
**PAS 9410/AMP
ENGINEERING SPECIFICATION**

**32 Channel Buffer
Amplifier Card
PBC Revision A (09/15/2009)**

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32 Channel Buffer Amplifier Card

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
I	INTRODUCTION	
	General Description	4
II	SPECIFICATIONS	
	Electrical Specifications	5
	Environmental Specifications	5
	Physical Specifications	5
	Connector P3 Definitions	6
	Connector P4 Definitions	7

I INTRODUCTION

GENERAL DESCRIPTION

The PAS 9410/AMP provides 32 buffer amplifier circuits on a 6U X 160 mm format eurocard. Input signals enter the card through a 96-position DIN connector (P3) located in the upper part of the front panel. Output signals are terminated on a second 96-position DIN connector (P4) located in the lower part of the front panel.

The buffer amplifiers are made with Analog Devices AD711JN operational amplifiers, configured as unity gain buffers. Each amplifier has a 49.9 Ohm resistor in series with the output to increase its ability to drive a capacitive load. The amplifiers output is sensed on the load side of the 49.9 Ohm resistor to compensate for any voltage drop across the resistor.

On-board DC to DC power supplies step up the +5 Volt power from the backplane, to the +/- 15 Volts required to power the amplifier circuits.

I. SPECIFICATIONS

Electrical Specifications:

Number of Channels	32
Input Voltage Range	+/- 10 Volts
Output Voltage Range	+/- 10 Volts
Output Current	+/- 25 mA (typ)
Gain	1.00
Zero Error	5 mV (typ)
Gain Error	0.1% FS (typ)
Slew Rate	15 V/uSec (typ)
Card Power Requirement (From Backplane)	+ 5 Volts @ 700 mA (No Load) + 5 Volts @ 2.0 Amps(10 mA/Ch)

Environmental Specifications

Operating Temperature Range	0 to 55° C
Storage Temperature Range	0 to 85° C
Relative Humidity Range	20% to 80%, non-condensing

Physical Specifications

Dimensions	Form Factor : Double (160mm x 233mm)
Weight	16 oz. (typ)
Connectors	
Front Panel I/O	2 ea. 96-position male shrouded DIN
Backplane	2 ea. 96-position male shrouded DIN

PAS 9410/AMP Connector P3 Pin Definitions

	A	B	C
32	N/C	AGND	CH31IN
31	N/C	AGND	CH30IN
30	N/C	AGND	CH29IN
29	N/C	AGND	CH28IN
28	N/C	AGND	CH27IN
27	N/C	AGND	CH26IN
26	N/C	AGND	CH25IN
25	N/C	AGND	CH24IN
24	N/C	AGND	CH23IN
23	N/C	AGND	CH22IN
22	N/C	AGND	CH21IN
21	N/C	AGND	CH20IN
20	N/C	AGND	CH19IN
19	N/C	AGND	CH18IN
18	N/C	AGND	CH17IN
17	N/C	AGND	CH16IN
16	N/C	AGND	CH15IN
15	N/C	AGND	CH14IN
14	N/C	AGND	CH13IN
13	N/C	AGND	CH12IN
12	N/C	AGND	CH11IN
11	N/C	AGND	CH10IN
10	N/C	AGND	CH9IN
9	N/C	AGND	CH8IN
8	N/C	AGND	CH7IN
7	N/C	AGND	CH6IN
6	N/C	AGND	CH5IN
5	N/C	AGND	CH4IN
4	N/C	AGND	CH3IN
3	N/C	AGND	CH2IN
2	N/C	AGND	CH1IN
1	N/C	AGND	CH0IN

N/C = No Connection

AGND = Analog Ground

PAS 9410/AMP Connector P4 Pin Definitions

	A	B	C
32	N/C	AGND	CH31OUT
31	N/C	AGND	CH30OUT
30	N/C	AGND	CH29OUT
29	N/C	AGND	CH28OUT
28	N/C	AGND	CH27OUT
27	N/C	AGND	CH26OUT
26	N/C	AGND	CH25OUT
25	N/C	AGND	CH24OUT
24	N/C	AGND	CH23OUT
23	N/C	AGND	CH22OUT
22	N/C	AGND	CH21OUT
21	N/C	AGND	CH20OUT
20	N/C	AGND	CH19OUT
19	N/C	AGND	CH18OUT
18	N/C	AGND	CH17OUT
17	N/C	AGND	CH16OUT
16	N/C	AGND	CH15OUT
15	N/C	AGND	CH14OUT
14	N/C	AGND	CH13OUT
13	N/C	AGND	CH12OUT
12	N/C	AGND	CH11OUT
11	N/C	AGND	CH10OUT
10	N/C	AGND	CH9 OUT
9	N/C	AGND	CH8 OUT
8	N/C	AGND	CH7 OUT
7	N/C	AGND	CH6 OUT
6	N/C	AGND	CH5 OUT
5	N/C	AGND	CH4 OUT
4	N/C	AGND	CH3 OUT
3	N/C	AGND	CH2 OUT
2	N/C	AGND	CH1 OUT
1	N/C	AGND	CH0 OUT

N/C = No Connection

AGND = Analog Ground