

# Desktop Class Spinpoint F1 DT



Capacity		80GB	160GB	250GB	320GB	500GB	640GB	750GB	1TB
Model	8MB	HD083GJ	HD161GJ	HD251HJ	HD321HJ	HD501IJ			
	16MB		HD162GJ	HD252HJ	HD322HJ	HD502IJ	HD642JJ		
	32MB							HD753LJ	HD103UJ

## FEATURES

- MAX.334GB 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
- 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 <sup>2</sup>	8 / 16 / 32 MB
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.)	175 MB/sec
Buffer to/from Host (Max.)	300 MB/sec
Drive Ready Time (typical)	
	160~320GB 8 sec
	500~640GB 12 sec
	750~1000GB

### RELIABILITY SPECIFICATIONS

Non-recoverable Read Error	1 sector in 10 <sup>15</sup> bits
Start/Stop Cycles	50,000

### ACOUSTICS<sup>3</sup>

Idle	160~320GB	2.45 Bel
	500-1000GB	2.70 Bel
Performance Seek	250/320GB	2.80 Bel
	500-1000GB	2.90 Bel

### POWER REQUIREMENTS

Voltage	+5V±5%, +12V±10%		
Capacity <sup>1</sup>	160GB	500GB	750GB
	250GB	650GB	1000GB
	320GB		

Spin-up Current (Max)	2.0A	2.3A	2.4A
Seek (typical) <sup>4</sup>	5.7W	6.9W	7.6W
Read/Write (typical)	6.1W	7.4W	8.4W
Idle (typical)	4.4W	5.7W	6.7W
Standby (typical)	0.7/1W	0.7/1W	0.7/1W
Sleep (typical)	0.7/1W	0.7/1W	0.7/1W

### ENVIRONMENTAL SPECIFICATIONS

<b>Temperature</b>		
Operating	0 ~ 60 °C	
Non-operating	-40 ~ 70 °C	
<b>Humidity (non-condensing)</b>		
Operating	5 ~ 90 %	
Non-operating	5 ~ 95 %	
<b>Linear Shock (1/2 sine pulse)</b>		
Operating	70G	
Non-operating	160~320GB	350 G
	500~1000GB	300 G
<b>Altitude (relative to sea level)</b>		
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	
Weight (avg.)	160~320GB	470 g
	500/640GB	610 g
	750/1000GB	650 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)

