

Agilent E8481A 2-Wire, 4x32 Relay Matrix Switch

Data Sheet

- 1-Slot, C-size, register based
- Ideal for signal switching up to 70 MHz @ 4x16, or 50 MHz @ 4x32
- Flexible dual 4x16 or single 4x32 2-wire matrix
- More than 500 channel lists can be downloaded into onboard memory
- Includes Agilent QUIC easy-to-use terminal blocks
- Non-latching reed relays

Description

The Agilent Technologies E8481A 2-Wire, 4x32 Relay Matrix Switch is a **C-size, 1-slot, register-based VXI module**. This module switches each crosspoint — both high and low.

The Agilent E8481A can be configured as dual 4x16 matrices or a single 4x32 matrix. Bandwidth (-3 dB) is up to 70 MHz @ 4x16, or 50 MHz @ 4x32 configuration. The E8481A works with two types of Agilent QUIC terminal blocks. The SMB connector terminal block (Option 105) should be used for single-ended systems and higher frequencies. The screw terminal block (Option 106) should be used for two-wire systems and lower frequencies. Either terminal block must be ordered separately as an option to the E8481A; the standard E8481A includes no terminal block.

You can store up to 511 complete channel lists, or complete matrix configurations of opened/closed switches, in on-board E8481A memory. This allows switch module states to be recalled quickly and easily without long, complex programming commands.

The Agilent E8481A is ideal for switching signals to oscilloscopes, counters, and signal sources in your test system.

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



Agilent E8481A



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Product Specifications

Input

Maximum V (term to term):

DC:	42 V
AC rms:	30V

Maximum transient impulse:

Vpk:	500 V
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Maximum I (per channel, non-inductive):

DC:	0.5 A
AC peak:	0.5 A

Maximum power:

Per channel:	5 VA
Per module:	40 VA

DC

Maximum thermal offset:

50 μ V

Closed channel resistance

(per channel): <2 Ω initial

Insulation resistance (any two points):

$\leq 40^\circ\text{C}$, $\leq 65\%$ RH:	>10E8 Ω
$\leq 25^\circ\text{C}$, $\leq 40\%$ RH:	>10E9 Ω

AC

Minimum bandwidth

70 MHz @ 4x16

(-3 dB, $Z_L=Z_X=50\ \Omega$):

50 MHz @ 4x32

Crosstalk (dB, channel-to-channel typical):

<100 KHz:	<-65 dB
<5 MHz:	<-50 dB
<50 MHz:	<-27 dB

Closed-channel capacitance:

Hi to Lo:	100 pF @ 4x16
	160 pF @ 4x32
Hi to chassis:	100 pF @ 4x16
	160 pF @ 4x32
Lo to chassis:	300 pF @ 4x16
	550 pF @ 4x32

General

Typical relay life (rated

load)*:

10E9 operations

Screw terminal wire size:

AWG 18 to AWG 26

*10 mA, 1 Vdc resistive load

General Specifications

VXI Characteristics

VXI device type:	Register based, A16, Slave only
Size:	C
Slots:	1
Connectors:	P1/P2
Shared memory:	None
VXI buses:	None

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.11.01

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 Win95/NT

Framework: Yes

VXIplug&play HP-UX

Framework: No

Cooling/Slot

Watts/slot: 13 (8 crosspoints closed)*

ΔP mm H₂O: 0.1

Air flow liter/s: 1.1

*Add 0.34 W per crosspoint when more than 8 crosspoints are closed.

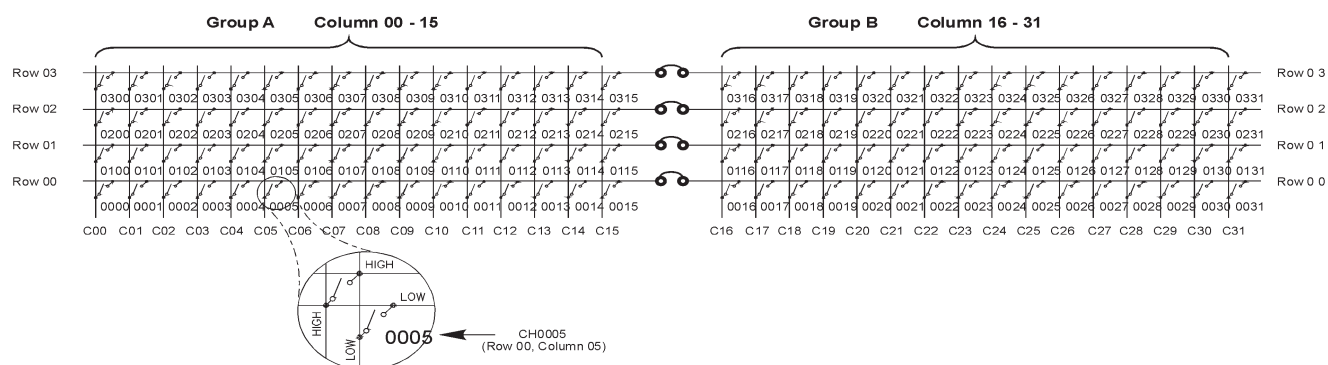
Module Current

	I_{PM} (A)	I_{DM} (A)
+5 V:	2.21	0.10
+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.
2-Wire, 4x32 Relay Matrix Switch	E8481A*
SMB Terminal Block	E8481A 105
Screw Terminal Block	E8481A 106
3 yr. Retn. to Agilent to 1 yr. OnSite warr.	E8481A W01

**Does not include a terminal block. To receive a terminal block, you must order either Option 105 or Option 106.*



Agilent E8481A Crosspoint Switches Hi and Lo

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