Introduction

PCIe-1730/1730H feature 32 TTL digital I/O channels and 32 digital I/O channels with up to 2,500 VDC isolation protection, making them ideal for industrial applications that require high-voltage isolation. For PCIe-1730H, all signals can be used as interrupt request signals and to disable/enable the interrupt function for every channel, as well as to support the input signal edge, which generates interrupts. All PCIe-1730 digital input channels have a digital filter to prevent inaccurate recognition of input signals that contain noise or chattering.

Specifications

### Digital Input
- **Channels**: 16
- **Compatibility**: 5 V/TTL
- **Input Voltage**
  - Logic 0: 0.8 V max.
  - Logic 1: 2.0 V min.
- **Interruptible Channels**: PCIe-1730: 2 (IDI0, IDI8) PCIe-1730H: 16

### Isolated Digital Input
- **Channels**: 16
- **Input Voltage**
  - Logic 0: 3 V max.
  - Logic 1: 10 V min. (30 V max.)
- **Interruptible Channels**: PCIe-1730: 16
- **Isolation Protection**: PCIe-1730: 16
- **Response Time**: 100μs
- **Input Resistance**: 2.7 kΩ @ 1 W
- **Digital Filter Time (PCIE-1730H only)**

<table>
<thead>
<tr>
<th>Setting Data (n)</th>
<th>Digital Filter Time Setting Data (n)</th>
<th>Digital Filter Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (0Fh)</td>
<td>64μsec</td>
<td>4.096msec</td>
</tr>
<tr>
<td>10 (0Ah)</td>
<td>128μsec</td>
<td>8.192msec</td>
</tr>
<tr>
<td>11 (0Bh)</td>
<td>256μsec</td>
<td>16.384msec</td>
</tr>
<tr>
<td>12 (0Ch)</td>
<td>512μsec</td>
<td>32.768msec</td>
</tr>
<tr>
<td>13 (0Dh)</td>
<td>1,024μsec</td>
<td>65.536msec</td>
</tr>
<tr>
<td>14 (0Eh)</td>
<td>2,048μsec</td>
<td>131.072msec</td>
</tr>
</tbody>
</table>

### Digital Output
- **Channels**: 16
- **Compatibility**: 5 V/TTL
- **Output Voltage**
  - Logic 0: 0.5 V max.
  - Logic 1: 2.4 V min.
- **Output Capability**
  - Sink: 24mA @ 0.5V
  - Source: 15mA @ 2.4V

### Isolated Digital Output
- **Channels**: 16
- **Output Type**: Sink type (NPN)
- **Isolation Protection**: 2,500 V
- **Output Voltage**: 5 – 40 V
- **Sink Current**: 500 mA max./channel
- **Response Time**: 100μs

### General
- **Bus Type**: PCI Express V1.0
- **I/O Connectors**: 1 x DB37, female
- **Dimensions (L x H)**: 168 x 100 mm (6.6" x 3.9")
- **Power Consumption**
  - Typical: 3.3 V @ 280 mA, 12 V @ 330 mA
  - Max.: 3.3 V @ 420 mA, 12 V @ 400 mA
- **Operating Temperature**: 0 – 60 °C (-13 – 140 °F)
- **Storage Temperature**: -25 – 85 °C (-13 – 185 °F)
- **Storage Humidity**: 5 – 95% RH, non-condensing

### Ordering Information
- **PCI-E-1730-BE**: 32-ch TTL and 32-ch isolated digital I/O PCIe card
- **PCI-E-1730H-BE**: 32-ch TTL and 32-ch isolated digital I/O PCIe card with digital filter and interrupt function

### Accessories
- **PCL-10120-1E**: 20-pin flat cable, 1 m
- **PCL-10120-2E**: 20-pin flat cable, 2 m
- **ADAM-3920-AE**: 16-pin DIN rail flat cable wiring board
- **PCLD-782-BE**: 16-ch isolated DI board w/1 m, 20-pin flat cable
- **PCLD-885-AE**: 16-ch power relay board w/20-pin and 50-pin flat cables
- **PCLD-785-BE**: 16-ch relay board w/1 m, 20-pin flat cable
- **ADAM-3937-BE**: DB37 DIN rail wiring board
- **PCL-10137-1E**: DB37 cable, 1 m
- **PCL-10137-2E**: DB37 cable, 2 m
- **PCL-10137-3E**: DB37 cable, 3 m

All product specifications are subject to change without notice. Last updated: 28-Jun-2022