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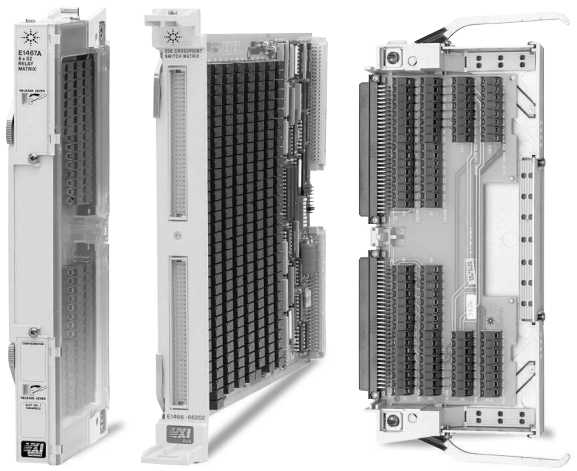
Find the *Keysight / Agilent E1467-80010* at our website: ***Click HERE***

Agilent E1467A

8x32 Relay Matrix Switch

Data Sheet

- **1-Slot, C-size, register based**
- **8x32 two-wire switching matrix, latching relays**
- **Rows expand to make larger matrixes**
- **Downloadable channel lists into onboard memory**
- **Includes QUIC easy-to-use terminal blocks**
- **Latching armature relay**



Agilent E1467A

Description

The Agilent E1467A relay matrix is a **C-size, 1-slot, register-based VXI module.** This 8x32 matrix switches each crosspoint—both high and low. The E1467A features easy expansion to larger matrixes via a chaining cable that allows you to interconnect rows and columns on different modules. A full E1401B 13-slot mainframe can have up to 3072 two-wire crosspoints. The E1467A module provides the best cost-per-crosspoint for large matrix applications.

The E1467A shares the same switch card with the E1465A and E1466A; each product's unique terminal block determines the matrix configuration. Therefore, you can change matrix topology simply by plugging in the various terminal blocks. The terminal blocks can be obtained separately.

Creating a matrix as large as 8x96 requires three matrix modules and interconnected rows and columns on the terminal blocks. All the E1465/66/67A matrix modules offer similar densities, with different row/column sizes and identical performance specifications. All specifications are identical for this family, except for crosstalk.

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

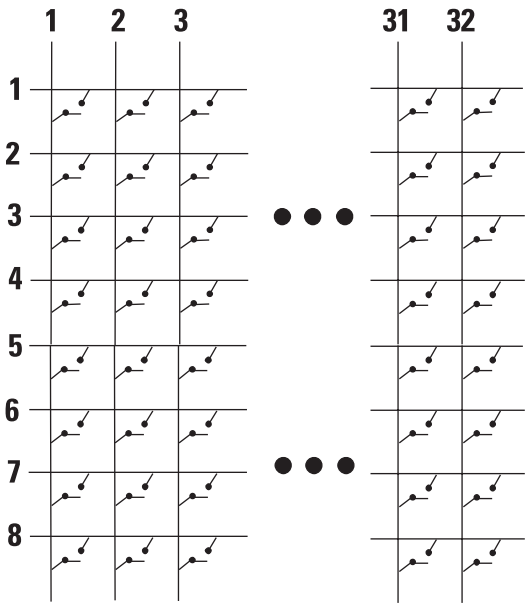
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Configuration

You can create a larger matrix by adding one or more matrix modules and interconnecting the E1467A rows on the terminal blocks with the 280 mm E1466-80002 daisy-chain expansion cable. You can interconnect the E1467A rows with the rows of another E1467A or an E1466A. To create an 8x96 matrix with four E1467A modules requires four daisy-chain expansion cables connected as shown.



Product Specifications

AC Performance

AC specifications apply with no more than one crosspoint closed per row or column. Specifications are for 8x32 matrix, for Z(load) = Z(source) = 50 Ω. Note: Specifications are for worst crosspoint. Matrix expansion degrades crosstalk and bandwidth performance. Typical is defined as the worst crosspoint test from one or two matrix modules. If guaranteed specifications are necessary, contact your local sales representative.

Crosstalk (dB) within a card (worst path):

	<10 kHz	<100 kHz	<1 MHz
Closed Path to Closed Path (typical):	–72 dB	–51 dB	–33 dB
Open row to open row (typical):	–91 dB	–59 dB	–43 dB
Open row to open column (typical):	–85 dB	–64 dB	–47 dB
Open column to open column (typical):	–92 dB	–71 dB	–54 dB

Crosstalk (dB) module-to-module (represents 8x64 configuration):

Note: *Chaining cable used to connect modules (P/N E1466-80002).*

	<10 kHz	<100 kHz	<1 MHz
Closed Path to Closed Path (typical):	–72 dB	–51 dB	–33 dB
Open row to open row (typical):	–74 dB	–53 dB	–38 dB
Open row to open column (typical):	–92 dB	–72 dB	–56 dB
Open column to open column (typical):	–82 dB	–64 dB	–50 dB

Closed channel capacitance (<10 kHz):	
Hi to Lo:	<270 pF
Hi to Ground:	<430 pF
Lo to Ground:	<440 pF
Minimum bandwidth (–3 dB, Z_L=Z_X= 50 Ω):	10 MHz

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Input

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

DC:	200 V
AC rms:	170 V
Peak:	238 V p-p
Maximum current (per channel common, non-inductive):	1 Adc; 1 Aac peak
Maximum power:	
Per channel:	30 W
Per module:	62.5 VA (resistive load)

DC

Maximum thermal offset per channel, differential Hi-Lo:	5 μV
Closed channel resistance (per channel):	
Initial:	<4.0 Ω (worst crosspoint) <1.8 Ω (best crosspoint)
End of life:	<10.0 Ω
Insulation resistance (between any two points):	
≤40 °C, ≤95% RH:	>10E8 Ω
≤40 °C, ≤65% RH:	n/a
≤25 °C, ≤40% RH:	>10E9 Ω

General

Time to close one channel: 8.9 ms *(Agilent V/743 and C-SCPI)*

Note: When downloading a channel list to card memory, you can close all columns in one row in 8.9 ms.

Power-down state:	Relay states are unchanged at power-down.
Power-up state:	Relays open at power-up.
Minimum relay life:	
No load:	10E7 operations
Screw terminal wire size:	18 to 26 AWG (1.2, 0.9, 0.75, 0.6, 0.5 mm)

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General Specifications

VXI Characteristics

VXI device type: Register based, A16, slave only
Size: C
Slots: 1
Connectors: P1/2
Shared memory: None
VXI busses: None
C-size compatibility: n/a

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: Yes
I-SCPI Series 700: Yes
C-SCPI LynxOS: Yes
C-SCPI Series 700: Yes
Panel Drivers: Yes
VXI*plug&play* Win Framework: Yes
VXI*plug&play* Win 95/NT Framework: Yes
VXI*plug&play* HP-UX Framework: No

Module Current

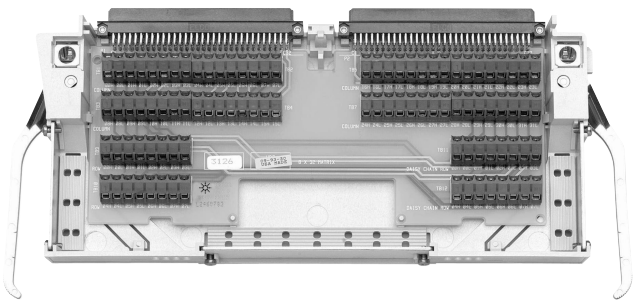
	I_{PM}	I_{DM}
+5 V:	0.1	0.01
+12 V:	0.18	0.01
–12 V:	0	0
+24 V:	0	0
–24 V:	0	0
–5.2 V:	0	0
–2 V:	0	0

Cooling/Slot

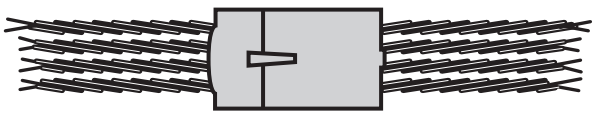
Watts/slot: 5.00
ΔP mm H_2O: 0.08
Air Flow liter/s: 0.42

Ordering Information

Description	Product No.
8x32 Relay Matrix Module	E1467A
Service Manual	E1467A 0B3
3 yr. Retn. to Agilent to 1 yr. OnSite Warr.	E1467A W01
CBL Kit, Daisy Chain	E1466-80002
Extra Terminal Block	E1467-80010



Three E1467A matrix terminal blocks wired as an 8x96 matrix



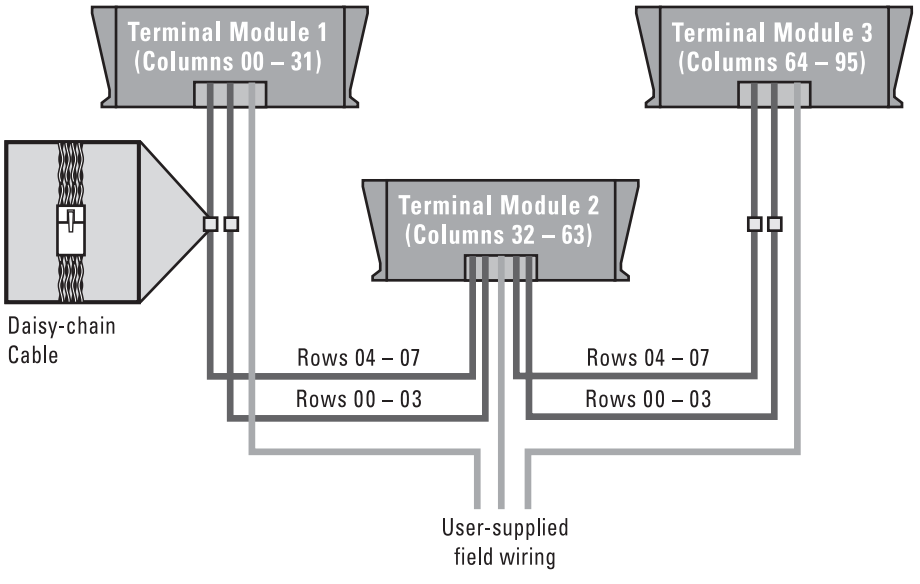
Daisy Chain Cable: E1468-80002

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8 x 96 Matrix





E1467A Opt 201 Matrix Expansion Terminal Block

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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
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Japan:
Agilent Technologies Japan Ltd.
(tel) (81) 426 56 7832
(fax) (81) 426 56 7840

Latin America:
Agilent Technologies
Latin American Region Headquarters, U.S.A.
(tel) (305) 267 4245
(fax) (305) 267 4286

Australia/New Zealand:
Agilent Technologies Australia Pty Ltd.
(tel) 1 800 629 485 (Australia)
(fax) (61 3) 9272 0749
(tel) 0 800 738 378 (New Zealand)
(fax) (64 4) 802 6881

Asia Pacific:
Agilent Technologies, Hong Kong
(tel) (852) 3197-7777
(fax) (852) 2506-9284

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