PCI-1747U
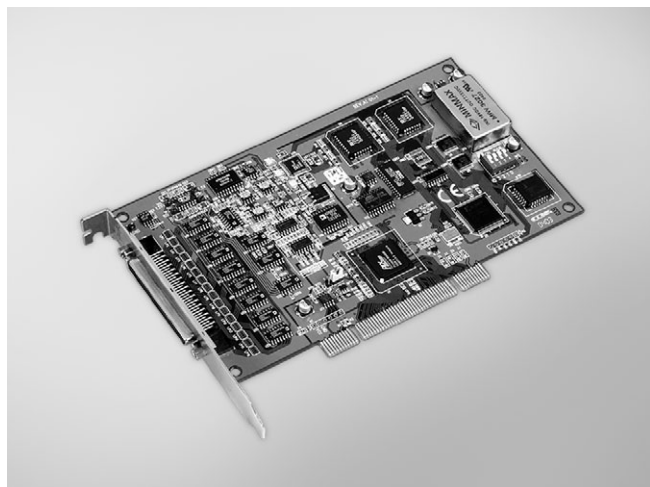
250 kS/s, 16-bit, 64-ch Analog Input Universal PCI Card

Features

- 64-ch single-ended or 32-ch differential or a combination of analog input
- 16-bit A/D converter, with up to 250 kHz sampling rate
- Auto calibration
- Onboard FIFO memory (1,024 samples)
- PCI-Bus mastering data transfer
- Universal PCI Bus (support 3.3 V or 5 V PCI bus signal)
- BoardID™ switch

Introduction

PCI-1747U is a high-resolution, high-channel-count analog input card for the PCI bus. Its sampling rate is up to 250 kS/s and 16-bit resolution provides the resolution needed for most data acquisition applications. PCI-1747U provides 64 single-ended, 32 differential analog input channels or a combination of these. It also has built in a 1,024 FIFO buffer for analog input data.

Specifications

Analog Input

- **Channels**   64 single-ended, 32 differential, or combination
- **Resolution**   16 bits
- **Max. Sampling Rate** 250 kS/s
- **FIFO Size**   1,024 samples
- **Overvoltage Protection** 20 Vp-p
- **Input Impedance**   100 MΩ/10 pF (Off); 100 MΩ/100 pF (On)
- **Sampling Modes**   Software and onboard programmable pacer
- **Input Range**   (V, software programmable)

	N/A	0 ~ 10	0 ~ 5	0 ~ 2.5	0 ~ 1.25
Unipolar	N/A	0 ~ 10	0 ~ 5	0 ~ 2.5	0 ~ 1.25
Bipolar	±10	±5	±2.5	±1.25	±0.625
Accuracy (% of FSR ±1LSB)	0.03	0.02	0.02	0.03	0.04

General

- **Bus Type**   Universal PCI V2.2
- **I/O Connector**   1 x 68-pin SCSI female connector
- **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 @ 700 m A
- **Operating Temperature** 0 ~ 60° C (32 ~ 140° F) (refer to IEC 68-2-1, 2)
- **Storage Temperature** -20 ~ 70° C (-4 ~ 158° F)
- **Storage Humidity** 5 ~ 95% RH, non-condensing (refer to IEC 68-2-3)

Ordering Information

- **PCI-1747U**   250 kS/s, 16-bit, 64-ch AI Universal PCI Card

Accessories

- **ADAM-3968**   68-pin DIN-rail SCSI Wiring Board
- **PCL-10168-1**   68-pin SCSI Shielded Cable, 1 m
- **PCL-10168-2**   68-pin SCSI Shielded Cable, 2 m

Pin Assignments

AI0	68	34	AI1
AI2	67	33	AI3
AI4	66	32	AI5
AI6	65	31	AI7
AI8	64	30	AI9
AI10	63	29	AI11
AI12	62	28	AI13
AI14	61	27	AI15
AGND	60	26	AGND
AI16	59	25	AI17
AI18	58	24	AI19
AI20	57	23	AI21
AI22	56	22	AI23
AI24	55	21	AI25
AI26	54	20	AI27
AI28	53	19	AI29
AI30	52	18	AI31
AI32	51	17	AI33
AI34	50	16	AI35
AI36	49	15	AI37
AI38	48	14	AI39
AI40	47	13	AI41
AI42	46	12	AI43
AI44	45	11	AI45
AI46	44	10	AI47
AGND	43	9	AGND
AI48	42	8	AI49
AI50	41	7	AI51
AI52	40	6	AI53
AI54	39	5	AI55
AI56	38	4	AI57
AI58	37	3	AI59
AI60	36	2	AI61
AI62	35	1	AI63