Backup using drag and drop file access which makes backup simple and convenient. Schedule automated backups using Windows Backup, native to the Windows operating system.

## Protects Your Business Data While Respecting Your Business Costs

- The HP RDX Removable Disk Cartridge reduces on-going media and upgrade costs with disk cartridges designed with a long usage life.
- Rugged, portable and durable removable disk cartridges enable business critical backup data to be simply and securely taken off-site for disaster recovery, archive or data transfer.
- Cartridges are specified for over 5,000 load and unload cycles and designed for long life expectancy.
- RDX 500 GB, RDX 1 TB and RDX 2 TB cartridges are tested to withstand a drop of 1 meter (3 ft).

# Works in a Broad Set of • Small Business Operating • Environments

The HP RDX Removable Disk Cartridge suits almost every small business operating environment. The RDX Removable Disk Backup System is compatible with all current and future higher capacity RDX Removable Disk Cartridges making the system fully multi-generational.

#### Compatibility

Hewlett Packard Enterprise has an extensive compatibility testing program that verifies the HPE RDX Removable Disk Cartridge and HPE RDX Removable Disk Backup Systems work with other competitor's branded RDX backup systems.

HPE RDX Removable Disk Cartridge and HPE RDX Removable Disk Backup Systems are compatible with the following classes of HPE ProLiant servers and storage products.

- HPE ProLiant DL Servers
- HPE ProLiant ML Servers
- HPE StoreEver 1U Rack-mount Kit

For details of which HPE RDX Removable Disk Cartridges work with which systems, including third-party systems, visit: <a href="http://www.hpe.com/storage/spock">http://www.hpe.com/storage/spock</a> for the latest hardware compatibility information.

**NOTE**: Hewlett Packard Enterprise recommends that no more than one HPE RDX Removable Disk Backup System be connected to a system at a time.

## **OS Support**

Operating System	Version
Windows Client & Server Operating Systems	Windows Server 2016 Standard & Data Center (x86, x64), Windows 10 Home & Pro (x86, x64), Windows Server 2012 R2 (x64), Windows Server 2012 (x64), Windows Small Business Server 2011 (x64), Windows Server 2008 R2 (x64), Windows Server 2008 (x86, x64), Windows Server 2003 R2 (x86, x64), Windows Server 2003 (x86, x64),

## **Product Highlights**

	Windows 8.1 (x86, x64), Windows 8 (x86, x64), Windows 7 (x86, x64) SP1, Windows Vista (x86, x64) SP1 or later, Windows XP (x86) SP2 or later)		
Linux Distributions (Kernal ver. 2.6.9 and later)	RedHat Enterprise Linux		
	SUSE Linux Enterprise Server		
	CentOS Linux		
	Fedora Core 5		
	Clear OS		
Apple	Mac-OS (OS X) 10.3 and up		
Virtualization Compatibility	vSphere 6.5, Windows Server 2012, Hyper-V, KVM, Clear OS, XenServer		

**NOTE**: Please visit: <a href="http://www.hp.com/storage/spock">http://www.hp.com/storage/spock</a> for the latest operating system compatibility information.

## Backup Software Support

Veeam Endpoint, Windows Backup, Yosemite Server Backup Basic Software, HPE Data Protector Express, CA BrightStor ARCServe Backup, Symantec Backup Exec, and other backup applications that support removable disk media

NOTE: Please visit: <a href="http://www.hpe.com/storage/spock">http://www.hpe.com/storage/spock</a> for the latest compatibility information.

#### Warranty

Hewlett Packard Enterprise provides a 3 year, next-day, parts exchange, limited warranty for the HPE RDX Removable Disk Cartridge, plus 9x5 phone support for the duration of the warranty.

For more information about the HPE RDX Removable Disk Cartridge limited warranty, visit: <a href="http://h20000.www2.hp.com/bizsupport/techsupport/document.jsp?objectid=c01423593">http://h20000.www2.hp.com/bizsupport/techsupport/document.jsp?objectid=c01423593</a>

For more information about HPE's Global Limited Warranty and Technical Support, please visit:

http://h20000.www2.hp.com/bizsupport/techsupport/document.jsp?objectid=c01423593

## **Technical Specifications**

## Performance and Compatibility

Native Capacity 500GB, 1TB, 2TB, 3TB or 4TB Compressed\* Capacity 1TB, 2TB, 4TB, 6TB or 8TB \* Assumes 2:1 application based data compression

Native average sustained transfer rate

Up to 100 MB/s
Compressed\* average sustained transfer rate

Up to 200 MB/s

\* Assumes 2:1 application based data compression

Average Access time < 15 ms

Supported File Systems: NTFS, FAT32, ext2, ext3, ext4 and Mac OS Extended (HFS+)
Supported Operating Systems: Windows XP, Windows Vista SP1, Windows 7, Windows 8, Windows Server 2003, Windows Server 2008, Windows Server 2008, Windows Server 2012, Windows Server 2012, R2, Small Business Server 2011, CentOS Linux, Fedora Core 5, RHEL, SLES, OS X

(HPE RDX Compatibility details are available at www.hpe.com/storage/spock)

RDX Cartridge Compatibility: Forward and backward compatible to all RDX drives and systems (Note, a firmware upgrade is required for legacy RDX USB 2.0 drives, for use with 3TB or 4TB cartridges. See www.hpe.com/support/rdx).

## Reliability

MTBF (Drive) 550,000 hours

Uncorrected Error Rate 1 error per 1014 bits read

Load/ Unload Cycles:-

Drive: Minimum of 10,000 Load/Unload cycles Cartridge: Minimum of 5,000 Load/Unload cycles

Cartridge Drop Shock (non-operating) 1m drop to tile over concrete floor

#### **Power Specifications and Interface**

Voltage

Internal Drive: +5V or +12V

External Drive: +5V (USB powered or Power Adaptor) or +12V (Power Adaptor)

Operating Current during write/read (Typical/Peak):

Internal Drive @ 5V: 0.9A / 1.6A

Internal Drive @ 12V: 0.005A

External Drive @ 5V: 0.9A / 1.6A (powered via USB)
External Drive @ 5V: 1.2A / 2.4A (powered via Power Adaptor)

External Drive @12V: 0.5A / 1A (powered via Power Adaptor)

Power Connector:

Internal Drive 4-Pin Molex

External Drive USB 3.0 Y-cable (supplied) or Power Adaptor (not supplied)

Interface

Internal Drive: USB 3.0 SuperSpeed (Type-B connector) External Drive: USB 3.0 SuperSpeed (Type-B connector)

## Technical Specifications

#### **Orientation (Mounting and Operational)**

Internal Drive Horizontal or Vertical External Drive Horizontal or Vertical

#### **Environmental**

Operating Conditions:-

Temperature  $+10^{\circ}\text{C to } +40^{\circ}\text{C (}+50^{\circ}\text{F to } +104^{\circ}\text{F)}$ 

Vibration 0.5G (operating)

Relative Humidity 20% to 80%, non-condensing Altitude -15 m to 3,048 m (-50 ft to 10,000 ft)

Non-Operating Conditions:-

Temperature  $-40^{\circ}\text{C to } +65^{\circ}\text{C } (-40^{\circ}\text{F to } +149^{\circ}\text{F})$ 

Vibration 1.0G (non-operating)
Relative Humidity 8% to 90%, non-condensing
Altitude -15 m to 10,660 m (-50 ft to 35,000 ft)

**Archival Conditions:-**

Temperature 5°C to +26°C (41°F to 78°F) Relative Humidity 8% to 90%, non-condensing Maximum Wet Bulb 25°C (77°F), non-condensing

#### **Dimensions**

Product only (no Packaging)

Internal Drive (H x W x D) 1.63 x 5.78 x 6.72 inches (4.14 x 14.60 x 17.07 cm) including bezel

External Drive (H x W x D) 2.04 x 4.32 x 7.00 inches (5.18 x 10.98 x 17.75 cm) including bezel

Cartridge (H x W x D) 0.92 x 3.39 x 4.68 inches (2.34 x 8.66 x 11.9 cm)

Shipping (Product and Packaging)

Internal Drive (H x W x D) 8.1 x 11.2 x 3.3 inches (20.9 x 28.0 x 8.6 cm)

External Drive (H x W x D) 6.5 x 9.8 x 3.6 inches (16.4 x 25.0 x 9.2 cm)

Internal System\*\* (H x W x D) 8.1 x 14.6 x 3.3 inches (20.9 x 37.0 x 8.6 cm) External System\*\* (H x W x D) 6.7 x 9.8 x 5.5 inches (17.0 x 25.0 x 14.0 cm)

Cartridge only (H x W x D) 4.52 x 7.48 x 2.75 inches (11.5 x 19.0 x 7.0 cm)

\*\* System = Drive and Cartridge

## Weights

Internal Drive 1.40 lb (408g) External Drive 1.35 lb (615g)

Cartridge up to 0.60 lb (272g) HDD dependent

Shipping (Products and Packaging)

Internal Drive 2.38 lb (1080g) External Drive 2.28 lb (1036g)

Internal System\*\* 3.08 to 3.37 lb (1395 to 1527g) HDD dependent

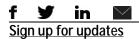
External System\*\* 3.12 to 3.35 lb (1414 to 1519g) HDD dependent O.76 lb to 1.04 lb (344q to 470q) HDD dependent

\*\* System = Drive and Cartridge

## **Summary of Changes**

Date	Version History	Action	Description of Change
06-Nov-2017	From Version 13 to 14	Changed	Fixed the Tech Specs section
25-Sept-2017	From version 12 to 13	Changed	Changes made throughout the QuickSpecs
08-May-2017	From Version 11 to 12	Changed	Changes made to the Overview and Product Highlights
			sections
27-Mar-2017	From Version 10 to 11	Changed	Changes made to the Overview Section
07-Jun-2016	From Version 9 to 10	Changed	Added 3TB capacity information and related hardware
16-Oct-2015	From Version 8 to 9	Removed	Removed 320GB cartridges, updated picture to not show that cartridge. Removed specific mention of DL server modules, as those SKU's are EOL. Removed external backup system SKU's (EOL).  Removed mention of CDP software, replaced with mention of Yosemite Server Backup Basic and Fixed Disk mode.
31-Mar-2014	From Version 7 to 8	Changed	Changes made to Overview, What's New, Features and
			Technical Specifications sections.
23-Aug-2013	From Version 6 to 7	Added	Added "HPE" the Models.
05-Jun-2009	From Version 2 to 3		August 13, 2012 - From Version 5 to 6 Changes Changes made throughout the QuickSpecs.  November 15, 2010 - From Version 4 to 5 Changes RDX 1TB Removable Disk Cartridge was added and RDX 750GB Removable Disk Cartridge was removed throughout the QuickSpecs.  February 16, 2010 - From Version 3 to 4 Changes Changes made within the Overview, Servers Supported and Technical Specifications. Changes
00-3u11-2007	110111 VOLSIOH Z 10 3		Updated the Disk Speed, Out Of Box Weight and Shipping Weight for the RDX 500GB Cartridge in the Technical Specifications section.  October 17, 2008 - From Version 1 to 2 Changes Changes made throughout the entire QuickSpecs except for the Warranty information.

## **Summary of Changes**





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For HR RDX drives and media, 1GB = 1 billion bytes. Actual formatted capacity may be less.

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