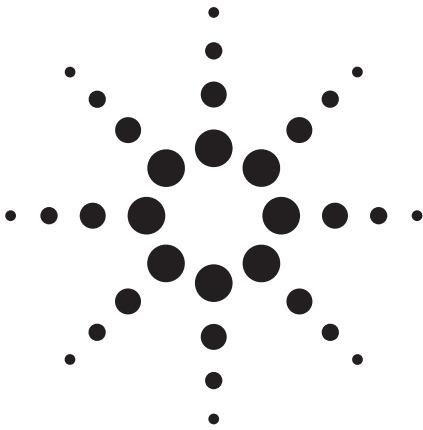
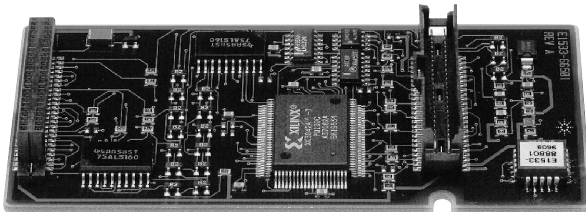


# Agilent E1533A 16-Bit Digital I/O SCP

## Data Sheet



- 16 non-isolated TTL inputs/outputs
- Arranged in two 8-bit ports (channels)
- Active or passive pull-up for output channels



Agilent E1533A

### Description

The Agilent E1533A 16-Bit Digital I/O SCP provides 16 TTL compatible input/output lines. The 16 TTL bits are grouped as two, 8-bit “channels”. Each channel can be configured as an 8-bit input port, or an 8-bit output port. When configured for output, each channel can be either passive (resistor) pull-up or active (transistor) pull-up.

Each output terminal is provided with over-voltage protection to prevent damage to the SCP or A/D module. Voltages greater than 6 V on any terminal will generate an error.

Use the E1533A with the following VXI modules:

Model	Description
E1415A	Algorithmic Closed Loop Controller
E1419A	Multifunction Measurement and Control Module

Refer to the Agilent Technologies Website for recent product updates, if applicable.

### Product Specifications

#### Output Characteristics

<b>Current source (logic 1):</b>	
Active pull-up:	5 mA
Passive pull-up:	0 mA
<b>Current sink (logic 0):</b>	
Active pull-up:	48 mA
Passive pull-up:	48 mA
<b>Voltage (logic 1):</b>	
Active pull-up:	2.5 V min. @ 5 mA load
Passive pull-up:	n/a
<b>Voltage (logic 0):</b>	
Active pull-up:	0.5 V max. @ 48 mA load
Passive pull-up:	0.5 V max. @ 48 mA load

#### Input Characteristics

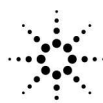
<b>Equivalent circuit:</b>	1.2 K $\Omega$ connected to 3 V
<b>Maximum input low:</b>	0.8 V
<b>Minimum input low:</b>	2 V
<b>Maximum voltage:</b>	+ 5.5 V and -0.5 V (inputs clamped, user must limit current to 15 mA)

#### Current Requirements (Amps)

5 V max	24 V max	-24 V max
0.08	0.015	0.006

### Ordering Information

Description	Product No.
16-Bit Digital I/O SCP	E1533A



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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](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  
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