

F1 Desktop Class



CAPACITY ^{†1}	160GB	250GB	320GB	500GB	640GB	750GB	1TB
MODEL	8MB 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
- Staggered Spin-up Support
- 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
Rotational Speed ^{†2}	7,200 RPM
Buffer DRAM Size	8 / 16 / 32 MB
Sector Size	512 bytes

PERFORMANCE SPECIFICATIONS

Read Seek Time (typical)	
Average	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
	500~1000GB 12 sec

RELIABILITY SPECIFICATIONS

Non-recoverable Read Error	1 sector in 10 ¹⁵ bits
Start/Stop Cycles (Ambient)	50,000

ACOUSTICS (TYPICAL SOUND POWER)^{†3}

Active Idle	160~320GB 2.45 Bel
	500~1000GB 2.70 Bel
Performance Seek	160~320GB 2.80 Bel
	500~1000GB 2.90 Bel

ENVIRONMENTAL SPECIFICATIONS

Temperature	
Operating	0 ~ 60 °C
Non-operating	-40 ~ 70 °C
Thermal Gradient (operating)	20°C/hr
Humidity (non-condensing)	
Operating	5 ~ 90 %
Non-operating	5 ~ 95 %
Linear Shock (1/2 sine pulse)	
Operating, 2ms	70 G
Non-operating, 2ms	160~320GB 350 G
	500~1000GB 300 G
Altitude (relative to sea level)	
Operating	-300 to 3,000 m
Non-operating	-300 to 12,000 m

POWER REQUIREMENTS

Voltage	+5V±5%, +12V±10%		
	160~320GB	500GB/640GB	750/1000GB
Spin Up Current (12V)	2.0 A	2.3 A	2.3 A
Seek ^{†4}	6.70 W	9.22 W	9.7 W
Read/Write(typical)	6.64 W	8.56 W	9.72 W
Idle(typical)	5.32 W	8.0 W	8.72 W
Standby ^{†5}	0.76/1.13 W	0.79/1.18 W	0.79/1.18 W
Sleep ^{†5}	0.76/1.13 W	0.79/1.18 W	0.79/1.18 W

PHYSICAL DIMENSION

Height(max.)	26.1 mm
Width	101.5 mm
Length(max.)	147.0 mm
Weight(avg.)	160~320GB 470 g
	500GB/640GB 610 g
	750/1000GB 650 g

Specifications are subject to change without notice.

^{†1} 1MB=1,000,000 Bytes, 1GB=1,000,000,000 Bytes

Accessible capacity may vary depending on operating environment and formatting

^{†2} 7,200 RPM class. Actual speed can be different a little.

^{†3} Averaged value with a high performance cover.

^{†4} Random seek with 30% duty cycle.(typical value)

^{†5} Power consumption values are with/without slumber mode.(typical value)

