

M40S Series



CAPACITY ¹	40GB	60GB	80GB
MODEL	HM040HI	HM060II	HM080JI

FEATURES

- 40GB Formatted Capacity Per Disk
- GMR head technology with wireless suspension design
- Serial ATA II (1.5Gbps)
- SATA Native Command Queuing Feature set
- Device Initiated SATA Power Management
- Fluid Dynamic Bearing Spindle Motor Technology
- Load/Unload Head Technology
- ATA Security Mode Feature Set
- ATA SMART Feature Set
- ATA Automatic Acoustic Management Feature Set
- ATA Device Configuration Overlay Feature Set
- Multi-Burst On-The-Fly Error Correction
- SilentSeek™
- Hybrid Latch System for Reliability and Quietness

DRIVE CONFIGURATION

Interface	SATA 1.5Gbps
Buffer DRAM Size ²	8 Mbytes
Bytes per Sector	512

PERFORMANCE SPECIFICATIONS

Read Seek Time (typ.)	
Track to Track	2 ms
Average	12 ms
Full Stroke	22 ms
Average Latency	5.6 ms
Rotational Speed	5,400 rpm
Data Transfer Rate	
Buffer to/from Media (max.)	428Mb/s
Host to/from Buffer (max.)	150MB/s
Drive Ready Time (typ.) ³	4 sec

RELIABILITY SPECIFICATIONS

Non-recoverable Read Error	1 sector in 10 ¹⁴ bits
MTBF	330,000 POH
Controlloed Ramp L/UL	600,000

ACOUSTICS (AVERAGE SOUND POWER)

Idle	1-Disk	2.2 Bel
	2-Disk	2.4 Bel
Random Read/Write	1-Disk	2.4 Bel
	2-Disk	2.6 Bel

ENVIRONMENTAL SPECIFICATIONS

Temperature	
Operating	5 ~ 55 °C
Non-operating	-40 ~ 70 °C
Humidity (non-condensing)	
Operating	5 ~ 90 %
Non-operating	5 ~ 95 %
Linear Shock (1/2 sine pulse)	
Operating, 2ms	300 G
Non-operating, 1ms	900 G
Vibration (swept sine, 1/4 octave per minute)	
Operating	
5 ~ 500 Hz	1.0 Go-p
Non-operating	
10~21Hz	0.195in (double amp)
21 ~ 500 Hz	5 Go-p
500~800 Hz	3 Go-p
Altitude (relative to sea level)	
Operating	-1000 to 10000 ft
Non-operating	-1400 to 50000 ft

POWER REQUIREMENTS⁴

Voltage	+5V±5%
Spin Up (max.)	4.5 W
Seek ⁵ (typ.)	2.1 W
Read/Write On-Track (typ.)	2.0 W
Low power Idle (typ.)	0.65 W
Standby (typ.)	0.25 W
Sleep (typ.)	0.15 W

PHYSICAL DIMENSION

Height	0.37 in
Width	3.94 in
Depth	2.75 in
Weight	0.22 lb

Specifications are subject to change without notice.

¹ 1MB=1,000,000 Bytes 1GB=1,000,000,000 Bytes

² Upper 128 KB is used for firmware

³ Power-On to Drive Ready

⁴ DIPM enabled

⁵ 30% duty cycle, random seek

⁶ Unless otherwise specified, specifications are for 2-disk configuration

