



PCI-AD64SU

Universal PCI, 1 MS/s, 64-ch, 16-bit Analog Input Board
(4 K WORD FIFO)

Introduction

PCI-AD64SU is a high-resolution high channel count analog input card for the Universal PCI bus. Its sampling rate is up to 1 MS/s and 16-bit resolution provides the power needed for most data acquisition applications. PCI-AD64SU provides 64 single-ended, 32 differential analog input channels. It also has built in a 4k-sample FIFO buffer for analog input data.

The PCI-AD64SU also includes an onboard Card ID that enables the board to be recognized via software if two or more PCI-AD64SU cards are installed in the same computer.

Hardware Specifications

Analog Input	
Channels	64 Single-ended/32 Differential
AD Converter	16-bit, 1 μ s conversion time
Sampling Rate	Fixed channel: 1 MS/s (Max.) Scan channel: 100 kS/s (Max.)
FIFO Size	4096 Samples
Accuracy	0.1% of FSR \pm 1 LSB @ 25°C, \pm 10 V
Bipolar Input	\pm 10V, \pm 5V, \pm 2.5V, \pm 1.25V
General	
Bus Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz
Card ID	Yes (4-bit)
Connectors	Female SCSI II 68-pin x 1
Dimensions (L x W x D)	146 mm X 120.5 mm X 21.6 mm
Power Consumption	1 A @ +5 V (Max.)
Operating Temperature	0°C to +60°C
Humidity	5 to 85% RH, Non-condensing

Software

Drivers

32/64-bit Windows 10/11

Sample Programs

VB/VC/Delphi/VB.NET/C#.NET/VC.NET/LabVIEW/Python/MATLAB

Features

- Universal PCI (3.3 V/5 V) Interface
- Supports Card ID (SMD Switch)
- 64 Single-ended/32 Diff erential Analog Input Channels
 - 16-bit ADC with Max. 1 MS/s Sampling Rate
 - 4096-sample Hardware FIFO for Analog Input
 - AD Trigger Mode: Software, Pacer
 - AD Data Transfer: Polling, Interrupt

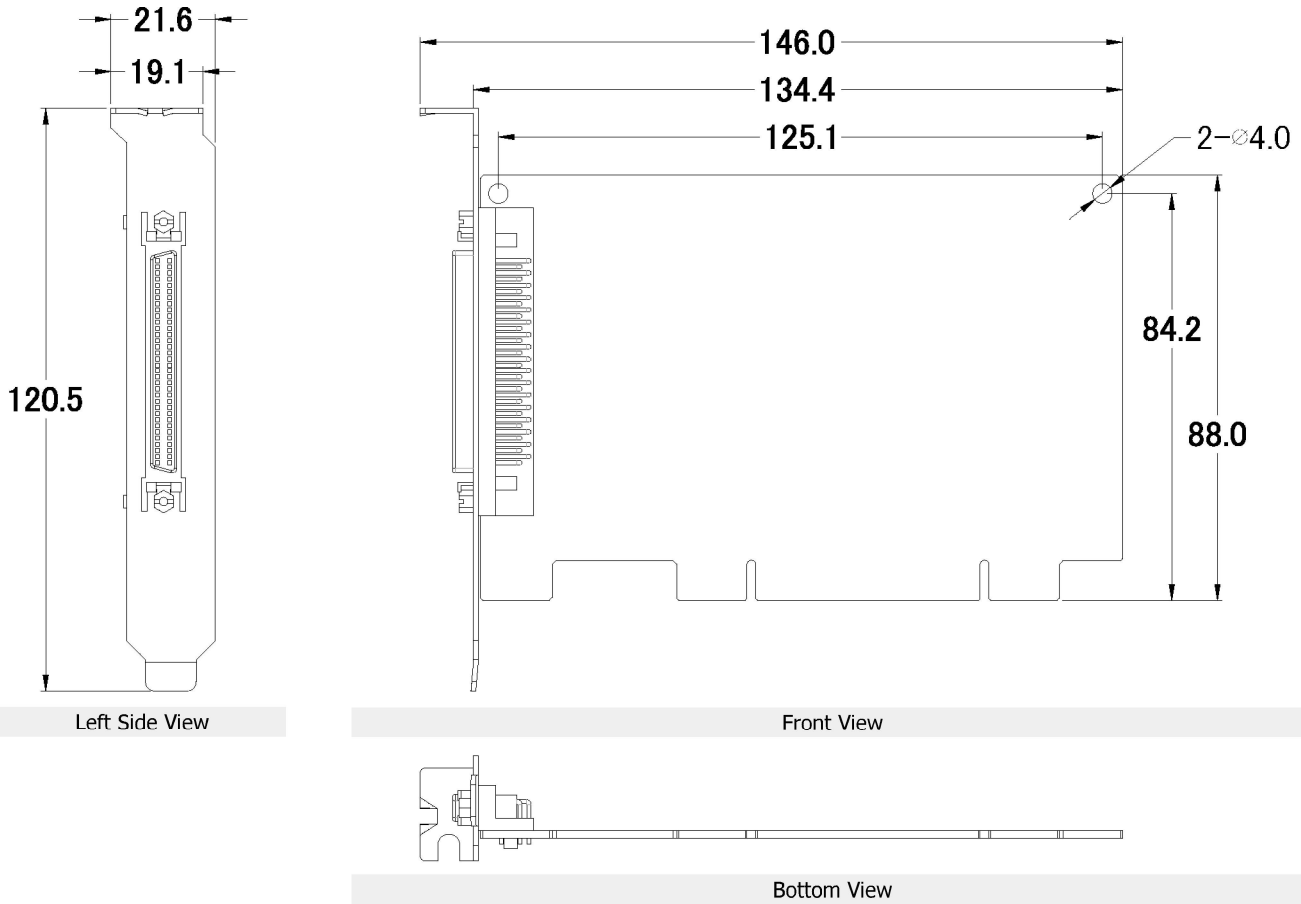


Pin Assignments

Pin Assignment	Terminal	No.	Pin Assignment		
S.E.	Diff.		Diff.	S.E.	
AI00	AI00+	68	34	AI00-	AI01
AI02	AI01+	67	33	AI01-	AI03
AI04	AI02+	66	32	AI02-	AI05
AI06	AI03+	65	31	AI03-	AI07
AI08	AI04+	64	30	AI04-	AI09
AI10	AI05+	63	29	AI05-	AI11
AI12	AI06+	62	28	AI06-	AI13
AI14	AI07+	61	27	AI07-	AI15
	AGND	60	26		AGND
AI16	AI08+	59	25	AI08-	AI17
AI18	AI09+	58	24	AI09-	AI19
AI20	AI10+	57	23	AI10-	AI21
AI22	AI11+	56	22	AI11-	AI23
AI24	AI12+	55	21	AI12-	AI25
AI26	AI13+	54	20	AI13-	AI27
AI28	AI14+	53	19	AI14-	AI29
AI30	AI15+	52	18	AI15-	AI31
AI32	AI16+	51	17	AI16-	AI33
AI34	AI17+	50	16	AI17-	AI35
AI36	AI18+	49	15	AI18-	AI37
AI38	AI19+	48	14	AI19-	AI39
AI40	AI20+	47	13	AI20-	AI41
AI42	AI21+	46	12	AI21-	AI43
AI44	AI22+	45	11	AI22-	AI45
AI46	AI23+	44	10	AI23-	AI47
	AGND	43	9		AGND
AI48	AI24+	42	8	AI24-	AI49
AI50	AI25+	41	7	AI25-	AI51
AI52	AI26+	40	6	AI26-	AI53
AI54	AI27+	39	5	AI27-	AI55
AI56	AI28+	38	4	AI28-	AI57
AI58	AI29+	37	3	AI29-	AI59
AI60	AI30+	36	2	AI30-	AI61
AI62	AI31+	35	1	AI31-	AI63

SCSI 68-pin/DB-68-pin




■ Dimensions (Units: mm)



■ Ordering Information

PCI-AD64SU CR	Universal PCI, 1 MS/s, 64-ch, 16-bit Analog Input Board (4 K WORD FIFO) (RoH)
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■ Accessories

	DN-68A CR	DIN-Rail Mountable I/O Connector Block with 68-pin Female SCSI II Connector (RoHS)
	CA-SCSI15-H CR	68-pin SCSI-II Connector Cable, 1.5 m (RoHS)
	2AB125R CR	Resistor DIP 125R 0.1% 1/4W MF 50PPM (1PCS) (RoHS)

