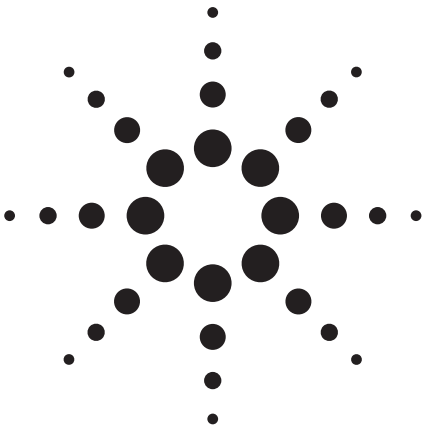
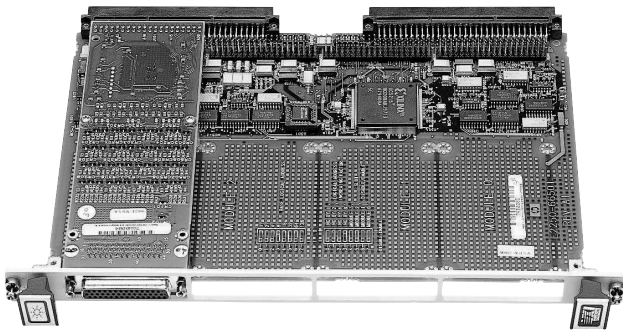


Agilent E2250A B-Size M-Module Carrier

Data Sheet



- Allows addition of functionality in small blocks
- Supports MA-Modules for additional addressing and data lines
- Supports up to four independent M-Modules or MA-Modules simultaneously
- Logical addressing for each M-Module slot
- Fully programmable interrupt and triggering control for each M-Module
- VXi *plug&play* Win 95/NT and HP-UX frameworks supported



Agilent E2250A

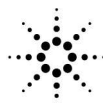
Description

The Agilent E2250A **B-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 four different M-Modules, each with independent addresses, plus the function and point count that exactly matches the customer's system requirements. Use 255 M-Modules with embedded controllers or VXiLink solutions. For additional data and addressing, the E2250A also supports MA-Modules for D32 and A32 capability.

The carrier provides the electrical and mechanical interface between the VXi bus system backplane and the M-Modules. It also provides VXi register configuration, access to M-Module I/O and memory spaces, interrupt handling, triggering, and burst access capability. Additionally, it is in full compliance with VXi Specifications Revision 1.4.

Each M-Module has its own address within the E2250A M-Module carrier, giving you 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.

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

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
- 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

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 compliance

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

E2270A 16-Ch. Form A Switch M-Module

- 16 SPST latching relays
- 200 Vdc/ac-peak*
- 2 Adc/ac-peak
- $<2 \Omega$ 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
- $<2 \Omega$ 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
- $<2 \Omega$ channel resistance end-of-life
- 50 W per channel
- Dual 8 x 1 or single, 16 x 1 multiplexing

E2273A 8-Channel Form C Switch M-Module

- 8 SPDT armature relays
- 200 Vdc/ac-peak*
- 1 Adc/ac-peak
- $<2 \Omega$ 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
- $<1 \Omega$ 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 maximum open collector voltage
- 200 mA maximum sink
- 20 mA maximum 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 maximum open collector voltage
- 0.2 Adc max. sink current at <0.5 Vdc output
- 30 V-rms/42 V-peak/60 Vdc
- 16-bit universal timer (0.031 to 2089 ms)

**Note: These limits apply only if the product 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, then 60 Vdc, 48 Vac-rms or 63 Vac-peak voltage limit applies.*

Product Specifications

M-Module Characteristics

Output connector type:	n/a
Standard compliance:	A08, A24, D08, D16, D32, INTA, INTB, INTC, burst access, triggering
Accessory:	n/a

General Specifications

VXI Characteristics

VXI device type:	Register based
Data transfer bus:	n/a
Size:	B
Slots:	1
Connectors:	P1/2
Shared memory:	none
VXI busses:	TTL trigger bus
C-size compatibility:	No, consider E2251A

Cooling/Slot

Watts/slot:	25 W (5 W in Agilent E1300B/01B)
ΔP mm H ₂ O:	0.2
Air flow liter/s:	2

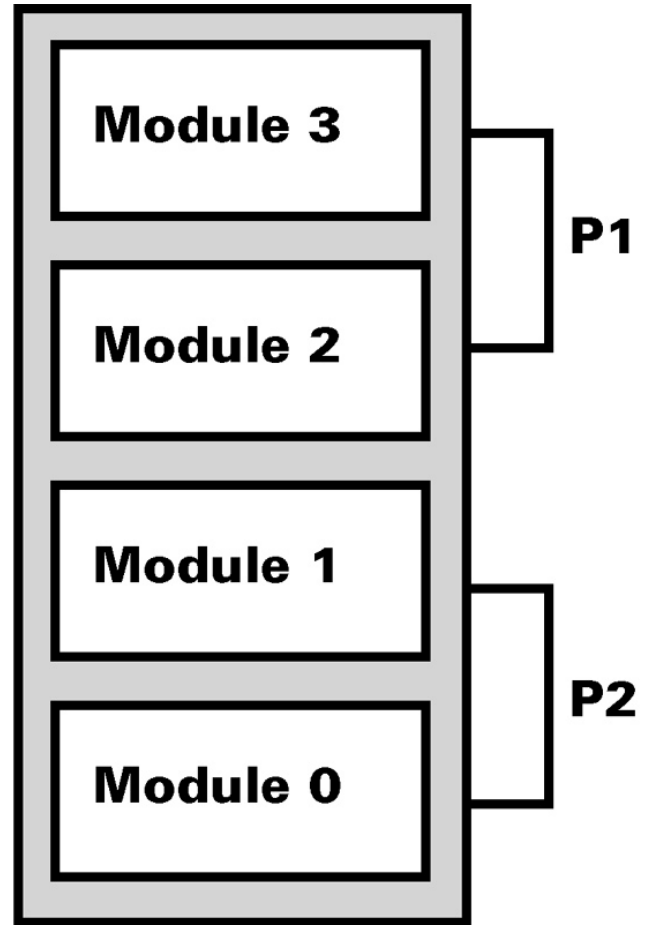
Module Current

	I_{PM}	I_{DM}
+5 V:	0.2A	0.01A
+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

Note: Add M-Module currents to above carrier currents for total current.

Ordering Information

Description	Product No.
B-size M-Module Carrier	E2250A
3 yr. retrn. to Agilent to 1 yr. OnSite warr.	E2250A W01



Agilent E2250A B-Size, 1-Slot M/MA-Module Carrier Layout

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
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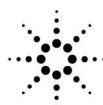
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