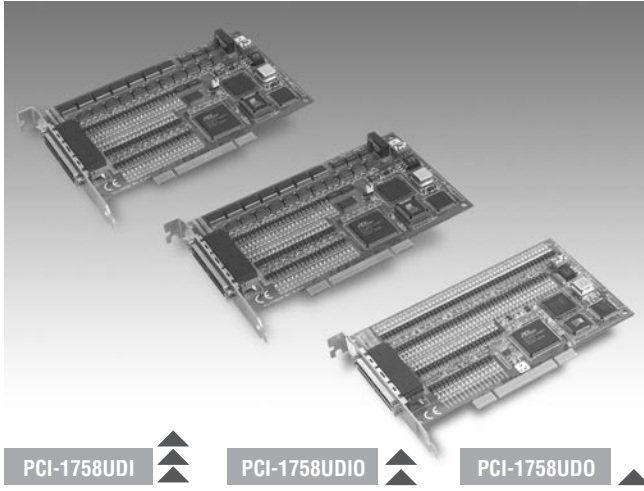


# PCI-1758UDI PCI-1758UDO PCI-1758UDIO

**128-ch Isolated Digital Input Universal PCI Card**  
**128-ch Isolated Digital Output Universal PCI Card**  
**128-ch Isolated Digital I/O Universal PCI Card**



PCI-1758UDI    PCI-1758UDIO    PCI-1758UDO

## Specifications

### Isolated Digital Input

- Channels** PCI-1758UDI: 128  
PCI-1758UDIO: 64
- Input Voltage** Logic 0: 2.5 V max.  
Logic 1: 5 V min. (25 V max.)
- Interrupt Capable Ch.** PCI-1758UDI: 128  
PCI-1758UDIO: 64
- Isolation Protection** 2,500 V<sub>DC</sub>
- Opto-Isolator Response** 20 μs
- Input Resistance** 3 kΩ

### Isolated Digital Output

- Channels** PCI-1758UDO: 128  
PCI-1758UDIO: 64
- Output Type** Sink (NPN)
- Isolation Protection** 2,500 V<sub>DC</sub>
- Output Voltage** 5 ~ 40 V<sub>DC</sub>
- Sink Current** 90 mA max./channel
- Opto-isolator Response** 20 μs

### General

- Bus Type** Universal PCI V2.2
- I/O Connectors** 1 x MINI-SCSI HDRA-E100 Female
- Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")
- Power Consumption**

	PCI-1758UDI	PCI-1758UDO	PCI-1758UDIO
<b>Typical</b>	+5 V @ 0.3 A	+5 V @ 1.1 A	+5 V @ 1.2 A
<b>Max.</b>	+5 V @ 0.6 A	+5 V @ 2.2 A	+5 V @ 1.8 A

- Operating Temperature** 0 ~ 60° C (32 ~ 140° F) (IEC 68-2-1, 2)
- Storing Temperature** -20 ~ 70° C (-4 ~ 158° F)
- Storing Humidity** 5 ~ 95 % (IEC 68-2-3) non-condensing

## Ordering Information

- PCI-1758UDI** 128-ch Isolated Digital Input Card
- PCI-1758UDO** 128-ch Isolated Digital Output Card
- PCI-1758UDIO** 128-ch Isolated Digital I/O Card
- PCL-101100S-1** 100-pin SCSI Cable, 1 m
- ADAM-39100** 100-pin SCSI wiring terminal, DIN-rail mounting

## Features

### PCI-1758UDO and PCI-1758UDIO

- 128 isolated digital output channels (64 for PCI-1758UDIO)
- High-voltage isolation on output channels (2,500 V<sub>DC</sub>)
- Wide output range (5 ~ 40 V<sub>DC</sub>)
- High-sink current for isolated output channels (90 mA max./Channel)
- Current protection for each port
- BoardID™ switch
- Output status read-back
- Digital output value retained after hot system reset
- Programmable Power-Up States
- Watchdog timer

### PCI-1758UDI and PCI-1758UDIO

- 128 isolated digital input channels (64 for PCI-1758UDIO)
- Wide input range (5 ~ 25 V<sub>DC</sub>)
- High ESD protection (2,000 V<sub>DC</sub>)
- Digital Filter function
- BoardID™ switch
- Interrupt handling capability for each channel

## Feature Details

### Interrupt Function (PCI-1758UDI/PCI-1758UDIO)

PCI-1758UDI and PCI-1758UDIO provide an interrupt function for every digital input channel. You can disable/enable the interrupt functions, and select trigger type by setting the Rising Edge Interrupt Registers or Falling Edge Interrupt Registers of the card. When the interrupt request signals occur, software will service these interrupt requests by ISR. The multiple interrupt sources provide the card with more flexibility.

### Digital Filter Function (PCI-1758UDI/PCI-1758UDIO)

The digital filter function is used to eliminate glitches on input data and reduce the number of changes to examine and process. The filter blocks pulses that are shorter than the specified timing interval and passes pulses that are twice as long as the specified interval. Intermediate-length pulses that are longer than half of the interval, but less than the interval, may or may not pass the filter depending on your settings.

## Pin Assignments

CNB				CNA			
PEF_COMM	100	50	PAB_COMM	NC	1	51	NC
PEF_COMM	99	49	PAB_COMM	NC	2	52	NC
PF_IDI07	98	48	PB_IDI07	NC	3	53	NC
PF_IDI06	97	47	PB_IDI06	NC	4	54	NC
PF_IDI05	96	46	PB_IDI05	NC	5	55	NC
PF_IDI04	95	45	PB_IDI04	NC	6	56	NC
PF_IDI03	94	44	PB_IDI03	P0_IDI00	7	57	P4_IDI00
PF_IDI02	93	43	PB_IDI02	P0_IDI01	8	58	P4_IDI01
PF_IDI01	92	42	PB_IDI01	P0_IDI02	9	59	P4_IDI02
PF_IDI00	91	41	PB_IDI00	P0_IDI03	10	60	P4_IDI03
PE_IDI07	90	40	PA_IDI07	P0_IDI04	11	61	P4_IDI04
PE_IDI06	89	39	PA_IDI06	P0_IDI05	12	62	P4_IDI05
PE_IDI05	88	38	PA_IDI05	P0_IDI06	13	63	P4_IDI06
PE_IDI04	87	37	PA_IDI04	P0_IDI07	14	64	P4_IDI07
PE_IDI03	86	36	PA_IDI03	P1_IDI00	15	65	P5_IDI00
PE_IDI02	85	35	PA_IDI02	P1_IDI01	16	66	P5_IDI01
PE_IDI01	84	34	PA_IDI01	P1_IDI02	17	67	P5_IDI02
PE_IDI00	83	33	PA_IDI00	P1_IDI03	18	68	P5_IDI03
NC	82	32	NC	P1_IDI04	19	69	P5_IDI04
NC	81	31	NC	P1_IDI05	20	70	P5_IDI05
NC	80	30	NC	P1_IDI06	21	71	P5_IDI06
NC	79	29	NC	P1_IDI07	22	72	P5_IDI07
NC	78	28	NC	P01_COMM	23	73	P45_COMM
NC	77	27	NC	P01_COMM	24	74	P45_COMM
NC	76	26	NC	NC	25	75	NC
NC	75	25	NC	NC	26	76	NC
PCD_COMM	74	24	P89_COMM	NC	27	77	NC
PCD_COMM	73	23	P89_COMM	NC	28	78	NC
PD_IDI07	72	22	P9_IDI07	NC	29	79	NC
PD_IDI06	71	21	P9_IDI06	NC	30	80	NC
PD_IDI05	70	20	P9_IDI05	NC	31	81	NC
PD_IDI04	69	19	P9_IDI04	NC	32	82	NC
PD_IDI03	68	18	P9_IDI03	P2_IDI00	33	83	P6_IDI00
PD_IDI02	67	17	P9_IDI02	P2_IDI01	34	84	P6_IDI01
PD_IDI01	66	16	P9_IDI01	P2_IDI02	35	85	P6_IDI02
PD_IDI00	65	15	P9_IDI00	P2_IDI03	36	86	P6_IDI03
PC_IDI07	64	14	P8_IDI07	P2_IDI04	37	87	P6_IDI04
PC_IDI06	63	13	P8_IDI06	P2_IDI05	38	88	P6_IDI05
PC_IDI05	62	12	P8_IDI05	P2_IDI06	39	89	P6_IDI06
PC_IDI04	61	11	P8_IDI04	P2_IDI07	40	90	P6_IDI07
PC_IDI03	60	10	P8_IDI03	P3_IDI00	41	91	P7_IDI00
PC_IDI02	59	9	P8_IDI02	P3_IDI01	42	92	P7_IDI01
PC_IDI01	58	8	P8_IDI01	P3_IDI02	43	93	P7_IDI02
PC_IDI00	57	7	P8_IDI00	P3_IDI03	44	94	P7_IDI03
NC	56	6	NC	P3_IDI04	45	95	P7_IDI04
NC	55	5	NC	P3_IDI05	46	96	P7_IDI05
NC	54	4	NC	P3_IDI06	47	97	P7_IDI06
NC	53	3	NC	P3_IDI07	48	98	P7_IDI07
NC	52	2	NC	P23_COMM	49	99	P67_COMM
NC	51	1	NC	P23_COMM	50	100	P67_COMM

I/O Connector Pin Assignment for PCI-1758UDI