

HP Z800 Certification



1. General Information

Manufacture HP
 Product Z800
 Website http://h10010.www1.hp.com/wwpc/au/en/sm/WF05a/12454-12454-296719-4050865-4050865-3718645.html?jumpid=reg_R1002_AUEN

CPU	2 x Intel Xeon E5520@2.27 GHz
RAM Memory	8GB
Graphic Card	ATI FirePro v8700
BIOS Version	1.17
Operating System	Windows 7 64-bit
Tested Hardware	Bluefish444 Epoch 2K Horizon (firmware 275)
	ATTO UL5D SCSI RAID controller
	CalDigit HDPro SATA RAID
Driver & Installer	5.9.0.Beta4
Tested Software	Bluefish444 Symmetry
	Adobe Premiere Pro CS4
Tested Footage	1080i59 capture to Uncompressed DPX file format
	Export to tape of 1080i59 Uncompressed DPX file format
System Certified For	Capture and export to tape of HD uncompressed video using Symmetry and Premiere Pro CS4.
	Supported 3 rd party applications

2. Bluefish Configuration with CalDigit:

<i>Hardware</i>	<i>Slot number</i>	<i>Slot Speed</i>
Bluefish444 card	Slot 2	PCI-e x16
Graphic Card	Slot 5	PCI-e x16
CalDigit card	Slot 1	PCI-e x8

BIOS Settings: Storage Options -> SATA Emulation: RAID + AHCI (need to be set before Windows 7 installation!!!)

<i>CalDigit information</i>	
RAID name	HDPro
CalDigit BIOS	1.0.3
CalDigit Driver	2.0.1.0
Number of Disks	8
Disks Type	SATA
Total usable Capacity	2 TB



3. Bluefish444 Configuration with ATTO UL5D controller:

<i>Hardware</i>	<i>Slot number</i>	<i>Slot Speed</i>
Bluefish444 card	Slot 2	PCI-e x16
Graphic Card	Slot 5	PCI-e x16
ATTO UL5D	Slot 4	PCI-e x8

<i>ATTO Information</i>	
Controller	UL5D
Firmware Version	2.27
Installer	3.15
Driver	3.15.2.0

<i>Storage</i>	
Product	Enhance Technology R14 HDS
Internal Controller	Dual-channel/controller with hybrid I/O technology, SATALink™ (SCSI-to-SATA)
size	3U Rackmount
Memory Configuration	1 GB cache x 2
Number of Disks Supported	Up to 14
Disks Type	SATA
Total usable Capacity	3.5 TB

http://www.enhance-tech.com/products/diskarrays/R14_HDS.html

4. Bluefish444 Disk Benchmark Tool

The following table outlines the configuration types and storage configurations tested with this HP Z800 system. Performance was provided by Bluefish444 **Disk Benchmark** tool. It measures the performance of specific pixel format for both Playback and Capture in MB per Second (MB/Sec) for each RAID controller.

This test was used with 1080i59 10-bit RGB in DPX file format which should be no less than **237MB/Sec** for both Read & Write. The results are a range of lower & higher speed achieved during 10 minutes capture/playback.

<i>Config</i>	<i>Card</i>	<i>Slot</i>	<i>Controller</i>	<i>Slot</i>	<i>Pixel Format</i>	<i>Disk Benchmark</i> C=Capture P=Playback
1	Epoch 2K Horizon	2	ATTO UL5D	4	1080i59 10-bit RGB in DPX file format	C= 364-283MB/s P= 359-215MB/s
2	Epoch 2K Horizon	2	CalDigit HDPro	1	1080i59 10-bit RGB in DPX file format	C= 373-320 P= 666-594



5. Testing Method and Certification

The following tests were made using Symmetry with the configuration above and using Panasonic AJ-HD3700H HD deck.

Configuration	Hardware	Pixel Format	Short 10min Capture	Long 1hr Capture	Long 1hr Export To Tape	* Recapture Exported To Tape of 1hr to v210
1	Epoch 2K Horizon & ATTO UL5D	1080i59 10-bit RGB in DPX file format	Good	Good	Good	Good
2	Epoch 2K Horizon & CalDigit HDPro	1080i59 10-bit RGB in DPX file format	Good	Good	Good	Good

The following tests were made using Premiere Pro CS4 with the configuration above and using Panasonic AJ-HD3700H HD deck.

Configuration	Hardware	Pixel Format	Long 1hr Capture to DPX	Long 1hr Export To Tape from DPX	*Recapture Exported To Tape of 1hr to v210	Playback from Timeline v210 x2 speed
1	Epoch 2K Horizon & ATTO UL5D	1080i59 10-bit RGB in DPX file format	Good	Good	Good	Good
2	Epoch 2K Horizon & CalDigit HDPro	1080i59 10-bit RGB in DPX file format	Good	Good	Good	Good

* "Recapture Exported To Tape of 1hr to v210 test" is testing & verifying that the exported footage from previous stage of Export To Tape was done correctly.

Performance disclaimer

Capture and playback performance will vary between applications due to the way in which applications utilize storage and the effects of fragmentation. Therefore, while we guarantee these performance figures for this configuration we do not guarantee that you will be able to replicate this performance with other applications or systems. These results should be used as a guide to system performance with the above applications at the time of testing.

Bluefish444 available hardware:

Epoch|Horizon
 Epoch|2K Horizon
 Create|HD Base
 Create|2K Base
 Create|2K Ultra Base

