

DiamondMax[®] Plus 60 Specifications

5T060H6 / 5T040H4 / 5T030H3 / 5T020H2 / 5T010H1: 7200 RPM 3.5-INCH HARD DRIVES WITH ULTRA ATA/100 INTERFACE

Drive Configuration

Formatted Capacity (LBA Mode)	
5T060H6	61.5 GB
5T040H4	40.9 GB
5T030H3	30.7 GB
5T020H2	20.4 GB
5T010H1	10.2 GB
Integrated Controller	Ultra ATA/100
Buffer Size	2 MB
Buffer Type	SDRAM
Heads/Disks	
5T060H6	6/3
5T040H4	4/2
5T030H3	3/2
5T020H2	2/1
5T010H1	1/1
Areal Density (max)	14.5 Gbits per in ²
Track Density	34,300 tpi
Flux Density	360 to 439 kfc
Recording Density	346 to 423 kbp
Data Zones per Surface	16
Bytes per Sector/Block	512
Sectors per Track	360 to 624

Performance Specifications

Seek Times (typical read)	
Track to Track	1.0 ms
Average	< 8.7 ms
Full Stroke	< 20 ms
Average Latency	4.17 ms
Rotation Speed ($\pm 0.01\%$)	7200 RPM
Controller Overhead	< 0.3 ms
Data Transfer Rate	
To/from Interface	up to 100 MBytes/sec
To/from Media	up to 57 MBytes/sec
Start Time (0 to drive ready)	8.5 sec typical

Power Requirements (avg.)

Mode	12V $\pm 10\%$	5V $\pm 5\%$	Power
Spin-up (peak)	2950 mA	430 mA	41.2 W
Seek (avg)	550 mA	510 mA	9.5 W
Read/Write (avg)	600 mA	550 mA	10.0 W
Idle (avg)	350 mA	500 mA	6.7 W
Standby (avg)	30 mA	150 mA	1.2 W
Sleep (avg)	30 mA	125 mA	1.0 W

Reliability Specifications

Annual Return Rate	< 1%
Start/Stop Cycles	50,000 avg. min.
Component Design Life	5 years min.
Data Reliability	
Data Errors (non-recoverable) ¹	< 1 per 10E15 bits read

Physical Dimensions (max.)

Height	1.02 in	26.1 mm
Length	5.78 in	147 mm
Width	4.02 in	102.1 mm
Weight	1.30 lbs	0.59 kg

Environmental Limits

Temperature

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

Thermal Gradient

Operating, Non-operating/Storage	25° C per hour max.
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Relative Humidity (non-condensing)

Operating, Non-operating/Storage	5% to 95%
Wet Bulb	30° C max.

Altitude (relative to sea level)

Operating	-650 to 10,000 feet
Non-operating	-650 to 40,000 feet

Environmental Limits (cont.)

Shock²

Operating Mechanical Shock	30 Gs, 2 ms, no errors
Non-operating Mechanical Shock	300 Gs, 2 ms, no damage
Non-operating Rotational Shock	20,000 Rad/sec, 0.5 to 1.0 ms, no damage

Vibration²

Operating, random (no errors)	10 to 45 Hz at .004 G ² /Hz 48 to 62 Hz at .008 G ² /Hz 65 to 300 Hz at .004 G ² /Hz 301 to 500 Hz at .0006 G ² /Hz
Non-operating, random (no damage)	10 Hz at .05 G ² /Hz 20 Hz at .055 G ² /Hz 300 Hz at .05 G ² /Hz 301 Hz at .0014 G ² /Hz 500 Hz at .001 G ² /Hz 760 Hz at .001 G ² /Hz 877 Hz at .003 G ² /Hz 1000 Hz at .001 G ² /Hz 1570 Hz at .001 G ² /Hz 2000 Hz at .0001 G ² /Hz

Operating, swept sine (1 octave/minute)

5 to 20 Hz	0.049" (double amplitude)
10 to 300 Hz	1.0 G (0 to peak amplitude)

Acoustics³

Idle mode	3.3 bel (avg. sound power)
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Part #1515/Rev. A. Specifications subject to change without notice. GB means 1 billion bytes. Total accessible capacity varies depending on operating environment. Maxtor[®] is a registered trademark of Maxtor Corporation. ¹Average data error rate allowed with all recovery features activated; ²Without non-recoverable errors per Maxtor test methods; ³Acoustics measured at sea level and based on 1- and 2-disk models. Copyright © 2001 Maxtor Corporation. Printed in the U.S.A. 1/8/01.

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