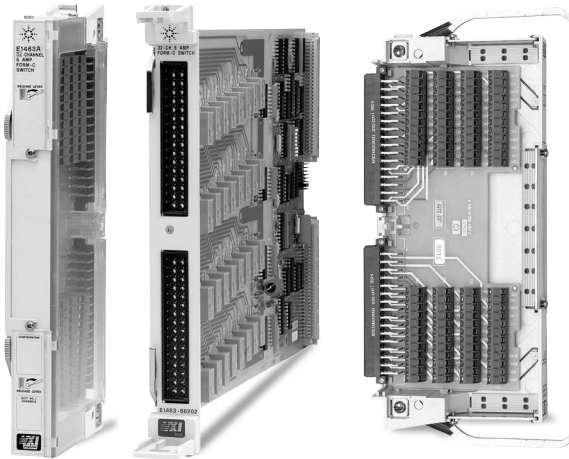


# Agilent E1463A

## 32-Channel, 5 Amp, Form C VXI Switch

### Data Sheet

- 1-Slot, C-size, register based
- Nonlatching relays
- Normally closed/open and common terminals (SPDT)
- Space for adding varistors for greater relay protection
- QUIC easy-to-use terminal block included
- Generates low thermal offset voltage (<3  $\mu$ V typical)



Agilent E1463A

### Description

The Agilent E1463A 32-Channel Form C Switch is a **C-size, 1-slot, register-based VXI module**. It is capable of carrying 5 Amp of current on a single channel for power-switching applications. These applications include process control, appliance pass/fail testing, and on/off control among many others.

This general-purpose switch generates low thermal offset voltage (<3  $\mu$ V typical), making it suitable for signal switching and scanning applications. The E1463A comes with the QUIC

screw terminal block (optional solder eye connectors) for easy wiring. Space to add series and shunt signal conditioning or circuit-protection elements — MOVs and fuses — is available on the main board but not on the terminal block. Extra screw terminal blocks can be purchased and wired separately if multiple applications share the E1463A.

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



## Product Specifications

### Input

#### Maximum voltage (C to NC or NO or any terminal-to-chassis):

DC:	125 V (250 V non-switched)
AC rms:	250 V
AC peak:	n/a

#### Maximum current (noninductive, per switch):

DC:	5 A, (50 Adc or Aac rms per module)
AC rms:	5 A, (50 Adc or Aac rms per module)

#### Maximum power:

##### Per switch:

DC:	150 W
AC:	1,250 VA

##### Per module:

DC:	1,500 W
AC:	12,500 VA

### DC

Maximum thermal offset: 7  $\mu$ V (<3  $\mu$ V typ)

#### Closed channel resistance:

Initial:	.030 $\Omega$ @ 1 A & 6 V DC
End of life:	<2.0 $\Omega$

#### Insulation resistance (between any two points):

$\leq 40^{\circ}\text{C}$ , $\leq 65\%$ RH:	>10E8 $\Omega$
$\leq 40^{\circ}\text{C}$ , $\leq 95\%$ RH:	n/a
$\leq 25^{\circ}\text{C}$ , $\leq 40\%$ RH:	>10E9 $\Omega$

### AC

Typical bandwidth (-3 dB): 10 MHz

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

<10 kHz:	<-83
<100 kHz:	<-63
<1 MHz:	<-43
<10 MHz:	—

#### Crosstalk (dB, common-to-NO or NC):

<10 kHz:	<-80
<100 kHz:	<-60
<1 MHz:	<-40
<10 MHz:	n/a

#### Crosstalk (dB, module-to-module):

<10 kHz:	<-100
<100 kHz:	<-100
<1 MHz:	<-90
<10 MHz:	n/a

#### Closed channel capacitance:

Ch-to-ch:	<30 pF
Ch-to-com:	<40 pF
Ch-to-guard:	<25 pF

### General

#### Typical relay life (number of operations):

No load:	>5 x 10E7
Rated load:	>3.5 x 10E4 (250 Vac, 5 A, power factor = 0.4) >10E5 (250 Vac, 5 A resistive) >10E5 (30 Vdc, 5 A L/R = 7 ms)

Time to close or open a channel (register programming): 16 ms

#### Connector type, wire size:

Screw,  $\geq 18$  AWG (1.2 mm)

Power up/down states: Normally open contact is open

## 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](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

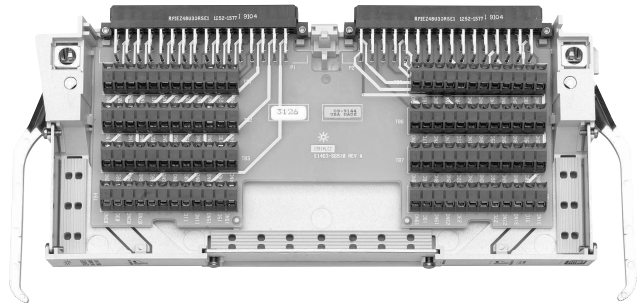
	$I_{PM}$	$I_{DM}$
+5 V:	0.1	0.1
+12 V:	0.6	0.01
-12 V:	0	0
+24 V:	0	0
-24 V:	0	0
-5.2 V:	0	0
-2 V:	0	0

### Cooling/Slot

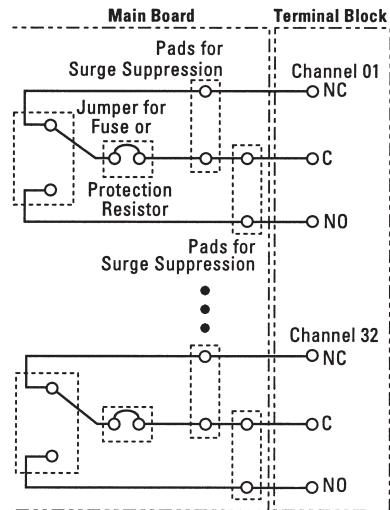
Watts/slot:	10.00
$\Delta P$ mm H <sub>2</sub> O:	0.08
Air flow liter/s:	0.42

## Ordering Information

Description	Product No.
32-Channel Form C Switch	E1463A
Service Manual	E1463A 0B3
Solder Eye Terminals	E1463A A3G
3 yr. retrn. to Agilent to 1 yr. OnSite Warr.	E1463A W01
Extra Terminal Block	E1463-80011



Agilent E1463A Terminal Block



Agilent E1463A Circuit Diagram

## 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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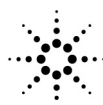
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