

Powerful solutions and innovations in desktop storage for the workplace and home



IBM Deskstar 37GP and Deskstar 34GXP hard disk drives

Highlights

The award-winning IBM Deskstar* family provides industry-leading capacities and performance of up to 37 GB at 5400 RPM and 34 GB at 7200 RPM.

Average seek times of 9.0 milliseconds, with sustained data rates of up to 19.9 MB/sec (Deskstar 37GP) and 22.9 MB/sec (Deskstar 34GXP), a 2.0 MB cache, and high internal data rates enable benchmark-winning performance.

Giant magnetoresistive (GMR) head technology enables the industry's highest areal densities and 7.5 GB of capacity per disk on the IBM Deskstar 37GP.

An Ultra ATA/66 interface supports transfer rates of up to 66.7 MB/sec in Ultra DMA Mode-4. All models are designed to ensure data reliability across the interface with cyclic redundancy checking (CRC).

Leading drive technology

With the IBM Deskstar 37GP and Deskstar 34GXP, IBM provides the capacity and performance to handle a wide range of advanced desktop applications. The IBM Deskstar 37GP offers the industry's largest capacity in an ATA interface drive at 37.5 GB. The IBM Deskstar 34GXP couples high capacity (34.2 GB) with high performance (7200 RPM) to provide the ideal solution for today's application needs.

IBM Deskstar hard drives make use of the latest IBM technologies, like IBM giant magnetoresistive (GMR) head technology, TrueTrack* servo, and No-ID* sector formatting. These technologies, along with an Ultra ATA/66 interface, deliver a high-performance, high-capacity hard drive with unsurpassed quality and reliability. IBM Drive Fitness Technologies, which is a set of diagnostic tools, includes the award-winning Drive Fitness Test* (DFT), S.M.A.R.T. Self Test, and error logging.

Advanced desktop systems

As the company that pioneered disk drive technology, IBM once again is setting new standards for today's data storage technology by designing innovative high-capacity hard disk drives that help meet the evolving requirements of high-performance desktop users. The fast speeds and high capacities of IBM Deskstar drives translate directly into higher quality digital audio and video, superior digital content creation capabilities, and significantly faster processing for the emerging wave of data-intensive multimedia and Internet applications.

IBM quality and service

IBM drives are backed by an array of technical support and services, which may include customer and integration assistance.



IBM Deskstar 37GP 3.5-inch 5400 RPM 37.5, 30.0, 22.5, and 15.0 GB low-profile ATA disk drive



IBM Deskstar 34GXP 3.5-inch 7200 RPM 34.2, 27.3, 20.5, and 13.6 GB low-profile ATA disk drive

IBM Deskstar 37GP and Deskstar 34GXP at a glance

Model	Deskstar 37GP	Deskstar 34GXP
	DPTA-353750/353000/ 352250/351500	DPTA-373420/372730/ 372050/371360

Configuration

Interface	ATA-4	ATA-4
Capacity (GB)	37.5/30.0/22.5/15.0	34.2/27.3/20.5/13.6
Sector size (bytes)	512	512
Recording zone	12	12
User cylinders (physical)	17688	17494
Data heads (physical)	10/8/6/4	10/8/6/4
Data disks	5/4/3/2	5/4/3/2
Max. areal density (Mbits/sq. inch)	5306	5154
Max. recording density (BPI)	287 k	282 k
Track density (TPI)	18,500	18,300

Performance

Data buffer	2 MB ¹ /2 MB ¹ /512 KB ¹ / 512 KB ¹	2 MB ¹
Rotational speed (RPM)	5400	7200
Latency (average ms)	5.56	4.17
Media transfer rate (max Mbits/sec)	248	284
Interface transfer rate (max MB/sec)	66.7	66.7
Sustained data rate (MB/sec)	19.9 to 10.7	22.9 to 13.8
Seek time (read typical)		
Average (ms)	9.0	9.0
Track-to-track (ms)	2.2	2.2
Full-track (ms)	15.5	15.5

Reliability

Error rate (nonrecoverable)	1 in 10E13	1 in 10E13
Contact start stop (at 40° C)	40,000	40,000

Power

Requirement	+5 VDC (± 5 %), +12 VDC (+10 %/-8%)	
Dissipation (typical)		
Startup current (max A)	1.0(5V), 2.0(12V)	1.0(5V), 2.0(12V)
Idle (W)	4.9/4.9/3.7/3.7	6.9/6.9/5.2/5.2
Power consumption efficiency (watts/MB)	0.0001/0.0002/ 0.0002/0.0002	0.0002/0.0003 0.0003/0.0004

Physical size

Height (mm)	25.4	25.4
Width (mm)	101.6	101.6
Depth (mm)	146	146
Weight (max g)	630/630/580/580	630/630/580/580

Environmental characteristics	Operating	Nonoperating
Ambient temperature	5 to 55° C	-40 to 65° C
Relative humidity (noncondensing)	8% to 90%	5% to 95%
Maximum wet bulb (noncondensing)	29.4° C	35° C
Shock (half sine wave)	10 G/11 ms or 65 G/2 ms	75 G/11 ms or 200 G/2 ms
Vibration (random [RMS])	0.67 for horizontal, 0.56 for vertical	1.04

¹ Upper 87 KB used for firmware.

For more information

Internet and e-mail:

- www.ibm.com/harddrive
- drive@us.ibm.com

IBM TECHFAX document server:

- 408-256-5418 (requires touch-tone phone)
- International callers must call from a fax machine

IBM hard disk drive product information:

- 1 888-IBM-5214 (United States)
- 507-253-4110 (outside of the United States)



www.ibm.com/harddrive

© International Business Machines Corporation 1999

IBM Storage Systems Division
5600 Cottle Road
San Jose, CA 95193

Produced in the United States
6-99

All rights reserved

* IBM is a registered trademark and Deskstar, Drive Fitness Test, TrueTrack, and No-ID are trademarks of International Business Machines Corporation. Other names are trademarks or registered trademarks of their respective owners.

Product description data represents design objectives and is provided for comparative purposes; actual results may vary depending on a variety of factors. Product claims are true as of the date of the first printing. This product data does not constitute a warranty. Questions regarding IBM warranty terms or the methodology used to derive this data should be referred to an IBM representative.

Data subject to change without notice. IBM development plans are subject to change at any time without prior notice.

References in this publication to IBM products, programs, or services do not imply that IBM intends to make them available in all countries in which IBM operates.

TECHFAX #7106