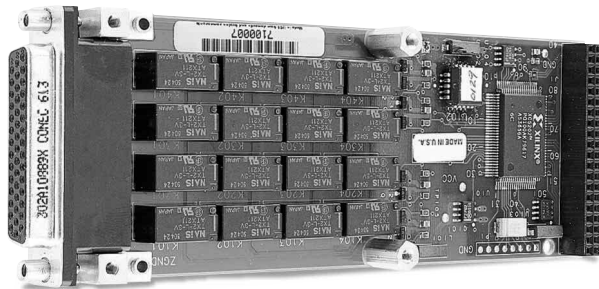## Agilent E2270A
16-Channel Form A Switch M-Module
Data Sheet

- Single wide, register based
- Use for general purpose switching
- 16 independent SPST latching relays
- FIFO for storing up to 8 relay operations

Agilent E2270A

Logic on the card provides for maskable interrupts (INTC type) when the requested relay movements have been completed. The module also has a FIFO for storing up to eight relay operations. You can write rapid setup changes to the module and execute them 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.

Description

The Agilent E2270A 16-Channel Form A Switch is a **single-wide, register-based M-Module**. It furnishes 16 independent SPST latching relays for general purpose signal switching and control of external devices. Use this M-Module when you need high integrity contacts or quality connections of non-multiplexed signals in your system.

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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 switch:

DC:	2 A
AC peak:	2 A

Per module:

DC:	8 A
AC peak:	8 A

Maximum power:

Per switch:

DC:	50 W
AC:	50 VA

Per module:

DC:	200 W
AC:	200 VA

DC

Maximum thermal offset:	<3 μV (typical)
Closed channel resistance:	
Initial:	<0.2 Ω (typical)
End of life:	<2 Ω

Insulation resistance (between any two points):

≤40 °C, ≤65% RH:	10E8 Ω (typical)
≤40 °C, ≤95% RH:	n/a
≤25 °C, ≤40% RH:	10E8 Ω (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:

Ch-to-ch:	<15 pF (typical)
Ch-to-com:	<25 pF (typical)

General Characteristics

Relays:	16 latching relays
Typical relay life (number of operations):	
No load:	n/a
Rated load:	10E5
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.
16-Ch Form A Switch M-Module	E2270A

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
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