Intel® Integrated RAID Module RMS2AF0x0

Tested Hardware and Operating System List (THOL)

Revision History

Date	Revision Number	Modifications
July 2010	1.0	Initial release
December 2010	2.0	Update the following: ■ Firmware Configuration ■ Intel® Server Board ■ Enclosures, PCI Adapters, and Peripherals ■ Hard Disk Drives and Solid State Drives
March 2011	3.0	Update the following: ■ Hard Disk Drives and Solid State Drives

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1.   Introduction

This document provides users of the Intel® Integrated RAID Module RMS2AF0x0 with a guide to the operating systems, server boards, chassis, disk drives, and other peripherals that Intel tested for use with this RAID controller.

This document will be updated as additional testing is performed, or until the Intel® RAID controller is no longer in production. Each new release of the document will include the information from previous releases.

Intel will only provide support for this RAID controller when it is installed in a system configured with the specified server boards, and when the server board is configured with the tested RAID firmware, system BIOS / firmware, and operating system versions.

This RAID controller was thoroughly tested with Intel® server boards, Intel® drive enclosures, and the third-party devices listed in this document. However, it is not practical to test the RAID controller in every possible combination of server board, drive enclosure, hard drive, and peripheral device. Sample combinations have been tested to gain confidence in their compatibility, and the devices listed were tested in one or more configurations.

1.1   Test Overview

Testing performed on the Intel® Integrated RAID Module RMS2AF0x0 is classified under two categories:

- Compatibility Testing
- Stress Testing

1.1.1   Basic Compatibility Testing

Compatibility testing is performed with each supported operating system. Basic installation testing validates that the RAID controller can be used to install the operating system and that the base hardware feature set is functional. A small set of peripherals are used for installation purposes only. Additional add-in cards are not tested.

Note: The latest version of an operating system signifies the latest supported version at the time of testing. New releases of this document may include a newly supported release of an operating system. Previous releases of a supported operating system may not be tested beyond the basic compatibility test process.

1.1.1.1   Support Commitment for Basic Installation Testing

Intel commits to the following level of customer support for operating systems that receive only basic installation testing:

- Intel will provide tested operating system drivers for each of the integrated controllers on the server board, provided the controller vendor has a driver available. Intel does not require vendors to develop drivers for operating systems that they do not already support. This may limit the functionality of certain server board integrated controllers.

- Intel will provide support to customers who experience issues with the integrated controllers due to the installation or functionality of an operating system only if a driver is available.
- Intel does not provide support for issues related to the use of add-in adapters or peripherals installed in the server system with an operating system that received only basic installation testing.
- Support is defined as assistance provided to a customer in root causing an issue and determining an acceptable resolution to the operating system problem. The resolution may include, but is not limited to, on-board controller driver updates, engaging the vendor, BIOS changes, firmware changes, or determining an acceptable workaround for the issue with the customer.

1.1.2   Adapter / Peripheral Compatibility and Stress Testing

Adapter / Peripheral Compatibility and Stress testing is performed only on the most current release of a supported operating system available at the time of testing. The Adapter / Peripheral Compatibility and Stress testing process consists of three areas:

- **Base Platform**: Each base platform will successfully install a given operating system, successfully run a disk stress test, and successfully run a network stress test.
- **Adapter Compatibility**: Adapter compatibility validation (CV) testing uses test suites to gain an accurate view of how the server performs with a wide variety of adapters under the primary supported operating systems. These tests are designed to show hardware compatibility between the cards and the server platform and include functional testing only. CV testing does not include heavy stressing of the systems or the cards.
- **Stress Testing**: This test sequence uses configurations with add-in adapters installed in all available slots (depending on the chassis used), and runs for a minimum of 72 hours (three days) without injecting errors. Each configuration passes an installation test, a network/disk stress test, and tape backup test. Any fatal errors require a restart of the test.

1.1.2.1   Support Commitment for Adapter / Peripheral Compatibility and Stress Testing

Intel will provide the following level of customer support for operating systems that receive Adapter / Peripheral Compatibility and Stress testing:

- Intel will provide support to customers who experience issues with tested operating systems involving the installation or functionality of the server board with or without the adapters and peripherals listed in this document as having been tested under the operating system.
- Support is defined as assistance provided to a customer in root causing an issue and determining an acceptable resolution to the problem. The resolution may include, but is not limited to, on-board controller driver updates, engaging the vendor, BIOS changes, firmware changes, or determining a workaround for the issue.
- Intel provides and tests operating system drivers for each on-board video, network, and storage controller.
- Intel enables vendors to provide driver support for add-in adapters using these operating systems.

- Intel will go through some of the steps to achieve certification to ensure its customers do not encounter problems. The actual certification is the responsibility of the customer.

Note: Intel does not provide a support commitment for operating systems, adapter cards, and peripherals not listed in this document. Intel will consider requests for support on a case-by-case basis.

1.2   Pass/Fail Test Criteria

For each operating system, adapter, and peripheral configuration, a test passes if specific criteria are met. Specific configurations with particular characteristics are addressed on a case-by-case basis. In general, a configuration passes testing if the following conditions are met:

- The operating system installed without error.
  - Manufacturer's installation instructions or Intel's best-known methods were used for the operating system installation.
  - No extraordinary workarounds were required during the operating system installation.
  - The server system behaved as expected during and after the operating system installation.
  - Application software installed and executed normally.
- Hardware compatibility tests ran to completion without error.
- Test software suites executed successfully:
  - Test and data files were created in the correct directories without error.
  - Files copied from the client to the server and back match the original without error.
  - Clients remain connected to the server system.
  - Industry-standard test suites run to completion without error.

2.   Firmware Configurations

The following table lists the tested controller and firmware configurations. This document will be updated with additional configurations as new revisions of the Intel® Integrated RAID Module RMS2AF0x0 or firmware versions for that controller are released. Each configuration is assigned an identifier number which is referenced in the tables throughout this document.

Note: *Intel only provides support for adapters and peripherals in the configuration with which they were tested.*

Base System Identifier #	Product Code	Part Number	Firmware Revision
1	RMS2AF080	907853	Ver. 2.60.04-0829
	RMS2AF040	907854	
2	RMS2AF080	907853	2.120.14-1094
	RMS2AF040	907854	

3. Operating Systems

The following table provides a list of supported operating systems for the Intel® Integrated RAID Module RMS2AF0x0. Each operating system was tested for compatibility with Intel® Integrated RAID Module RMS2AF0x0 configuration listed in Chapter 2. Operating systems are only supported in the specified base system configuration(s) with which they were tested.

The following table also indicates whether each operating system received Basic Installation testing, or Adapter / Peripheral Compatibility and Stress testing. For information on the support commitments for Basic Installation Testing and Adapter / Peripheral Compatibility and Stress Testing, see Chapter 1.

Any variations to the standard operating system installation process are documented in the Installation Guidelines section of this document. If the installation guidelines are not noted in the following table, then the operating system installed as expected using the manufacturer's installation instructions or Intel's best-known methods.

Note: The operating systems listed in the following table have been tested for compatibility with the Intel® Integrated RAID Module RMS2AF0x0, but the operating system and its associated driver may not have been tested for compatibility with the server board you have selected. Refer to the supported operating system list for your server board to verify operating system compatibility with the server board. This document lists testing performed on Intel® Server Boards only.

Ident#	Operating System (with latest Service Pack)	Base System Configuration Tested – Type of Testing
1	Microsoft Windows 2003*	Configuration 1,2 – Compatibility and Stress
2	Microsoft Windows 2003*, x64	Configuration 1,2 – Compatibility and Stress
3	Microsoft Windows 2008*	Configuration 1,2 – Compatibility and Stress
4	Microsoft Windows 2008*, x64	Configuration 1,2 – Compatibility and Stress
5	Red Hat* Enterprise Linux ES 5	Configuration 1,2 – Compatibility and Stress
6	Red Hat* Enterprise Linux ES 5, x86_64	Configuration 1,2 – Compatibility and Stress
7	SuSE* Linux Enterprise Server 11	Configuration 1,2 – Compatibility and Stress
8	SuSE* Linux Enterprise Server 11, x86_64	Configuration 1,2 – Compatibility and Stress
9	Microsoft Windows Server 2008 R2*	Configuration 1,2 – Compatibility and Stress

3.1 Operating System Certifications

The following table lists the operating systems that Intel will certify with the Intel® Integrated RAID Module RMS2AF0x0. Each customer is responsible for their own certification from the individual operating system vendors. In many cases, customers may leverage their operating system certifications from the testing completed by Intel. See the "Comments" column next to each operating system in the following table for additional information. Intel's certifications, pre-certification, and operating system testing may help reduce some of the risk in achieving customer certifications with the operating system vendors.

Operating System	Certification Listing	Comments
Microsoft Windows 2003 Enterprise Server*	Intel® Integrated RAID Module RMS2AF0x0	OEM must request certification by Microsoft for their specific product. http://www.microsoft.com/whdc/hcl/default.mspx
Microsoft Windows 2008 Enterprise Server*	Intel® Integrated RAID Module RMS2AF0x0	OEM must request certification by Microsoft for their specific product. http://www.microsoft.com/whdc/hcl/default.mspx

4.   Supported Server Boards and Systems

4.1   Intel® Server Boards and Systems

Below list includes the Intel® Server Board and System software versions that the server boards and systems were configured with at the time of testing.

Intel® Server Board	BIOS	BMC	FRU/SDR	HSC
S5520UR*	R0054	R0054	24	2.16
S5500WB	R0054	R0054	15	N/A
S5520HC / S5520HCT	R0054	R0054	28	2.16
S5520HCV	R0054	R0054	28	2.16
S5520SC	R0054	R0054	28	2.16
S3420GPLX / S3420GPRX	R0047	R0123	18	N/A

Intel® Server System	BIOS	BMC	FRU/SDR	HSC
SR1600UR*	R0054	R0054	24	2.16
SR1600URHS* (need to work together with the passive backplane ASR1500PASBP which has to be ordered separately as an accessory.)	R0054	R0054	24	2.16
SR1625UR*	R0054	R0054	24	2.16
SR2600URBRP*	R0054	R0054	24	2.16
SR2600URSATA*	R0054	R0054	24	2.16
SR2625URBRP*	R0054	R0054	24	2.16
SR2612UR	R0054	R0054	24	2.16
SR1690WB	R0054	R0054	15	N/A
SR1695WB	R0054	R0054	15	N/A
SC5650SCWS	R0054	R0054	28	2.16
SC5650HCBRP	R0054	R0054	28	2.16
SR1630GP / SR1630HGP	R0047	R0123	18	N/A

Note *: The air duct of Intel® Server System SR2600UR, SR2625UR, SR1625UR and SR1600UR has been upgraded and integrated in the server systems, in order to support Intel® Integrated RAID Module RMS2AF0x0. Users that have the older air duct can contact Intel to get an updated air duct.

Note**: Due to mechanical limitation, the lowest 2U riser card slot in Intel® Server System SR2600UR / SR2625UR / SR2612UR, or the 1U riser card slot in SR1600UR / SR1625UR / SR1690WB / SR1695WB are prohibited to be used when the Intel® Integrated RAID Module RMS2AF0x0 is installed.

Note***: Due to mechanical limitation, full length PCI-Express cards are prohibited to be used in Intel® Server System SC5650SCWS and SC5650HCBRP.

Note****: Intel® Integrated RAID Module RMS2AF0x0 is also supported by Intel® Server Chassis SC5600 with Intel® Server Boards S5520HC / S5520HCT, S5520HCV or S5520SC inside.

Note*****: Intel® Integrated RAID Module RMS2AF080 has 8 direct connection SATA ports; RMS2AF040 has 4 direct connection SATA ports. Check the supported hard drive numbers

from compatible Intel® Server Systems above, in order to make proper choice of Intel® Integrated RAID Module.

4.2 3rd Party Server Boards and Systems

Unless specifically noted, the boards and systems below were configured with the latest software versions available at the time of testing. Check with the 3rd party vendors for more details.

Part Number	Vendor	Product Type
SR105	Chenbro*	Chassis
SR209	Chenbro*	Chassis
NSR104	CI Design*	Chassis
NSR212	CI Design*	Chassis
ESR104	TST*	Chassis
ESR102	TST*	Chassis
RMC1K	T-Win*	Chassis
S1421	IOK*	Chassis
ECR9234	Evercase*	Chassis

5.   Enclosures, PCI Adapters, and Peripherals

The testing of enclosures, add-in cards, and peripherals was performed on the Intel® Integrated RAID Module RMS2AF0x0 by Intel labs, independent test labs, or the vendor. Compatibility and stress testing was performed with the latest version of an operating system available at the time of testing.

Although a large sample of configurations were tested, not all devices were tested under all operating systems, and not all possible combinations or configurations of third-party devices were tested for inter-compatibility due to the large number of possible configurations. To verify compatibility, use the Server Configurator Tool available at http://serverconfigurator.intel.com/default.aspx.

Add-in adapter card and peripheral compatibility and stress testing is performed with the latest version of an operating system available at the time of testing. The adapters are divided into categories based on their functionality. All integrated on-board devices are tested by default and are, therefore, not included in the following tables.

Note: All adapter cards and peripherals were not tested under all operating systems.

Any variations to the standard adapter installation process or to expected adapter functionality are documented in the Installation Guidelines section of this document. If there are installation guidelines affecting a particular adapter and operating system combination, they are referenced in the following table. If the installation guidelines are not noted in the following table, then the adapter installed and functioned as expected using the manufacturer's installation instructions or Intel's best-known methods.

Note: Adapter cards are normally tested with unused add-in adapters and on-board controller expansion ROMs disabled in the BIOS Setup. Intel recommends that customers disable the option ROM for add-in controllers and/or the on-board controllers when not booting from the controller or needing to use its built-in utilities.

5.1   External Storage

None.

5.2   Internal Storage

Note: The enclosures are listed only if they were attached to the Intel® Integrated RAID Module RMS2AF0x0 during testing. There is no out-of-band enclosure management for a second backplane, so the only way to get enclosure management with two backplanes is to use at least one expander backplane with the Intel® Integrated RAID Module RMS2AF0x0.

Please refer to Section 4.1 for details.

6.   Hard Disk Drives and Solid State Drives

The testing of hard disk drives and solid state drives was performed with the Intel® Integrated RAID Module RMS2AF0x0 by Intel labs, independent test labs, or vendors. The compatibility and stress testing is performed with the latest version of an operating system available at the time of testing. Although a large sample of configurations was tested, not all devices were tested under all operating systems, and not all possible combinations or configurations of third-party devices were tested for inter-compatibility due to the large number of possible configurations. To verify that the device is included for the server board as well as for the Intel® Integrated RAID Module RMS2AF0x0, use the Server Configurator tool available at: http://serverconfigurator.intel.com/default.aspx.

Note: All hard disk drives and solid state drives were not tested under all operating systems.

Any variations to the standard adapter installation process or to the expected adapter functionality are documented in the 'Installation Guidelines' section of this document. If there are installation guidelines affecting a particular adapter and operating system combination, these are referenced in the following table. If the installation guidelines are not noted in the following table, then the adapter installed and functioned as expected using the manufacturer's installation instructions or Intel's best-known methods.

6.1   Hard Disk Drives and Solid State Drives (SSD)

Note: The hard disk drives and solid state drives are listed in the following table only if they were attached to the Intel® Integrated RAID Module RMS2AF0x0 during testing.

Note: To select hard drives for Intel® Server Chassis and Intel® Server System, please use the Server Configurator tool available at: http://serverconfigurator.intel.com/default.aspx.

Below drives are supported at this RAID module's launch day.

Manufacturer	Model Name	Model Number	Interface	RPM	Drive Size
Intel	Intel X25-M SATA SSD	SSDSA2MH080G2	SATA 3.0 Gb	N/A	80GB
Intel	Intel X25-M SATA SSD	SSDSA2MH160G2	SATA 3.0 Gb	N/A	160GB
Intel	Intel X25-M SATA SSD	SSDSA2M040G2	SATA 3.0 Gb	N/A	40GB
Intel	X25-E SLC SSD	SSDSA2SH064G1	SATA 3.0 Gb	N/A	64GB
Intel	X25-E SLC SSD	SSDSA2SH032G1	SATA 3.0 Gb	N/A	32GB
Intel	X25-M MLC SSD	SSDSA2MH160G1	SATA 3.0 Gb	N/A	160GB
Intel	X25-M MLC SSD	SSDSA2MH080G1	SATA 3.0 Gb	N/A	80GB
Seagate	Cheetah* 15K.6 SAS	ST3450856SS*	SAS 3.0 Gb	15000	450GB
Seagate	Cheetah*15K.6 SAS	ST3146356SS*	SAS 3.0 Gb	15,000	146GB
Seagate	Cheetah* 15K.6 SAS	ST3300656SS*	SAS 3.0 Gb	15,000	300GB
Seagate	Cheetah*15K.7 SAS	ST3300657SS*	SAS 6.0 Gb	15,000	300GB
Seagate	Cheetah*15K.7 SAS	ST3450857SS*	SAS 6.0 Gb	15,000	450GB

Manufacturer	Model Name	Model Number	Interface	RPM	Drive Size
Seagate	Cheetah*15K.7 SAS	ST3600057SS*	SAS 6.0 Gb	15,000	600GB
Seagate	Constellation ES	ST31000424SS*	SAS 6.0 Gb	7200	1TB
Seagate	Constellation ES	ST32000444SS*	SAS 6.0 Gb	7200	2TB
Seagate	Constellation ES	ST3500414SS*	SAS 6.0 Gb	7200	500GB
Seagate	Constellation ES	ST31000524NS	SATA 3.0 Gb	7200	1TB
Seagate	Constellation ES	ST32000644NS	SATA 3.0 Gb	7200	2TB
Seagate	Constellation ES	ST3500512NS	SATA 3.0 Gb	7200	500GB
Seagate	Barracuda* ES.2	ST31000640SS*	SAS 3.0 Gb	7200	1TB
Seagate	Barracuda* ES.2	ST3500620SS*	SAS 3.0 Gb	7200	500GB
Seagate	Barracuda* ES.2	ST3750630SS*	SAS 3.0 Gb	7200	750GB
Seagate	Barracuda* ES.2	ST31000340NS	SATA 3.0 Gb	7200	1TB
Seagate	Barracuda* ES.2	ST3250310NS	SATA 3.0 Gb	7200	250GB
Seagate	Barracuda* ES.2	ST3500320NS	SATA 3.0 Gb	7200	500GB
Seagate	Barracuda* ES.2	ST3750330NS	SATA 3.0 Gb	7200	750GB
Western Digital	RE4	WD2002FYPS*	SATA 3.0 Gb	7200	2TB
Western Digital	RE4	WD2003FYYS*	SATA 3.0 Gb	7200	2TB
Seagate	Constellation	ST9500430SS*	SAS 3.0 Gb	7200	500GB
Seagate	Constellation	ST9160511NS	SATA 3.0 Gb	7200	160GB
Seagate	Constellation	ST9500530NS	SATA 3.0 Gb	7200	500GB
Hitachi	Ultrastar™ 15K600	HUS156060VLS600	SAS 6.0 Gb	15,000	600GB
Hitachi	Ultrastar™ 15K600	HUS156045VLS600	SAS 6.0 Gb	15,000	450GB
Hitachi	Ultrastar™ 15K600	HUS156030VLS600	SAS 6.0 Gb	15,000	300GB
Hitachi	Ultrastar™ 15K600	HUS156060VLS601	SAS 6.0 Gb	15,000	600GB
Hitachi	Ultrastar™ 15K600	HUS156045VLS601	SAS 6.0 Gb	15,000	450GB
Hitachi	Ultrastar™ 15K600	HUS156030VLS601	SAS 6.0 Gb	15,000	300GB
Hitachi	Ultrastar™ C15K147	HUC151414CSS600	SAS 6.0 Gb	15,000	147GB
Hitachi	Ultrastar™ C15K147	HUC151473CSS600	SAS 6.0 Gb	15,000	73GB
Hitachi	Ultrastar™ C15K147	HUC151414CSS601	SAS 6.0 Gb	15,000	147GB
Hitachi	Ultrastar™ C15K147	HUC151473CSS601	SAS 6.0 Gb	15,000	73GB
Seagate	Cheetah 15K.5	ST3300655SS*	SAS 3.0 Gb	15,000	300GB
Seagate	Cheetah 15K.5	ST3146855SS*	SAS 3.0 Gb	15,000	146GB
Seagate	Cheetah 15K.5	ST373455SS*	SAS 3.0 Gb	15,000	73GB
Seagate	Barracuda 7200.10	ST3750640AS	SATA 3.0 Gb	7200	750GB
Seagate	Barracuda 7200.10	ST3750840AS	SATA 3.0 Gb	7200	750GB
Seagate	Barracuda 7200.10	ST3500630AS	SATA 3.0 Gb	7200	500GB
Seagate	Barracuda 7200.10	ST3500830AS	SATA 3.0 Gb	7200	500GB
Seagate	Barracuda 7200.10	ST3400620AS	SATA 3.0 Gb	7200	400GB
Seagate	Barracuda 7200.10	ST3400820AS	SATA 3.0 Gb	7200	400GB
Seagate	Barracuda 7200.10	ST3320620AS	SATA 3.0 Gb	7200	320GB
Seagate	Barracuda 7200.10	ST3320820AS	SATA 3.0 Gb	7200	320GB
Seagate	Barracuda 7200.10	ST3300620AS	SATA 3.0 Gb	7200	300GB
Seagate	Barracuda 7200.10	ST3300820AS	SATA 3.0 Gb	7200	300GB

Manufacturer	Model Name	Model Number	Interface	RPM	Drive Size
Seagate	Barracuda 7200.10	ST3250620AS	SATA 3.0 Gb	7200	250GB
Seagate	Barracuda 7200.10	ST3250820AS	SATA 3.0 Gb	7200	250GB
Seagate	Barracuda 7200.10	ST3250410AS	SATA 3.0 Gb	7200	250GB
Seagate	Barracuda 7200.10	ST3250310AS	SATA 3.0 Gb	7200	250GB
Seagate	Barracuda 7200.10	ST3200820AS	SATA 3.0 Gb	7200	200GB
Seagate	Barracuda 7200.10	ST3160815AS	SATA 3.0 Gb	7200	160GB
Seagate	Barracuda 7200.10	ST3160310AS	SATA 3.0 Gb	7200	160GB
Seagate	Barracuda 7200.10	ST3160215AS	SATA 3.0 Gb	7200	160GB
Seagate	Barracuda 7200.10	ST3120815AS	SATA 3.0 Gb	7200	120GB
Seagate	Barracuda 7200.10	ST3120215AS	SATA 3.0 Gb	7200	120GB
Seagate	Barracuda 7200.10	ST380815AS	SATA 3.0 Gb	7200	80GB
Seagate	Barracuda 7200.10	ST380215AS	SATA 3.0 Gb	7200	80GB
Seagate	Barracuda 7200.10	ST340815AS	SATA 3.0 Gb	7200	40GB
Seagate	Barracuda 7200.10	ST340215AS	SATA 3.0 Gb	7200	40GB

Note *: These drive support SSC (Spread Spectrum Clocking). SSC enabled drives would provide superior EMI and may be needed for compliance.

Below drives are supported after this RAID module launch.

Manufacture	Type	Speed	Model	FW version	Capacity	Size	RPM
Toshiba*	SAS	6Gb/s	MBF2600RC	0107	600GB	2.5"	10K
Fujitsu*	SAS	6Gb/s	MBE2073RC	0103	73GB	2.5"	15K
Fujitsu*	SAS	6Gb/s	MBD2300RC	D807	300GB	2.5"	10K
Fujitsu*	SAS	6Gb/s	MBD2147RC	0102	147GB	2.5"	10K
Fujitsu*	SAS	6Gb/s	MBD2147RC	0101	147GB	3.5"	10K
Fujitsu*	SAS	6Gb/s	MBE2147RC	0103	147GB	3.5"	15K
Fujitsu*	SAS	3Gb/s	MBB2147RC	0105	147GB	2.5"	10K
Fujitsu*	SAS	3Gb/s	MAX3147RC	21B5	147GB	3.5"	15K
Fujitsu*	SAS	3Gb/s	MAX3147RC	5202	146GB	3.5"	15K
Fujitsu*	SAS	3Gb/s	MBA3147RC	D305	146GB	3.5"	15K
Fujitsu*	SAS	3Gb/s	MBA3147RC	0103	147GB	3.5"	15K
Fujitsu*	SAS	3Gb/s	MBA3300RC	0103	300GB	3.5"	15K
Fujitsu*	SAS	3Gb/s	MAX3036RC	0104	36GB	3.5"	15K
Fujitsu*	SAS	3Gb/s	MAX3073RC	T904	73GB	3.5"	15K
Fujitsu*	SAS	3Gb/s	MAU3147RC	0104	36GB	3.5"	15K
Fujitsu*	SATA	3Gb/s	MHZ2080BJ	011B	80GB	2.5"	7200
Fujitsu*	SATA	3Gb/s	MHZ2320B	0009	320GB	2.5"	5400
Fujitsu*	SATA	3Gb/s	MHZ2320B	001E	320GB	2.5"	5400
Fujitsu*	SATA	3Gb/s	MJA2320B	0018	320GB	2.5"	5400
Fujitsu*	SATA	3Gb/s	MHZ2160B	011E	160GB	2.5"	7200
Maxtor*	SAS	3Gb/s	8J300S0	MS05	300GB	3.5"	10K
Maxtor*	SAS	3Gb/s	8K147S0	MS05	147GB	3.5"	15K
Maxtor*	SAS	3Gb/s	ATLAS10K5_036SAS	BK00	36GB	3.5"	10K
Maxtor*	SAS	3Gb/s	ATLAS10K5_300SAS	BP05	300GB	3.5"	10K
Maxtor*	SAS	3Gb/s	ATLAS10K5_073SAS	BP05	73GB	3.5"	10K
Maxtor*	SAS	3Gb/s	ATLAS10K5_036SAS	BP05	36GB	3.5"	10K
Maxtor*	SAS	3Gb/s	ATLAS10K5_073SAS	BP00	73GB	3.5"	10K
Maxtor*	SAS	3Gb/s	ATLAS10K5_073SAS	S412	73GB	3.5"	10K
Maxtor*	SAS	3Gb/s	ATLAS10K5_147	BP05	147GB	3.5"	10K
Maxtor*	SAS	3Gb/s	ATLAS10K5_300SAS	BP00	300GB	3.5"	10K
Maxtor*	SAS	3Gb/s	ATLAS10K5_300SAS	BP05	300GB	3.5"	10K

Manufacture	Type	Speed	Model	FW version	Capacity	Size	RPM
Maxtor*	SATA	3Gb/s	7L300S0	1G10	300GB	3.5"	7200
Samsung*	SATA	3Gb/s	HE103UJ	1111	1TB	3.5"	7200
Samsung*	SATA	3Gb/s	HE103UJ	0-33	1TB	3.5"	7200
Samsung*	SATA	3Gb/s	HE103UJ	0192	1TB	3.5"	7200
Samsung*	SATA	3Gb/s	HD160JJ	0-41	160GB	3.5"	7200
Samsung*	SATA	3Gb/s	SP2004C	0-32	200GB	3.5"	7200
Samsung*	SATA	3Gb/s	SP2504C	0-33	250GB	3.5"	7200
Hitachi*	SAS	6Gb/s	HUC106060CSS600	A840	600GB	2.5"	10K
Hitachi*	SAS	6Gb/s	HUC106060CSS601	B852	600GB	2.5"	FDE
Hitachi*	SAS	6Gb/s	HUC106060CSS600	A150	600GB	2.5"	10K
Hitachi*	SAS	6Gb/s	HUC103014CSS600	A120	147GB	2.5"	10K
Hitachi*	SAS	6Gb/s	HUS156030VLS600	A538	300GB	3.5"	15K
Hitachi*	SAS	6Gb/s	HUC151414CSS600	A330	147GB	2.5"	15K
Hitachi*	SAS	6Gb/s	HUC151473CSS600	A330	73GB	2.5"	15K
Hitachi*	SAS	6Gb/s	HUC103030CSS600	A120	300GB	2.5"	10K
Hitachi*	SAS	6Gb/s	HUC151414CSS600	a370	147GB	2.5"	15K
Hitachi*	SAS	6Gb/s	HUC103014CSS600	A120	300GB	2.5"	10K
Hitachi*	SAS	6Gb/s	HUS156060VLS601	B530	600GB	3.5"	SED
Hitachi*	SAS	3Gb/s	HDP72502	A50E	250GB	3.5"	7200
Hitachi*	SAS	6Gb/s	HUC156060VLS600	A370	600GB	3.5"	15K
Hitachi*	SAS	3Gb/s	HUS151414VLS300	A420	136GB	3.5"	15K
Hitachi*	SAS	3Gb/s	HUS151436VLS300	A130	36GB	3.5"	15K
Hitachi*	SAS	3Gb/s	HUS151473VLS300	A340	73GB	3.5"	15K
Hitachi*	SAS	3Gb/s	HUS153073VLS300	A110	73GB	3.5"	15K
Hitachi*	SAS	3Gb/s	HUS154530VLS300	A4B0	300GB	3.5"	15K
Hitachi*	SAS	3Gb/s	HUS154545VLS300	A4B0	450GB	3.5"	15K
Hitachi*	SATA	3Gb/s	HDS72202ALA330	A20N	2TB	3.5"	7200
Hitachi*	SATA	3Gb/s	HUA7220202ALA330	28A	2TB	3.5"	7200
Hitachi*	SATA	3Gb/s	HUA722010CLA330	25C	1TB	3.5"	7200
Hitachi*	SATA	3Gb/s	HDT72010SLA360	3A33	1TB	3.5"	7200
Hitachi*	SATA	3Gb/s	HDS72161	AB1A	164GB	3.5"	5400
Hitachi*	SATA	3Gb/s	HDS72161	P22O	160GB	3.5"	5400
Hitachi*	SATA	3Gb/s	HDS722512VLSA80	A63A	120GB	3.5"	7200
Hitachi*	SATA	3Gb/s	HDS725050KLA360	KRVN	500GB	3.5"	7200
Hitachi*	SATA	3Gb/s	HDS725050KLA360	AB0A	470GB	3.5"	7200
Hitachi*	SATA	3Gb/s	HDS725050KLA360	39M0	250GB	3.5"	7200
Hitachi*	SATA	3Gb/s	HDS728080PLA380	A6BA	80GB	3.5"	7200
Hitachi*	SATA	6Gb/s	HDS723030ALA640	A380	3TB	3.5"	7200
Hitachi*	SATA	3Gb/s	HUA72201	A25C	1TB	3.5"	7200
Hitachi*	SATA	3Gb/s	HUA72201	A39C	1TB	3.5"	7200
IBM*	SAS	6Gb/s	IBM-ESXS ST973452SS	B623	73GB	2.5"	15K
IBM*	SAS	6Gb/s	ESXSST973451SS	B612	73GB	2.5"	15K
IBM*	SAS	6Gb/s	ESXSST9146852SS	B623	140GB	2.5"	15K
IBM*	SAS	6Gb/s	ESXSST9146802SS	B52G	146GB	2.5"	10K
IBM*	SAS	3Gb/s	ESXSBBA036C3ESTT0Z	NBH0	36GB	3.5"	10K
IBM*	SAS	3Gb/s	ESXSBBA073C3ESTT0Z	NBH0	73GB	3.5"	10K
IBM*	SAS	3Gb/s	ESXSGNA073C3ESTT0Z	NBH0	73GB	3.5"	10K
IBM*	SAS	3Gb/s	ESXSGNA300C3ESTT0Z	NBH0	300GB	3.5"	
IBM*	SAS	3Gb/s	ESXSMAX3036RC	T904	36GB	3.5"	15K
IBM*	SAS	3Gb/s	ESXSMAX3147RC	T904	147GB	3.5"	15K
IBM*	SAS	3Gb/s	ESXSMBB2073RC	SB01	72GB	2.5"	10K
IBM*	SAS	3Gb/s	ESXSMBB2147RC	SB04	146GB	2.5"	10K
IBM*	SAS	3Gb/s	ESXSST336754SS	BA17	36GB	3.5"	15K
IBM*	SAS	3Gb/s	ESXS GNA300C3ESTT0Z	BH0D	300GB	3.5"	
IBM*	SAS	3Gb/s	ESXSST973451SS	B612	73GB	2.5"	15K
IBM*	SAS	3Gb/s	ESXSVPA073C3	NA49	73GB	3.5"	

Manufacture	Type	Speed	Model	FW version	Capacity	Size	RPM
IBM*	SAS	3Gb/s	ESXSVPA146C3	NA54	146GB	3.5"	
IBM*	SAS	3Gb/s	ESXSVPA146C3	NA49	146GB	3.5"	
IBM*	SAS	3Gb/s	BBA036C3ESTT0Z	BHOD	36GB	3.5"	
IBM*	SAS	3Gb/s	GNA073C3ESTT0Z	BH0D	73GB	3.5"	
IBM*	SAS	3Gb/s	IBM-ESXS ST3300555SS	BA33	300GB	3.5"	15K
IBM*	SAS	3Gb/s	IBM-ESXS ST336754SS	BA17	36GB	3.5"	15K
IBM*	SAS	3Gb/s	VPA073C3-ETS10	A49B	73GB	3.5"	
IBM*	SAS	3Gb/s	VPA073C3-ETS10	A49A	73GB	3.5"	
IBM*	SAS	3Gb/s	VPA073C3-ETS10	A540	73GB	3.5"	
IBM*	SAS	3Gb/s	GNA073C3ESTT0Z	NBH0	73GB	3.5"	
IBM*	SAS	3Gb/s	VPA146C3-ETS10	NA49	146GB	3.5"	
Seagate*	SAS	6Gb/s	ST9450404SS	0004	450GB	2.5"	10K
Seagate*	SAS	6Gb/s	ST973352SS	0002	73GB	2.5"	SED
Seagate*	SAS	6Gb/s	ST32000444SS	0004	2TB	3.5"	7200
Seagate*	SAS	6Gb/s	ST31000424SS	0004	1TB	3.5"	7200
Seagate*	SAS	6Gb/s	ST33000650SS	F901	3TB	3.5"	7200
Seagate*	SAS	6GB/s	ST9500431SS	DSF0	500GB	2.5"	7200
Seagate*	SAS	6GB/s	ST973452SS	B623	73GB	2.5"	15K
Seagate*	SAS	6GB/s	ST973402SS	MS00	73GB	2.5"	15K
Seagate*	SAS	6GB/s	ST9146803SS	0002	147GB	2.5"	15K
Seagate*	SAS	6GB/s	ST9146803SS	0004	147GB	2.5"	15K
Seagate*	SAS	6GB/s	ST9146852SS	B623	146GB	2.5"	15K
Seagate*	SAS	6GB/s	ST9300503SS	FSF4	300GB	2.5"	10K
Seagate*	SAS	6GB/s	ST3300657SS	0005	300GB	3.5"	15K
Seagate*	SAS	6GB/s	ST3450802SS	0004	450GB	3.5"	10K
Seagate*	SAS	6Gb/s	ST3450857SS	0005	450GB	3.5"	15K
Seagate*	SAS	6Gb/s	ST9300503SS	FT00	300GB	2.5"	SED
Seagate*	SAS	6Gb/s	ST9146703SS	FT00	146GB	2.5"	SED
Seagate*	SAS	3Gb/s	ST973402SS	MS003	73GB	2.5"	10K
Seagate*	SAS	6Gb/s	ST9146803SS	0004	146GB	2.5"	10K
Seagate*	SAS	6Gb/s	ST9146852SS	B623	146GB	2.5"	15K
Seagate*	SAS	6Gb/s	ST973452SS	B623	73GB	2.5"	15K
Seagate*	SAS	6Gb/s	ST9146802SS	MSB0	146GB	3.5"	10K
Seagate*	SAS	6Gb/s	ST3450802SS	0004	450GB	3.5"	10K
Seagate*	SAS	6Gb/s	ST9300603SS	0002	300GB	2.5"	10K
Seagate*	SAS	6GB/s	ST3600002SS	0002	600GB	3.5"	10K
Seagate*	SAS	6Gb/s	ST9500430SS	0001	500GB	2.5"	7200
Seagate*	SAS	6Gb/s	ST3500414SS	0004	500GB	3.5"	7200
Seagate*	SAS	3Gb/s	ST3300555SS	BA33	300GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST3300655SS	13LM042JJ	300GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST314854SS	0004	146GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST3300655SS	13LM042JJ	300GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST336754SS	S412	33GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST336754SS	0002	36GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST336754SS	S410	36GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST336754SS	23KQ	36GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST336754SS	0002	36GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST336754SS	BA17	36GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST336754SS	MS02	36GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST336754SS	S400	36GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST373454SS	0003	73GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST373454SS	S412	73GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST373454SS	33KP	73GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST373454SS	MSB03	73GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST373454SS	0002	70GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST373455SS	BA23	74GB	3.5"	15K

Manufacture	Type	Speed	Model	FW version	Capacity	Size	RPM
Seagate*	SAS	3Gb/s	ST973402SS	MSB0	73GB	2.5"	10K
Seagate*	SATA	6Gb/s	ST33000650NS	ZZZZ	3TB	3.5"	7200
Seagate*	SATA	3Gb/s	ST3500641NS	K2A0	500GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST3160023AS	0003	160GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST3160827AS	3.42	160GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST3250824AS	H	250GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST3250824AS	4ND3	150GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST330831AS	3.01	280GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST3500630NS	AEG	500GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST3200540AS	CC83	2TB	3.5"	4K Media
Seagate*	SATA	3Gb/s	ST3500641NS	S0	500GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST3500641NS	P	500GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST3750640NS	E	750GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST3750840NS	E	750GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST380013AS	3.18	80GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST380815AS	D	80GB	3.5"	7200
Seagate*	SATA	3Gb/s	ST9500530NS	SN02	500GB	2.5"	7200
Seagate*	SATA	3Gb/s	ST31000340NS	SN06	1TB	3.5"	7200
Seagate*	SATA	3Gb/s	ST32000644NS	SN11	2TB	3.5"	7200
Seagate*	SAS	3Gb/s	ST973402SS	MS00	73GB	2.5"	10K
Seagate*	SATA	3Gb/s	ST380013AS	3.18	80GB	3.5"	
Seagate*	SAS	3Gb/s	ST373455SS	S513	73GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST336754SS	S400	36GB	3.5"	
Seagate*	SAS	3Gb/s	ST936751SS	0001	36GB	2.5"	15K
Seagate*	SAS	3Gb/s	ST9146802SS	0002	147GB	2.5"	10K
Seagate*	SAS	3Gb/s	ST3146854SS	S412	146GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST3146854SS	S410	146GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST3146854SS	0003	136GB	3.5"	15K
Seagate*	SAS	3Gb/s	ST3146854SS	0002	146GB	3.5"	15K
Western Digital*	SAS	6Gb/s	WD1460BKFG-02P2V0	RG00	146GB	2.5"	10K
Western Digital*	SAS	6Gb/s	WD3000BKFG-02P2V0	RG00	300GB	2.5"	10K
Western Digital*	SAS	6Gb/s	WD6000BKHG-02A29V0	VG01	600GB	2.5"	10K
Western Digital*	SATA	6Gb/s	WD6000BLHX-01V7BV0	5G04	600GB	2.5"	10K
Western Digital*	SATA	6Gb/s	WD5003ABYX-01WERA0	1S01	500GB	3.5"	7200
Western Digital*	SATA	6Gb/s	WD1003FBYX-01Y7B0	1V01	1TB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD2002FYPS-02W3B0	1G01	2TB	3.5"	5400
Western Digital*	SATA	3Gb/s	WD2003FYYS-0	1D01	2TB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD2002FYPS0	5G04	2TB	3.5"	5400
Western Digital*	SATA	3Gb/s	WD10EADS11M	0A80	1TB	3.5"	4K Media
Western Digital*	SATA	3Gb/s	WD2002FYPS	5G04	2TB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD1000FYPS-0	1B01	1TB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD1600AAJS	6H05	160GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD1600YS	23S6C04	160GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD1600YS	1C03	160GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD1600YS-01S	6C06	160GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD1600YS-23S6C04	WCAP	160GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD2500YS	6C07	250GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD2500YS-18S	6C07	250GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD2502ABYS-2	3B04	250GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD4000YR	6A01	400GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD4000YR-01P	6A01	400GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD5000ABPS-0	1B01	500GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD5000ABPS-01ZZB0	2.01	500GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD5000KS	2E06	500GB	3.5"	7200

Manufacture	Type	Speed	Model	FW version	Capacity	Size	RPM
Western Digital*	SATA	3Gb/s	WD5000YS	01M2E07	500GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD5000YS	00.E	500GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD7500AAKS	04G30	750GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD7500AAKS-0	30	750GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD800JD	01E01	80GB	3.5"	7200
Western Digital*	SATA	3Gb/s	WD5000ABPS	2.01	500GB	3.5"	7200
ADATA*	SATA	3Gb/s	AS599S-100GM-C	80GB	rev 5.0	2.5"	
ADATA*	SATA	3Gb/s	AS599S-128GM-C	3.1.0	128GB	2.5"	
ADATA*	SATA	3Gb/s	AS599S-256GM-C	3.1.0	256GB	2.5"	
Intel*	SATA	6Gb/s	SSDSC2MH120A2C	PPXM	120G	2.5"	
Intel*	SATA	3Gb/s	SSDSA2BW160G3	0266	160GB	2.5"	
Intel*	SATA	3Gb/s	X25-E,SSDSA2SH032G1	8650	32GB	2.5"	
Intel*	SATA	3Gb/s	X25-E,SSDSA2SH064G1	8650	64GB	2.5"	
Intel*	SATA	3Gb/s	X25-E,SSDSA2SH064G1GN	8820	64GB	2.5"	
Intel*	SATA	3Gb/s	X25-M,SSDSA2MH080G1	8626	80GB	2.5"	
Intel*	SATA	3Gb/s	X25-M,SSDSA2MH160G1	8626	160GB	2.5"	
Intel*	SATA	3Gb/s	X25-M,SSDSA2MH160G1	8820	160GB	2.5"	
Intel*	SATA	3Gb/s	X25-M,SSDSA2M080G2GC	02HD	80GB	2.5"	
Intel*	SATA	3Gb/s	X25-M,SSDSA2MH160G2GC	02HD	160GB	2.5"	
Micron*	SATA	6Gb/s	MTFDDAC050SAL-1N1AA	0001	50GB	2.5"	
Micron*	SATA	6Gb/s	P300-MTFDDAC100SAL	0001	100GB	2.5"	
Micron*	SATA	6Gb/s	MTFDDAC200SAL-1N1AA	0001	200GB	2.5"	
Micron*	SATA	6Gb/s	MTFDDAK064MAG-1G1	0002	64GB	2.5"	
Micron*	SATA	6Gb/s	MTFDDAK128MAG-1G1	0002	128GB	2.5"	
Micron*	SATA	6Gb/s	MTFDDAK256MAG-1G1	0002	256GB	2.5"	
OCZ Technology*	SATA	3Gb/s	ITDCSTE025M2002	1.5E	240GB	2.5"	
Patriot Memory*	SATA	3Gb/s	PatriotTorqx12	1881	120GB	2.5"	
PLIANT*	SAS	3Gb/s	LS300S	T101	300GB	3.5"	
ANOBIT*	SATA	3Gb/s	Genesis-1	0002	200GB	3.5"	
Samsung*	SATA	3Gb/s	MCBQE25G		25GB	2.5"	
Samsung*	SATA	3Gb/s	2.5"50GBSSDSATA	803Q	50GB	2.5"	
Samsung*	SATA	3Gb/s	2.5"100GBSSDSATA	803Q	100GB	2.5"	
UNIGEN*	SATA	3Gb/s	UGB88PGB100HB1-ES	RC Rev1	100GB	2.5"	
UNIGEN*	SATA	3Gb/s	UGB88APT128HS3	1916	128GB	2.5"	
SUPER TALENT*	SATA	3Gb/s	FTM12CT25H	STTMP2	120GB	2.5"	
STEC*	SATA	1.5Gb/s	MACH8 IO	2084	22GB	2.5"	
STEC*	SATA	1.5Gb/s	M8ISB2-25UC	2119	25GB	2.5"	
STEC*	SATA	1.5Gb/s	M8ISB2-50UC	2119	50GB	2.5"	