

T166 Series



CAPACITY ^{†1}	80GB	160GB	320GB	500GB
MODEL 8MB	HD080GJ	HD160HJ	HD320KJ	HD500LJ
16MB			HD321KJ	HD501LJ

FEATURES

- Max. 167GB Formatted Capacity Per Disk
- Serial ATA 3.0Gbps Interface Support
- SATA Native Command Queuing Feature set
- Device Initiated SATA Power Management
- Staggerd Spin-up Support
- High Speed Dual Digital Signal Processor (DSP) Based Architecture
- 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 II 3.0Gbps
Buffer DRAM Size	8 / 16 MB
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
Rotational Speed ^{†2}	7,200 RPM
Data Transfer Rate	
Media to/from Buffer (max.)	135 MB/sec
Buffer to/from Host (max.)	300 MB/sec
Drive Ready Time (typ.)	10 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	80-160GB	2.35 Bel
	250-500GB	2.70 Bel
Random Read/Write	80-160GB	2.70 Bel
	250-500GB	2.90 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, 2ms	80-160GB 350 G
	250-500GB 300 G
Altitude (relative to sea level)	
Operating	-1,000 to 10,000 feet
Non-operating	-1,000 to 40,000 feet

POWER REQUIREMENTS

Voltage	+5V±5%,	+12V±10%
	80/160GB	250/320GB 400/500GB
Spin Up Current (12V)	2.0 A	2.3 A 2.4 A
Seek ^{†4}	9.5 W	9.9 W 10.6 W
Read/Write	8.0 W	8.7 W 9.5 W
Idle	6.5 W	7.6 W 8.2 W
Standby ^{†5}	0.5/1.0 W	0.7/1.2 W 0.7/1.2 W
Sleep ^{†5}	0.5/1.0 W	0.7/1.2 W 0.7/1.2 W

PHYSICAL DIMENSION

Height	1 in
Width	4 in
Depth	5.75 in
Weight	80-160GB 1.13 lb
	320GB 1.35 lb
	500GB 1.41 lb

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.

