

### Overview

### HP Z Turbo Drive



### Introduction

Storage technology with NAND media is outgrowing the bandwidth limitations of the SATA bus. New high performance storage solutions will connect directly to the PCIe bus for revolutionary performance improvements. These components will be available in a variety of form factors and performance levels, designed specifically for certain market segments, and ultimately the costs will continue to decline as the technology evolves.

### Performance

#### HP Z Turbo Drive

The HP Z Turbo Drive features a PCIe connected SSD, which enables performance levels greater than 1GB/s. This performance is available at a price that is at parity with today's comparable SATA SSDs. This will enable the highest price/performance ratio for client grade SSDs.

The HP Z Turbo Drive will be supported on desktop platforms of HP Z Workstations. It will support storage configurations as a Boot device and as a Data device. The performance gains are significant when connecting to the PCIe bus. The sequential read and write performance is roughly twice as fast as today's SATA SSD products.

### HP Z Turbo Drive 256GB SSD

### Overview

Capacity:	256GB SSD
NAND Type:	MLC
Read Bandwidth (128KB):	1.08GB/s
Write Bandwidth (1MB):	800 MB/s
Random Read IOPS (4KB):	120K
Random Write IOPS (4KB):	60K
Endurance (Total Bytes Written):	146 TB
Weight:	1.8oz (51g)
Form Factor:	Half-height, half-length*

\*roughly, actual length is 4 inches (100cm)

### HP Z Turbo Drive 512GB SSD

Capacity:	512GB SSD
NAND Type:	MLC
Read Bandwidth (128KB):	1.17GB/s
Write Bandwidth (1MB):	930 MB/s
Random Read IOPS (4KB):	122K
Random Write IOPS (4KB):	72K
Endurance (Total Bytes Written):	292 TB
Weight:	1.8oz (51g)
Form Factor:	Half-height, half-length*

\* roughly, actual length is 4 inches (100cm)

The HP Z Turbo Drive is supported on all current desktop workstation platforms including Z230, Z420, Z620, and Z820. It is also supported by our current offering of Operating Systems, and does not require a separate driver. It does require a BIOS update for any system shipped prior to the Z Turbo Drive launch. A maximum of 2 Z Turbo Drives can be shipped with platforms from the

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factory, and it can be configured with additional hard drives, both SATA and SAS.

#### **Supported Operating Systems:**

Microsoft Windows 7, Microsoft Windows 8

Other OS may be supported by the card for use in other systems.

#### **Supported Platforms:**

HP Z420, HP Z620, HP Z820, Z230

#### **Recommended slot order for:**

Z820 Single card configuration:

1. Slot 4
2. Slot 3 or 6
3. Slot 1
4. Slot 5

Z820 Dual card configuration:

1. Slot 3 & 4
2. Slot 1 & 6
3. Slot 1, 3, 4 or 6
4. Slot 5 with any other slot

Z620

1. Slot 4
2. Slot 5

Z420

1. Slot 4
2. Slot 5

Z230 SFF and Tower

1. Slot 4

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### Models

HP Z Turbo Drive 256GB SSD

G3G88AA

HP Z Turbo Drive 512GB SSD

G3G89AA

### Technical Specifications

<b>Storage / Hard Drives</b>	<b>HP Z Turbo Drive 256GB SSD</b>	<b>Capacity</b>	256GB
		<b>Interface</b>	PCI Express 2.0 x4 electrical x4 physical
		<b>Operating Temperature</b>	32° to 158° F (0° to 70° C)
	<b>HP Z Turbo Drive 512GB SSD</b>	<b>Capacity</b>	512GB
		<b>Interface</b>	PCI Express 2.0 x4 electrical x4 physical
		<b>Operating Temperature</b>	32° to 158° F (0° to 70° C)

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