

Sample Test Report

SATA3 SF2281 29F16B08CCME2 120G

Test platform

OS: Windows 7 ultimate x64 SP1(DirectX 11)
CPU: Intel Core i7-2600 @3.4GHz
Motherboard: GIGABYTE Z68AP-D3 (Intel Z68 chips)
Memory: 8GB (Kingston DDR3 1333MHz)
Hard disk: Seagate ST3160813AS (160GB/7200RPM)
Video card: Nvidia GeForce GT520
iaStor: 10.6.0.1002

Test Report

Sample information			
Product P/N	SandForce SATA3 Gold	Report Version	1.1
Model Name	SuperSSpeed	Flash Vendor	Intel
Controller Vendor	SandForce	Flash P/N	29F16B08CCME2*8
Controller ID	SF-2281-VB1-SDC	C,H,S	N/A
Serial Number	RM40006	Capacity	120GB
Firmware Version	332 GOLD	Transfer Rate	UDMA Mode6

AS SSD Benchmark 1.6.4

	Read	Write	
Seq	497.81	155.95	MB/S
4K	19.69	74.22	
4K-64Thrd	119.28	150.40	
Score	189	240	
	516		

CrystalDiskMark 3.0.1b

	Read	Write	
Seq	477.7	165.0	MB/S
4K	35.44	94.31	
4K QD32	116.1	160.6	

ATTO Disk BenchMark

Read	559,240	KB/S
Write	493,674	

PC Mark 7

Windows Defender	5.49	MB/S
Importing pictures	29.55	
Video editing	23.11	
Windows Media Center	8.25	
Adding music	1.40	
Starting applications	50.67	
gaming	16.60	
SCORE	5258	

HD Tune 5.00 Performance Test			
	Read	Write	
Max	390.9	394.3	MB/S
Min	372.8	349.7	
Avg	382.0	365.1	

HD Tune 5.00 Random Access avg speed			
	Read	Write	
512Byte	12.906	7.400	MB/S
4KB	96.874	88.966	
64KB	361.393	380.140	
1MB	509.544	451.346	
Random	494.834	373.429	

IOMeter2008		
128K Seq Reads (seq precondition)	527.74	MB/S
128K Seq Writes (seq precondition)	470.19	
4K Random Read (QD = 1)	4443.86	IOPS
4K Random Read (QD = 32)	23333.12	
4K Random Write (QD = 1)	17454.59	
4K Random Write (QD = 32)	76823.15	

HD Tune 5.00

Information

The screenshot shows the 'Information' tab in HD Tune Pro 5.00. The drive is identified as 'SandForce SATA3 GOLD' with a capacity of '120 GB'. The 'Supported features' section lists various capabilities, most of which are checked. The 'Specifications' section at the bottom provides detailed technical data for the drive.

Volume	Capacity	Free	Usage	File s...	Serial	Alignment

Supported features

- S.M.A.R.T
- 48-bit Address
- Read Look-Ahead
- Write Cache
- Host Protected Ar...
- Device Configuration Over...
- Firmware Upgradabl...
- Security Mode
- Automatic Acoustic Managemen...
- Power Management
- Advanced Power Management
- Interface Power Managemer...
- Power-up in Standb...
- SCT Tables
- Native Command Queuing (NCQ)
- TRIM

Specifications

Firmware	3.3.2	Standard	ATA8-ACS - SATA III
Serial	20005	Supported	UDMA Mode 6
Capacity	120.0 GB (111.8 GB)	Active	UDMA Mode 5
Buffer	n/a	Average	953 MB/s
Sector	512 bytes	Rotation	0 RPM

AS SSD Benchmark 1.6.4

AS SSD Benchmark 1.6.4067.34354

File Edit View Tools Language Help

E: SandForce SATA3 Gold 120 SF2281 GOLD 29F16B08CCME2

	Read:	Write:
SandForce SATA3 3.3. iaStor 1024 K - OK 111.79 GB		
<input checked="" type="checkbox"/> Seq	497.81 MB/s	155.95 MB/s
<input checked="" type="checkbox"/> 4K	19.69 MB/s	74.22 MB/s
<input checked="" type="checkbox"/> 4K-64Thrd	119.28 MB/s	150.40 MB/s
<input checked="" type="checkbox"/> Acc.time	0.137 ms	0.309 ms
Score:	189	240
	516	

Start Abort

AS SSD Benchmark 1.6.4067.34354

File Edit View Tools Language Help

E: SandForce SATA3 Gold 120 SF2281 GOLD 29F16B08CCME2

	Read:	Write:
SandForce SATA3 3.3. iaStor 1024 K - OK 111.79 GB		
<input checked="" type="checkbox"/> 16MB	31.11 iops	9.75 iops
<input checked="" type="checkbox"/> 4K	5041 iops	19001 iops
<input checked="" type="checkbox"/> 4K-64Thrd	30535 iops	38503 iops
<input checked="" type="checkbox"/> 512B	7321 iops	3234 iops
Score:	189	240
	516	

Start Abort

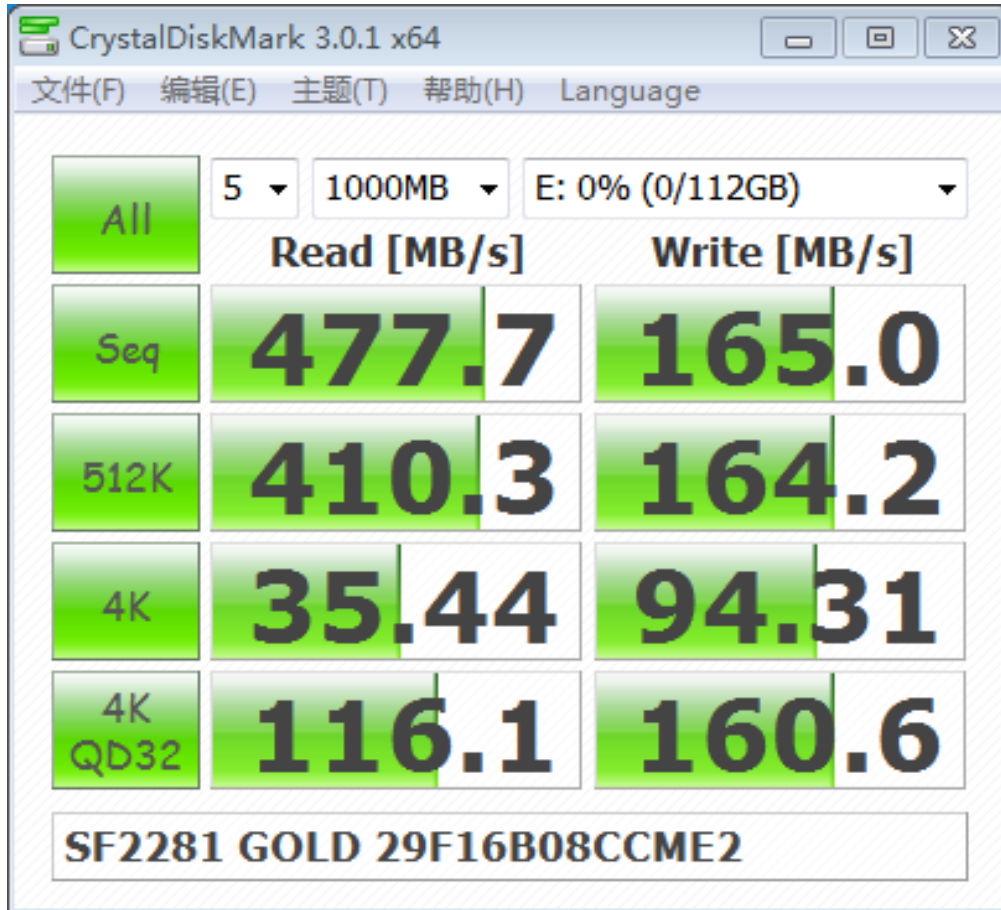
AS SSD Copy-Benchmark 1.6.4067.34354

File Edit

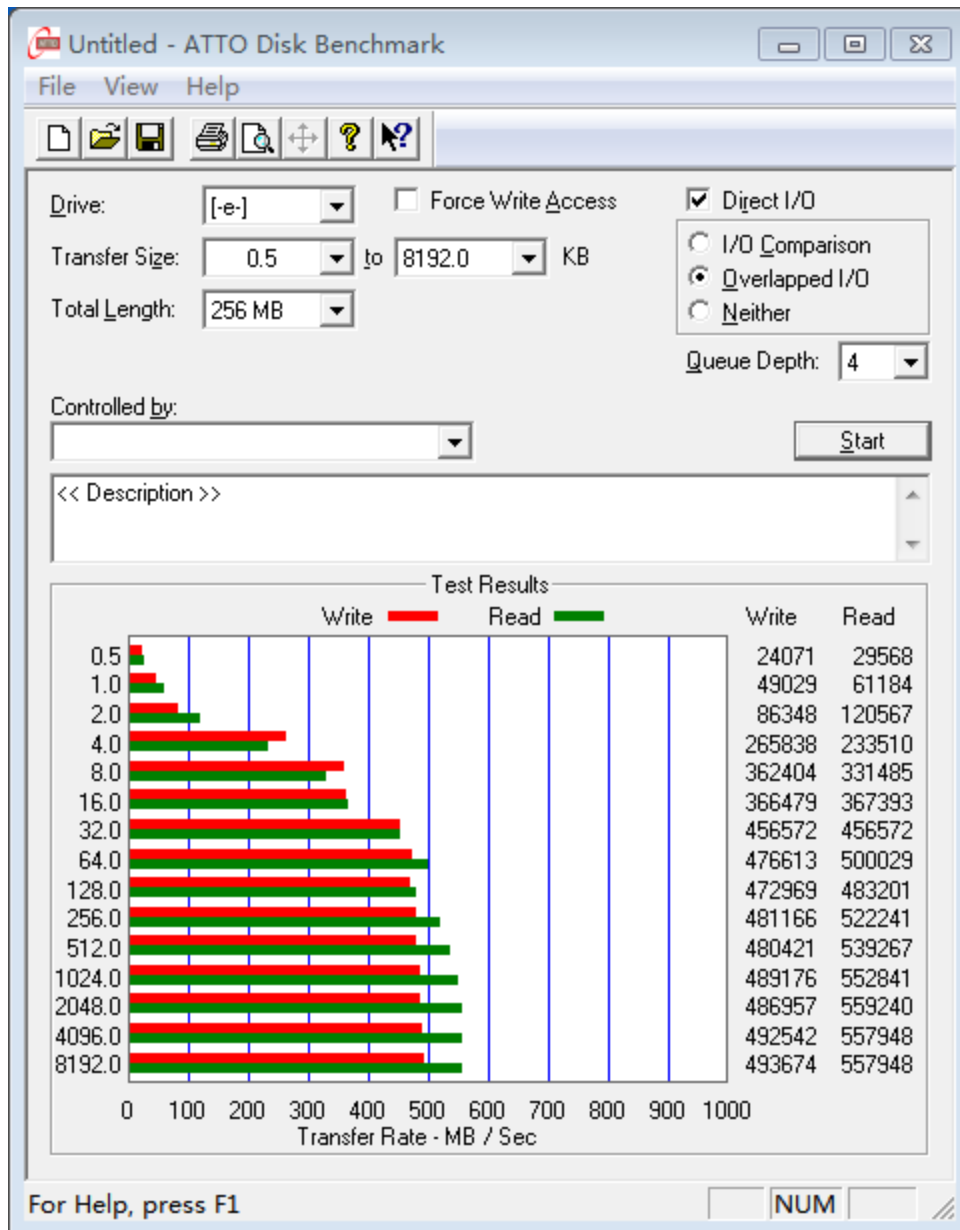
	Speed:	Duration:
SandForce SATA3 3.3. iaStor 111.79 GB		
<input checked="" type="checkbox"/> ISO	166.82 MB/s	6.44 s
<input checked="" type="checkbox"/> Program	111.23 MB/s	12.65 s
<input checked="" type="checkbox"/> Game	138.64 MB/s	9.96 s

Start Abort

CrystalDiskMark 3.0.1b



ATTO DiskBenchMark



PC Mark7

The screenshot displays the PCMark 7 Professional Edition v1.0.4 interface. At the top, there are navigation tabs for 'Benchmark', 'Results', 'Log', and 'Help'. The main content area is divided into three sections:

- Your PCMark 7 Score:** A message states that a score is available when the suite has been run. A prominent yellow button labeled 'View Result on PCMark.com' is present. Below it, a checkbox for 'Automatically view results on PCMark.com' is shown as unchecked.
- Details:** A list of benchmark scores is shown, including 'Entertainment score: N/A', 'Computation score: N/A', and 'System storage score: N/A'. A 'Secondary storage score' of 5258 is expanded to show sub-scores for various tasks like 'Secondary storage - Windows Defender 5.49 MB/s', 'Secondary storage - importing pictures 29.55 MB/s', and 'Secondary storage - gaming 16.60 MB/s'.
- Current result:** A vertical column of buttons on the right side, including 'Load...', 'Save...', 'Export...', 'View raw SystemInfo', and 'View raw result'.
- Saved results:** A section at the bottom right with buttons for 'Export saved...' and 'Submit saved...'.

Anvil Benchmark

Anvil's Storage Utilities 1.0.31 Beta9 (2011-Oct-18)

File | Benchmarks | IOmeter | System Info | Settings | Test size 1GB | Drive e: [] | Screenshot | Help

SSD Benchmark

Read	Resp. time	MB read	IOPS	MB/s
Seq 4MB	7.7383ms	2,048.0	129.23	516.91
4K	0.1103ms	442.7	9,067.11	35.42
4K QD4	0.1566ms	1,247.1	25,540.20	99.77
4K QD16	0.5845ms	1,336.7	27,372.94	106.93
32K	0.3345ms	1,402.1	2,989.47	93.42
128K	0.5367ms	3,495.4	1,863.33	232.92

Run read

Read 1,580.57

Run

TOTAL 4,099.42

Write	Resp. time	MB written	IOPS	MB/s
Seq 4MB	8.5938ms	1,024.0	116.36	465.45
4K	0.0462ms	640.0	21,660.99	84.61
4K QD4	0.0562ms	640.0	71,223.75	278.22
4K QD16	0.2130ms	640.0	75,118.63	293.43

Run write

Write 2,518.86

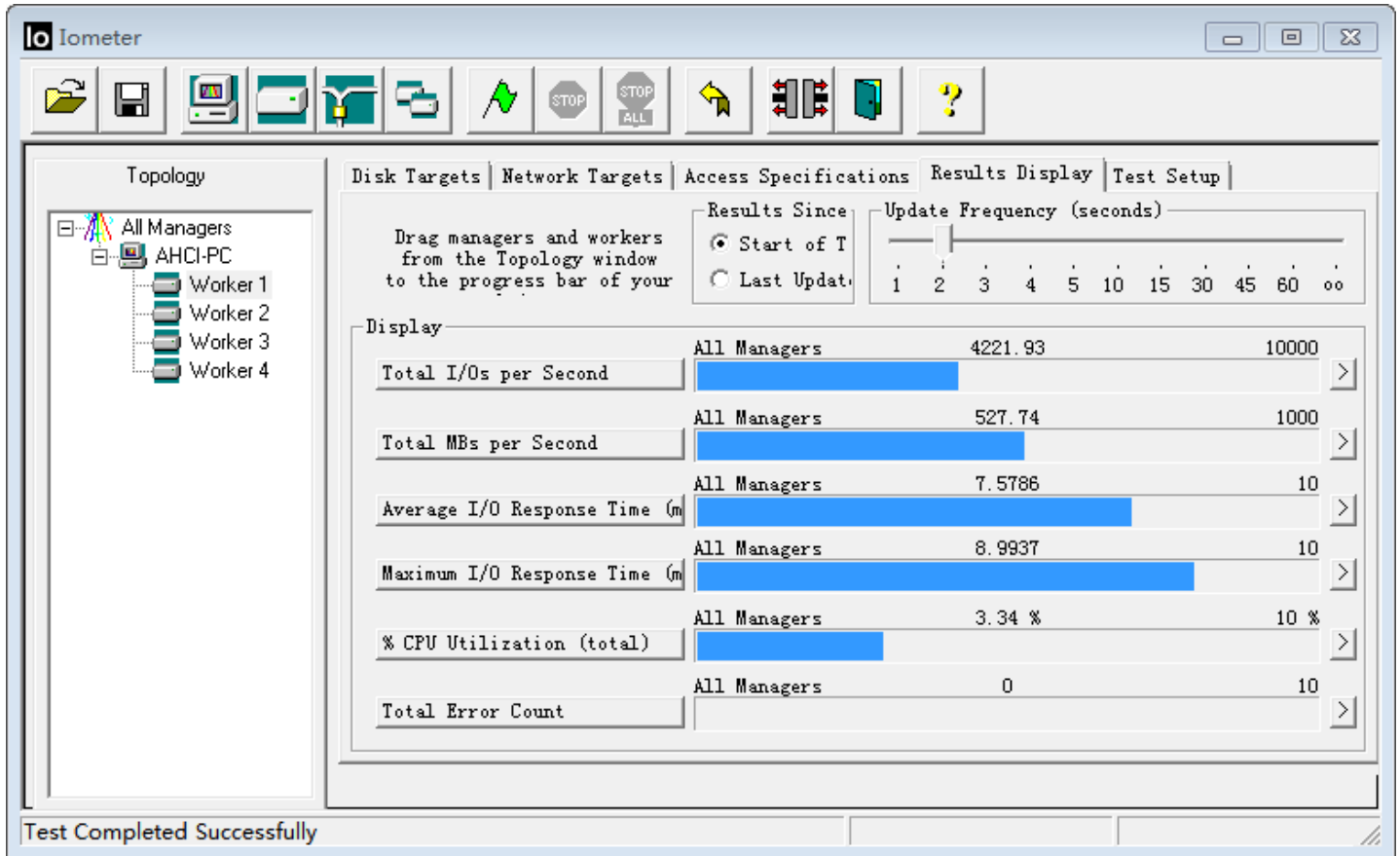
Windows 7 (6.1.7601 Service Pack 1)
 Z68AP-D3/F1, Socket 1155
 Intel(R) Core(TM) i7-2600 CPU @ 3.40GHz
 Memory : 8,109 MB
Pro Edition (Beta)

Drives :
 Notes :

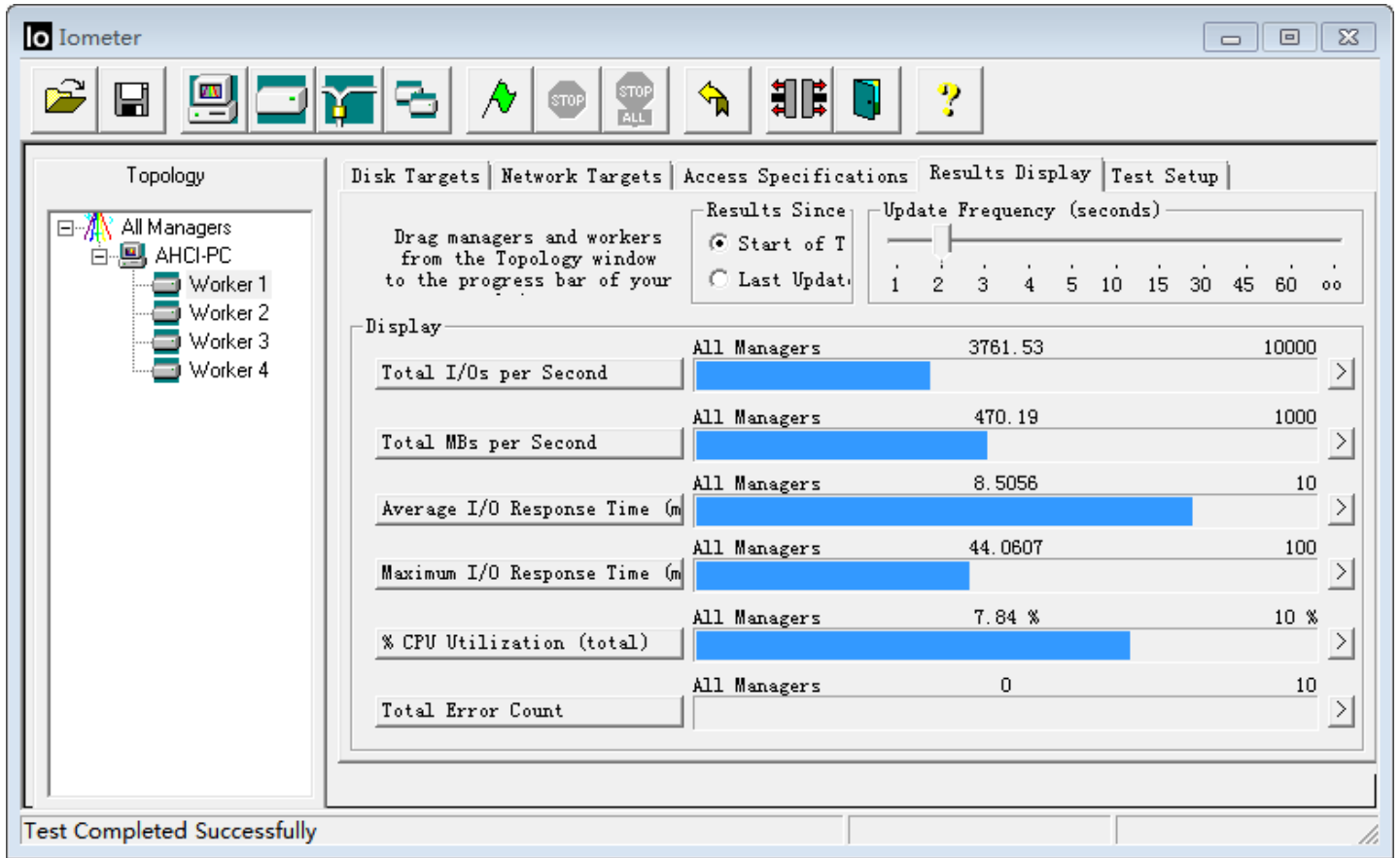
SandForce SATA3 GOLD120G 120GB/3.1TB
 Drive E: 111.8/111.7GB free (99.9%)
 NTFS - Cluster size 4096B
 Storage driver iaStor 10.6.0.1002
 Alignment 32KB NOT OK
 Compression 0-Fill

IOMeter 2008

128K Seq Reads



128K Seq Writes



4K Ran Reads (QD = 1)

The screenshot shows the Iometer software interface. The window title is "Iometer". The interface is divided into several sections:

- Toolbar:** Contains icons for file operations (Open, Save, Print), test execution (Start, Stop, Stop All), and help.
- Topology:** A tree view on the left showing "All Managers" and "AHCI-PC".
- Results Display:** The main area showing test results. It includes a "Results Since" section with radio buttons for "Start of Test" (selected) and "Last Update". An "Update Frequency (seconds)" slider is set to 2. Below this is a "Display" table with performance metrics and progress bars.

Metric	Value	Target
Total I/Os per Second	4443.86	10000
Total MBs per Second	17.36	100
Average I/O Response Time (m)	0.2241	10
Maximum I/O Response Time (m)	41.2547	100
% CPU Utilization (total)	6.10 %	10 %
Total Error Count	0	10

At the bottom of the window, a status bar indicates "Test Completed Successfully".

4K Ran Writes (QD = 1)

The screenshot shows the Iometer software interface. The 'Results Display' tab is active, showing a table of performance metrics for 'All Managers' over a target of 60,000 I/Os. The metrics include Total I/Os per Second, Total MBs per Second, Average I/O Response Time (ms), Maximum I/O Response Time (ms), % CPU Utilization (total), and Total Error Count. A status bar at the bottom indicates 'Test Completed Successfully'.

Metric	Value	Target
Total I/Os per Second	17454.59	60000
Total MBs per Second	68.18	100
Average I/O Response Time (ms)	0.0584	10
Maximum I/O Response Time (ms)	34.4874	100
% CPU Utilization (total)	12.76 %	100 %
Total Error Count	0	10

4K Ran Reads (QD = 32)

The screenshot shows the Iometer software interface. The 'Results Display' tab is active, showing performance metrics for 'All Managers' over a 60-second period. The metrics include Total I/Os per Second, Total MBs per Second, Average I/O Response Time, Maximum I/O Response Time, % CPU Utilization, and Total Error Count. A status bar at the bottom indicates 'Test Completed Successfully'.

Results Display

Results Since: Start of T Last Update

Update Frequency (seconds): 1 2 3 4 5 10 15 30 45 60 ∞

Metric	Value	Target
Total I/Os per Second	23333.12	60000
Total MBs per Second	91.14	100
Average I/O Response Time (m)	1.3706	10
Maximum I/O Response Time (m)	47.8989	100
% CPU Utilization (total)	13.65 %	100 %
Total Error Count	0	10

Test Completed Successfully

4K Ran Writes (QD = 32)

The screenshot shows the Iometer software interface. The main window is titled "Iometer" and contains several tabs: "Disk Targets", "Network Targets", "Access Specifications", "Results Display", and "Test Setup". The "Results Display" tab is active, showing a table of performance metrics for "All Managers".

Results Display

Results Since: Start of T Last Update

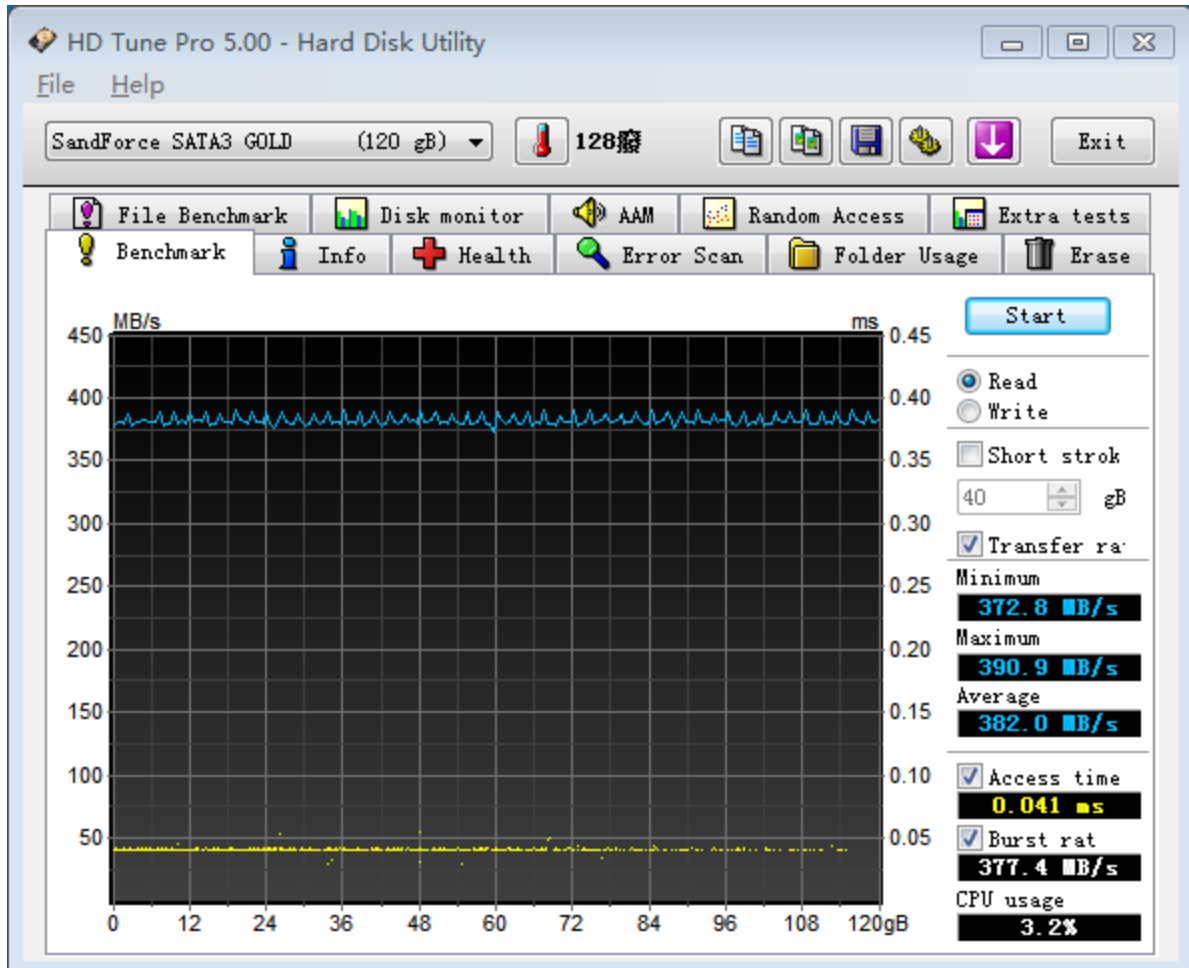
Update Frequency (seconds): 1 2 3 4 5 10 15 30 45 60 ∞

Metric	All Managers	Target
Total I/Os per Second	76823.15	60000
Total MBs per Second	300.09	1000
Average I/O Response Time (m)	0.4182	10
Maximum I/O Response Time (m)	37.9184	100
% CPU Utilization (total)	32.54 %	100 %
Total Error Count	0	10

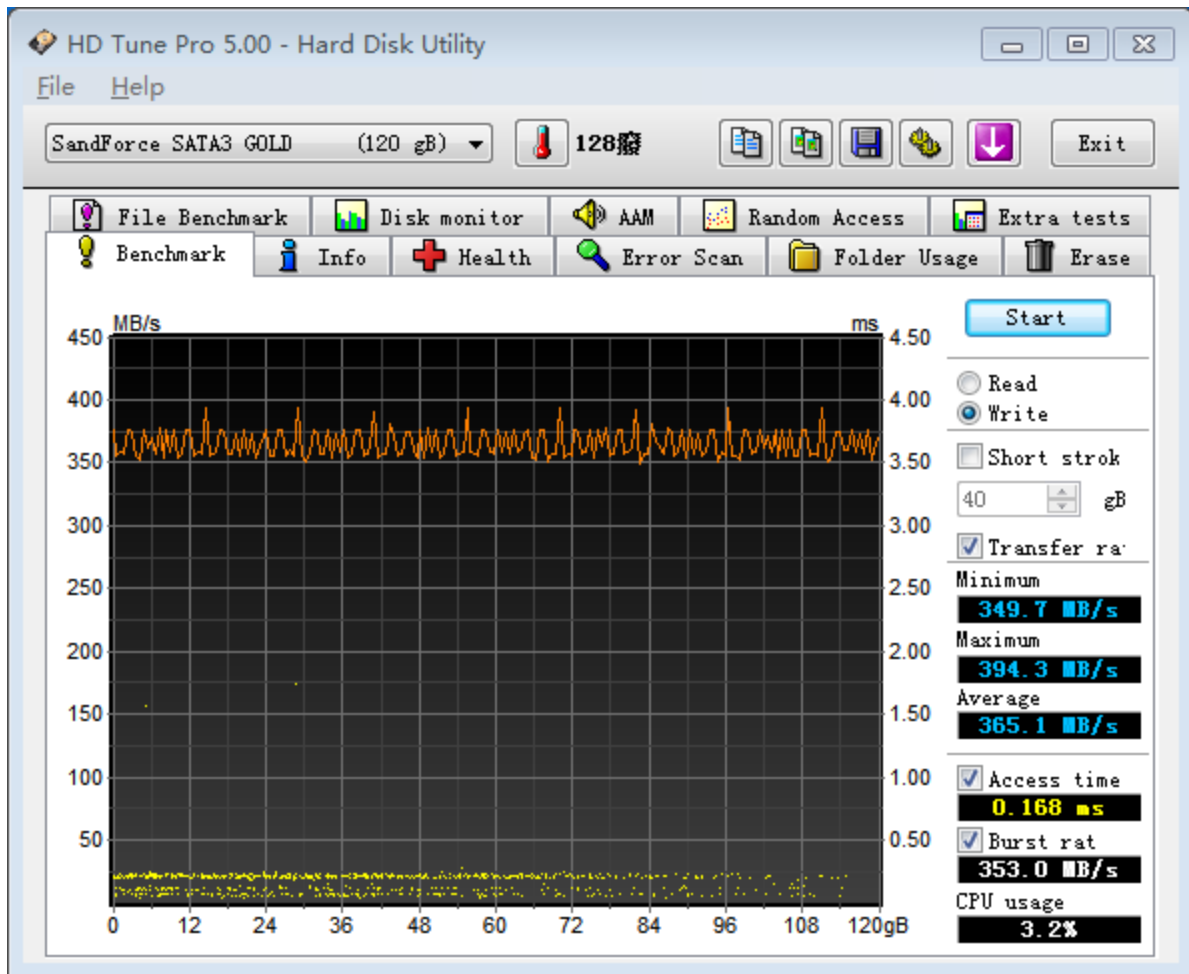
Test Completed Successfully

HD Tune 5.00

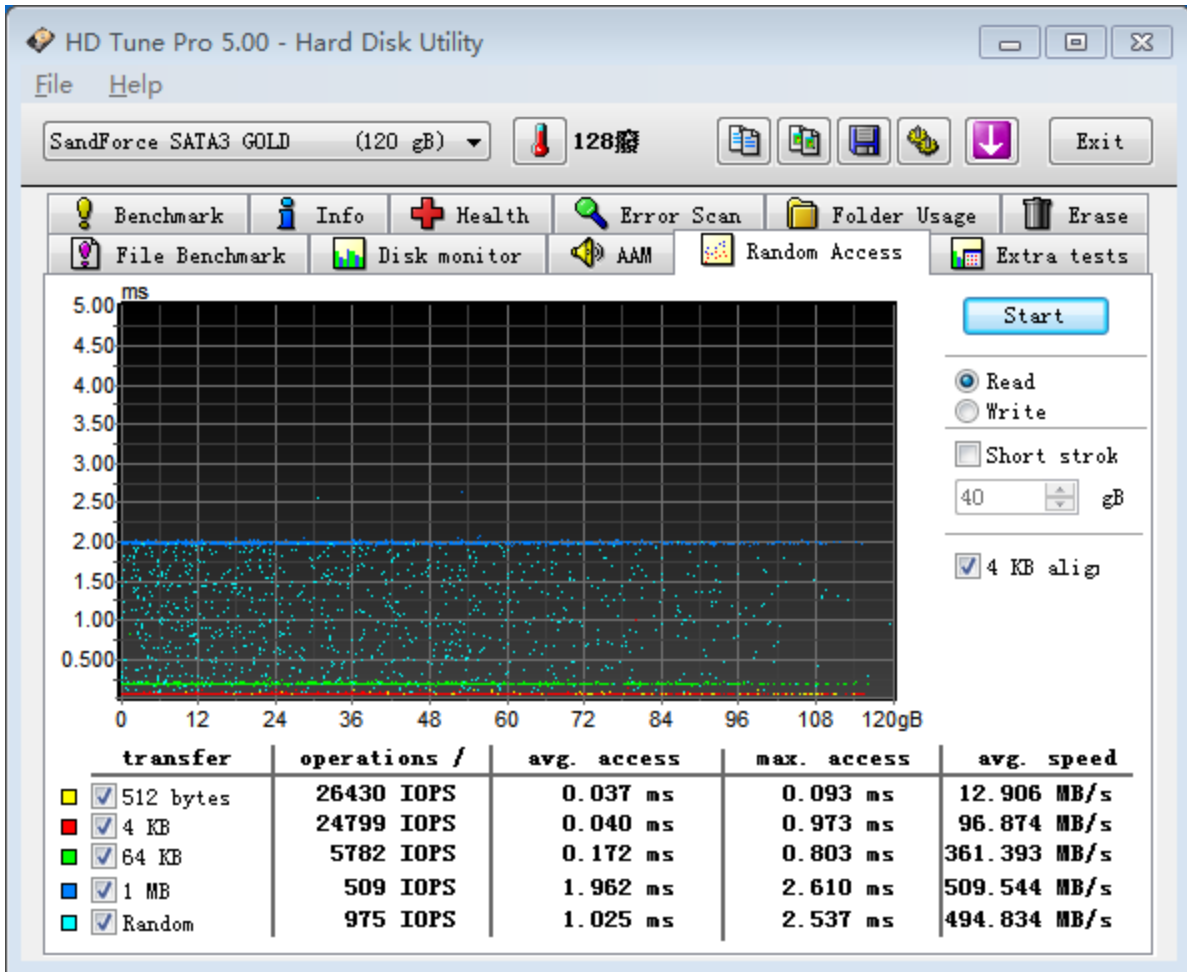
Benchmark Read



Benchmark Write



Random Access Read



Random Access Write

