RoHS Compliant

Commercial USB Flash Drive

AH162-A Product Specification

October 13, 2015

Version 1.3
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1. General Descriptions

Apacer AH162-A is a removable flash disk drive with USB interface and capabilities of supporting various storage capacities. Compatible with both USB 1.1 and 2.0 specifications with its plug-and-play nature, AH162-A is can be easily adopted in any computing system with an available USB port. The device can be automatically detected by the host computer so that users can access data to read, write, copy, or move data between host system drive and AH162-A. No battery, cable, or software driver is required, AH162-A is widely compatible with mainstream computer platforms, no matter desktop or laptops, as long as there is an available USB port. AH162-A makes data transfer easy, fast and handy.

2. Features

- Compatible with USB 1.1 and 2.0 specifications
- Capacity: SLC – 2, 4 GB  
  MLC – 8, 16, 32 GB
- Operating system support:
  - Mac OS 8.1 or later (for USB 1.1 interface speed)
  - Mac OS X 10.2.8 or later (for USB 2.0 interface speed)
  - Linux Kernel: version 2.4.0 or above (for USB 1.1 interface speed)
  - Linux Kernel: version 2.4.10 or above (for USB 2.0 interface speed)
- Plug & Play
- Data retention up to 10 years
- Operating voltage: DC 4.5 ~ 5.5V from USB port (no external power is required)
- Interface transfer rate:
  - High speed: up to 480Mbits/sec for USB 2.0
  - Full speed: up to 12Mbits/sec for USB 1.1
- Low power consumption
- Altitude: 80,000 feet (relative to sea level)
- Acoustic noise: 0 dB (at one meter)
- Vibration: 15G peak to peak (max)
- Operating temperature: 0-70°C
- Humidity: 20% to 90%
3. Performance

Table 3-1 Performance (SLC)

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Performance</th>
<th>2 GB</th>
<th>4 GB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sustained read (MB/s)</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Sustained write (MB/s)</td>
<td>19</td>
<td>21</td>
</tr>
</tbody>
</table>

Table 3-2 Performance (MLC)

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Performance</th>
<th>8 GB</th>
<th>16 GB</th>
<th>32 GB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sustained read (MB/s)</td>
<td>26</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Sustained write (MB/s)</td>
<td>11</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

Note: Results may differ from various flash configurations or host system setting

4. Power consumption

Table 4-1: Typical power consumption (SLC)

<table>
<thead>
<tr>
<th>Modes</th>
<th>Capacity</th>
<th>2 GB</th>
<th>4 GB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Active (mA)</td>
<td>75</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Idle (mA)</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 4-2: Typical power consumption (MLC)

<table>
<thead>
<tr>
<th>Modes</th>
<th>Capacity</th>
<th>8 GB</th>
<th>16 GB</th>
<th>32 GB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Active (mA)</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Idle (mA)</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

Note: Results may differ from various flash configurations or host system setting
5. Operating Range

<table>
<thead>
<tr>
<th>Items</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage</td>
<td>5.0V±10% (4.5-5.5V)</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>0°C to 70°C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-25°C to 85°C</td>
</tr>
</tbody>
</table>

6. Dimensions

Unit: mm
Tolerance: ± 0.2
# 7. Product Ordering Information

## 7.1 Product Code Designations

<table>
<thead>
<tr>
<th>A</th>
<th>P</th>
<th>H</th>
<th>A</th>
<th>xxx</th>
<th>2</th>
<th>B</th>
<th>A</th>
<th>C</th>
<th>G</th>
<th>X</th>
<th>XXX</th>
</tr>
</thead>
</table>

**USB Drive**

**Apacer Product Code**

**Flash Type:**
- TM: Toshiba MLC
- T: Toshiba SLC

**Temperature:**
- C: Commercial Temperature

**G: RoHS Compliant**

**PCB version**

**Model Name**
- B = AH162-A

**Solution version**

**Capacities:**
- 002G = 2GB
- 004G = 4GB
- 008G = 8GB
- 016G = 16GB
- 032G = 32GB
7.2 Valid Combinations

7.2.1 AH162-A (SLC)

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>2GB</td>
<td>APHA002G2BACG-CT</td>
</tr>
<tr>
<td>4GB</td>
<td>APHA004G2BACG-CT</td>
</tr>
</tbody>
</table>

7.2.2 AH162-A (MLC)

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>8GB</td>
<td>APHA008G2BACG-DM</td>
</tr>
<tr>
<td>16GB</td>
<td>APHA016G2BACG-DM</td>
</tr>
<tr>
<td>32GB</td>
<td>APHA032G2BACG-DPM</td>
</tr>
</tbody>
</table>
## Revision History

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Description</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>11/04/2014</td>
<td>Official release</td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>11/06/2014</td>
<td>Revised the label photo of cover page</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>02/11/2015</td>
<td>Added 4 GB SLG information</td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>10/13/2015</td>
<td>Revised based on the 15nm flash spec</td>
<td></td>
</tr>
</tbody>
</table>
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