

DAQ-2208

96-CH 12-Bit 3 MS/s Ultra High Density Analog Input Card

Features

- Supports a 32-bit 3.3 V or 5 V PCI bus
- 96-CH single-ended or 48-CH differential analog inputs
- Up to 3 MS/s sampling rate
- 12-bit A/D resolution
- On-board 1 k-sample A/D FIFO
- Bipolar or unipolar analog input ranges
- Programmable gains of x1, x2, x4, x5, x8, x10, x20, x40, x50, x200
- 1024-configuration channel-gain queue
- Scatter-gather DMA for analog inputs
- 24-CH TTL digital input/output
- Analog and digital triggering
- Fully auto calibration
- Multiple cards synchronization through SSI (System Synchronization Interface) bus
- Compact, half size PCB

Operating Systems

- Windows 2000/NT/XP/98
- Red Hat Linux
- Windows CE (call for availability)

Recommended Software

- VB/VC++/BCB/Delphi
- DAQBench

Driver Support

- D2K-DASK: Windows 2000/NT/XP/98 driver
- D2K-DASK/X: Red Hat Linux driver
- D2K-LVIEW: LabVIEW driver
- D2K-MTLB: MATLAB driver
- D2K-OCX: 32-bit ActiveX controls



Introduction

ADLINK DAQ-2208 is an ultra-high-density and high-performance analog input card. The device can sample up to 96 AI channels with different gain settings and scan sequences. It makes them ideal for dealing with ultra-high-density analog signals with various input ranges and sampling speeds. These devices also offer differential mode for 48 AI channels in order to achieve maximum noise elimination.

The DAQ-2208 also features analog and digital triggering and 24-CH programmable digital I/O lines. Like all the other members in DAQ-2000 family, the DAQ-2208 is able to perform the analog input at full speed while multiple cards can be synchronized through the SSI (system synchronization interface) bus. The auto-calibration functions adjust the gain and offset to within specified accuracies so that you do not have to adjust trimpots to calibrate the cards.

Termination Boards

DIN-68S/1M

Termination Board with a 68-pin SCSI-II Connector and DIN-Rail Mounting (Including One 1-meter ACL-10568 Cable)

SSI Bus Cables (for multiple cards synchronization)

ACL-SSI-2

SSI Bus cable for 2 devices

ACL-SSI-3

SSI Bus cable for 3 devices

ACL-SSI-4

SSI Bus cable for 4 devices

Ordering Information

DAQ-2208

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Pin Assignment Connector CN1 Pin Assignment

| | | | | |
|--------------|----|----|---------|------|
| AI0 (AIH0) | 1 | 35 | (AIL0) | AI48 |
| AI1 (AIH1) | 2 | 36 | (AIL1) | AI49 |
| AI2 (AIH2) | 3 | 37 | (AIL2) | AI50 |
| AI3 (AIH3) | 4 | 38 | (AIL3) | AI51 |
| AI4 (AIH4) | 5 | 39 | (AIL4) | AI52 |
| AI5 (AIH5) | 6 | 40 | (AIL5) | AI53 |
| AI6 (AIH6) | 7 | 41 | (AIL6) | AI54 |
| AI7 (AIH7) | 8 | 42 | (AIL7) | AI55 |
| AISENSE | 9 | 43 | AIGND | |
| AI8 (AIH8) | 10 | 44 | (AIL8) | AI56 |
| AI9 (AIH9) | 11 | 45 | (AIL9) | AI57 |
| AI10 (AIH10) | 12 | 46 | (AIL10) | AI58 |
| AI11 (AIH11) | 13 | 47 | (AIL11) | AI59 |
| AI12 (AIH12) | 14 | 48 | (AIL12) | AI60 |
| AI13 (AIH13) | 15 | 49 | (AIL13) | AI61 |
| AI14 (AIH14) | 16 | 50 | (AIL14) | AI62 |
| AI15 (AIH15) | 17 | 51 | (AIL15) | AI63 |
| AI16 (AIH16) | 18 | 52 | (AIL16) | AI64 |
| AI17 (AIH17) | 19 | 53 | (AIL17) | AI65 |
| AI18 (AIH18) | 20 | 54 | (AIL18) | AI66 |
| AI19 (AIH19) | 21 | 55 | (AIL19) | AI67 |
| AI20 (AIH20) | 22 | 56 | (AIL20) | AI68 |
| AI21 (AIH21) | 23 | 57 | (AIL21) | AI69 |
| AI22 (AIH22) | 24 | 58 | (AIL22) | AI70 |
| AI23 (AIH23) | 25 | 59 | (AIL23) | AI71 |
| AIGND | 26 | 60 | AIGND | |
| AI24 (AIH24) | 27 | 61 | (AIL24) | AI72 |
| AI25 (AIH25) | 28 | 62 | (AIL25) | AI73 |
| AI26 (AIH26) | 29 | 63 | (AIL26) | AI74 |
| AI27 (AIH27) | 30 | 64 | (AIL27) | AI75 |
| AI28 (AIH28) | 31 | 65 | (AIL28) | AI76 |
| AI29 (AIH29) | 32 | 66 | (AIL29) | AI77 |
| AI30 (AIH30) | 33 | 67 | (AIL30) | AI78 |
| AI31 (AIH31) | 34 | 68 | (AIL31) | AI79 |

Pin Assignment Connector CN2 Pin Assignment

| | | | | |
|--------------|----|----|---------|------|
| AI32 (AIH32) | 1 | 35 | (AIL32) | AI80 |
| AI33 (AIH33) | 2 | 36 | (AIL33) | AI81 |
| AI34 (AIH34) | 3 | 37 | (AIL34) | AI82 |
| AI35 (AIH35) | 4 | 38 | (AIL35) | AI83 |
| AI36 (AIH36) | 5 | 39 | (AIL36) | AI84 |
| AI37 (AIH37) | 6 | 40 | (AIL37) | AI85 |
| AI38 (AIH38) | 7 | 41 | (AIL38) | AI86 |
| AI39 (AIH39) | 8 | 42 | (AIL39) | AI87 |
| EXTATRIG | 9 | 43 | AIGND | |
| AI40 (AIH40) | 10 | 44 | (AIL40) | AI88 |
| AI41 (AIH41) | 11 | 45 | (AIL41) | AI89 |
| AI42 (AIH42) | 12 | 46 | (AIL42) | AI90 |
| AI43 (AIH43) | 13 | 47 | (AIL43) | AI91 |
| AI44 (AIH44) | 14 | 48 | (AIL44) | AI92 |
| AI45 (AIH45) | 15 | 49 | (AIL45) | AI93 |
| AI46 (AIH46) | 16 | 50 | (AIL46) | AI94 |
| AI47 (AIH47) | 17 | 51 | (AIL47) | AI95 |
| AIGND | 18 | 52 | AIGND | |
| N/C | 19 | 53 | N/C | |
| EXTDTRIG | 20 | 54 | AF10 | |
| EXTTIMEBASE | 21 | 55 | DGND | |
| PB7 | 22 | 56 | PB6 | |
| PB5 | 23 | 57 | PB4 | |
| PB3 | 24 | 58 | PB2 | |
| PB1 | 25 | 59 | PB0 | |
| PC7 | 26 | 60 | PC6 | |
| PC5 | 27 | 61 | PC4 | |
| DGND | 28 | 62 | DGND | |
| PC3 | 29 | 63 | PC2 | |
| PC1 | 30 | 64 | PC0 | |
| PA7 | 31 | 65 | PA6 | |
| PA5 | 32 | 66 | PA4 | |
| PA3 | 33 | 67 | PA2 | |
| PA1 | 34 | 68 | PA0 | |