

ANS-9010 performance test report

Test Configuration:

Platform	TYAN S2927
Operating System	Windows XP SP2
SATA Host Controller	nVIDIA NFP3600
SATA Device	WD WD1500ADFD SATA HDD 150G x2 ACARD ANS-9010 RAM Disk 24G x2
Software	IOMeter 2006/07/27 for Win32, i386 Hdtune v3.10 SiSoftware Sandra 2009 FDBench v1.02 PCMark05 v1.20

Test Result_IOMeter-Real Case Simulation:

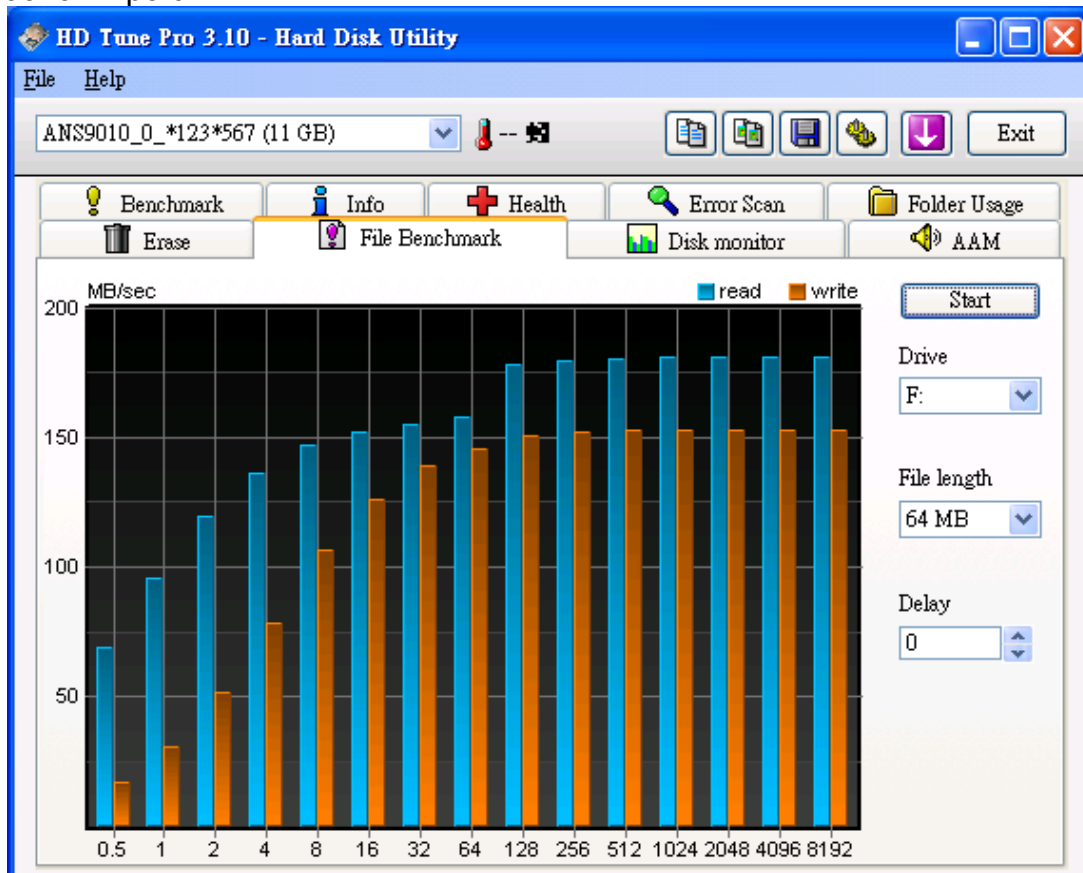
Test Pattern		9010 x1 port	9010 x2 port	9010 x2 port RAID0	9010 x3 port RAID0	9010 x4 port RAID0	HDD x1	HDD x2 RAID0
File Server	MB/s	145.5	288.47	254.44	339.1	394.14	1.6	2.52
	IOPS	13389.5	26651.82	23523.31	31372	36486.59	153.35	232.79
Web Server	MB/s	159.1	316.56	289.65	384.12	465.75	2.2	3.27
	IOPS	10319.94	20644.97	18985.11	25168.69	30538.05	151.6	225.8
Workstation	MB/s	167.5	332.26	333.16	489.33	225.63	44.13	67.55
	IOPS	174.8	342.65	330.1	481.32	238.78	42.35	76.49
DataBase	MB/s	136.1	269.7	244.54	330.71	408.14	1.19	1.94
	IOPS	17424.8	34522.02	31300.56	42331.26	52241.92	152.87	248.81
Windows XP	MB/s	177.2	354.01	350.02	505.35	643.26	20.23	29.99
	IOPS	932.4	1842.38	1808.52	2683.65	3296.13	98.45	154.63

Test Result_IOMeter-Variou Block Size:

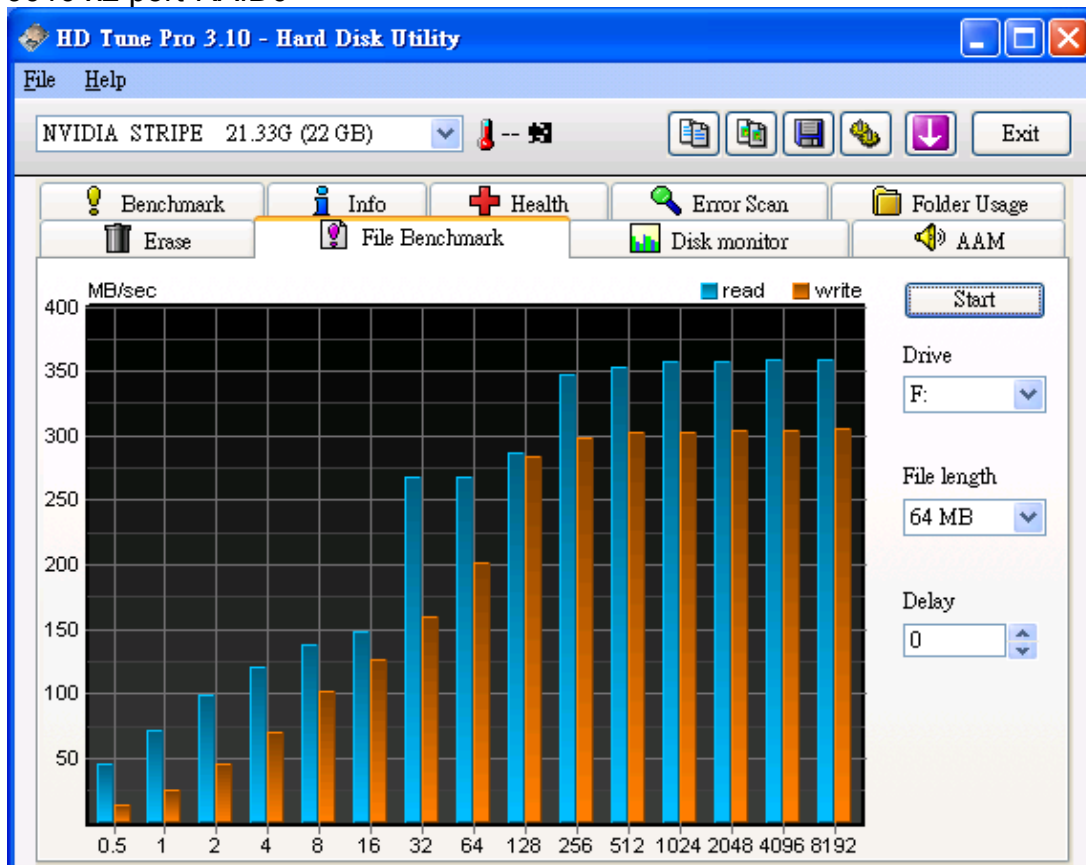
Test Pattern		9010 x1 port	9010 x2 port	9010 x2 port RAID0	9010 x3 port RAID0	9010 x4 port RAID0	HDD x1	HDD x2 RAID0
512B Read Sequential	MB/s	67.4	103.09	49.6	49.37	47.56	16.47	18.98
	IOPS	138067.3	211133.05	101577.05	101109.86	97397.38	33724.92	38869.48
512B Read Random	MB/s	29.2	50.58	36.9	35.87	34.51	0.08	0.13
	IOPS	59873.9	103588.14	75568.54	73465.52	70685.99	166.71	269.95
512B Write Sequential	MB/s	26.5	51.52	27.12	27.98	27.28	12.05	12.65
	IOPS	54311.8	105511.53	55547.6	57299.65	55871.84	24688.38	25901.32
512B Write Random	MB/s	27.1	50.69	36.97	35.88	34.2	0.07	0.19
	IOPS	55466.4	103810.36	75708.65	73479.05	70049.72	146.46	387.85
4K Read Sequential	MB/s	91.4	188.34	216.11	210.67	221.93	29.92	59.79
	IOPS	23398.0	48214.6	55324.67	53931.45	56813.13	7660.69	15307.28
4K Read Random	MB/s	112.7	222.75	202.44	257.99	271.26	0.64	0.99
	IOPS	28839.8	57023.45	51825.69	66044.49	69441.75	162.96	253.53
4K Write Sequential	MB/s	100.0	199.55	167.84	169.87	167.97	56.25	94.04
	IOPS	25600.3	51085.26	42967.88	43485.59	43000.08	14399.7	24074.23
4K Write Random	MB/s	101.4	201.84	182.18	238.68	268.8	0.66	1.42
	IOPS	25964.9	51670.87	46636.88	61101.56	68812.11	170.19	364.6
64K Read Sequential	MB/s	176.1	351.41	346.52	503.31	663.84	83.19	166.03
	IOPS	2817.8	5622.49	5544.38	8053.02	10621.41	1331	2656.5
64K Read Random	MB/s	178.9	357.53	332.31	465.62	588.03	8.81	8.66
	IOPS	2861.7	5720.52	5316.88	7449.93	9408.46	140.95	138.51
64K Write Sequential	MB/s	151.1	302.03	302.32	307.51	218.67	78.59	161.51
	IOPS	2417.1	4832.41	4837.19	4920.17	3498.66	1257.48	2584.15
64K Write Random	MB/s	151.3	302.33	282.61	395.92	502.11	7.62	11.09
	IOPS	2421.5	4837.32	4521.84	6334.79	8033.8	121.98	177.47
128K Read Sequential	MB/s	181.9	363.62	350.69	518.3	686.28	83.24	166.34
	IOPS	1455.2	2909	2805.56	4146.42	5490.25	665.92	1330.75
128K Read Random	MB/s	182.1	364.08	356.07	506.51	640.59	15.72	16.26
	IOPS	1456.8	2912.66	2848.57	4052.04	5124.72	125.74	130.06
128K Write Sequential	MB/s	153.4	306.75	302.08	453.36	602.48	76.9	160.12
	IOPS	1227.0	2454.03	2416.6	3626.9	4819.87	615.23	1280.94
128K Write Random	MB/s	153.5	307.34	302.42	430.49	188.05	13.78	20.14
	IOPS	1228.1	2458.72	2419.4	3443.91	1504.41	110.22	161.1

Test Result_HD Tune-File Benchmark:

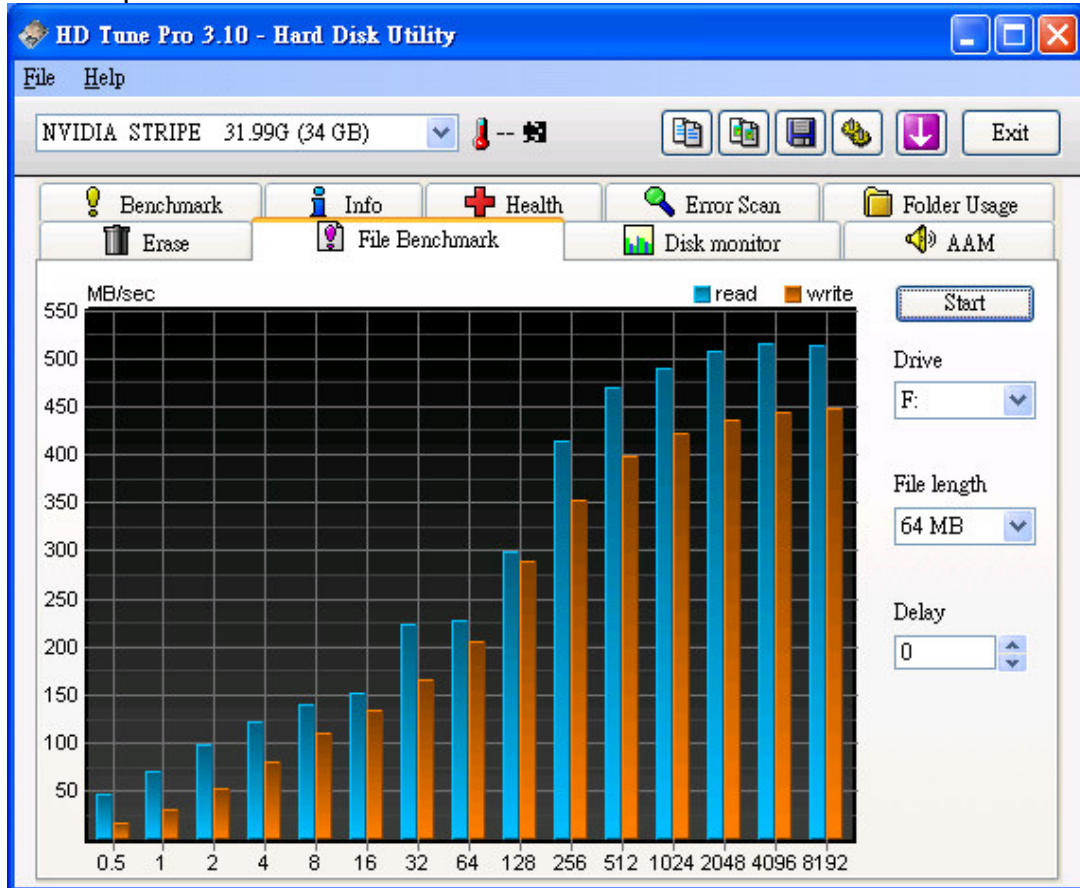
9010 x1 port



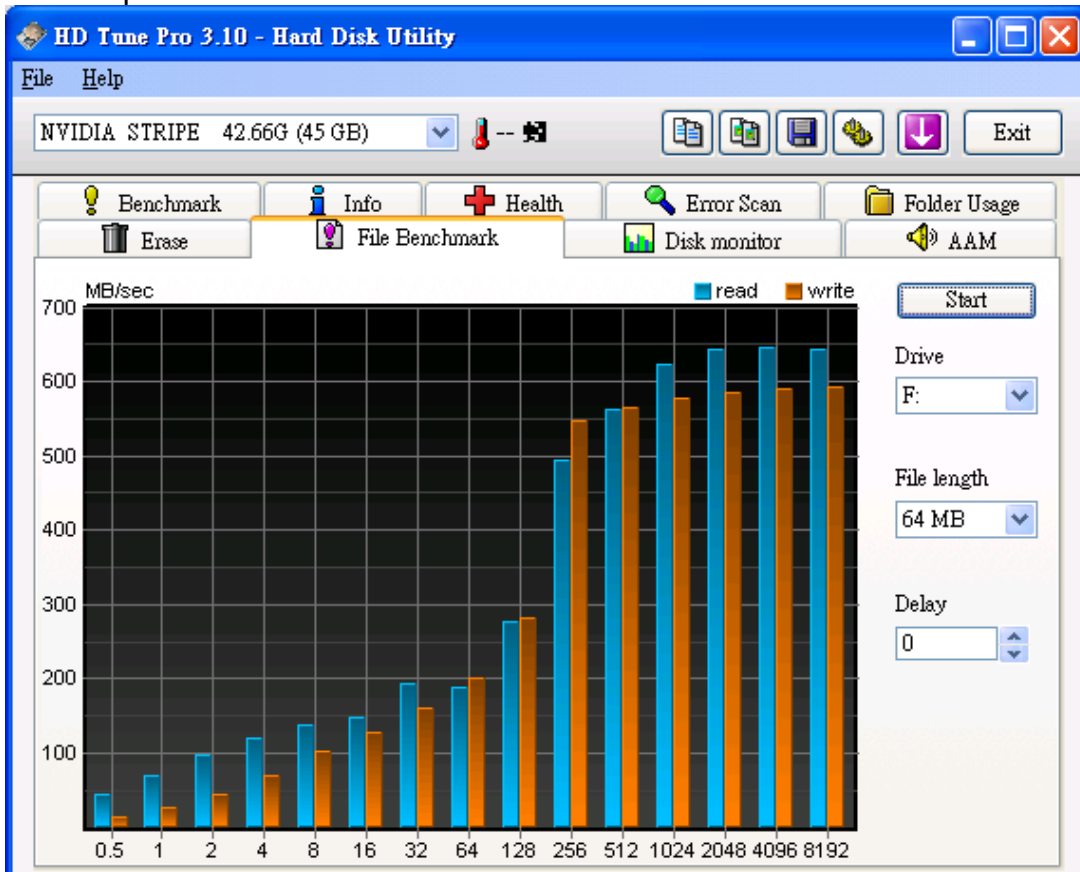
9010 x2 port-RAID0



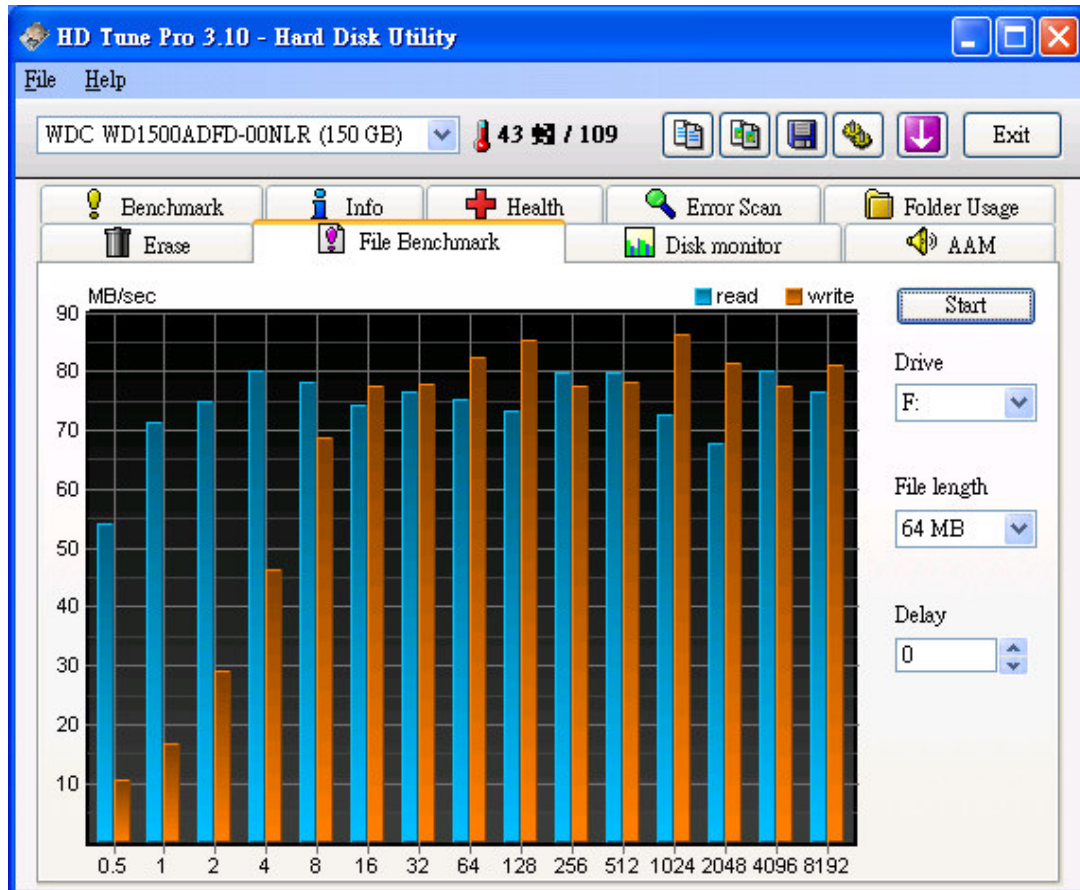
9010 x3 port-RAID0



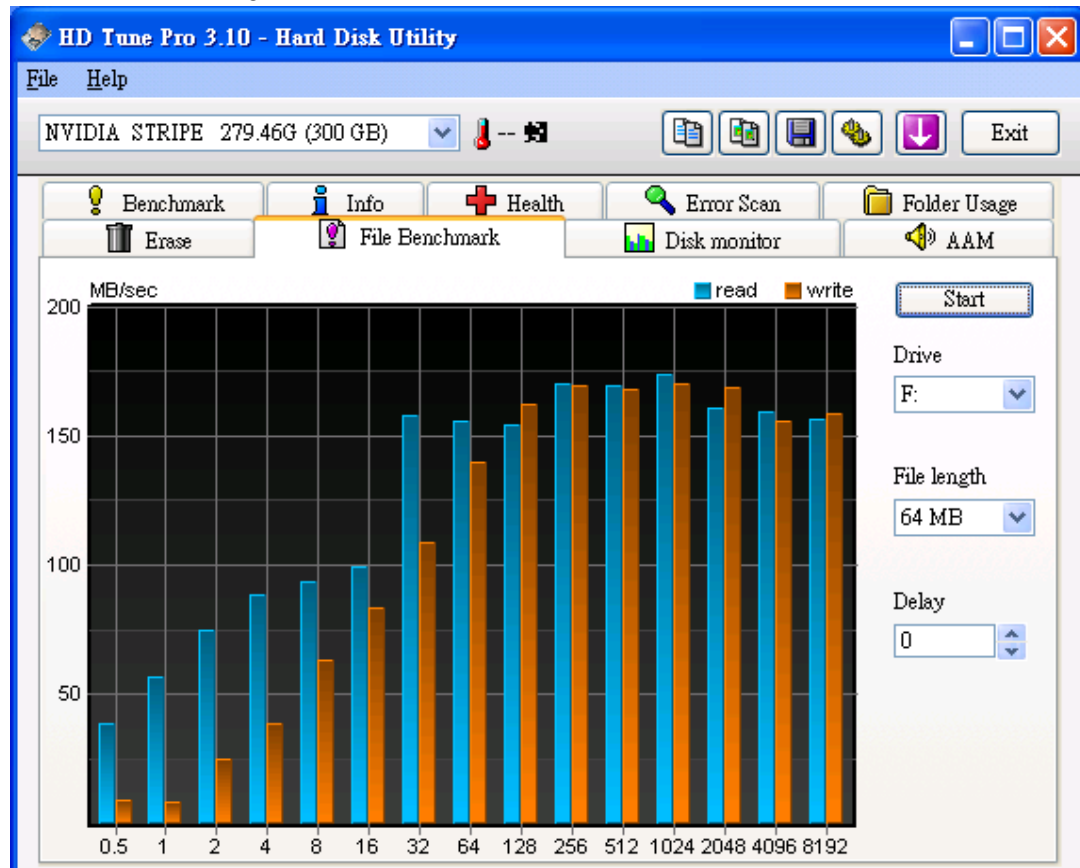
9010 x4 port-RAID0



WDHDDx1

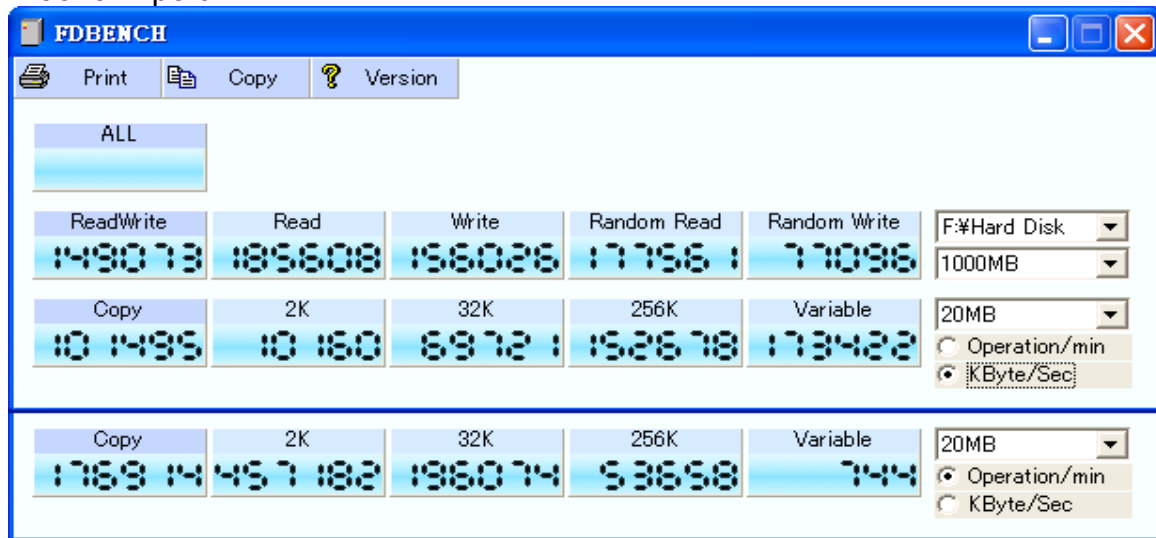


WDHDDx2-RAID0

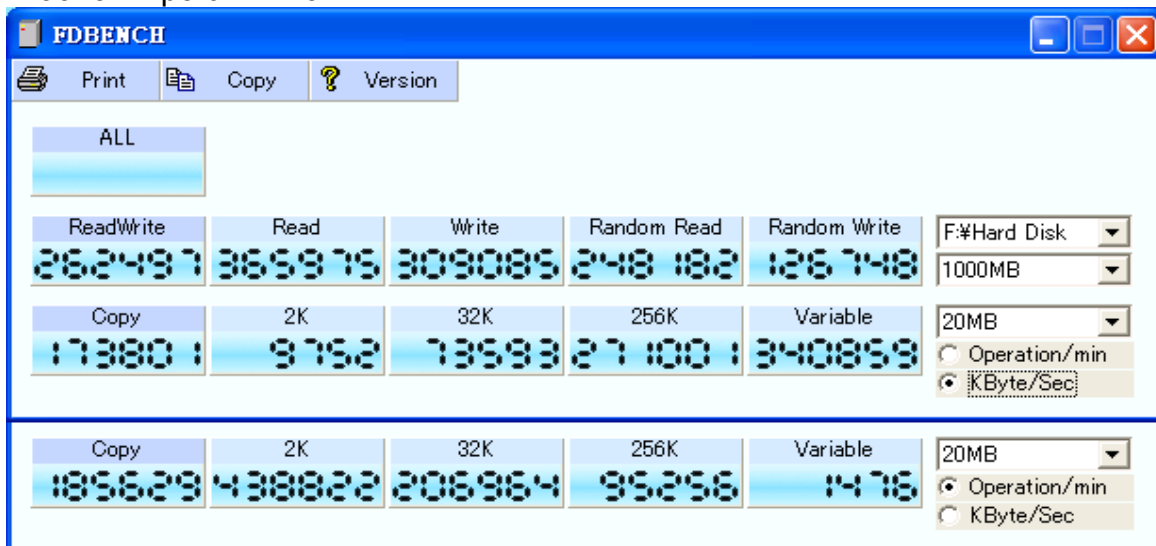


Test Result_FDBench:

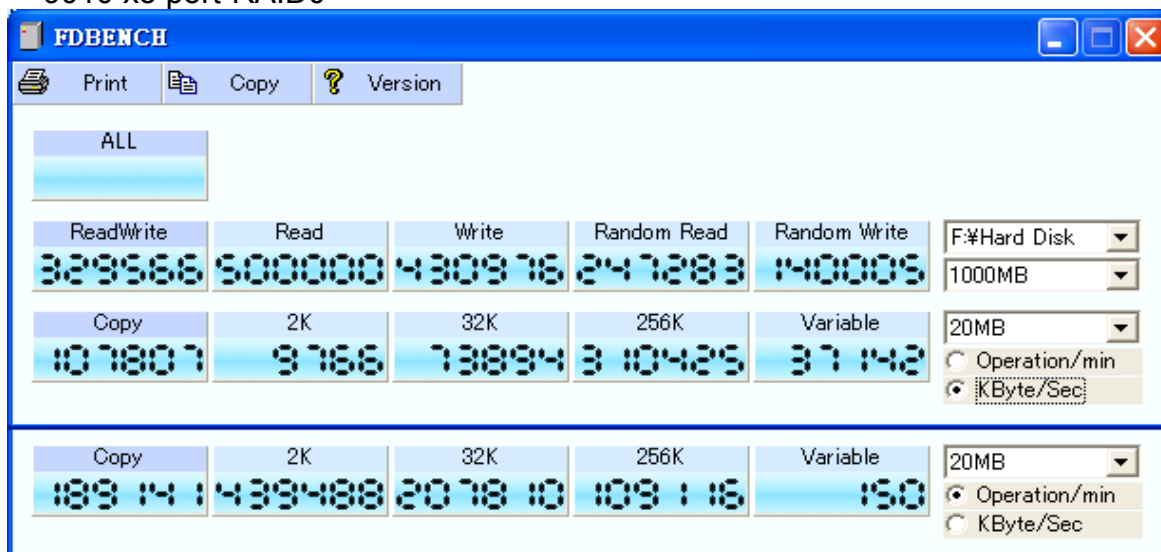
9010x1 port



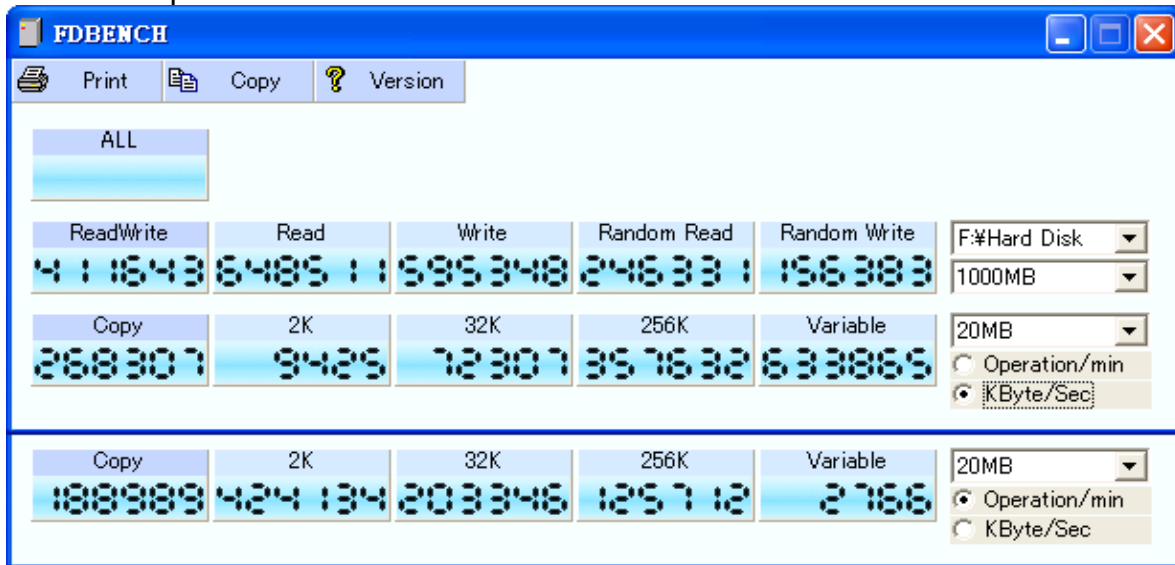
9010 x2 port-RAID0



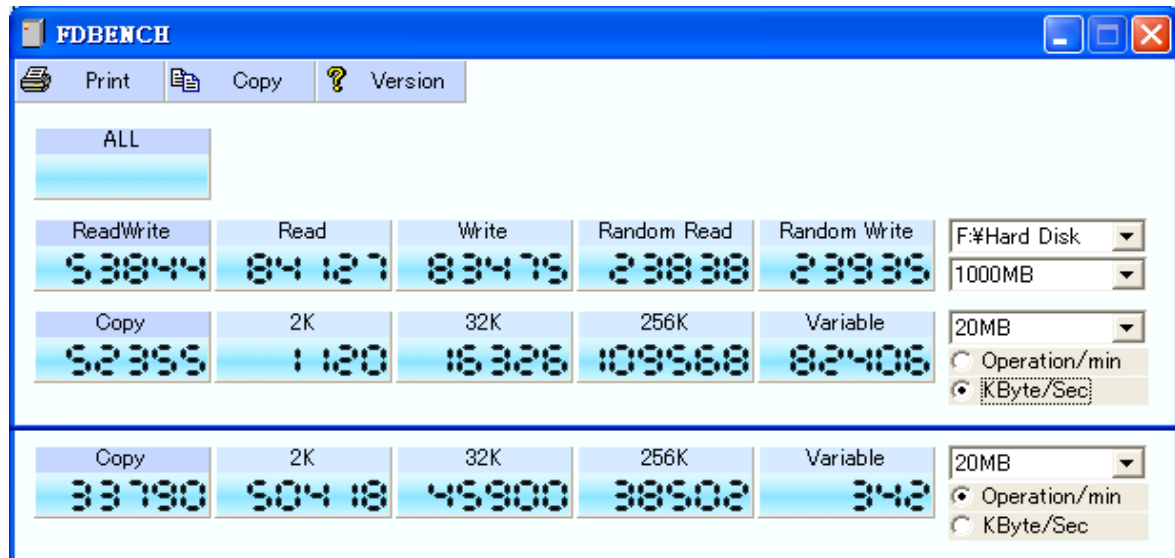
9010 x3 port-RAID0



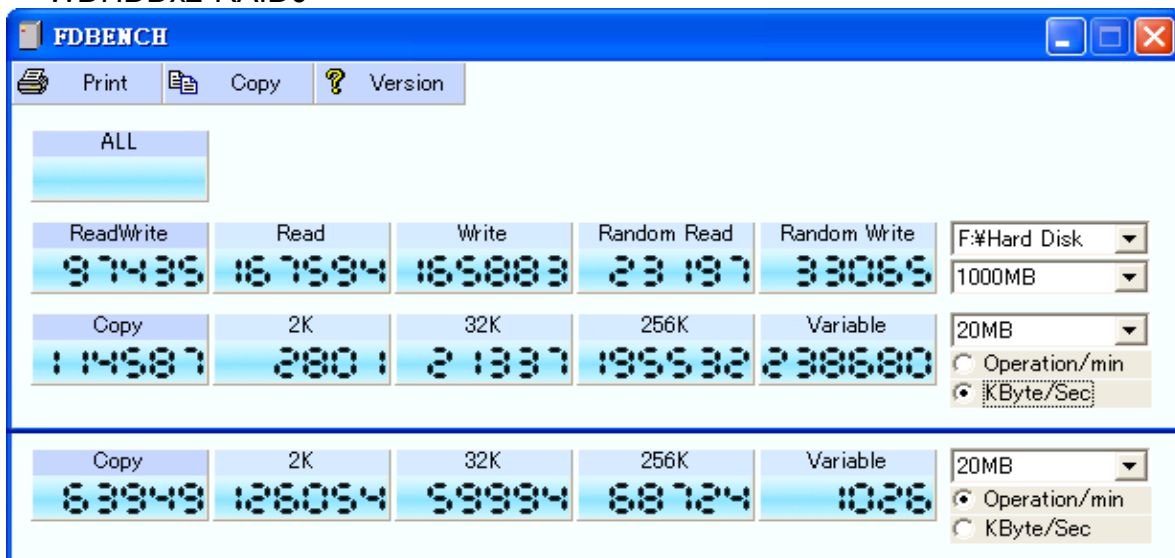
9010 x4 port-RAID0



WDHDDx1



WDHDDx2-RAID0



Test Result_PCMARK05:

9010 x1 port

The image shows two side-by-side windows from the PCMark05 software. The left window displays the overall PCMark Score and system information. The right window displays a detailed breakdown of the test results for the HDD Test Suite.

Left Window: Result Details

- PCMark Score
 - PCMark: N/A
 - CPU: N/A
 - Memory: N/A
 - Graphics: N/A
 - HDD: 44996
- System**
 - OS: Microsoft Windows XP
 - CPU: Dual-Core AMD Opteron(tm) Processor 8220 @ 2800 MHz
 - Memory: 1024 MB
 - Graphics: XGI Volari Z7

Right Window: Result Details

- System Test Suite
 - CPU Test Suite
 - Memory Test Suite
 - Graphics Test Suite
 - HDD Test Suite
 - HDD - XP Startup
 - HDD - XP Startup: 160.107 MB/s
 - HDD - Application Loading
 - HDD - Application Loading: 145.013 MB/s
 - HDD - General Usage
 - HDD - General Usage: 137.482 MB/s
 - HDD - Virus Scan
 - HDD - Virus Scan: 160.585 MB/s
 - HDD - File Write
 - HDD - File Write: 148.074 MB/s
 - Custom Test Suite

9010 x2 port-RAID0

The image shows two side-by-side windows from the PCMark05 software. The left window displays the overall PCMark Score and system information. The right window displays a detailed breakdown of the test results for the HDD Test Suite.

Left Window: Result Details

- PCMark Score
 - PCMark: N/A
 - CPU: N/A
 - Memory: N/A
 - Graphics: N/A
 - HDD: 59424
- System**
 - OS: Microsoft Windows XP
 - CPU: Dual-Core AMD Opteron(tm) Processor 8220 @ 2800 MHz
 - Memory: 1024 MB
 - Graphics: XGI Volari Z7

Right Window: Result Details

- System Test Suite
 - CPU Test Suite
 - Memory Test Suite
 - Graphics Test Suite
 - HDD Test Suite
 - HDD - XP Startup
 - HDD - XP Startup: 253.948 MB/s
 - HDD - Application Loading
 - HDD - Application Loading: 158.932 MB/s
 - HDD - General Usage
 - HDD - General Usage: 188.903 MB/s
 - HDD - Virus Scan
 - HDD - Virus Scan: 167.254 MB/s
 - HDD - File Write
 - HDD - File Write: 239.126 MB/s
 - Custom Test Suite

9010 x3 port-RAID0

The image shows two side-by-side PCMark05 Result Details windows. The left window displays the overall PCMark Score and system information. The right window displays a detailed breakdown of the HDD Test Suite results.

Left Window: Result Details

- PCMark Score
 - PCMark: N/A
 - CPU: N/A
 - Memory: N/A
 - Graphics: N/A
 - HDD: 63829
- System**
 - OS: Microsoft Windows XP
 - CPU: Dual-Core AMD Opteron(tm) Processor 8220 @ 2800 MHz
 - Memory: 1024 MB
 - Graphics: XGI Volari Z7

Right Window: Result Details

- System Test Suite
 - CPU Test Suite
 - Memory Test Suite
 - Graphics Test Suite
 - HDD Test Suite
 - HDD - XP Startup
 - HDD - XP Startup: 313.542 MB/s
 - HDD - Application Loading
 - HDD - Application Loading: 160.870 MB/s
 - HDD - General Usage
 - HDD - General Usage: 202.576 MB/s
 - HDD - Virus Scan
 - HDD - Virus Scan: 176.417 MB/s
 - HDD - File Write
 - HDD - File Write: 241.871 MB/s
 - Custom Test Suite

9010 x4 port-RAID0

The image shows two side-by-side PCMark05 Result Details windows. The left window displays the overall PCMark Score and system information. The right window displays a detailed breakdown of the HDD Test Suite results.

Left Window: Result Details

- PCMark Score
 - PCMark: N/A
 - CPU: N/A
 - Memory: N/A
 - Graphics: N/A
 - HDD: 65696
- System**
 - OS: Microsoft Windows XP
 - CPU: Dual-Core AMD Opteron(tm) Processor 8220 @ 2800 MHz
 - Memory: 1024 MB
 - Graphics: XGI Volari Z7

Right Window: Result Details

- System Test Suite
 - CPU Test Suite
 - Memory Test Suite
 - Graphics Test Suite
 - HDD Test Suite
 - HDD - XP Startup
 - HDD - XP Startup: 353.921 MB/s
 - HDD - Application Loading
 - HDD - Application Loading: 162.504 MB/s
 - HDD - General Usage
 - HDD - General Usage: 206.876 MB/s
 - HDD - Virus Scan
 - HDD - Virus Scan: 172.428 MB/s
 - HDD - File Write
 - HDD - File Write: 245.473 MB/s
 - Custom Test Suite

WDHDDx1

The image shows two side-by-side PCMark05 Result Details windows for the WDHDDx1 configuration. The left window displays the overall PCMark Score and system information, while the right window shows a detailed breakdown of the HDD Test Suite results.

Left Window: Result Details

- PCMark Score
 - PCMark: N/A
 - CPU: N/A
 - Memory: N/A
 - Graphics: N/A
 - HDD: 7017
- System
 - OS: Microsoft Windows XP
 - CPU: Dual-Core AMD Opteron(tm) Processor 8220 @ 2800 MHz
 - Memory: 1024 MB
 - Graphics: XGI Volari Z7

Right Window: Result Details

- System Test Suite
 - CPU Test Suite
 - Memory Test Suite
 - Graphics Test Suite
 - HDD Test Suite
 - HDD - XP Startup
 - HDD - XP Startup: 11.672 MB/s
 - HDD - Application Loading
 - HDD - Application Loading: 10.026 MB/s
 - HDD - General Usage
 - HDD - General Usage: 8.413 MB/s
 - HDD - Virus Scan
 - HDD - Virus Scan: 82.719 MB/s
 - HDD - File Write
 - HDD - File Write: 85.960 MB/s
 - Custom Test Suite

WDHDDx2-RAID0

The image shows two side-by-side PCMark05 Result Details windows for the WDHDDx2-RAID0 configuration. The left window displays the overall PCMark Score and system information, while the right window shows a detailed breakdown of the HDD Test Suite results.

Left Window: Result Details

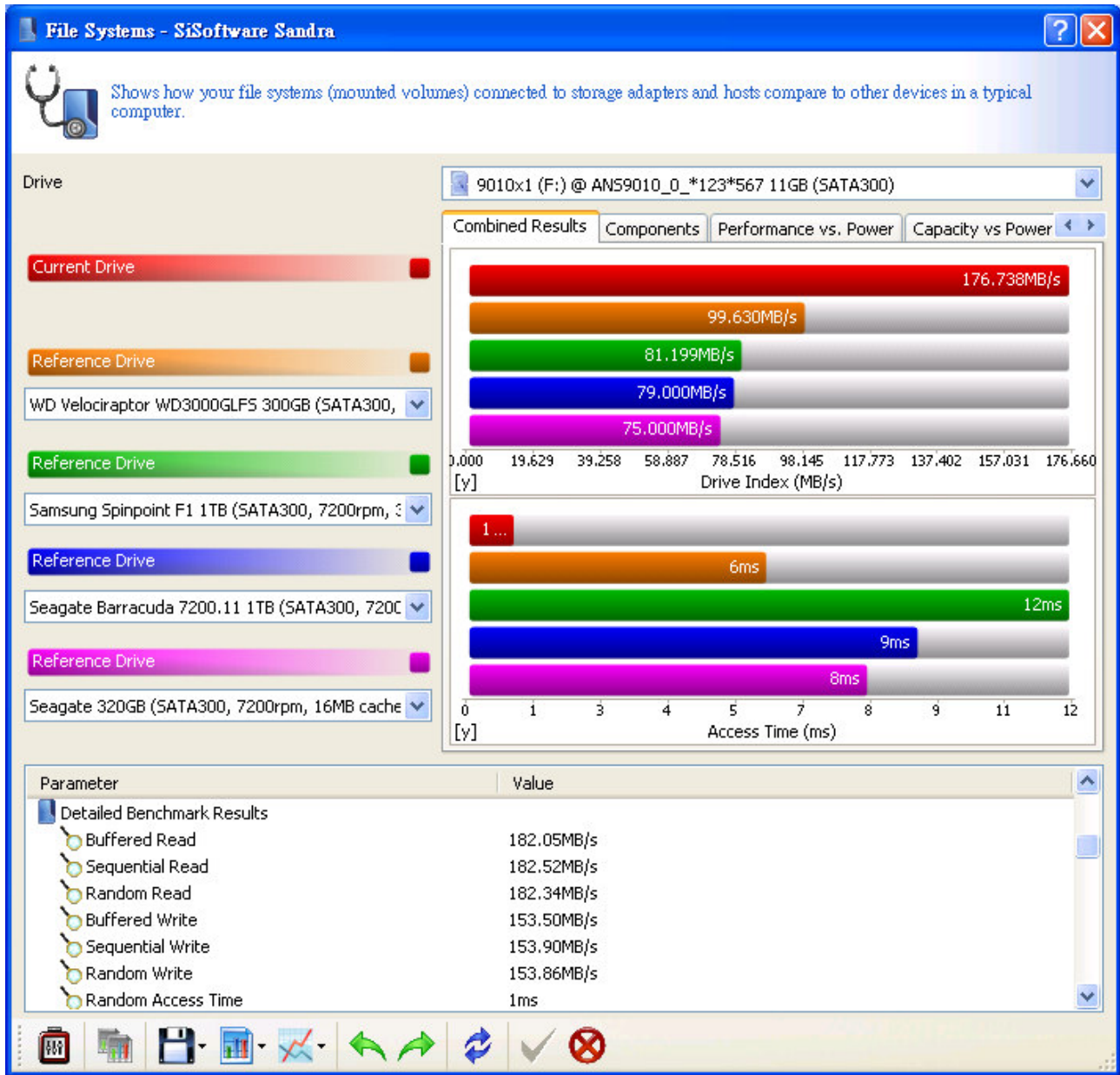
- PCMark Score
 - PCMark: N/A
 - CPU: N/A
 - Memory: N/A
 - Graphics: N/A
 - HDD: 9334
- System
 - OS: Microsoft Windows XP
 - CPU: Dual-Core AMD Opteron(tm) Processor 8220 @ 2800 MHz
 - Memory: 1024 MB
 - Graphics: XGI Volari Z7

Right Window: Result Details

- System Test Suite
 - CPU Test Suite
 - Memory Test Suite
 - Graphics Test Suite
 - HDD Test Suite
 - HDD - XP Startup
 - HDD - XP Startup: 16.867 MB/s
 - HDD - Application Loading
 - HDD - Application Loading: 11.346 MB/s
 - HDD - General Usage
 - HDD - General Usage: 11.730 MB/s
 - HDD - Virus Scan
 - HDD - Virus Scan: 80.321 MB/s
 - HDD - File Write
 - HDD - File Write: 161.722 MB/s
 - Custom Test Suite

Test Result_SiSoftware Sandra File Systems Bench :

9010 x1 port



9010 x2 port-RAID0

The screenshot shows the SiSoftware Sandra File Systems benchmark results for a RAID0 configuration. The drive selected is 9010x2-R0 (F:) @ NVIDIA STRIPE 21.33G 23GB (SCSI, SCSI-2, NCQ). The benchmark compares the current drive against several reference drives.

Drive Configuration:

- Current Drive: 9010x2-R0 (F:) @ NVIDIA STRIPE 21.33G 23GB (SCSI, SCSI-2, NCQ)
- Reference Drive 1: 2x Seagate 320GB (RAID0, SATA300, 7200rpm)
- Reference Drive 2: 4x WD Raptor 36GB (RAID0, SATA150, 10krpm)
- Reference Drive 3: Gigabyte iRAM 4GB (SATA150) (x86)
- Reference Drive 4: 2x Maxtor Atlas IV 73GB (RAID0, SCSI-4, 15000r)

Performance Comparison (Drive Index in MB/s):

Drive	Drive Index (MB/s)
Current Drive	353.937
Reference Drive 1	144.000
Reference Drive 2	143.805
Reference Drive 3	132.000
Reference Drive 4	114.948

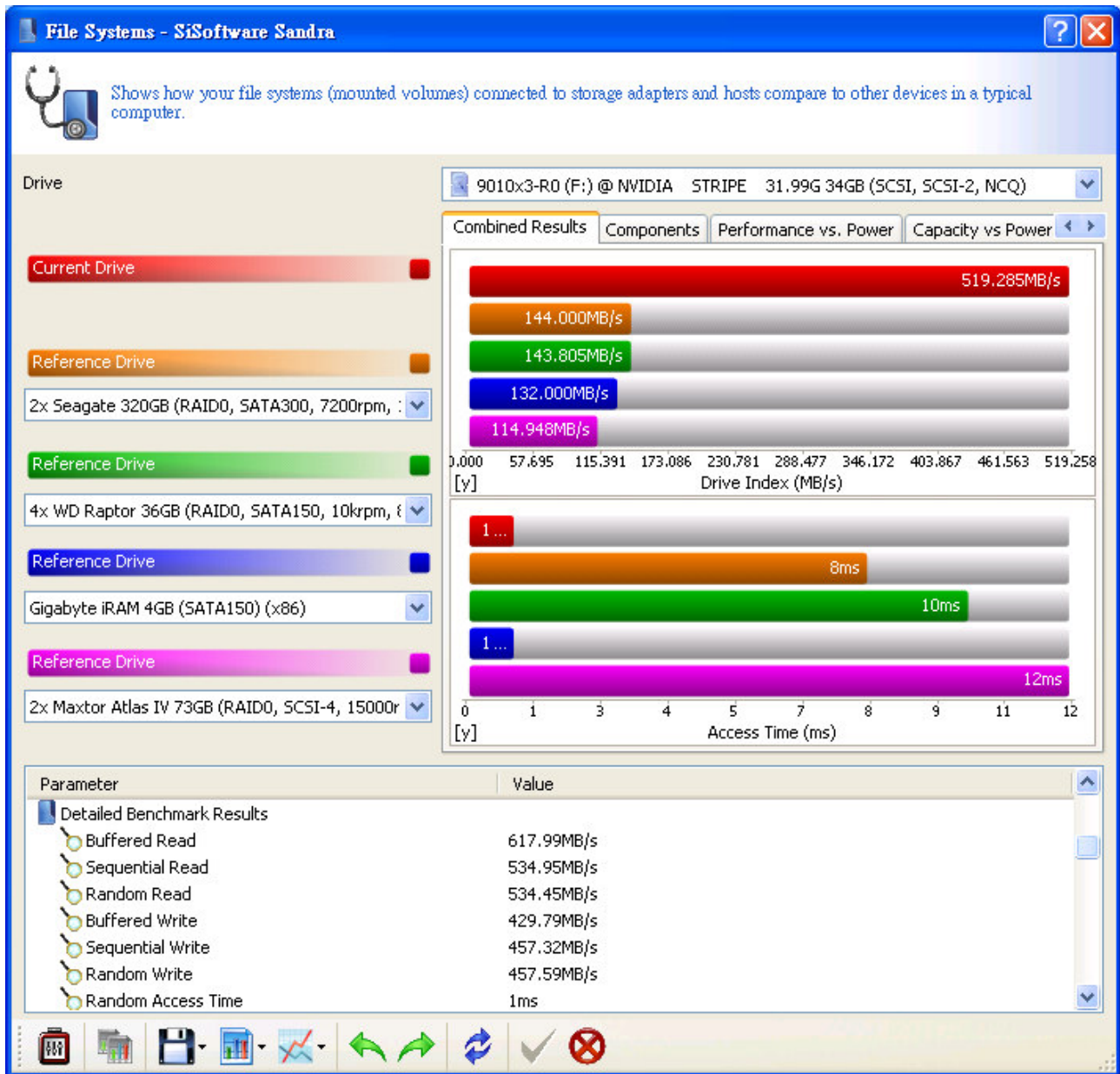
Access Time Comparison (ms):

Drive	Access Time (ms)
Current Drive	1ms
Reference Drive 1	8ms
Reference Drive 2	10ms
Reference Drive 3	1ms
Reference Drive 4	12ms

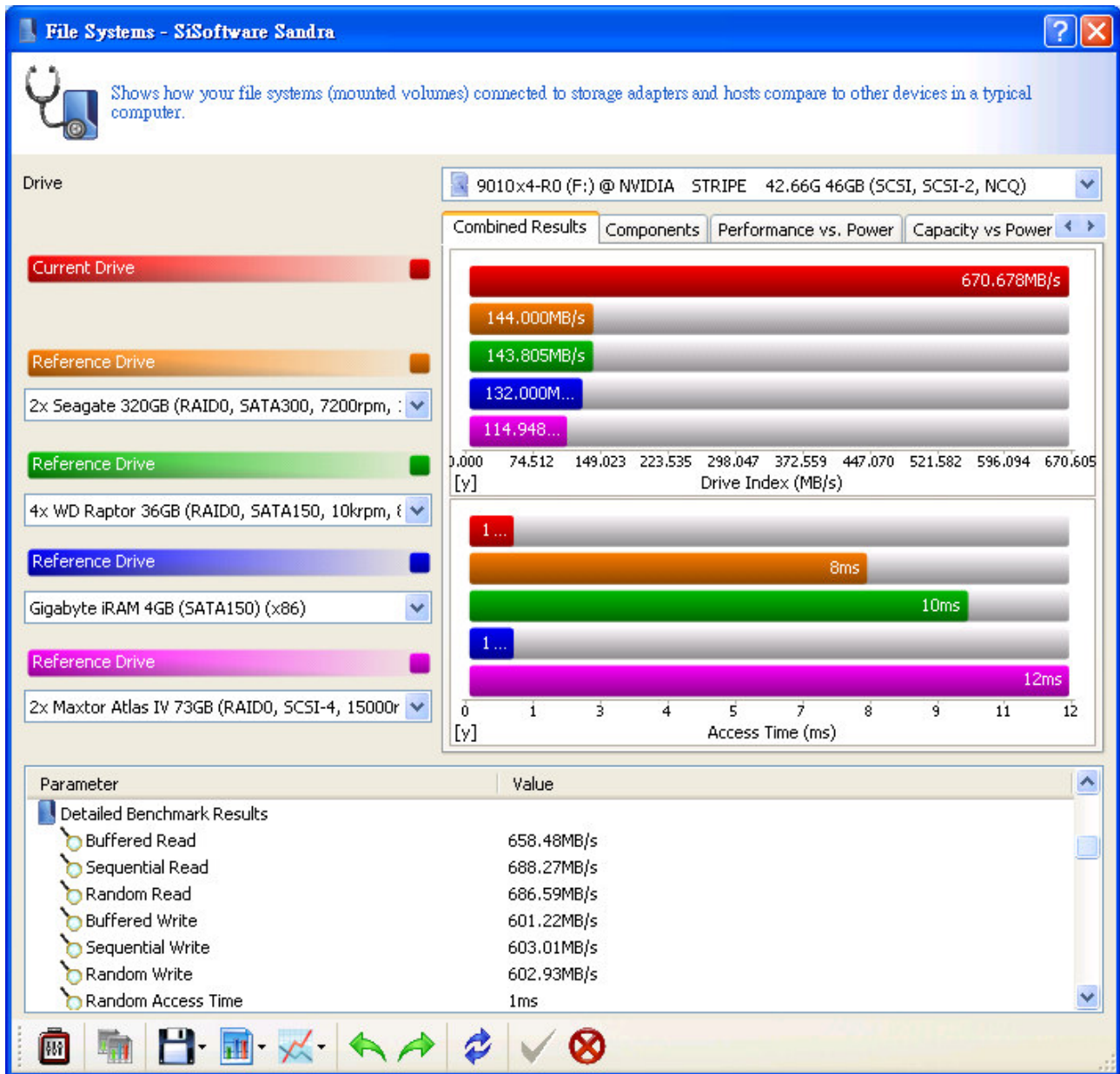
Detailed Benchmark Results:

Parameter	Value
Buffered Read	364.40MB/s
Sequential Read	365.35MB/s
Random Read	365.30MB/s
Buffered Write	307.60MB/s
Sequential Write	308.37MB/s
Random Write	308.37MB/s
Random Access Time	1ms

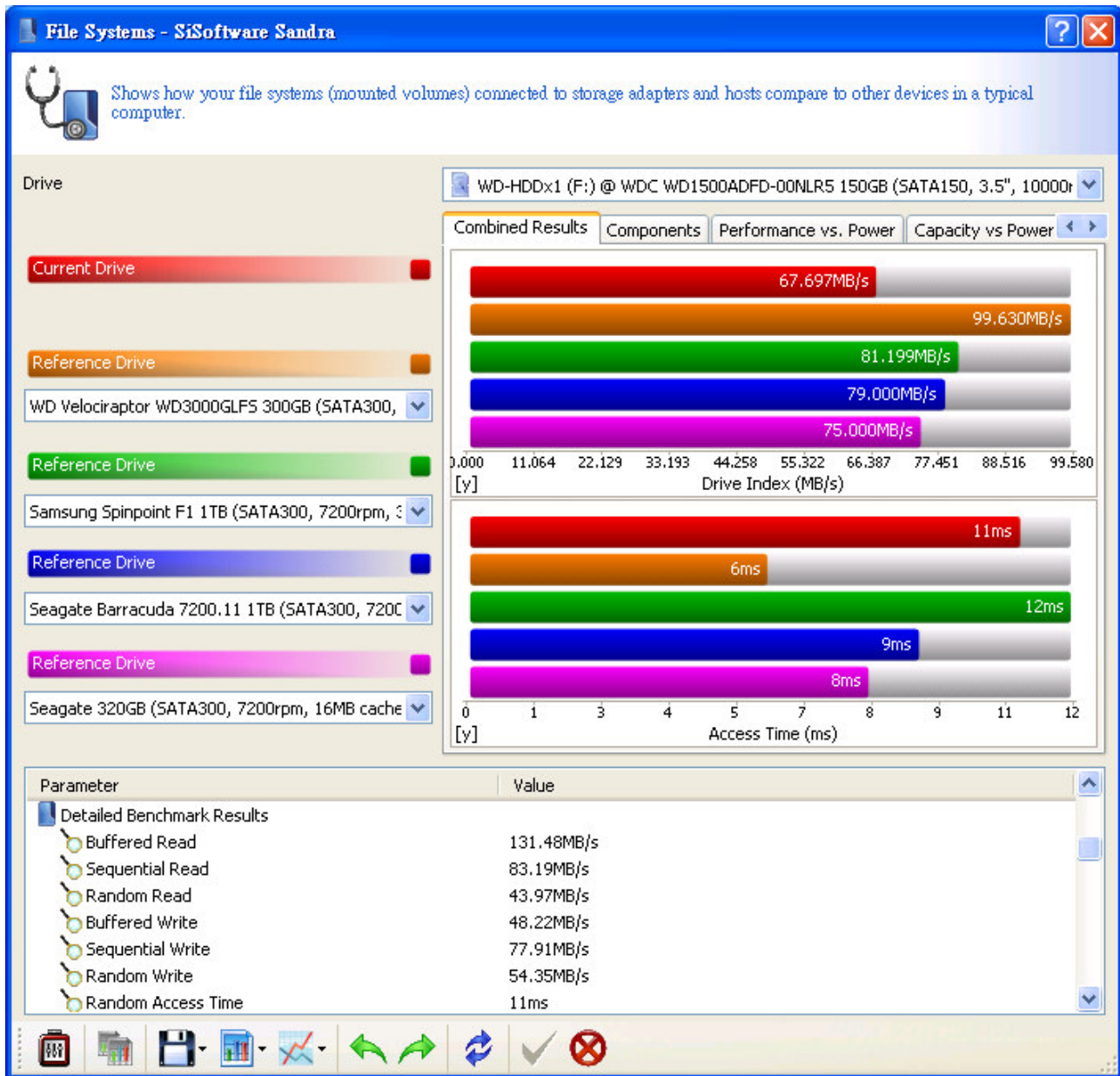
9010 x3 port-RAID0



9010 x4 port-RAID0



WDHDDx1



WDHDDx2-RAID0

