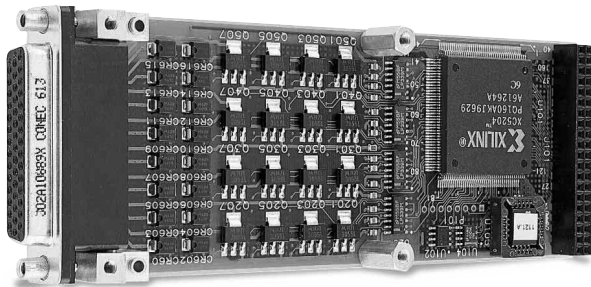


# Agilent E2290A

## 16-Bit Digital I/O M-Module

### Data Sheet

- Single wide, register based
- Can interrupt on pattern matching
- Has TTL compatible I/O
- Has selectable debounce on inputs (3 msec)



Agilent E2290A

### Description

The Agilent E2290A 16-bit Digital I/O Module is a single-wide, register-based M-Module. It supplies versatile digital sensing and control of devices and special purpose circuitry in your system on a bit-by-bit basis.

The E2290A provides 16 data lines with TTL compatible I/O, or TTL compatible inputs and open collector outputs up to 30 V. Each I/O line provides switchable current sinks for actuation of external devices. These include: high voltage/high current and RF relays & switches, high frequency coax relays (i.e., microwave switches), and programmable attenuators.

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

### General Characteristics

Number of channels:	16
Channel type:	1 or 0
Output or input type:	TTL/OC up to 30 V
Memory:	n/a
Max. pattern rate:	n/a
32-bit block transfer:	n/a
Test synchronization:	n/a
Logic levels:	n/a

### Data Lines

Output characteristics:	
$I_{out}$ (High):	20 mA (source)
$I_{out}$ (Low):	200 mA (sink)
$V_{out}$ (High):	2.9 V (TTL), 30 V (OC)
$V_{out}$ (Low):	0.4 V
Input characteristics:	
$I_{in}$ (High):	n/a
$I_{in}$ (Low):	n/a
$V_{in}$ (High):	1.8 V
$V_{in}$ (Low):	0.8 V

### M-Module Characteristics

Output connector type:	44-pin D-Sub (female)
Standard compliance:	IDENT, A16, 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
VXIplug&play Win Framework:	No
VXIplug&play Win 95/NT Framework:	Yes
VXIplug&play HP-UX Framework:	No

### Module Current

	$I_{PM}$ (A)	$I_{DM}$ (A)
+5 V:	0.385 A	0.350 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-Bit Digital I/O M-Module	E2290A

## 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)

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