5 1/4-inch Full-Height
Winchester Disk Drive

Capacity: 760 MBytes
Access Time: 16 msec
Interface: 15 MHz ESDI
MTBF: 150,000 hours

The Micropolis 1568 high performance 5 1/4-inch Winchester disk drive offers 760-megabyte capacity and an ESDI interface in a full-height form factor.

Using the same field-proven mechanical package as in the 380 megabyte Micropolis drive, the 1568 is designed to provide a combination of high storage capacity, fast access and data transfer, and long periods of trouble-free operation.

Fast and Reliable
Data is transferred at 15 megahertz with an average access time of 16 milliseconds. And with an outstanding MTBF of 150,000 hours, repair and spare-parts costs can be substantially reduced.

ESDI-Standard
The 1568 drive implements the Serial Mode of the industry-standard Enhanced Small-Device Interface—ESDI. This ESDI interface enables the 1568 to achieve a sustained data transfer rate of 15 megabits per second.

By implementing the ESDI optional Power Sequencing feature, peak current demand on power supplies can be minimized in multi-drive installations.

Innovative Design Features
A sealed head/disk assembly contains all of the moving parts, including a patented high-speed, precision balanced single-piece rotary positioner, up to 15 read/write heads and eight 5 1/4-inch disks, plus the patented in-spindle motor. The drive is mounted in a rigid metal frame and suspended on specially designed shock mounts to provide protection from the effects of shock and vibration.

Advanced Servo Technology
The 1568 drive uses an advanced servo system which provides superior on-track and seek performance throughout the range of environmental conditions. The dedicated disk surface for servo data eliminates format constraints and permits more user-data capacity on each disk surface, as compared to embedded servo systems.

Maintenance Free Design
Micropolis drives consistently top the list for high "plug and play" and 150,000 hour mean-time-between-failure performance. The 1568 board and mechanical assemblies are independently replaceable units. No electronic or mechanical adjustments are ever required, making field replacement of electronic assemblies a simple, 15-minute repair.

Micropolis is the industry leader in volume high-capacity, high-performance 5 1/4-inch full- and half-height disk drives. Micropolis drives offer up to 2.0 gigabytes of storage capacity and are available with either an ESDI or a SCSI interface.

For more information on this and other Micropolis disk drives, contact the Micropolis Sales office or Authorized Distributor nearest you.
### Specifications:

#### Capacity

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<thead>
<tr>
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<tbody>
<tr>
<td>Model</td>
<td>1568-15</td>
</tr>
<tr>
<td>Per Drive (MB)</td>
<td>765</td>
</tr>
<tr>
<td>Per Track (B)</td>
<td>31,250</td>
</tr>
<tr>
<td>Per Surface (MB)</td>
<td>51</td>
</tr>
<tr>
<td>Cylinders</td>
<td>1,632</td>
</tr>
<tr>
<td>Data Heads</td>
<td>15</td>
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</table>

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<tbody>
<tr>
<td>Model</td>
<td>1568-15</td>
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<tr>
<td>Per Drive (MB)</td>
<td>676</td>
</tr>
<tr>
<td>Per Sector/B</td>
<td>512</td>
</tr>
<tr>
<td>Sectors/Track</td>
<td>54</td>
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<tr>
<td>Cylinders</td>
<td>1,632</td>
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<tr>
<td>Data Heads</td>
<td>15</td>
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</tbody>
</table>

#### Performance

<table>
<thead>
<tr>
<th>Seek Time (includes settling)</th>
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<tbody>
<tr>
<td>Track to Track</td>
<td>4 msec</td>
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<tr>
<td>Average</td>
<td>16 msec</td>
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<tr>
<td>Maximum</td>
<td>35 msec</td>
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</table>

| Latency Time (average) | 8.33 msec |
| Rotational Speed | 3600 RPM |
| Transfer Rate | 15 MHz |

#### Interface

| Data Transfer Rate | 15 MBits/sec |
| Code (interface) | NRZ |
| Code (internal) | RLL |

<table>
<thead>
<tr>
<th>Features</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>ESDI serial mode</td>
<td></td>
</tr>
<tr>
<td>Hard or soft sectoring</td>
<td></td>
</tr>
<tr>
<td>Power sequencing</td>
<td></td>
</tr>
<tr>
<td>Servo locked data</td>
<td></td>
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<tr>
<td>Extensive status and diagnostic information</td>
<td></td>
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</tbody>
</table>

#### Physical

**Form Factor (Industry-standard for 5¼-inch full-height)**

- **Height**: 3.25 inches (82.6 mm)
- **Width**: 5.75 inches (146 mm)
- **Depth**: 8.00 inches (203 mm)
- **Weight**: 8.2 pounds (3.7 kg) nominal

#### Environmental

**Shock**

- Operating: 3 G - 5 msec
- 2 G - 11 msec
- 1 G - 20 msec

**Non-operating (unpackaged)**

- Free-fall drop: 0.75
- ½ sinusoidal: 40 G - 5 msec
- 20 G - 11 msec
- 15 G - 20 msec
- 15 G - 50 msec
- 20 G - 100 msec

**Vibration**

- Operating: 5-40 Hz 0.006%, peak-peak
- 40-300 Hz 0.5 G peak
- Non-operating (unpackaged): 5-31 Hz 0.02%, peak-peak
- 31-69 Hz 1.0 G peak
- 69-98 Hz 0.004%, peak-peak
- 98-300 Hz 2 G peak

**Ambient Temperature**

- Operating: 10°C to 50°C (gradient 2°C/5 minutes)
- Non-operating: -40°C to 65°C (gradient 24°C/hour)

**Relative Humidity (non-condensing)**

- Operating: 10% to 90%
- Non-operating: 10% to 90%
- Wet bulb max: 26.7°C (80°F)

**Altitude**

- Operating: -200 to 10,000 ft
- Non-operating: -1,000 to 50,000 ft

#### Other

- Power Requirements – typical
  - +12V ± 5%, 2.0A Avg
  - +5V ± 5%, 1.5A Avg

- Power Dissipation – typical
  - 24 Watts

- Acoustic Noise
  - 40 dBA

- Mounting
  - Standard 5¼-inch disk drive, any orientation

#### Reliability

- MTBF
  - 150,000 power-on hours

- MTTR
  - 15 minutes

- Preventive Maintenance
  - None

- Electronic Adjustments
  - None

<table>
<thead>
<tr>
<th>Error Rates</th>
<th></th>
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<tbody>
<tr>
<td>Soft Errors</td>
<td>≤ 10 in 10⁶ bits read</td>
</tr>
<tr>
<td>Hard Errors</td>
<td>≤ 10 in 10⁹ bits read</td>
</tr>
<tr>
<td>Seek Errors</td>
<td>≤ 10 in 10⁶ seeks</td>
</tr>
</tbody>
</table>

Specifications subject to change without notice.

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