

HP E1418A

## 16-Channel D/A Converter Opt. 003



Limited Availability  
Used and in Excellent Condition

Open Web Page

<https://www.artisanng.com/45875-4>

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



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

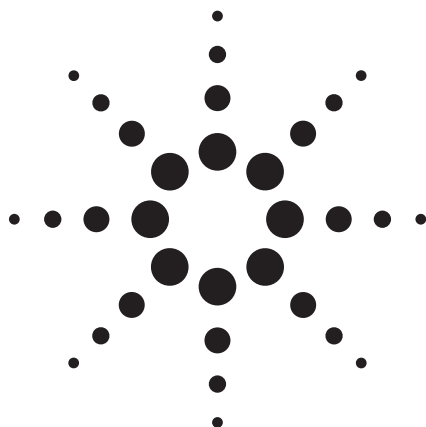
**Artisan Technology Group**

(217) 352-9330 | [sales@artisanng.com](mailto:sales@artisanng.com) | [artisanng.com](http://artisanng.com)

- Critical and expedited services
- In stock / Ready-to-ship

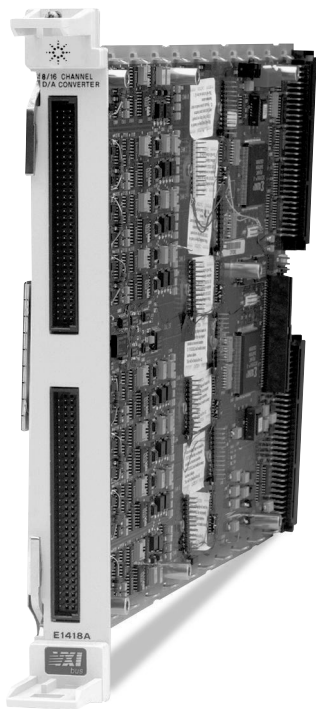
- We buy your excess, underutilized, and idle equipment
- Full-service, independent repair center

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



Agilent E1418A  
8/16-Channel D/A Converter  
Data Sheet

- 1-Slot, C-size, register based
- 8/16 independent channels, flexible and configurable
- Individual isolation per channel
- 16-bit resolution D/A per channel
- Programmable selectable voltage/current modes
- Software controlled calibration



Agilent E1418A

Description

The Agilent E1418A 8/16-Channel D/A Converter is a **C-size, 1-slot, register-based VXI module**. It consists of 8 or 16 fully independent, isolated or non-isolated, 16-bit D/As. Each channel can be set to voltage or current mode with local or remote sensing on voltage outputs. All outputs can be updated with register-level programming to allow fast backplane access. Each channel can be updated individually, or by using the internal data buffer, synchronized so that all channels change simultaneously. The channel output mode is

set with jumpers in the terminal block for each channel or by register programming. Each D/A converter can be calibrated without removal through software commands and use of the terminal block CALBUS in conjunction with a 5.5-digit multimeter. The on/off terminal block has standard screw terminals for field wiring.

Refer to the Agilent Technologies Website for instrument driver availability and downloading instructions, as well as for recent product updates, if applicable.



Agilent Technologies  
Innovating the HP Way

Fast Updates

All outputs can be updated with register-level programming to allow fast backplane access. Rates are limited by controller speed and analog settling time. Each channel can be updated individually, or by using the internal data buffer, synchronized so that all channels change at the same time. The channel output mode is set with jumpers in the terminal block for each channel or by register programming.

In-place Calibration

Each D/A converter can be calibrated without removal through software commands and use of the terminal block CALBUS in conjunction with a 5.5-digit multimeter. In addition, a built-in self-test command provides a high level of confidence that the module is operating properly.

Choice of Connectors

The easy-to-use on/off terminal block, a feature of QUIC, has standard screw terminals for field wiring. Optional crimp and insert or ribbon cable connectors are available. Each channel contains a programmable output disconnect relay to open or close the channel.

Product Specifications

DC Voltage

Amplitude:	± 16 V max.
Resolution:	16 bits (488 µV steps) Monotonic to 2.0 mV
Amplitude accuracy (dc):	± (0.05% + 3.0 mV) (90 days)

DC Current

Range:	0 to ± 20.00 mA
Resolution:	16 bit (610 nA steps) Monotonic to 25 µA
Accuracy:	± (% value + amps) (calibrated; temperature within ± 5 °C of calibration temperature and same load as at calibration)
90-day:	± (0.09% + 5.0 µA)
Output voltage:	
Compliance voltage:	± 12 V
Max open circuit voltage:	<18 V
Output current:	
Compliance current:	>20 mA @ 0 to ± 12 V derated linearly to 5 mA @ ± 16 mV
Short circuit current:	<40 mA
Differential ripple and noise:	<2 µA rms (20 Hz - 250 kHz, into 250 Ω load)

AC Output

Sample rate:	1 kSa/s per channel
Modulation:	No
Sweep:	No
Amplitude accuracy (ac):	not specified
Standard waveforms:	No
Arbitrary waveform function:	No

General Characteristics

Settling time:	300 µs (+ full scale to – full scale step, single channel, to rated accuracy)
Isolation:	42 Vdc/ac peak (channel-to-chassis or channel-to-channel)
Synchronization:	Software commands, external trigger inputs, or TTL backplane trigger lines provide a choice of synchronizing event. Each individual channel can be updated by software command or all channels can be updated at the same time based upon a software or hardware trigger.

General Specifications

VXI Characteristics

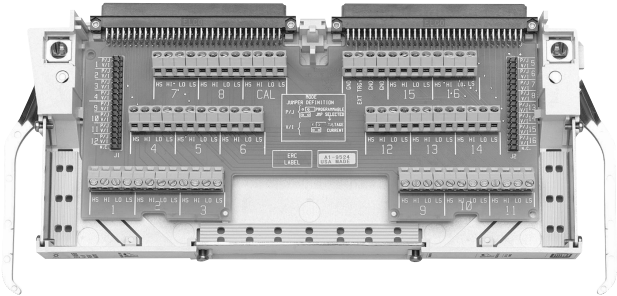
VXI device type:	Register based
Data transfer bus:	A16 or A24, D16
Size:	C
Slots:	1
Connectors:	P1/2
Shared memory:	n/a
VXI busses:	n/a
C-size compatibility:	n/a

Instrument Drivers	
See the Agilent Technologies Website ( <a href="http://www.agilent.com/find/inst_drivers">http://www.agilent.com/find/inst_drivers</a> ) for driver availability and downloading.	
Command module firmware:	Downloadable
Command module firmware rev:	A.08
I-SCPI Win 3.1:	Yes
I-SCPI Series 700:	Yes
C-SCPI LynxOS:	Yes
C-SCPI Series 700:	Yes
Panel Drivers:	No
VXIplug&play Win Framework:	Yes
VXIplug&play Win 95/NT Framework:	Yes
VXIplug&play HP-UX Framework:	No

Module Current		
	I <sub>PM</sub>	I <sub>DM</sub>
+ 5 V:	0.7	0.01
+ 12 V:	0.04	0.01
−12 V:	0	0
+ 24 V:	0.44	0.01
−24 V:	0.44	0.01
−5.2 V:	0	0
−2 V:	0	0

Cooling/Slot	
Watts/slot:	25.4
ΔP mm H <sub>2</sub> O:	0.10
Air Flow liter/s:	2.00

Ordering Information	
Description	Product No.
8/16-Channel D/A Converter	E1418A
Add 8 Channels for total of 16, Non-isolated***	E1418A 001***
Convert 8 Channels to Isolated***	E1418A 002***
Add 8 Channels and convert all 16 to Isolated***	E1418A 003***
Crimp/Insert Connectors****	E1418A A3E****
Ribbon Cable Connectors	E1418A A3H
3 yr Retn. to Agilent to 1 yr. OnSite Warr.	E1418A W01
1-Channel Isolation Plug-on for E1418A*	E1523A*
8-Non-Isolated-Channel Expan. Kit for E1418A**	E1524A**
8-Isolated-Channel Expan. Kit for E1418A**	E1525A**
Notes:	
* You can add isolation to single channels with the E1523A.	
** You can add an 8-channel expansion kit to existing 8-channel units with the E1524A and E1525A.	
*** Factory-installed option. <i>Must</i> be ordered with the E1418A.	
**** Crimp-and-insert contacts are not included. See the Interconnect and Wiring section for information on ordering Crimp-and-Insert Contacts.	



Related Literature

2000 Test System and VXI Catalog CD-ROM,  
Agilent Pub. No. 5980-0308E (detailed specifications for VXI products)

2000 Test System and VXI Catalog,  
Agilent Pub. No. 5980-0307E (overview of VXI products )

1998 Test System and VXI Products Data Book,  
Agilent Pub. No. 5966-2812E

Online

Internet access for Agilent product information, services and support  
[www.agilent.com/find/tmdir](http://www.agilent.com/find/tmdir)

VXI product information  
[www.agilent.com/find/vxi](http://www.agilent.com/find/vxi)

Defense Electronics Applications  
[www.agilent.com/find/defense\\_ATE](http://www.agilent.com/find/defense_ATE)

Agilent Technologies VXI Channel Partners  
[www.agilent.com/find/vxichanpart](http://www.agilent.com/find/vxichanpart)

Agilent Technologies’ HP VEE Application Website  
[www.agilent.com/find/vee](http://www.agilent.com/find/vee)

Agilent Technologies Data Acquisition and Control Website  
[www.agilent.com/find/data\\_acq](http://www.agilent.com/find/data_acq)

Agilent Technologies Instrument Driver Downloads  
[www.agilent.com/find/inst\\_drivers](http://www.agilent.com/find/inst_drivers)

Agilent Technologies Electronics Manufacturing Test Solutions  
[www.agilent.com/go/manufacturing](http://www.agilent.com/go/manufacturing)

Get assistance with all your test and measurement needs at  
[www.agilent.com/find/assist](http://www.agilent.com/find/assist)  
or check your local phone book for the Agilent office  
near you.

Agilent Technologies’ test and measurement service/support  
commitment

Agilent strives to maximize the value our test and measurement products give you, while minimizing your risk and service/support problems. We work to ensure that each product is realistically described in the literature, meets its stated performance and functionality, has a clearly stated global warranty, and is supported at least five years beyond its production life. Our extensive self-help tools include many online resources ([www.agilent.com](http://www.agilent.com)).

Experienced Agilent test engineers throughout the world offer practical recommendations for product evaluation and selection. After you purchase an Agilent product, they can provide no-charge assistance with operation verification and basic measurement setups for advertised capabilities. To enhance the features, performance, and flexibility of your test and measurement products—and to help you solve application challenges—Agilent offers free or extra-cost product options and upgrades, and sell expert engineering, calibration, and other consulting services.

Phone and fax

United States:  
Agilent Technologies  
(tel) 1 800 452 4844

Canada:  
Agilent Technologies Canada Inc.  
(tel) 1 877 894 4414

Europe:  
Agilent Technologies  
Test & Measurement  
European Marketing Organisation  
(tel) (31 20) 547 2000

Japan:  
Agilent Technologies Japan Ltd.  
(tel) (81) 426 56 7832  
(fax) (81) 426 56 7840

Latin America:  
Agilent Technologies  
Latin American Region Headquarters, U.S.A.  
(tel) (305) 267 4245  
(fax) (305) 267 4286

Australia/New Zealand:  
Agilent Technologies Australia Pty Ltd.  
(tel) 1 800 629 485 (Australia)  
(fax) (61 3) 9272 0749  
(tel) 0 800 738 378 (New Zealand)  
(fax) (64 4) 802 6881

Asia Pacific:  
Agilent Technologies, Hong Kong  
(tel) (852) 3197-7777  
(fax) (852) 2506-9284

Data Subject to Change  
© Agilent Technologies 2000  
Printed in the U.S.A. 04/2000  
Publication No.: 5965-5534E



Agilent Technologies  
Innovating the HP Way

# 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](https://www.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](mailto:sales@artisanTG.com) | [artisanTG.com](https://www.artisanTG.com)

