

# P80 Series



CAPACITY <sup>†1</sup>		20GB	40GB	60GB	80GB	120GB	160GB
<b>MODEL</b>	<b>ATA, 2MB</b>	SP0211N	SP0401N	SP0612N	SP0802N	SP1203N	SP1604N
	<b>8MB</b>				SP0812N	SP1213N	SP1614N
	<b>SATA, 8MB</b>				SP0812C	SP1213C	SP1614C

## FEATURES

- 80GB Formatted Capacity Per Disk
- Ultra ATA-133 or Serial ATA 1.0 Compliant
- Fluid Dynamic Bearing Spindle Motor Technology
- High Speed Dual Digital Signal Processor (DSP) Based Architecture
- ATA S.M.A.R.T. Compliant
- ATA Security Mode Feature Set
- ATA Host Protected Area Feature Set
- ATA Automatic Acoustic Management Feature Set
- ATA 48-bit Address Feature Set
- ATA Streaming Feature Set<sup>†4</sup>
- ATA Queuing Feature Set
- ATA Device Configuration Overlay Feature Set
- Multi-Burst On-The-Fly Error Correction
- NoiseGuard™
- SilentSeek™
- Hot-Plug & Hot-Swap capable<sup>†3</sup>

## DRIVE CONFIGURATION

Interface	ATA-6 or Serial ATA 1.0 <sup>†3</sup>
Buffer DRAM Size <sup>†2</sup>	2 / 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	7,200 rpm
Maximum Data Transfer Rate	
Media to/from Buffer (max.)	840 Mbits/sec
Buffer to/from Host	133 or 150 <sup>†3</sup> MB/sec
Drive Ready Time (typ.)	7 sec

## RELIABILITY SPECIFICATIONS

Non-recoverable Read Error	1 sector in 10 <sup>14</sup> bits
MTBF	500,000 POH
Start/Stop Cycles (Ambient)	50,000
Component Design Life	5 years

## ACOUSTICS (AVERAGE SOUND POWER)

Idle	2.7 Bel
Random Read/Write	2.8 Bel

## ENVIRONMENTAL SPECIFICATIONS

Temperature	
Operating	5 ~ 55 °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, 1 octave per minute)	
Operating	
5 ~ 21 Hz	0.034" (double amplitude)
21 ~ 300 Hz	1.5 Gp-p
Non-operating	
5 ~ 21 Hz	0.195" (double amplitude)
21 ~ 500 Hz	8 Gp-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.)	1100 / 2250 mA
Seek <sup>†5</sup> (typ.)	9.0 or 9.5 <sup>†3</sup> W
Read/Write On-Track (typ.)	8.0 or 8.5 <sup>†3</sup> W
Idle (typ.)	7.2 or 7.7 <sup>†3</sup> W
Standby (typ.)	0.4 or 0.9 <sup>†3</sup> W
Sleep (typ.)	0.4 or 0.9 <sup>†3</sup> W

## PHYSICAL DIMENSION

Height	1 in
Width	4 in
Depth	5.75 in
Weight	1.45 lb

*Specifications are subject to change without notice.*

<sup>†1</sup> 1MB=1,000,000 Bytes 1GB=1,000,000,000 Bytes

<sup>†2</sup> 128 KB is used for firmware

<sup>†3</sup> For Serial-ATA interface models only

<sup>†4</sup> For ATA-6 interface models only

<sup>†5</sup> 30% duty cycle, random seek

<sup>†5</sup> Unless otherwise specified, specifications are for both 1 and 2 disk configurations of both ATA-6 and Serial-ATA models

