ADP-105
USB to LVDS Adapter Board

The Systemation ADP-105 Adapter Board converts USB 2.0 data from a Windows based computer into LVDS data to directly drive an LCD. The board uses a Windows driver from Displaylink that runs on all Windows versions from Windows 2000 to Windows 7. This board supports either 1 or 2 channel LVDS outputs at resolutions up to 2560 x 1536.
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>No.</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Data Input: USB 2.0 using a 5-pin mini-USB connector</td>
</tr>
<tr>
<td>2</td>
<td>Power Input: 12VDC using a 0.156 2-pin connector</td>
</tr>
<tr>
<td>3</td>
<td>Backlight Control: An EEPROM digital Pot is used to provide an analog voltage to control the LCD backlight brightness. A 4-pin switch closure input steps the backlight brightness up and down.</td>
</tr>
<tr>
<td>4</td>
<td>LCD Drive: A 22-pin 2mm and a 10-pin 2mm connection provide a “Systemation” type LVDS interface to drive most LVDS type LCDs. A 3-pin jumper is used to select the power to the LCD from 3.3V or 5.0V</td>
</tr>
<tr>
<td>5</td>
<td>LCD Support: The board can drive an LCD with resolution up to 2560x1536. Firmware on the board specifies the exact resolution of the LCD selected. Up to 4 EPROMs can be installed at a time. The firmware for each LCD type/resolution is created by Systemation. Demonstration ADP-105 board are populated with EPROMs for SVGA, XGA, SXGA and UXGA LCDs. Any LCD resolution is possible. Consult Systemation.</td>
</tr>
<tr>
<td>6</td>
<td>LCD Support: 3.25” X 3.00” Mounting holes on corners</td>
</tr>
</tbody>
</table>
7 – Cables: LVDS Data Cables available for most LVDS type LCDs.

## J1 USB Input

<table>
<thead>
<tr>
<th>J1-1</th>
<th>USB 5V</th>
<th>5-Pin Mini-USB</th>
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<tbody>
<tr>
<td>J1-2</td>
<td>USB D-</td>
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<tr>
<td>J1-3</td>
<td>USB D+</td>
<td></td>
</tr>
<tr>
<td>J1-4</td>
<td>Key (Not Used)</td>
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<tr>
<td>J1-5</td>
<td>Ground</td>
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## J2 Description

<table>
<thead>
<tr>
<th>J2-1</th>
<th>Description</th>
<th>MFG</th>
<th>MFG P/N</th>
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<tbody>
<tr>
<td>J2-2</td>
<td>Ain3+</td>
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<td></td>
</tr>
<tr>
<td>J2-3</td>
<td>Ain3-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2-4</td>
<td>Aclk+</td>
<td>Hirose</td>
<td>DF11-22DP-2DSA</td>
</tr>
<tr>
<td>J2-5</td>
<td>Aclk-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2-6</td>
<td>Ain2+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2-7</td>
<td>Ain2-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2-8</td>
<td>Ain1+</td>
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</tr>
<tr>
<td>J2-9</td>
<td>Ain1-</td>
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<tr>
<td>J2-10</td>
<td>Ain0+</td>
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<td>J2-11</td>
<td>Ain0-</td>
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<td>J2-12</td>
<td>Bin3+</td>
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<td>J2-13</td>
<td>Bin3-</td>
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<td>J2-14</td>
<td>Bclk+</td>
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<td>J2-15</td>
<td>Bclk-</td>
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<td>J2-16</td>
<td>Bin2+</td>
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<td>J2-17</td>
<td>Bin2-</td>
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<tr>
<td>J2-18</td>
<td>Bin1+</td>
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<td>J2-19</td>
<td>Bin1-</td>
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<td>J2-20</td>
<td>Bin0+</td>
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<td>J2-21</td>
<td>Bin0-</td>
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<td>J2-22</td>
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VCC-SW is selected by JP1.
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<tr>
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<td>LVDS LCD POWER</td>
<td>Hirose</td>
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<tr>
<td>J3-1</td>
<td>12VDC</td>
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<tr>
<td>J3-2</td>
<td>Ground</td>
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<td>12VDC</td>
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<td>J3-4</td>
<td>Ground</td>
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<td>J3-5</td>
<td>VCC-SW</td>
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<td>VCC-SW</td>
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<td>J3-7</td>
<td>Ground</td>
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VCC-SW is selected by JP1

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<table>
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<td>Inverter Interface</td>
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<td>J5-1</td>
<td>Brightness Up Switch</td>
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<td>J5-3</td>
<td>Brightness Down Switch</td>
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<table>
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