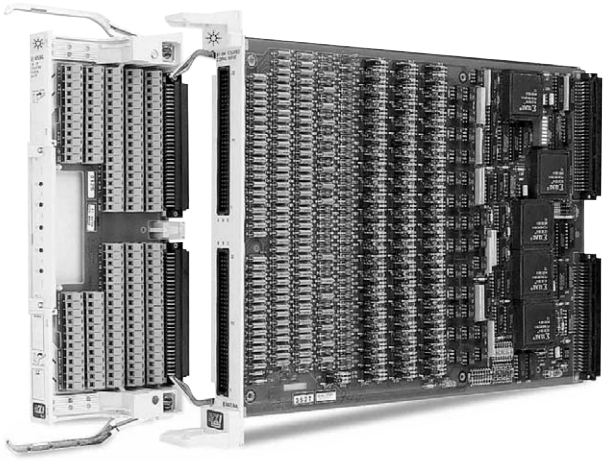
Agilent E1459A

64-Channel Isolated Digital Input/Interrupt

Data Sheet

- **1-Slot, C-size, register based**
- **64 interrupts, maskable and edge-selectable**
- **Jumper-selectable input levels**
- **Time-programmable debounce**
- **On-board 5 V supply for pull-up capability**
- **Handshake lines for each word (16 channels)**



Agilent E1459A

Description

The Agilent E1459A 64-Channel Isolated Digital Input/ Interrupt is a **C-size, 1-slot, register-based VXI module**. It is used to sense dc levels and edge transitions up to 48 Vdc. All inputs are optically isolated to withstand up to 125 V rms or Vdc. Plus, using the module's built-in 5 V supply with 9.4 kΩ effective pull-up resistance, you can detect whether external switches are open or closed.

The debounce feature is programmable for periods of 16 µs to 1074 s in binary increments. Channel groups 1 to 32 and 33 to 64 can each have a unique programmed debounce period.

Each word (16-bit/channel) has strobe in, ready for data, and interrupt out. Strobe-in lines can be connected in parallel for 32- or 64-bit transfers.

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

Voltages:	5, 12, 24, 48 Vdc
Threshold:	
min.:	1, 2.5, 7, 14
max.:	4, 9.5, 17, 31
Currents:	0.5, 1.3, 2.8, 5.8 mA (at nominal voltages)
Maximum input voltage:	60 Vdc (Between High and Low terminal of each channel), 125 V rms or Vdc (Between channels or between any terminal and chasis)
Minimum input pulse width:	100 ms + debounce time
Debounce:	Programmable from 16 µs to 1074 s

Output

5 volt supply:	4.5 to 5.5 Vdc (at 32 mA total maximum)

General Characteristics

Number of channels:	64
Channel type:	Input
Output or input type:	Variable
Memory:	n/a
Max. pattern rate:	n/a
32-bit block transfer:	n/a
Test synchronization:	n/a
Typical time to read 16-bit word:	1 ms, using register access
Terminal module:	Removable, with screw-type terminals
Maximum wire size:	16 AWG (1.5mm)

General Specifications

VXI Characteristics

VXI device type:	Register based
Data transfer bus:	A16, slave only
Size:	C
Slots:	1
Connectors:	P1/P2
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:	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:	0.19	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

Cooling/Slot

Watts/slot:	1.00
ΔP mm H_2O:	0.05
Air flow liter/s:	0.42

Ordering Information

Description	Product No.
64-Channel Isolated Digital Input/Interrupt	E1459A

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