



DiamondMax® **40** **VL**

 *DiamondMax® hard drives are famous for delivering outstanding reliability and value, and the Maxtor DiamondMax VL 40 is no exception. These Value Line drives are based on one- and two-disk versions and offer up to 40.9 GB of storage. Their Ultra ATA/100 interface, 2 MB SDRAM cache buffer and a 9.5 ms seek time provide data transfer speeds up to 100 megabytes per second. Because they combine value and performance, these drives are excellent choices for entry-level systems and consumer electronics applications. VL series drives provide the field-proven quality and reliability of all DiamondMax products, and include the new Maxtor Silent Store™ technology for whisper-quiet acoustic performance and Maxtor Adaptive ATA Control™ for unsurpassed data integrity. When your application calls for a cost effective, high-performance storage solution, select the DiamondMax VL series by Maxtor.*

5400 RPM

**3.5-INCH
VALUE SERIES
HARD DRIVES**

Capacities up to 40.9 GB

*Designed for Entry-level
Systems and Consumer
Electronics Applications*

HIGHLIGHTS:

*Fast ATA/Enhanced
IDE compatible*

*Digital Signal Processor
(DSP)-Based Architecture*

*Ultra ATA/100
Data Transfer Rate*

*2 MB SDRAM
Cache Buffer*

9.5 ms Seek Time

*No Quibble Service®
and Support*



Best Buy
DiamondMax Plus 40 (40 GB)
Computer Shopper, April 2000



Kick Ass Product
DiamondMax Plus 40 (40 GB)
Maximum PC, April 2000



Best Hard Drive
DiamondMax 60 (60 GB)
PC World, June 2000



Win100 Award 2000
DiamondMax Plus 40 (40 GB)
Winmag.com, June 2000

MODEL	34098H4	33073H3	32049H2	31024H1
CAPACITY	40982 MB	30736 MB	20491 MB	10245 MB
HEADS	4	3	2	1
PLATTERS	2	2	1	1

DiamondMax[®] 40 VL

The DiamondMax VL 40 series delivers unbeatable reliability including:

- 20.5 GB of data storage per platter
- Fast data transfer rates (up to 100 MB/sec)
- 5400 RPM spin speed
- 9.5 ms average seek
- 2 MB cache buffer
- 3-year warranty



PERFORMANCE SPECIFICATIONS

Seek Times (typical)	
Track to Track	1 ms
Average	9.5 ms
Full Stroke	< 20 ms
Average Latency	5.55 ms
Rotation Speed (± 0.1%)	5400 RPM
Controller Overhead	< 0.3 ms
Start Time (0 - drive ready)	8.5 sec typical

DATA TRANSFER RATES

To/From Interface	up to 100 MB/sec
To/From Media	up to 46.7 MB/sec

DRIVE CONFIGURATION

Integrated Controller	Ultra ATA/100
Buffer Size	2 MB
Buffer Type	SDRAM
Data Zones per Surface	16
Bytes per Sector/Block	512

RELIABILITY SPECIFICATIONS

Start/Stop Cycles	50,000 (minimum)
Component Design Life	5 years (minimum)
Data Errors (non-recoverable)	< 1 per 10E14 bits read
Annual Return Rate (ARR)	< 1%

POWER REQUIREMENTS (TYPICAL)

MODE	12V±10%	5V±5%	POWER
Spin-up (peak)	2000 mA	490 mA	
Seek	650 mA	550 mA	10.6 W
Read/Write	250 mA	550 mA	5.8 W
Idle	250 mA	500 mA	5.5 W
Standby	30 mA	280 mA	1.6 W

ENVIRONMENTAL LIMITS

ACOUSTICS

Idle mode	3.0 bel (average sound power) ¹
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TEMPERATURE

Operating	5° C to 55° C
Non-operating, Storage	-40° C to 71° C

RELATIVE HUMIDITY (NON-CONDENSING)

Operating, Non-operating, Storage	5% to 95%
Maximum Wet Bulb, Operating	30° C

VIBRATION

Operating, random, no errors ²	10 to 45 Hz at 0.004 G ₂ /Hz
	48 to 62 Hz at 0.008 G ₂ /Hz
	65 to 300 Hz at 0.004 G ₂ /Hz
	301 to 500 Hz at 0.0006 G ₂ /Hz
Non-operating, random	10 to 2,000 Hz at 2.15 Grms, no damage
Operating, swept sine (.25 octave per minute)	
10 to 300 Hz	1.0 G peak amplitude

SHOCK

Operating Mechanical Shock	30 Gs, 2 ms, no errors ²
Non-operating Mechanical Shock	250 Gs, 2 ms, no damage ²

PHYSICAL DIMENSIONS (MAXIMUM)

Height	1.02 in	2.61 cm
Length	5.78 in	14.70 cm
Width	4.00 in	10.16 cm
Weight	1.30 lbs	0.59 kg



All Maxtor products are backed by the *No Quibble Service*[®] policy, the benchmark for service and support in the industry. *No Quibble* includes:

- Advance replacement in 2 business days
- MaxFax[®] 24-hour automated technical support
- Maxtor's commitment to total customer satisfaction
- Phone technicians available Monday–Friday

For more information or to talk to a customer support representative, call: (U.S. and Canada) 800-2MAXTOR. Available 5 A.M.–5 P.M. (PT) Mon–Fri; (Europe) +353 1 204 1111. Available 9:30 A.M.–6 P.M. (CET) Mon–Thurs and 9:30 A.M.–5 P.M. (CET) Fri; (Asia/Pacific) 800-481-6788. Available 8 A.M.–5:30 P.M. (GMT+8) Mon–Fri; or visit our home page on the Internet at <http://www.maxtor.com>.

Specifications subject to change without notice. Maxtor defines 1 megabyte as 10⁶ or 1 million bytes and 1 gigabyte as 10⁹ or 1 billion bytes. ¹Acoustics measured at sea level. ²Without non-recoverable errors. Adaptive ATA Control[™], DualWave[™], MaxSafe[™], Silent Store[™] and ShockBlock[™] are trademarks of Maxtor. DiamondMax[®], Maxtor[®], MaxFax[®] and No Quibble Service[®] are registered trademarks of Maxtor Corporation. Copyright © 2000 Maxtor Corporation. Printed in the U.S.A. 9/00 Stock #VL40/4826 Rev. B

