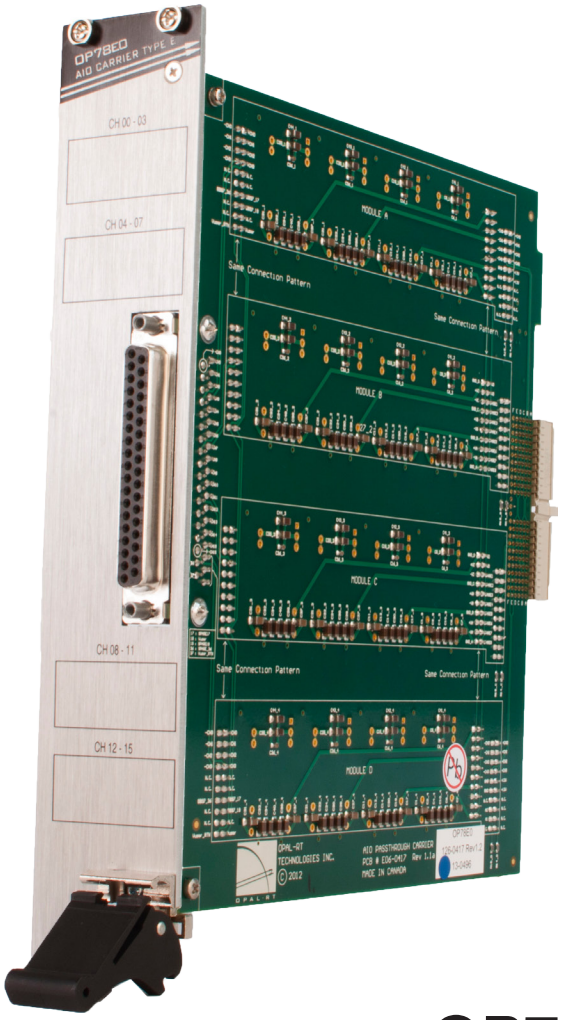
OPAL-RT



OP78E0 User Manual

Type E Conditioning Carrier Module for OP7000

WWW.OPAL-RT.COM

Published by

OPAL-RT Technologies, Inc. 1751 Richardson, suite 2525 Montreal, Quebec Canada H3K 1G6

www.opal-rt.com

CONTENTS

OP78E0 TYPE E ANALOG CARRIER

DESCRIPTION

Standard analog modules, such as the OP5330 and OP5340, are designed to operate in +/-16V voltage mode. When they are used in an OP7000 simulator, the OP78E0 carrier allows extra signal conditioning to transform the standard +/-16V voltage mode into different types of conditioning.

The OP78E0 carrier board provides conditioning for OP5330 analog output and OP5340 analog input boards used in the OP7000 simulator. It provides spaces for up to four type E mezzanine modules and allows different analog conditioning for each bank of four channels.

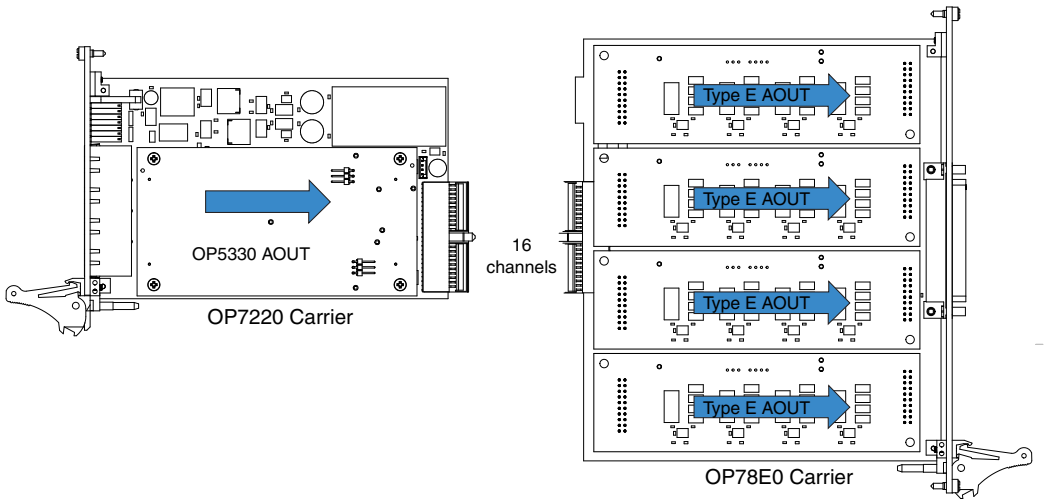
The OP78E0 carrier board is divided into four sections of four channels for a total of sixteen channels. Each section can accommodate any TypeE module and provides a number of combinations.

The choice of TypeE module is determined by the module type installed on the OP7220 on the front of the chassis

ANALOG OUTPUT CONFIGURATION

When used with OP5330, each section of four channels can receive a different analog out TypeE module:

POST CONDITIONING CONFIGURATION

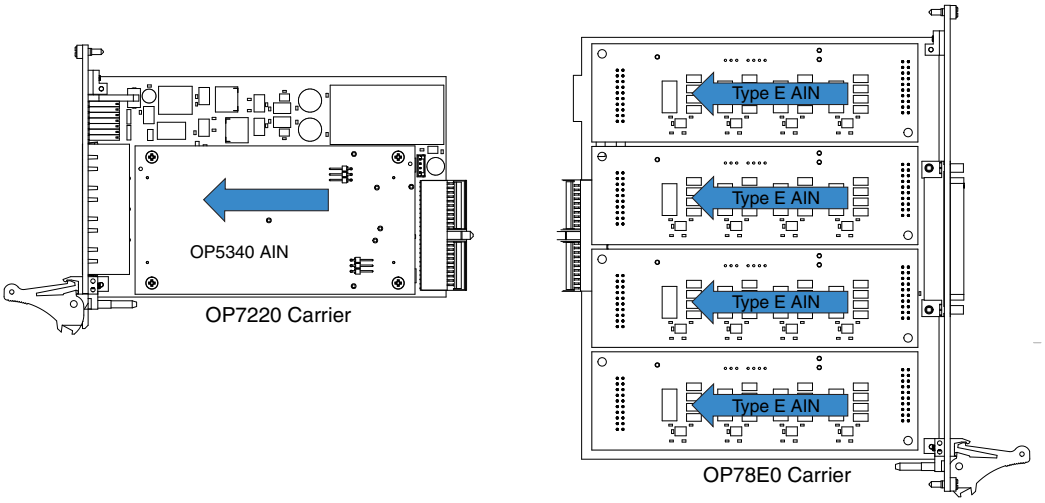


- OP8E03, analog to current output
- OP8E00, analog passthrough
- OP8E01, prototyping analog PCB

ANALOG INPUT CONFIGURATION

When used with OP5340, each section of four channels can receive a different analog in TypeE module:

PRE CONDITIONING CONFIGURATION



- OP8E02, current to analog input
- OP8E04, high voltage input
- OP8E01, prototyping analog PCB
- OP8E00, analog passthrough

APPLICATIONS

- Hardware-in-the-loop (HIL) testing
- Rapid control prototyping laboratory conditioning
- Custom conditioning

CONNECTOR PIN ASSIGNMENTS

OP78E0/ Module	DB37F	Channels	DB37F	Channels
A	1	+CH00	20	-CH00
	2	+CH01	21	-CH01
	3	+CH02	22	-CH02
	4	+CH03	23	-CH03
B	5	+CH04	24	-CH04
	6	+CH05	25	-CH05
	7	+CH06	26	-CH06
	8	+CH07	27	-CH07
C	9	+CH08	28	-CH08
	10	+CH09	29	-CH09
	11	+CH10	30	-CH10
	12	+CH11	31	-CH11
D	13	+CH12	32	-CH12
	14	+CH13	33	-CH13
	15	+CH14	34	-CH14
	16	+CH15	35	-CH15

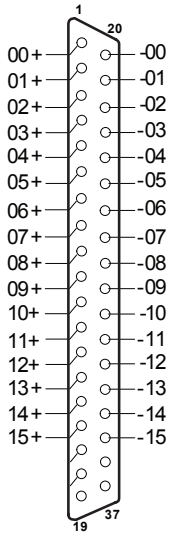


Table 1: Pin Assignments

SPECIFICATIONS

Product name	**OP78E0**
Part number	126-0417
Product type	OP7000 back type E carrier board
Number of channels	Up to16
Operating voltage	Depending on mezzanine configuration
Dimensions	18.8 x 16.4 cm (7.4 in x 6.46 in)
I/O connector	DB37F (in from client side) per board
Operating temperature	10 to 40 ºC (50 to 104ºF)
Storage temperature	-55 to 85ºC (-67 to 185ºF)
Relative humidity	10 to 90%, non condensing
Maximum altitude	2,000 m (6562 ft.)

CONTACT

OPAL-RT Corporate Headquarters

1751 Richardson, Suite 2525
Montréal, Québec, Canada
H3K 1G6
Tel.: 514-935-2323
Toll free: 1-877-935-2323

Technical Services
www.opal-rt.com/support

Note:

While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines.
This publication is not intended to form the basis of a contract.

UG-13-33228-OP1
08/2013