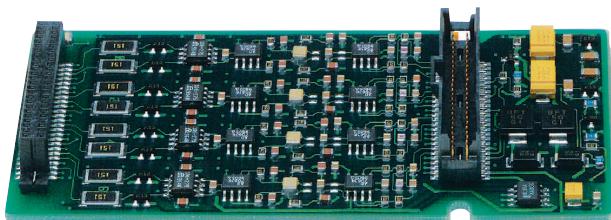


# Agilent E1513A

## 8-Channel Fixed Attenuator/Fixed Filter SCP

### Data Sheet

- Use with Agilent E1413C/E1415A/E1419A
- Divide-by-16 input attenuator per channel
- Fixed 7 Hz filter per channel
- $\pm 60$  V input with over-voltage protection



Agilent E1513A

Use the E1513A with the following VXI modules:

Model	Description
<b>E1413C</b>	64-Channel Scanning A/D Converter
<b>E1415A</b>	Algorithmic Closed Loop Controller
<b>E1419A</b>	Multifunction Measurement and Control Module

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

#### Description

The Agilent E1513A 8-Channel Divide-by-16 Fixed Attenuator & 7 Hz Fixed Filter SCP provides eight fixed low-pass filters with a 3 dB cutoff frequency of 7 Hz and eight divide-by-16 attenuators. It also provides input over-voltage protection.



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## Product Specifications

These specifications for the E1513A reflect the combined performance of the scanning A/D and the E1513A SCP.

### Measurement Ranges

**DC Volts:**  $\pm 1$  V to  $\pm 60$  V Full Scale

### Input Characteristics

**Maximum input voltage (normal mode plus common mode):**

**Operating:**  $\pm 60$  Vdc  
**Damage:**  $\pm 60$  Vdc \*

**Maximum common mode voltage:**

**Operating:**  $\pm 60$  Vdc  
**Damage:**  $\pm 60$  Vdc \*

**Common mode rejection:**

**0 to 60 Hz:**  $-60$  dB

**Normal Mode Rejection:**

**7 Hz:**  $-3$  dB  
**50 Hz:**  $> -24$  dB  
**60 Hz:**  $> -27$  dB

**Input impedance:**  $>1$  M $\Omega$  differential

\* 60 Vdc is the maximum voltage allowed by Agilent safety guidelines for the SCP connector pin spacing. This is determined at the maximum temperature and humidity operating point.

### Maximum Tare Cal Offset

*Maximum tare cal offset depends on A/D range and SCP gain.*

A/D Range $\pm$ V F. Scale	Maximum Offset
16	49.95
4	13.13
1	3.689
0.25	1.212
0.0625	0.606

### Measurement Accuracy DC Volts

If autoranging is ON, add  $\pm .05\%$  of reading for input voltages  $>\pm 4$  Vdc.

A/D Range $\pm$ V F. Scale	Linearity % of Reading	Common Mode Error % of Vcm	Offset Error	Noise 3 $\sigma$	Noise* 3 $\sigma$
.0625** (1 V)	0.02%	0.1%	100 $\mu$ V	700 $\mu$ V	280 $\mu$ V
.25** (4 V)	0.02%	0.1%	175 $\mu$ V	860 $\mu$ V	430 $\mu$ V
1 (16 V)	0.02%	0.1%	500 $\mu$ V	1.8 mV	1.4 mV
4 (60 V)	0.02%	0.1%	1.95 mV	7.0 mV	5.8 mV

\* A/D filter ON (min sample period  $\geq 145$   $\mu$ s;  $\leq 100$  Hz scan rate 64 ch).

\*\* These ranges are not recommended.

### Temperature Coefficients

Temp Range Tempco

<b>Gain:</b>	0.001/ $^{\circ}$ C
<b>Offset:</b>	0.14 $\mu$ V/ $^{\circ}$ C
	40-55 $^{\circ}$ C 0.8 $\mu$ V + 0.38 $\mu$ V/ $^{\circ}$ C

### Current Requirements (Amps)

5 V max	24 V max	-24 V max
0.0054	0.02	0.02

### Ordering Information

Description	Product No.
8-Channel Divide-by-16 Fixed Attenuator & 7 Hz Fixed Filter SCP	E1513A

## 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)

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Data Subject to Change  
© Agilent Technologies 2000  
Printed in the U.S.A. 04/2000  
Publication No.: 5966-2395E



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