

### SYSTEM INFORMATION ###

Report Timestamp : December 10, 2023 16:49:56 EST  
Report Timestamp (ISO 8601 format) : 2023-12-10T16:49:56

Application Name : DriveDx  
Application Version : 1.12.1.760  
Application SubBuild : 0  
Application Edition : Standalone  
Application Website : https://binaryfruit.com/drivedx  
DriveDx Knowledge Base Revision : 103/103

Computer Name : WHSIMAC  
Host Name : WHSIMAC  
Computer Model : iMac19,1

OS Boot Time : 2023-11-30T19:33:55  
Time Since Boot : 9 days 21h 16m 01s  
OS Name : macOS  
OS Version : 14.1.2  
OS Build : 23B92  
OS Kernel Version : Darwin 23.1.0

SAT SMART Driver Version : 0.10.3s  
ATA Command Support Tolerance : verypermissive  
N of drives in report : 1

### DRIVE 1 OF 1 ###

Last Checked : December 10, 2023 16:48:07 EST  
Last Checked (ISO 8601 format) : 2023-12-10T16:48:07

Advanced SMART Status : OK  
Overall Health Rating : AVERAGE 53.4%  
Overall Performance Rating : AVERAGE 53.4%  
Issues found : 0

Serial Number : VDHXXXXX  
WNW Id : 5 000cca 0bbd24781  
Volumes : BLACKKONE  
Device Path : /dev/disk7  
Total Capacity : 8.0 TB (8,001,563,222,016 Bytes)  
Model Family : HGST Ultrastar HC310/320  
Model : HGST HUS728T8TAL6L4  
Form Factor : 3.5 inches  
Firmware Version : V8GNW460  
Drive Type : HDD 7200 rpm

Power On Time : 26,293 hours (36 months 15 days 13 hours)  
Power Cycles Count : 5,627  
Current Power Cycle Time : 237.3 hours

=== VOLUMES FREE SPACE ===

VOLUME	SIZE	FREE	FREE %	STATUS
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=== DEVICE CAPABILITIES ===

S.M.A.R.T. support enabled : yes  
DriveDx Active Diagnostic Config : Base config [hdd.default]  
Sector Logical Size : 512  
Sector Physical Size : 4096  
Physical Interconnect : USB  
Logical Protocol : USB  
Removable : yes  
Ejectable : no  
ATA Version : ACS-2, ATA8-ACS T13/1699-D revision 4  
SATA Version : SATA 3.2, 6.0 Gb/s (current: 6.0 Gb/s)  
I/O Path : IOService:/AppleACPIPlatformExpert/PCI0@0/AppleACPI/PCI/XHC1@14/XHC1@14000000/SS03@14900000/USB3.0 Hub @14900000/  
AppleUSB30Hub@14900000/AppleUSB30HubPort@14910000/Game Drives@14910000/I0USBHostInterface@0/I0USBMassStorageInterfaceHub/I0USBMassStorageDriverHub/I0USBMassStorageDriver/  
IOSCSILogicalUnitHub@0/fi\_dungeon\_driver\_I0SATDriver/I0SATServices

Enclosure Vendor Id / Product Id : 0x1058 / 0x2631  
SAT Pass Through Mode : sat12  
SAT SMART Driver Version : 0.10.3s  
SAT SMART Driver Bundle Id : com.binaryfruit.driver.SATSMARTDriver  
SAT SMART Driver I/O Class : fi\_dungeon\_driver\_I0SATDriver  
SAT SMART Driver Architectures : x86\_64 arm

Attributes Data Structure Revision : 16  
SMART Command Transport (SCT) flags : 0x3d  
SCT Status supported : yes  
SCT Feature Control supported : yes  
SCT Data Table supported : yes  
Error logging capabilities : 0x1  
Self-tests supported : yes  
Offline Data Collection capabilities : 0x5b  
Offline Data Collection status : 0x82  
Auto Offline Data Collection flags : 0x1  
[Known device] : yes  
[Drive State Flags] : 0x0

=== CURRENT POWER CYCLE STATISTICS ===

Time since computer startup : 237 hours  
Data Read : 177,981,480,960 bytes (178.0 GB)  
Data Written : 157,031,116,800 bytes (157.0 GB)  
Data Read/Write Ratio : 1.13  
Data Read/hour : 750.1 MB/hour  
Data Write/hour : 661.8 MB/hour  
Operations (Read) : 4,690,141  
Read IOPS : 144  
Operations (Write) : 1,250,766  
Write IOPS : 38  
Operations Read/Write Ratio : 4  
Throughput per operation (Read) : 37.9 KB/Op  
Throughput per operation (Write) : 125.5 KB/Op  
Latency Time (Read) : 0 ns  
Latency Time (Write) : 0 ns  
Retries (Read) : 0  
Retries (Write) : 0  
Errors (Read) : 0

Errors (Write) : 0

=== PROBLEMS SUMMARY ===

Failed Indicators (life-span / pre-fail) : 0 (0 / 0)
Failing Indicators (life-span / pre-fail) : 0 (0 / 0)
Warnings (life-span / pre-fail) : 0 (0 / 0)
Recently failed Self-tests (Short / Full) : 0 (0 / 0)
I/O Error Count : 0 (0 / 0)
Time in Under temperature : 0 minutes
Time in Over temperature : 0 minutes

=== IMPORTANT HEALTH INDICATORS ===

ID NAME RAW VALUE STATUS
5 Reallocated Sector Count 0 100% OK
197 Current Pending Sector Count 0 100% OK
198 Offline Uncorrectable Sector Count 0 100% OK
199 UDMA CRC Error Count 0 100% OK

=== TEMPERATURE INFORMATION (CELSIUS) ===

Current Temperature : 46
Power Cycle Min Temperature : 20
Power Cycle Max Temperature : 47
Lifetime Min Temperature : 16
Lifetime Max Temperature : 60
Recommended Min Temperature : 0
Recommended Max Temperature : 60
Temperature Min Limit : -40
Temperature Max Limit : 70

=== DRIVE HEALTH INDICATORS ===

Table with columns: ID, NAME, TYPE, UPDATE, RAW VALUE, VALUE, THRESHOLD, WORST, LAST MODIFIED, STATUS. Contains 19 rows of drive health metrics.

=== DRIVE ERROR LOG ===

error log is empty

=== DRIVE SELF-TEST LOG ===

Table with columns: #, LIFETIME (H), TEST TYPE, PROGRESS, STATUS, LBA of 1st error. Contains 3 rows of self-test results.

**Advanced S.M.A.R.T. Status:****OK**

0 issues found

**Overall Health Rating:****AVERAGE**

53.4 %

**Overall Performance Rating:****AVERAGE**

53.4 %

**General Information**

Volumes:	BLACKONE
Device Path:	/dev/disk7
Serial Number:	VDH96KND (WWN Id: 5 000cca 0bbd24781)
Total Capacity:	8.0 TB (8,001,563,222,016 bytes)
Sector Size:	512 bytes logical, 4096 bytes physical
Model Family:	HGST Ultrastar HC310/320
Model:	HGST HUS728T8TALE6L4 (Firmware Version: V8GNW460)
Power On Time:	26,293 hours (36 months 15 days 13 hours)
Power Cycle Count:	5,627

**Problems Summary**

Failed Indicators (life-span / pre-fail):	0 (0 / 0)	
Failing Indicators (life-span / pre-fail):	0 (0 / 0)	
Warnings (life-span / pre-fail):	0 (0 / 0)	
Recently failed Self-tests (Short / Full):	0 (0 / 0)	
I/O Error Count:	0 (0 / 0)	
Time in Under / Over temperature:	0 (0 / 0) minutes	

**Important Health Indicators**

005 Reallocated Sector Count:	0	Status:		100 %	OK
197 Current Pending Sector Count:	0	Status:		100 %	OK
198 Offline Uncorrectable Sector Count:	0	Status:		100 %	OK
199 UDMA CRC Error Count:	0	Status:		100 %	OK

**Temperature Information**

Current Temperature/Change (°C):	46.0 / -1.0
Power Cycle Temperature Min/Max:	20.0 / 47.0
Life Time Temperature Min/Max:	16.0 / 60.0
Recommended Temperature Min/Max:	0.0 / 60.0
Temperature Limit Min/Max:	-40.0 / 70.0

**Device Capabilities**

SMART support:	Enabled
Drive Type:	HDD 7200 rpm 3.5 inches
DriveDx Active Diagnostic Config:	Base config
Physical Interconnect:	USB
Logical Protocol:	USB
Removable / Ejectable:	Yes / No
ATA version:	ACS-2, ATA8-ACS T13/1699-D revision 4
SATA version:	SATA 3.2, 6.0 Gb/s (current: 6.0 Gb/s)
SMART Attributes revision:	16
Self-test support:	Yes
Supported Device Stats Pages:	0
SMART Command Transport (SCT):	0x3d
SCT Status support:	Yes
SCT Feature Control / Data Table:	Yes / Yes
Error Logging support:	Yes
idVendor / idProduct:	0x1058 / 0x2631
SAT SMART Driver version:	0.10.3s
DriveDx Knowledge Base Version:	103

id	name	raw value	value	status
1	<b>Raw Read Error Rate</b> Type: pre-fail indicator, online	0x0	Current: 100 Worst: 100 Threshold: 16	 100% OK
2	<b>Throughput Performance</b> Type: pre-fail indicator, offline	100	Current: 130 Worst: 130 Threshold: 54	 52% OK
3	<b>Spin Up Time</b> Type: pre-fail indicator, online	↓ 497 [-24]	Current: 160 (+04) Worst: 160 Threshold: 24	 77% OK
4	<b>Start Stop Count</b> Type: life-span indicator, online	↑ 8,478 [+1]	Current: 98 Worst: 98 Threshold: 0	 98% OK
5	<b>Reallocated Sector Count</b> Type: pre-fail indicator, online	0	Current: 100 Worst: 100 Threshold: 5	 100% OK
7	<b>Seek Error Rate</b> Type: pre-fail indicator, online	0x0	Current: 100 Worst: 100 Threshold: 67	 100% OK
8	<b>Seek Time Performance</b> Type: pre-fail indicator, offline	18	Current: 128 Worst: 128 Threshold: 20	 60% OK
9	<b>Power On Hours</b> Type: life-span indicator, online	↑ 26,091 [+219]	Current: 97 Worst: 97 Threshold: 0	 97% OK
10	<b>Spin Retry Count</b> Type: pre-fail indicator, online	0	Current: 100 Worst: 100 Threshold: 60	 100% OK
12	<b>Power Cycle Count</b> Type: life-span indicator, online	↑ 8,450 [+1]	Current: 98 Worst: 98 Threshold: 0	 98% OK
192	<b>Power-Off Retract Count</b> Type: life-span indicator, online	↑ 11,885 [+9]	Current: 91 Worst: 91 Threshold: 0	 91% OK
193	<b>Load Cycle Count</b> Type: life-span indicator, online	↑ 11,885 [+9]	Current: 91 Worst: 91 Threshold: 0	 91% OK
194	<b>Temperature (Celsius)</b> Type: life-span indicator, online	↑ 47 [+3]	Current: 127 (-09) Worst: 127 Threshold: 0	 64% OK
196	<b>Reallocated Event Count</b> Type: life-span indicator, online	0	Current: 100 Worst: 100 Threshold: 0	 100% OK
197	<b>Current Pending Sector Count</b> Type: life-span indicator, online	0	Current: 100 Worst: 100 Threshold: 0	 100% OK
198	<b>Offline Uncorrectable Sector Count</b> Type: life-span indicator, offline	0	Current: 100 Worst: 100 Threshold: 0	 100% OK
199	<b>UDMA CRC Error Count</b> Type: life-span indicator, online	0	Current: 200 Worst: 200 Threshold: 0	 100% OK

### SYSTEM INFORMATION ###  
Report Timestamp : December 10, 2023 16:51:20 EST  
Report Timestamp (ISO 8601 format) : 2023-12-10T16:51:20

Application Name : DriveDx  
Application Version : 1.12.1.760  
Application SubBuild : 0  
Application Edition : Standalone  
Application Website : https://binaryfruit.com/drivedx  
DriveDx Knowledge Base Revision : 103/103

Computer Name : WHSIMAC  
Host Name : WHSIMAC  
Computer Model : iMac19,1

OS Boot Time : 2023-11-30T19:33:55  
Time Since Boot : 9 days 21h 17m 25s  
OS Name : macOS  
OS Version : 14.1.2  
OS Build : 23B92  
OS Kernel Version : Darwin 23.1.0

SAT SMART Driver Version : 0.10.3s  
ATA Command Support Tolerance : verypermissive  
N of drives in report : 1

### DRIVE 1 OF 1 ###  
Last Checked : December 10, 2023 16:48:08 EST  
Last Checked (ISO 8601 format) : 2023-12-10T16:48:08

Advanced SMART Status : OK  
Overall Health Rating : AVERAGE 52.1%  
Overall Performance Rating : AVERAGE 52.1%  
Issues found : 0

Serial Number : VDKXXXXX  
WNW Id : 5 000cca 0bbeb326b  
Volumes : BLACKTWO  
Device Path : /dev/disk0  
Total Capacity : 8.0 TB (8,001,563,222,016 Bytes)  
Model Family : HGST Ultrastar HC310/320  
Model : HGST HUS728T8TAL6L4  
Form Factor : 3.5 inches  
Firmware Version : V8GNW460  
Drive Type : HDD 7200 rpm

Power On Time : 26,091 hours (36 months 7 days 3 hours)  
Power Cycles Count : 8,450  
Current Power Cycle Time : 237.3 hours

=== VOLUMES FREE SPACE ===  
VOLUME | SIZE | FREE | FREE % | STATUS

=== DEVICE CAPABILITIES ===

S.M.A.R.T. support enabled : yes  
DriveDx Active Diagnostic Config : Base config [hdd.default]  
Sector Logical Size : 512  
Sector Physical Size : 4096  
Physical Interconnect : USB  
Logical Protocol : USB  
Removable : yes  
Ejectable : no  
ATA Version : ACS-2, ATA8-ACS T13/1699-D revision 4  
SATA Version : SATA 3.2, 6.0 Gb/s (current: 6.0 Gb/s)  
I/O Path : IOService:/AppleACPIPlatformExpert/PCI0@0/AppleACPIPCI/XHC1@14/XHC1@14000000/SS03@14900000/USB3.0 Hub @14900000/  
AppleUSB30Hub@14900000/AppleUSB30HubPort@14920000/Game Drives@14920000/I0USBHostInterface@0/I0USBMassStorageInterfaceHub/I0USBMassStorageDriverHub/I0USBMassStorageDriver/  
IOSCSILogicalUnitNub@0/fi\_dungeon\_driver\_I0SATDriver/I0SATServices

Enclosure Vendor Id / Product Id : 0x1058 / 0x2631  
SAT Pass Through Mode : sat12  
SAT SMART Driver Version : 0.10.3s  
SAT SMART Driver Bundle Id : com.binaryfruit.driver.SATSMARTDriver  
SAT SMART Driver I/O Class : fi\_dungeon\_driver\_I0SATDriver  
SAT SMART Driver Architectures : x86\_64 arm

Attributes Data Structure Revision : 16  
SMART Command Transport (SCT) flags : 0x3d  
SCT Status supported : yes  
SCT Feature Control supported : yes  
SCT Data Table supported : yes  
Error logging capabilities : 0x1  
Self-tests supported : yes  
Offline Data Collection capabilities : 0x5b  
Offline Data Collection status : 0x82  
Auto Offline Data Collection flags : 0x1  
[Known device] : yes  
[Drive State Flags] : 0x0

=== CURRENT POWER CYCLE STATISTICS ===

Time since computer startup : 237 hours  
Data Read : 928,490,809,856 bytes (928.5 GB)  
Data Written : 2,969,923,584 bytes (3.0 GB)  
Data Read/Write Ratio : 312.63  
Data Read/hour : 3.9 GB/hour  
Data Write/hour : 12.5 MB/hour  
Operations (Read) : 8,309,814  
Read IOPS : 114  
Operations (Write) : 131,683  
Write IOPS : 2  
Operations Read/Write Ratio : 63  
Throughput per operation (Read) : 111.7 KB/Op  
Throughput per operation (Write) : 22.6 KB/Op  
Latency Time (Read) : 0 ns  
Latency Time (Write) : 0 ns  
Retries (Read) : 0  
Retries (Write) : 0  
Errors (Read) : 0

Errors (Write) : 0

=== PROBLEMS SUMMARY ===

Failed Indicators (life-span / pre-fail) : 0 (0 / 0)  
Failing Indicators (life-span / pre-fail) : 0 (0 / 0)  
Warnings (life-span / pre-fail) : 0 (0 / 0)  
Recently failed Self-tests (Short / Full) : 0 (0 / 0)  
I/O Error Count : 0 (0 / 0)  
Time in Under temperature : 0 minutes  
Time in Over temperature : 0 minutes

=== IMPORTANT HEALTH INDICATORS ===

ID	NAME	RAW VALUE	STATUS
5	Reallocated Sector Count	0	100% OK
197	Current Pending Sector Count	0	100% OK
198	Offline Uncorrectable Sector Count	0	100% OK
199	UDMA CRC Error Count	0	100% OK

=== TEMPERATURE INFORMATION (CELSIUS) ===

Current Temperature : 47  
Power Cycle Min Temperature : 19  
Power Cycle Max Temperature : 49  
Lifetime Min Temperature : 15  
Lifetime Max Temperature : 63  
Recommended Min Temperature : 0  
Recommended Max Temperature : 60  
Temperature Min Limit : -40  
Temperature Max Limit : 70

=== DRIVE HEALTH INDICATORS ===

ID	NAME	TYPE	UPDATE	RAW VALUE	VALUE	THRESHOLD	WORST	LAST MODIFIED	STATUS
1	Raw Read Error Rate	Pre-fail	online	0x0	100	16	100	-	100% OK
2	Throughput Performance	Pre-fail	offline	100	130	54	130	-	52.1% OK
3	Spin Up Time	Pre-fail	online	497	160	24	160	2023-10-27 13:22	77.3% OK
4	Start Stop Count	Life-span	online	8,478	98	0	98	2023-11-28 18:23	98.0% OK
5	Reallocated Sector Count	Pre-fail	online	0	100	5	100	-	100% OK
7	Seek Error Rate	Pre-fail	online	0x0	100	67	100	-	100% OK
8	Seek Time Performance	Pre-fail	offline	18	128	20	128	-	60.0% OK
9	Power On Hours	Life-span	online	26,091	97	0	97	2023-12-10 16:48	97.0% OK
10	Spin Retry Count	Pre-fail	online	0	100	60	100	-	100% OK
12	Power Cycle Count	Life-span	online	8,450	98	0	98	2023-11-28 18:23	98.0% OK
192	Power-Off Retract Count	Life-span	online	11,885	91	0	91	2023-12-10 16:48	91.0% OK
193	Load Cycle Count	Life-span	online	11,885	91	0	91	2023-12-10 16:48	91.0% OK
194	Temperature (Celsius)	Life-span	online	47	127	0	127	2023-12-10 16:48	63.5% OK
196	Reallocated Event Count	Life-span	online	0	100	0	100	-	100% OK
197	Current Pending Sector Count	Life-span	online	0	100	0	100	-	100% OK
198	Offline Uncorrectable Sector Count	Life-span	offline	0	100	0	100	-	100% OK
199	UDMA CRC Error Count	Life-span	online	0	200	0	200	-	100% OK

=== DRIVE ERROR LOG ===

error log is empty

=== DRIVE SELF-TEST LOG ===

self-test log is empty



Advanced S.M.A.R.T. Status:

OK

0 issues found

Overall Health Rating:

AVERAGE

52.1 %

Overall Performance Rating:

AVERAGE

52.1 %

### General Information

Volumes:	BLACKTWO
Device Path:	/dev/disk8
Serial Number:	VDK20V4K (WWN Id: 5 000cca 0bbeb326b)
Total Capacity:	8.0 TB (8,001,563,222,016 bytes)
Sector Size:	512 bytes logical, 4096 bytes physical
Model Family:	HGST Ultrastar HC310/320
Model:	HGST HUS728T8TALE6L4 (Firmware Version: V8GNW460)
Power On Time:	26,091 hours (36 months 7 days 3 hours)
Power Cycle Count:	8,450

### Problems Summary

Failed Indicators (life-span / pre-fail):	0 (0 / 0)	↕
Failing Indicators (life-span / pre-fail):	0 (0 / 0)	↕
Warnings (life-span / pre-fail):	0 (0 / 0)	↕
Recently failed Self-tests (Short / Full):	0 (0 / 0)	↕
I/O Error Count:	0 (0 / 0)	
Time in Under / Over temperature:	0 (0 / 0) minutes	

### Important Health Indicators

005 Reallocated Sector Count:	0	Status:	100 %	OK
197 Current Pending Sector Count:	0	Status:	100 %	OK
198 Offline Uncorrectable Sector Count:	0	Status:	100 %	OK
199 UDMA CRC Error Count:	0	Status:	100 %	OK

### Temperature Information

Current Temperature/Change (°C):	47.0 / -1.0
Power Cycle Temperature Min/Max:	19.0 / 49.0
Life Time Temperature Min/Max:	15.0 / 63.0
Recommended Temperature Min/Max:	0.0 / 60.0
Temperature Limit Min/Max:	-40.0 / 70.0

### Device Capabilities

SMART support:	Enabled
Drive Type:	HDD 7200 rpm 3.5 inches
DriveDx Active Diagnostic Config:	Base config
Physical Interconnect:	USB
Logical Protocol:	USB
Removable / Ejectable:	Yes / No
ATA version:	ACS-2, ATA8-ACS T13/1699-D revision 4
SATA version:	SATA 3.2, 6.0 Gb/s (current: 6.0 Gb/s)
SMART Attributes revision:	16
Self-test support:	Yes
Supported Device Stats Pages:	0
SMART Command Transport (SCT):	0x3d
SCT Status support:	Yes
SCT Feature Control / Data Table:	Yes / Yes
Error Logging support:	Yes
idVendor / idProduct:	0x1058 / 0x2631
SAT SMART Driver version:	0.10.3s
DriveDx Knowledge Base Version:	103

id	name	raw value	value	status
1	<b>Raw Read Error Rate</b> Type: pre-fail indicator, online	0x0	Current: 100 Worst: 100 Threshold: 16	 100% OK
2	<b>Throughput Performance</b> Type: pre-fail indicator, offline	96	Current: 132 Worst: 132 Threshold: 54	 53% OK
3	<b>Spin Up Time</b> Type: pre-fail indicator, online	↓ 495 [-23]	Current: 160 (+04) Worst: 160 Threshold: 24	 77% OK
4	<b>Start Stop Count</b> Type: life-span indicator, online	↑ 5,645 [+1]	Current: 99 Worst: 99 Threshold: 0	 99% OK
5	<b>Reallocated Sector Count</b> Type: pre-fail indicator, online	0	Current: 100 Worst: 100 Threshold: 5	 100% OK
7	<b>Seek Error Rate</b> Type: pre-fail indicator, online	0x0	Current: 100 Worst: 100 Threshold: 67	 100% OK
8	<b>Seek Time Performance</b> Type: pre-fail indicator, offline	18	Current: 128 Worst: 128 Threshold: 20	 60% OK
9	<b>Power On Hours</b> Type: life-span indicator, online	↑ 26,293 [+220]	Current: 97 Worst: 97 Threshold: 0	 97% OK
10	<b>Spin Retry Count</b> Type: pre-fail indicator, online	0	Current: 100 Worst: 100 Threshold: 60	 100% OK
12	<b>Power Cycle Count</b> Type: life-span indicator, online	↑ 5,627 [+1]	Current: 99 Worst: 99 Threshold: 0	 99% OK
192	<b>Power-Off Retract Count</b> Type: life-span indicator, online	↑ 9,593 [+9]	Current: 93 Worst: 93 Threshold: 0	 93% OK
193	<b>Load Cycle Count</b> Type: life-span indicator, online	↑ 9,593 [+9]	Current: 93 Worst: 93 Threshold: 0	 93% OK
194	<b>Temperature (Celsius)</b> Type: life-span indicator, online	↑ 46 [+2]	Current: 130 (-06) Worst: 130 Threshold: 0	 65% OK
196	<b>Reallocated Event Count</b> Type: life-span indicator, online	0	Current: 100 Worst: 100 Threshold: 0	 100% OK
197	<b>Current Pending Sector Count</b> Type: life-span indicator, online	0	Current: 100 Worst: 100 Threshold: 0	 100% OK
198	<b>Offline Uncorrectable Sector Count</b> Type: life-span indicator, offline	0	Current: 100 Worst: 100 Threshold: 0	 100% OK
199	<b>UDMA CRC Error Count</b> Type: life-span indicator, online	0	Current: 200 Worst: 200 Threshold: 0	 100% OK