# Ultra mobile PATA
# Spinpoint A1

SPINPOINT

| Capacity | | 30GB | 40GB |
|---|---|---|---|
| Interface | Sector Size | | |
| (PATA/ZIF) | 1024 bytes | HU030HA | HU040HA |
| | 512 bytes | HU035HA | |
| (CE-ATA) | 1024 bytes | HU030HP | HU040HP |

## FEATURES

- Max. 40 GB Formatted Capacity Per Disk
- High Speed Digital Signal Processor Based Architecture
- Low Power HDC
- Advanced Power Management Control
- Fluid Dynamic Bearing Spindle Motor Technology

- ATA S.M.A.R.T. Compliant
- ATA 28-bit Address Feature Set
- Multi-Burst On-The-Fly Error Correction
- SilentSeek™
- Free Fall Sensor (Optional)

### DRIVE CONFIGURATION

| | |
|---|---|
| Interface | PATA(ZIF)/CEATA |
| Capacity | 30/40 |
| Rotational Speed | 3,600 rpm |
| Sector Size (Bytes) | 512/1024 |
| Areal density (max. Gbit/inch$^2$) | 266 |

### PERFORMANCE SPECIFICATIONS

| | |
|---|---|
| Data Buffer | 2MB |
| Average Read Seek time (typical) | 20.0ms |
| Average Latency | 8.3ms |
| Media Transfer Rate (max.) | 278 Mb/s |
| Interface Transfer Rate (max.) | |
| PATA | 100 MB/s |
| CEATA | 52 MB/s |
| Drive Ready Time (typical) | 2.0 sec |

### RELIABILITY SPECIFICATIONS

| | |
|---|---|
| Non-recoverable Read Error | 1 sector in $10^{13}$ bits |
| Controlled Ramp Load/Unload | 600,000 |

### ACOUSTICS(Average Sound Power)

| | |
|---|---|
| Idle | 1.6 Bel |
| Performance Seek | 2.1 Bel |

### POWER REQUIREMENTS

| | |
|---|---|
| Voltage | +3.3V ±5% |
| Spin-up Current (Max.) | 350 mA |
| Seek (typical) | 0.65 W |
| Read/Write (typical) | 0.75 W |
| Idle (typical) | 0.20 W |
| Standby (typical) | 0.06 W |
| Sleep (typical) | 0,04 W |

### ENVIRONMENTAL SPECIFICATIONS

| | |
|---|---|
| Temperature | |
| Operating | 0 ~ 60 ℃ |
| Non-operating | -20 ~ 85 ℃ |
| Humidity (non-condensing) | |
| Operating | 8 ~ 90 % |
| Non-operating | 8 ~ 90 % |
| Linear Shock (1/2 sine pulse) | |
| Operating | 650 G |
| Non-operating | 1600 G |
| Vibration | |
| Operating | 0.67 Grms |
| Altitude (relative to sea level) | |
| Operating | -1,000 to 10,000 ft |
| Non-operating | -1,300 to 50,000 ft |

### PHYSICAL DIMENSION

| | |
|---|---|
| Height | 5.0 mm |
| Width | 42.8 mm |
| Length | 36.4 mm |
| Weight (max.) | 20 g |

\* Note : Design and specifications are subject to change without prior notice.

1MB = 1,000,000 Bytes, 1GB = 1,000,000,000 Bytes

Accessible capacity may vary as some OS uses binary

numbering system for reported capacity

SAMSUNG