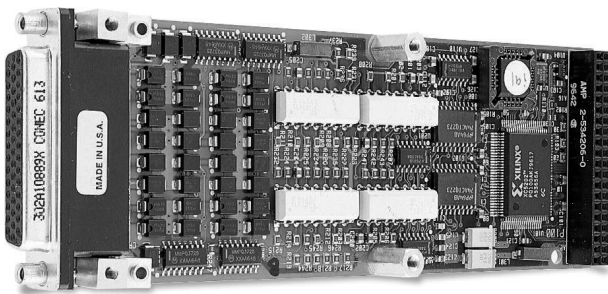


# Agilent E2291A

## 16-Channel Isolated Digital Output M-Module

### Data Sheet

- Single wide, register based
- Provides isolated digital output or external relay driver
- Outputs isolated from chassis
- 16-bit universal timer (0.031 - 2089 msec)



Agilent E2291A

### Description

The Agilent E2291A 16-Channel Isolated Digital Output Module is a single-wide, register-based M-Module. It provides 16 channels of isolated open-collector digital output in four groups of four. Each group requires its own + 5 Vdc power supply (supplied by user). You can use channels as digital outputs or as drivers for external relays. All channels have their own ground, isolated from the chassis, can sink up to 200 mA each, and can switch voltages up to 36 V.

With each M-Module having its own address within the E2250A and E2251A M-Module carriers, 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. Please see the E2250A or E2251A Technical Specifications for M-Module slot requirements.

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



## Product Specifications

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### General Characteristics

Number of channels:	16
Channel type:	1 or 0
Output or input type:	Open-collector
Memory:	n/a
Max. pattern rate:	n/a
32-bit block transfer:	n/a
Test synchronization:	n/a
Logic levels:	n/a
Open collector-emitter voltage:	36 V
Saturation collector-emitter voltage (DC):	<0.5 V
Sink current (DC):	200 mA
Isolation voltage (DC):	60 V
Programmable busy time:	0.031875 msec - 2089 msec

### Data Lines

Output characteristics:	
$I_{out}$ (High):	0
$I_{out}$ (Low):	200 mA
Input characteristics:	
$I_{in}$ (High):	n/a
$I_{in}$ (Low):	n/a
$V_{in}$ (High):	n/a
$V_{in}$ (Low):	n/a

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### Handshake Lines

Output characteristics:	
$I_{out}$ (High):	n/a
$I_{out}$ (Low):	n/a
Input characteristics:	
$I_{in}$ (High):	n/a
$I_{in}$ (Low):	n/a
$V_{in}$ (High):	n/a
$V_{in}$ (Low):	n/a

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### Block Mode Transfers

8-bit wide:	n/a
16-bit wide:	n/a

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### M-Module Characteristics

Output connector type:	44-pin D-Sub (female)
Standard compliance:	IDENT, A08, D16, INTC
Accessory:	44-pin D-Sub (male) with plastic housing

## General Specifications

### VXI Characteristics

VXI device type:	Register based
Data transfer bus:	n/a
Size:	n/a
Slots:	n/a
Connectors:	n/a
Shared memory:	n/a
VXI busses:	n/a
C-size compatibility:	Yes with E2251A

### Instrument Drivers

See the Agilent Technologies Website ([http://www.agilent.com/find/inst\\_drivers](http://www.agilent.com/find/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:	No
C-SCPI LynxOS:	No
C-SCPI Series 700:	No
Panel Drivers:	No
VXI plug&play Win Framework:	No
VXI plug&play Win 95/NT Framework:	Yes
VXI plug&play HP-UX Framework:	No

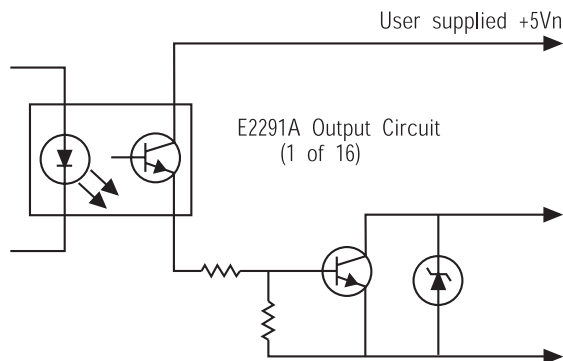
### Module Current

	$I_{PM}$ (A)	$I_{DM}$ (A)
+5 V:	0.2 A	0.19 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

### Ordering Information

Description	Product No.
16-Ch Isolated Digital Output M-Module	E2291A
3 yr. Retn. to Agilent to 1 yr. OnSite Warr.	E2291A W01

E2291A Circuit Diagram



## 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  
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