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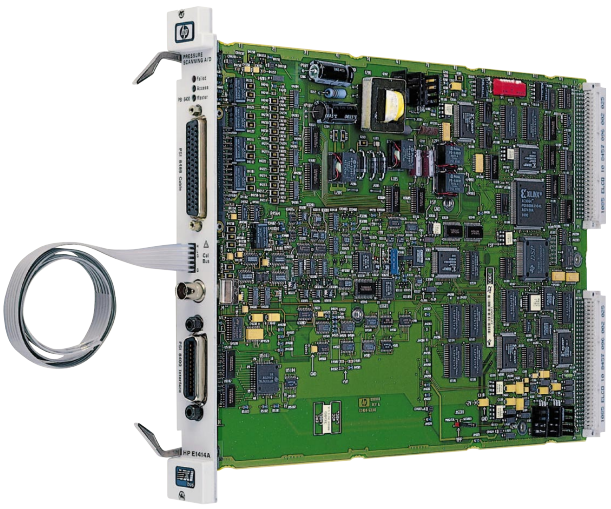
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Find the *Keysight / Agilent E1414A* at our website: *Click HERE*

Pressure Scanning A/D Converter HP E1414A

Technical Specifications

- **Interface to PSI 8400 Pressure Acquisition System**
- **Supports PSI scanners**
- **Up to 512 channels of electronic pressure scanning**
- **Scan rates of 20 kHz random or 50 kHz interleaved**
- **Full autozeroing and autocalibration using PSI 8400**



HP E1414A

Description

The HP E1414A Pressure Scanning A/D Converter is a **C-size, 1-slot, register-based VXI module.** It performs data-acquisition measurements where pressure data is integrated into the VXI data path, scanning rates are up to 50 kHz, and measurement accuracy is up to .05% FS.

This system provides for control of channel scanning and A/D conversion of the pressure-scanner output over the VXI backplane. Up to 512 channels of scanned pressure can be supported on one to four analog buses. The pressure scanners can be calibrated automatically (SCPI or C-SCPI Driver required) using the Pressure Calibrator Units in the PSI 8400 mainframe (see Specifications). The HP E1414A module supports the following PSI scanners: ESP Remote Scanners, HD Rackmount Scanners, BP Rugged Scanners, D Rackmount Scanners. Thus, a single communication path over the VXI backplane greatly simplifies interfacing and programming efforts.

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

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Storage

The 64 K FIFO RAM acts as an effective buffer for storing readings until the controller is ready for data transfer. In addition, the Current Value Table RAM always contains the most recent measured value of each channel in the scan list.

Programming

The HP E1414A may be programmed using any one of several languages supported by the HP Foundation Systems. Register-level prorgamming is not supported due to the complexity of the automatic closed-loop calibration routine.

Product Specifications

Maximum reading rate:

Sequential mode:	20 k rdgs/s divided by the number of channels in the scan
Parallel mode:	50 k rdgs/s divided by the number of channels in the scan
Parallel addressing mode:	(requires use of all four analog buses) 50 k readings/s divided by the number of channels in the scan
Pressure range:	(determined by PSI scanners) ± 10-in W.C. to 600 psid
Measurement resolution:	16 bit (including sign)
Measurement accuracy:	(determined by PSI scanners and calibrators) ± 0.05% FS 5-500 psid, ± 0.1% FS 10-in W.C. to 2.5 psid
Memory:	> 64 kSa
Reading storage:	
RAM:	dual mode
FIFO RAM:	> 64,000 readings
Current value table:	512 readings

General Specifications

VXI Characteristics

VXI device type:	Register based
Size:	C
Slots:	1
Connectors:	P1/2
Shared memory:	n/a
VXI busses:	TTL Trigger Bus (T)
C-size compatibility:	Yes

Instrument Drivers

See the HP Website (http://www.hp.com/go/inst_drivers) for driver availability and downloading.

Command module firmware:	Downloadable
Command module firmware rev:	A.08
I-SCPI Win 3.1:	No
I-SCPI Series 700:	Yes
C-SCPI LynxOS:	Yes, LynxOs 2.2.1
C-SCPI Series 700:	Yes
HP Panel Drivers:	Yes
VXI*plug&play* Win Framework:	No
VXI*plug&play* Win 95/NT Framework:	No
VXI*plug&play* HP-UX Framework:	No

Module Current

	I_{PM}	I_{DM}
+5 V:	4.6	0.02
+12 V:	1	0
–12 V:	1	0
+24 V:	0.07	0.01
–24 V:	0.1	0
–5.2 V	0.06	0
–2 V:	0	0

Cooling/Slot

Watts/slot:	9.0
ΔP mm H_2O:	0.08
Air Flow liter/s:	0.80

Ordering Information

Description	Product No.
Pressure Scanning A/D, 16-Bit, 100 kHz	HP E1414A
Service Manual	HP E1414A 0B3
3 Yr. Retn. to HP to 1 Yr. OnSite Warr.	HP E1414A W01
Flash ROM Upgrade Kit for HP E1414A	HP E1414G

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Related Literature

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

1998 Test System and VXI Products Catalog,
HP Pub. No. 5966-2815

Warranty

Standard Hewlett-Packard VXIbus hardware products are warranted against defects in materials and workmanship for a period of three years unless otherwise noted. HP software and firmware products that are designated by HP for use with a hardware product, when properly installed on that hardware product, are warranted not to fail to execute their programming instructions due to defects in materials and workmanship.

For a complete and detailed warranty statement please see the HP *Test System and VXI Products Data Book* or visit the HP Website at http://www.hp.com/go/vxi.

HP Website Directory

Main HP Website
http://www.hp.com

HP Test and Measurement
http://www.hp.com/go/tmdir

HP VXI Product Information
http://www.hp.com/go/vxi

HP VXI Channel Partners
http://www.hp.com/go/vxichanpart

HP VEE Application Website
http://www.hp.com/go/hpvee

Data Acquisition and Control Website
http://www.hp.com/go/data_acq

HP Instrument Driver Downloads
http://www.hp.com/go/inst_drivers

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For more information about Hewlett-Packard test & measurement products, applications, services, and for a current sales office listing, visit our website, *http://www.hp.com/go/tmdir.* **You can also contact one of the following centers and ask for a test and measurement sales representative.**

United States:
Hewlett-Packard Company
Test and Measurement Call Center
P.O. Box 4026
Englewood, CO 80155-4026
1 800 452 4844

Canada:
Hewlett-Packard Canada Ltd.
5150 Spectrum Way
Mississauga, Ontario L4W 5G1
(905) 206 4725

Europe:
Hewlett-Packard
European Marketing Centre
P.O. Box 999
1180 AZ Amstelveen
The Netherlands
(31 20) 547 9900

Japan:
Hewlett-Packard Japan Ltd.
Measurement Assistance Center
9-1, Takakura-Cho, Hachioji-Shi,
Tokyo 192, Japan
Tel: (81) 426 56 7832
Fax: (81) 426 56 7840

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