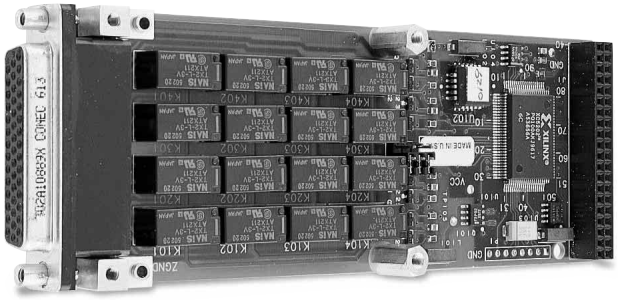
Agilent E2272A

Dual 8x1 Relay Multiplexer M-Module

Data Sheet

- **Single wide, register based**
- **Configure as two 8x1 multiplexers or one 16x1 multiplexer**
- **FIFO for storing up to 8 relay operations**
- **Use as an output MUX in a switch configuration**



Agilent E2272A

Description

The Agilent E2272A Dual 8x1 Relay Multiplexer is a **single-wide, register-based M-Module**. Use the E2272A as an input or output multiplexer for a matrix or other switching configuration. You can also connect multiple analog signals to a DMM or other instruments.

It consists of 16 DPST latching relays and is organized as two separate 8x1 relay multiplexers. This allows the selection of one of eight two-wire signals to connect to one common destination while the other set of eight two-wire signals can be selectively connected to a second destination. By moving a jumper on the module, you configure the E2272A as one 16x1 multiplexer.

Logic on the card provides for maskable interrupts (INTC type) once the requested relay movements are complete. The module also has a FIFO for storing up to 8 relay operations. Rapid setup changes can be written to the module and executed with only one interrupt occurrence once the entire group of relay movements is complete.

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.

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Product Specifications

Input

Maximum voltage (any terminal to any other terminal or chassis):

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 68 Vac-peak voltage limit applies.*

DC:	60 V/200 V (see note)
AC rms:	48 V/125 V (see note)
AC peak:	68 V/175 V (see note)
Maximum current (noninductive):	
Per channel:	
DC:	2 A
AC peak:	2 A
Per module:	
DC:	8 A
AC rms:	8 A
Maximum power:	
Per channel:	
DC:	50 W
AC:	50 VA
Per module:	
DC:	50 W (16-to-1 mode), 100 W (8-to-1 mode)
AC:	50 VA (16-to-1 mode), 100 VA (8-to-1 mode)

DC

Maximum thermal offset per channel, differential Hi-Lo:	<3 μV (typical)
Closed channel resistance (per channel):	
Initial:	0.2 Ω (typical)
End of llfe:	<2 Ω
Insulation resistance (between any two points):	
≤40 °C, ≤65% RH:	10E8 (typical)
≤40 °C, ≤95% RH:	n/a
≤25 °C, ≤40% RH:	10E8 (typical)

AC

Typical bandwidth (–3 dB):	>10 MHz (typical)
Crosstalk (dB, channel-to-channel):	
<10 kHz:	n/a
<100 kHz:	<–64 dB (typical)
<1 MHz:	<–44 dB (typical)
<10 MHz:	<–24 dB (typical)
Closed channel capacitance:	
Channel-Channel:	<20 pF (8-to-1 mode) (typical), <25 pF (16-to-1 mode) (typical)
Hi-Lo:	<40 pF (8-to-1 mode) (typical), <70 pF (16-to-1 mode) (typical)
Channel-Chassis:	<75 pF (8-to-1 mode) (typical), <140 pF (16-to-1 mode) (typical)

General Characteristics

Relays:	16 latching relays
Typical relay life (number of operations):	
No load:	n/a
Rated load:	10E5 (typical)
Time to close or open a channel (register programming):	8 msec
Connector type, wire size:	
Standard:	44 pin D-Sub
Screw:	n/a
Power up/down states:	Latching relays retain last programmed state

M-Module Characteristics

Output connector type:	44-pin D-Sub (female)
Standard compliance:	IDENT, A08, D08, 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) 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	0.18 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.
Dual 8x1 Relay Multiplexer M-Module	E2272A

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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Get assistance with all your test and measurement needs at
www.agilent.com/find/assist
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Data Subject to Change

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