Desktop Class
Spinpoint F3

Capacity		160GB	250GB	320GB	500GB	750GB	1TB
Model	8MB	HD164GJ	HD254GJ	HD324HJ			
	16MB	HD163GJ	HD253GJ	HD323HJ	HD502HJ		
	32MB					HD754JJ	HD103SJ

FEATURES

- MAX.500GB Formatted Capacity Per Disk
- Serial ATA 3.0Gbps Interface Support
- Improved recording stability over temperature with PMR
- Advanced dynamic FOD control for best data integrity
- Intelligent compensation of external disturbance
- SATA Native Command Queuing Feature
- Device Initiated SATA Power Management
- Rotational vibration sensor(Optional)
- Environment friendly product with RoHS compliance
- Improved performance with dual-ARM based firmware
- ATA S.M.A.R.T. Compliant
- ATA Automatic Acoustic Management Feature
- ATA 48-bit Address Feature
- ATA Device Configuration Overlay Feature
- NoiseGuard™
- SilentSeek™

DRIVE CONFIGURATION

Interface	Serial ATA 3.0Gbps
Buffer DRAM Size[2]	8/16/32
Byte per Sector	512 bytes
Rotational Speed	7,200 RPM

PERFORMANCE SPECIFICATIONS

Average Seek time (typical)		8.9 ms
Average Latency		4.17 ms
Data Transfer Rate		
Media to/from Buffer (Max.)		250 MB/sec
Buffer to/from Host (Max.)		300 MB/sec
	320/500GB	**750GB/1TB**
Drive Ready Time (typical)	8 sec	11 sec

RELIABILITY SPECIFICATIONS

Non-recoverable Read Error	1 sector in 10^{15}bits
Start/Stop Cycles	50,000

ACOUSTICS[3]

	320/500GB	**750GB/1TB**
Idle(Typ.)	2.5 Bel	2.7 Bel
Performance Seek (Typ.)	2.8 Bel	2.9 Bel

POWER REQUIREMENTS

Voltage	+5V±5%, +12V±10%	
Capacity[1]	**320/500GB**	**750GB/1TB**
Spin-up Current (Max.)	2.0A	2.2A
Seek (typical)[4]	5.7W	6.9W
Read/Write (typical)	6.1W	7.4W
Idle (typical)	5.0W	6.4W
Standby (typical)	1W	1W
Sleep (typical)	1W	1W

ENVIRONMENTAL SPECIFICATIONS

Temperature	
Operating	0 ~ 60 °C
Non-operating	-40 ~ 70 °C
Humidity (non-condensing)	
Operating	5 ~ 90 %
Non-operating	5 ~ 95 %
Linear Shock (1/2 sine pulse)	
Operating (2.0ms)	70 G
Non-operating (2.0ms)	300 G
Altitude (relative to sea level)	
Operating	-300 to 3,000 m
Non-operating	-300 to 12,000 m

PHYSICAL DIMENSION

Height (Max.)		26.1 mm
Width		101.5 mm
Length		147.0 mm
	320/500GB	**750GB/1TB**
Weight (Typ.)	475 g	625 g

* Note : Design and specifications are subject to change without prior notice.

1.1MB = 1,000,000 Bytes, 1GB=1,000,000,000 Bytes

2. A small portion of the 8/16/32MB buffer memory is reserved for firmware use

3 Average value with a high performance cover.

4 Random seek with 30% duty cycle.(Average value)