Introduction

PCI-1714U and PCI-1714UL are advanced high-performance data acquisition cards based on the PCI bus. With a large FIFO of 32,768 for each channel, the maximum sampling rate of PCI-1714U can get up to 30 MS/s, on each channel, with an emphasis on continuous, non-stop, high-speed, streaming data of samples to host memory. The low-cost PCI-1714UL offers 10 MS/s on each channel at a stable rate, and has also been equipped with a universal PCI interface.

Specifications

Analog Input
- Channels: 4 single-ended
- Resolution: 12 bits
- Max. Sampling Rate: PCI-1714U: 30 MS/s per channel; PCI-1714UL: 10 MS/s per channel
- FIFO Size: PCI-1714U: 32,768 samples each channel; PCI-1714UL: 8,192 samples each channel
- Overvoltage Protection: 30 Vp-p
- Input Impedance: 50 Ω/1 MΩ/Hi Z jumper selectable/100 pF
- Sampling Modes: Software polling, pacer
- Trigger Modes: Post-trigger, pre-trigger, delay-trigger, about-trigger
- Input Range (V, software programmable) & Absolute Accuracy
<table>
<thead>
<tr>
<th>Bipolar</th>
<th>±5</th>
<th>±2.5</th>
<th>±1</th>
<th>±0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute Accuracy (% of FSR)*</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
<td>0.4</td>
</tr>
</tbody>
</table>

  * ±1 LSB is added as the derivative for absolute accuracy

General
- Bus Type: Universal PCI V2.2
- I/O Connectors: 4 x BNC connector (for AI); 1 x PS/2 connector (for Ext. clock and trigger)
- Dimensions (L x H): 175 x 100 mm (6.9” x 3.9”)
- Power Consumption: Typical: 5 V @ 850 mA; 12 V @ 600 mA; Max.: 5 V @ 1 A; 12 V @ 700mA
- Operating Temperature: 0 – 60°C (32 – 140°F)
- Storage Temperature: -20 – 85°C (-4 – 185°F)
- Storage Humidity: 5 – 95% RH, non-condensing

Features
- 4 single-ended analog input channels
- 12-bit A/D converter, with up to 30 MHz sampling rate
- Programmable gain
- Onboard FIFO memory (PCI-1714U: 32,768 samples each channel; PCI-1714UL: 8,192 samples, each channel)
- 4 A/D converters simultaneously sampling
- Multiple A/D triggering modes
- Programmable pacer/counter
- BoardID™ switch
- Universal PCI Bus (supports 3.3 V or 5 V PCI bus signals)

Ordering Information
- PCI-1714U: 30 MS/s, 12-bit, Simultaneous 4-ch AI PCI Card
- PCI-1714UL: 10 MS/s, 12-bit, Simultaneous 4-ch AI PCI Card

Accessories
- ADAM-3909: DB9 DIN-rail Wiring Board
- PCL-1010B-1E: BNC to BNC Wiring Cable, 1 m
- PCL-10901-1E: DB9 to PS/2 Cable, 1 m
- PCL-10901-3E: DB9 to PS/2 Cable, 3 m

Pin Assignments