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

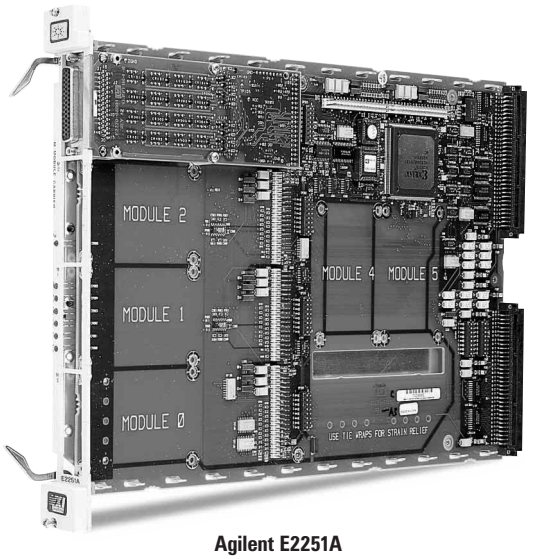
Expert team | Trust guarantee | 100% satisfaction

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

Find the *Keysight / Agilent E2251A* at our website: *Click HERE*

Agilent E2251A
C-Size M-Module Carrier
Data Sheet

- **1-Slot, C-size**
- **Allows addition of functionality in small blocks**
- **Supports up to six independent M-Modules simultaneously**
- **Separate logical address for each M-Module**
- **Fully programmable interrupts for each M-Module**
- **VXI*plug&play* Win 95/NT and HP-UX Frameworks supported**



Agilent E2251A

Description

The Agilent E2251A **C-size, 1-slot, M-Module Carrier** allows a VXI user the ability to cost effectively add small blocks of functionality. It provides backplane access to as many as six different M-Modules, each with independent addresses, plus, the function and point count that exactly matches the customer's system requirements. You can use up to 31 M-Modules with the Agilent E1406A Command Module, or use 255 M-Modules with embedded controllers, the Agilent E8491B, and MXIbus solutions.

The carrier provides the electrical and mechanical interface between the VXIbus system backplane and the M-Modules. It also provides VXI register configuration, access to I/O space and memory, and interrupt handling. Additionally, it is in full compliance with VXI Specification Revision 1.4.

With each M-Module having its own address within the E2251A M-Module carrier, you have the flexibility to use the M-Modules in many combinations. This flexibility allows you to get the amount of functionality you need in smaller blocks, lowering your overall system costs. You can install up to six M-Modules on one E2251A carrier. However, for cabling access, it is recommended that only five M-Modules be placed in one E2251A.

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

Compact Packaging with Agilent M-Modules

In addition to the carrier, Agilent has a wide selection of switching, digital I/O, interface and development modules. These modules are:

- E2259A Double-wide Breadboard M-Module
- E2261A Quad RS-232 Interface M-Module
- E2270A 16-Channel Form A Switch M-Module
- E2271A 4x4 Matrix Switch M-Module
- E2272A Dual 8x1 Relay Multiplexer M-Module
- E2273A 8-Channel Form C Switch M-Module
- E2274A 4-Channel Form C Power Relay M-Module
- E2290A 16-Bit Digital I/O M-Module
- E2291A 16-Channel Isolated Digital Output M-Module

Agilent Technologies

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

M-Module Summary

For detailed specifications before ordering, see each individual M-Module Technical Specifications.

All modules
- 44 pin D-Sub (female) connector
- ANSI/VITA 12-1996

E2259A Double-wide Breadboard M-Module

- 16-Bit bi-directional user interface
- + 5 V and ± 12 V access
- Can use 1 or 2 M-Module slots

E2261A Quad RS-232 Interface M-Module

- Four independent RS-232 channels
- 75 to 38.4K baud rates
- RTS/CTS hardware handshake
- XON/XOFF software handshake
- 2KB input and output buffers for each channel
- Dense in nature, may not fit in non-Agilent carriers

E2270A 16-Channel Form A Switch M-Module

- 16 SPST latching relays
- 200 Vdc/ac-peak*
- 2 Adc/ac-peak
- <2 Ω channel resistance end of life
- 50 W per channel
- 200 W per module

E2271A 4x4 Matrix Switch M-Module

- 16 DPST latching relays (2-wire)
- 200 Vdc/ac-peak*
- 2 Adc/ac-peak
- <2 Ω channel resistance end of life
- 50 W per channel
- 200 W per module

E2272A Dual 8x1 Relay Multiplexer M-Module

- 16 DPST latching relays (2 wire)
- 200 Vdc/ac-peak*
- 2 Adc/ac-peak
- <2 Ω channel resistance end of life
- 50 W per channel
- Dual 8x1 or single, 16x1 multiplexing

E2273A 8-Channel Form C Switch M-Module

- 8 SPDT armature relays
- 200 Vdc/ac-peak*
- 1 Adc/ac-peak
- <2 Ω channel resistance end of life
- 40 W per channel
- 100 W per module

E2274A 4-Channel Form C Power Relay M-Module

- 4 SPDT armature relays
- 125 Vdc/200 Vac-peak*
- 5 Adc/ac-peak
- <1 Ω channel resistance end of life
- 100 W per channel
- 300 W per module

E2290A 16-bit Digital I/O M-Module

- 16 digital inputs or outputs
- + 30 Vdc max. open collector voltage
- 200 mA max. sink
- 20 mA max. source
- TTL compatible inputs with debounce
- Interrupts on pattern match

E2291A 16-Channel Isolated Digital Output M-Module

- 16 outputs for digital or relay drive
- + 36 Vdc max. open collector voltage
- 0.2 Adc max. sink current at <0.5 Vdc output
- 30 V-rms/42 V-peak/60 Vdc isolation
- 16-Bit universal timer (0.031 to 2089 ms.)

***Note**: These limits apply only if the products is installed in a humidity controlled (<60% RH) environment where airborne contaminants and transients are controlled, and no relay connection is made to power mains. If these conditions cannot be maintained, the 60 Vdc, 48 Vac rms or 68 Vac-peak voltage limit applies.*

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

Product Specifications

M-Module Characteristics

Note: *slot5 not useable for voltage rating >30 Vac rms, 42 Vac peak, 60 Vdc*

Output connector type: n/a
Standard compliance: A08, A16, D08, D16, INTA, INTB, INTC
Accessory: n/a

General Specifications

VXI Characteristics

VXI device type: Register based
Data transfer bus: n/a
Size: C
Slots: 1
Connectors: P1/2
Shared memory: None
VXI busses: n/a
C-size compatibility: n/a

Module Current

Note: *Need to add all M-Module currents.*

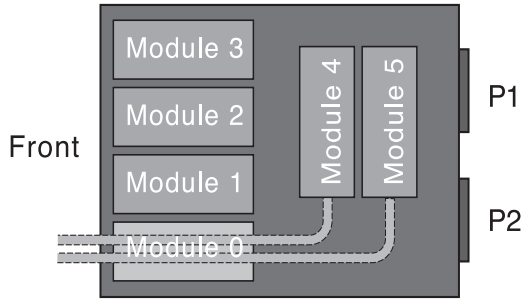
	I_{PM} (A)	I_{DM} (A)
+5 V:	0.3 A	0.01 A
+12 V:	0	0
–12 V:	0	0
+24 V:	0	0
–24 V:	0	0
–5.2 V:	0	0
–2 V:	0	0

Cooling/Slot

Watts/slot: 50 W
ΔP mm H_2O: 0.2
Air flow liter/s: 4.0

Ordering Information

Description	Product No.
C-Size M-Module Carrier	E2251A



NOTE: May need Module 0 location for cable access to Modules 4 and 5

NOTE: Module 5 location is a low voltage location
V <30 V-rms
<42 Vac-peak
<60 Vdc

Figure 1: Agilent E2251A C-Size, 1-Slot, M-Module Carrier Layout

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

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

VXI product information
www.agilent.com/find/vxi

Defense Electronics Applications
www.agilent.com/find/defense_ATE

Agilent Technologies VXI Channel Partners
www.agilent.com/find/vxichanpart

Agilent Technologies' HP VEE Application Website
www.agilent.com/find/vee

Agilent Technologies Data Acquisition and Control Website
www.agilent.com/find/data_acq

Agilent Technologies Instrument Driver Downloads
www.agilent.com/find/inst_drivers

Agilent Technologies Electronics Manufacturing Test Solutions
www.agilent.com/go/manufacturing

Get assistance with all your test and measurement needs at
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).

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 or Fax

United States:
(tel) 1 800 829 4444

Canada:
(tel) 1 877 894 4414
(fax) (905) 282 6495

China:
(tel) 800 810 0189
(fax) 800 820 2816

Europe:
(tel) (31 20) 547 2323
(fax) (31 20) 547 2390

Japan:
(tel) (81) 426 56 7832
(fax) (81) 426 56 7840

Korea:
(tel) (82 2) 2004 5004
(fax) (82 2) 2004 5115

Latin America:
(tel) (305) 269 7500
(fax) (305) 269 7599

Taiwan:
(tel) 0800 047 866
(fax) 0800 286 331

Other Asia Pacific Countries:
(tel) (65) 6375 8100
(fax) (65) 6836 0252
(e-mail) tm_asia@agilent.com

Data Subject to Change
© Agilent Technologies, Inc. 2000
Printed in the U.S.A. May 1, 2004
5965-8824E

Agilent Technologies

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