ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Alphi Technology RPIO-AD320-FILT* at our website: *Click HERE*

RPIO-FILT-2.5K

16 Channel 2.5khz Filter
Rear Panel Entry

REFERENCE MANUAL

767-10-004-4000
Version 1.0
September 2001

ALPHI TECHNOLOGY CORPORATION

6202 S. Maple Avenue #120
Tempe, AZ 85283 USA
Tel: (480) 838-2428
Fax: (480) 838-4477

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

NOTICE

The information in this document has been carefully checked and is believed to be entirely reliable. While all reasonable efforts to ensure accuracy have been taken in the preparation of this manual, ALPHI TECHNOLOGY assumes no responsibility resulting from omissions or errors in this manual, or from the use of information contain herein.

ALPHI TECHNOLOGY reserves the right to make any changes, without notice, to this or any of ALPHI TECHNOLOGY's products to improve reliability, performance, function or design.

ALPHI TECHNOLOGY does not assume any liability arising out of the application or use of any product or circuit described herein; nor does ALPHI TECHNOLOGY convey any license under its patent rights or the rights of others.

ALPHI TECHNOLOGY CORPORATION

All Rights Reserved

This document shall not be duplicated, nor its contents used
for any purpose, unless express permission has been granted in advance.

 Copyright © 1999, ALPHI Technology Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

TABLE OF CONTENTS

1. GENERAL DESCRIPTION ____ *1*
1.1 INTRODUCTION ____ 1
1.1.1 FRONT PANEL DESCRIPTION ____ 1
1.2 DIGITAL SIGNALS CONNECTION (P3) ____ 6
1.2.1 REAR PANEL DESCRIPTION ____ 8

 Copyright © 1999, ALPHI Technology Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

1. GENERAL DESCRIPTION

1.1 INTRODUCTION

The **RPIO-FILT-2.5K** is a 16 differential analog inputs Filter with Cut-Off Frequency of 2.5KHZ .

Connections to the input signals are available at the front panel and at the rear panel I/O connectors, and are fully supported by ALPHI Technology's line of Rear Panel I/O modules targeted towards data acquisition applications.

NOTE:

Only A signal can be injected at one time: Front Panel or Rear Panel.

When the Rear Panel is used (or Plugged in), the Front panel connector can be use for Monitoring purpose with a scope or similar device.

1.1.1 FRONT PANEL DESCRIPTION

The following picture shows the front panel.

 Copyright © 1999, ALPHI Technology Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

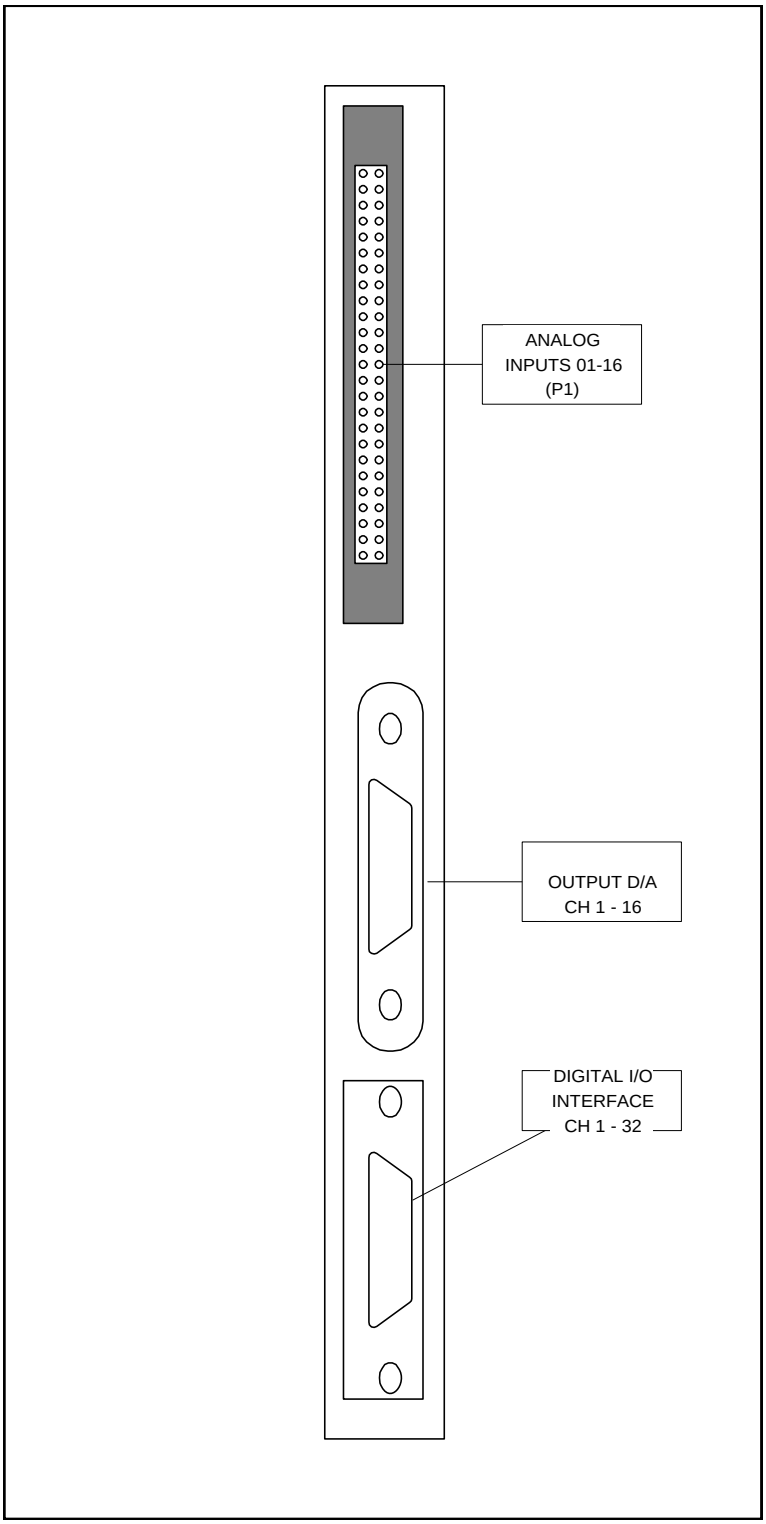


Figure 1.1: Front Panel

 Copyright © 1999, ALPHI Technology Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Analog Input Connector (P1)

A pair of 50 pin ribbon-style connectors are used to connect the analog input signals to this card. ALPHI Technology can supply transition modules and cable assemblies to meet any special requirements. Contact the factory for additional information.

Pins are numbered according to the following diagram. To simplify the description of the connections.

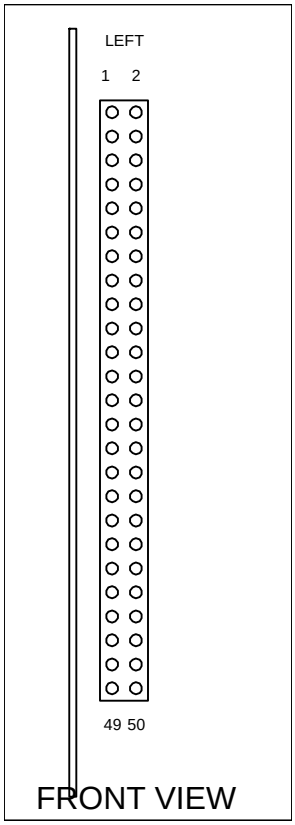


Figure 1.2: Analog Input Connector (P1)

 Copyright © 1999, ALPHI Technology Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Pin	Connection	Pin	Connection
1	AIN01-	2	AIN01+
3	AGND	4	AGND
5	AIN02-	6	AIN02+
7	AIN03-	8	AIN03+
9	AGND	10	AGND
11	AIN04-	12	AIN04+
13	AIN05-	14	AIN05+
15	AGND	16	AGND
17	AIN06-	18	AIN06+
19	AIN07-	20	AIN07+
21	AGND	22	AGND
23	AIN08-	24	AIN08+
25	AIN09-	26	AIN09+
27	AGND	28	AGND
29	AIN10-	30	AIN10+
31	AIN11-	32	AIN11+
33	AGND	34	AGND
35	AIN12-	36	AIN12+
37	AIN13-	38	AIN13+
39	AGND	40	AGND
41	AIN14-	42	AIN14+
43	AIN15-	44	AIN15+
45	AGND	46	AGND
47	AIN16-	48	AIN16+
49	N/C	50	N/C

Table 1.1: Analog Input Connector (P1)

D/A INTERFACE CONNECTOR

A 25 pin D-SUB shelled connector is used to route the D/A signals off the card.

Connectors are manufactured by AMP/TYCO.

Use	Model
On PC Board	745783-4
Suggested Plug	747912-2

Table 1.2: D/A Connector Model Numbers

The pinout is described in the table below.

 Copyright © 1999, ALPHI Technology Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Pin	Description	Pin	Description
1	GROUND	2	GROUND
3	DA OUT CH1	4	DA OUT CH2
5	DA OUT CH3	6	DA OUT CH4
7	DA OUT CH5	8	DA OUT CH6
9	DA OUT CH7	10	DA OUT CH8
11	GROUND	12	GROUND
13	DA OUT CH9	14	DA OUT CH10
15	DA OUT CH11	16	DA OUT CH12
17	DA OUT CH13	18	DA OUT CH14
19	DA OUT CH15	20	DA OUT CH16
21	GROUND	22	GROUND
23	N.C.	24	N.C.
25	N.C.		

Table 1.3: D/A Connector (P2)

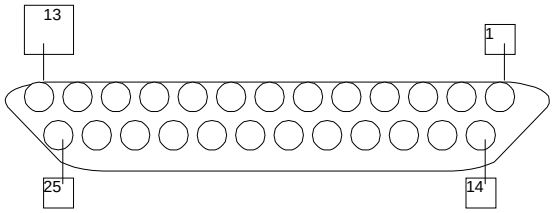


Figure 1.2: D/A Connector (P2)

Copyright © 1999, ALPHI Technology Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

1.2 DIGITAL SIGNALS CONNECTION (P3)

This connector provides access to the digital 8536 lines from the CPCI-AD320.

A 50 pin subminiature D shelled connector is used to route the digital 8536 lines from the CPCI-AD320

ALPHI Technology can supply transition modules and cable assemblies to meet any special requirements. Contact the factory for additional information.

Connectors are manufactured by AMP.

Use	Model
On PC Board	787190-5
Suggested Plug	749111-4

Table 1.2: I/O Connector Model Numbers

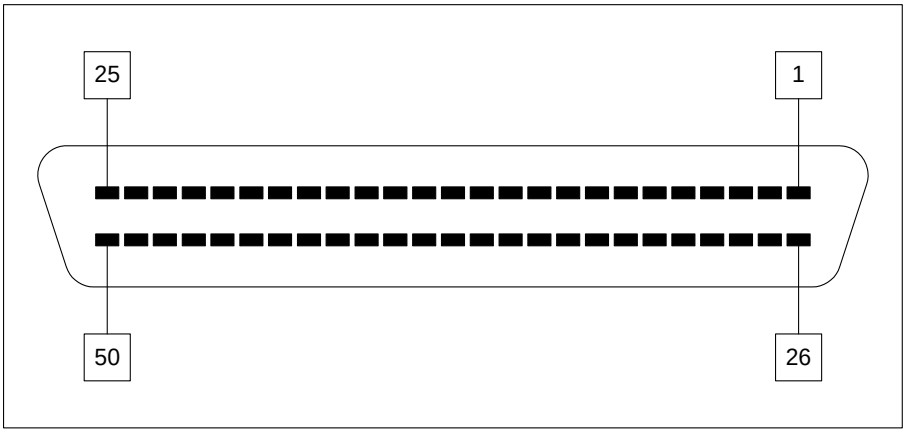


Figure 1.3: External I/O Connector

 Copyright © 1999, ALPHI Technology Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Pin	Connection	Pin	Connection
1	D_GND	26	D_GND
2	IO-01	27	IO-17
3	IO-02	28	IO-18
4	IO-03	29	IO-19
5	IO-04	30	IO-20
6	IO-05	31	IO-21
7	IO-06	32	IO-22
8	IO-07	33	IO-23
9	IO-08	34	IO-24
10	D_GND	35	D_GND
11	IO-09	36	IO-25
12	IO-10	37	IO-26
13	IO-11	38	IO-27
14	IO-12	39	IO-28
15	IO-13	40	IO-29
16	IO-14	41	IO-30
17	IO-15	42	IO-31
18	IO-16	43	IO-32
19	D_GND	44	D_GND
20	N/C	45	N/C
21	N/C	46	N/C
22	D_GND	47	D_GND
23	D_GND	48	D_GND
24	+5V	49	+5V
25	+5V	50	+5V

Table 1.3: External I/O Connector

Figure 1.2: External I/O Connector (P3)

 Copyright © 1999, ALPHI Technology Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

1.2.1 REAR PANEL DESCRIPTION

Analog Outputs and Digital Connection to Rear Panel I/O Module (J4)

PIN	A	B	C	D	E	F
25			AOUT01	AGND	AOUT02	GND
24	AGND			AOUT03	AGND	GND
23	AOUT04	AGND			AOUT05	GND
22	AGND	AOUT06	AGND			GND
21	AOUT07	AGND	AOUT08	AGND		GND
20						GND
19						GND
18						GND
17						GND
16						GND
15	+3.3	+3.3	+3.3	+5	+5	GND
12 - 14	KEY AREA					
11	RXD0	TXD0	RTS0	CTS0	PA_04	GND
10	PA_06		PA_02	PB_02		GND
9	PB_04	PB_06	PB_00	SCK	SLD	GND
8	EXT INT	FAULT				GND
7	LIMIT	NULL PACE				GND
6		PA_01	PA_03		PA_05	GND
5	PA_07		PB_01	PB_03		GND
4	PB_05	PB_07			SRST	GND
3	TXD1-	RTS1+	RTS1-	CTS1+	CTS1-	GND
2	PA_00	RXD1+	RXD1-	SDI	TXD1+	GND
1	+3.3	+3.3	+3.3	+5	+5	GND

Table 1.4: Analog Outputs and Digital Connection to Rear Panel I/O Module (J4)

 Copyright © 1999, ALPHI Technology Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Analog Inputs Connection to Rear Panel I/O Module (J5)

Note that channels 09-16 and channels 17-24 are swapped from the RPIO documentation, in order to match correctly with the RPIO modules.

Channels 01-08 will be located on the Primary RPIO Module.

Channels 09-16 will be located on the Secondary RPIO Module.

Channels 17-24 will be located on the Primary RPIO Module's Daughter Board.

Channels 25-32 will be located on the Secondary RPIO Module's Daughter Board.

PIN	A	B	C	D	E	F
22			AIN17+	AIN01+	AIN18+	GND
21	AIN02+			AIN19+	AIN03+	GND
20	AIN20+	AIN04+			AIN21+	GND
19	AIN05+	AIN22+	AIN06+			GND
18	AIN23+	AIN07+	AIN24+	AIN08+		GND
17		AIN17-	AIN01-	AIN18-	AIN02-	GND
16			AIN19-	AIN03-	AIN20-	GND
15	AIN04-			AIN21-	AIN05-	GND
14	AIN22-	AIN06-			AIN23-	GND
13	AIN07-	AIN24-	AIN08-			GND
12	+3.3	+3.3	+3.3	+5	+5	GND
11			AIN25+	AIN09+	AIN26+	GND
10	AIN10+			AIN27+	AIN11+	GND
9	AIN28+	AIN12+			AIN29+	GND
8	AIN13+	AIN30+	AIN14+			GND
7	AIN31+	AIN15+	AIN32+	AIN16+		GND
6		AIN25-	AIN09-	AIN26-	AIN10-	GND
5			AIN27-	AIN11-	AIN28-	GND
4	AIN12-			AIN29-	AIN13-	GND
3	AIN30-	AIN14-			AIN31-	GND
2	AIN15-	AIN32-	AIN16-			GND
1	+3.3	+3.3	+3.3	+5	+5	GND

Table 1.5: Analog Inputs Connection to Rear Panel I/O Module (J5)

 Copyright © 1999, ALPHI Technology Corporation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP