

P120 SATA Series



CAPACITY ^{†1}	200GB	250GB
MODEL	SP2004C	SP2504C

FEATURES

- 100GB/125GB Formatted Capacity Per Disk
- Serial ATA 3.0Gbps Interface Support
- SATA Native Command Queuing Feature set
- Device Initiated SATA Power Management
- Staggered 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 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.)	973 Mbits/sec
Buffer to/from Host (max.)	300 Mbytes/sec
Drive Ready Time (typ.)	7 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	2.5 Bel
Random Read/Write	2.8 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	350 G
Vibration (swept sine, 0.25 octave per minute)	
Operating	
5 ~ 21 Hz	0.034" (double amplitude)
21 ~ 300 Hz	1.5 G _{o-p}
Non-operating	
5 ~ 21 Hz	0.195" (double amplitude)
21 ~ 500 Hz	8 G _{o-p}
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%
Spin Up Current (max.)	650 / 1900 mA
Seek ^{†4} (typ.)	9.5 W
Read/Write On-Track (typ.)	8.0 W
Normal (typ.)	7.7 W
Idle (typ.)	7.5 W
Standby ^{†5} (typ.)	0.7/1.5 W
Sleep ^{†5} (typ.)	0.7/1.5 W

PHYSICAL DIMENSION

Height	1 in
Width	4 in
Depth	5.75 in
Weight	1.44 lb

Specifications are subject to change without notice.

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

^{†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.

