

S166 Series



CAPACITY ^{†1}	40GB	80GB	120GB	160GB
MODEL	8M	HD042GJ	HD082GJ	HD120HJ
	2M	HD041GJ	HD081GJ	HD161HJ

FEATURES

- Max. 160GB Formatted Capacity Per Disk
- Serial ATA 3.0Gbps Interface Support
- SATA Native Command Queuing Feature set
- On-the-fly(OTF) error correction
- Supports all logical geometries as programmed by the host
- Fluid Bearing Spindle Motor Technology
- Noise predictive PRML read channel
- Dynamic anti-stiction algorithm
- ATA S.M.A.R.T. Compliant
- ATA Automatic Acoustic Management Feature Set
- ATA 48-bit Address Feature Set
- ATA Streaming Feature Set(Optional)
- ATA Device Configuration Overlay Feature Set
- NoiseGuard™
- SilentSeek™

DRIVE CONFIGURATION

Interface	Serial ATA 3.0Gbps
Buffer DRAM Size ^{†7}	2 / 8 MB
Rotational Speed ^{†2}	7,200 RPM
Bytes per Sector	512

PERFORMANCE SPECIFICATIONS

Read Seek Time (typ.)	
Track to Track	0.8 ms
Average	8.9 ms
Full Stroke	18 ms
Average Latency	4.17 ms
Data Transfer Rate	
Media to/from Buffer (max.)	967 Mbits/sec
Buffer to/from Host (max.)	300 MB/sec
Drive Ready Time (typ.)	8 sec

RELIABILITY SPECIFICATIONS

Non-recoverable Read Error	1 sector in 10 ¹⁴ bits
MTBF	600,000 POH
Start/Stop Cycles (Ambient)	50,000
Component Design Life	5 years

ACOUSTICS (AVERAGE SOUND POWER)^{†3}

Idle	2.45 Bel
Performance Seek	2.80 Bel
Quiet Seek	2.75 Bel

ENVIRONMENTAL SPECIFICATIONS

Temperature	
Operating	0 ~ 60 °C
Non-operating	-40 ~ 70 °C
Thermal Gradient (max.)	20°C/hr
Humidity (non-condensing)	
Operating	5 ~ 90 %
Non-operating	5 ~ 95 %
Linear Shock (1/2 sine pulse)	
Operating, 2ms	63 G
Non-operating, 2.0 ms	350 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%
Spin Up Current (12V)		2.0 A
Seek ^{†4}		9.5 W
Read/Write		8.0 W
Idle		6.5 W
Standby ^{†5}		0.7/1.5 W
Sleep ^{†5}		0.7/1.5 W

PHYSICAL DIMENSION

Height		25.4 mm
Width		101.6 mm
Length		146.0 mm
Weight	40/80GB	449.0 g
	120/160GB	462.6 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.

^{†5} Power consumption with/without slumber mode.

^{†7} A small portion of the 8MB buffer memory is reserved for firmware use

