ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

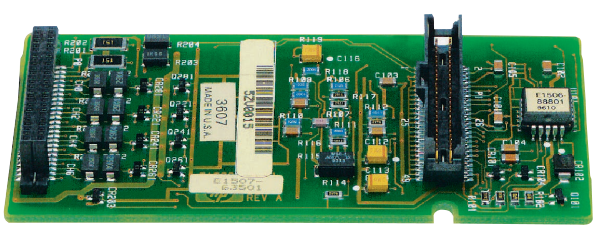
All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Keysight / Agilent E1507A* at our website: *Click HERE*

Agilent E1507A
350 Ω Strain Completion and Excitation SCP

Data Sheet

- **Use with Agilent E1413C/E1415A/E1419A**
- **350 Ω strain bridge completion and excitation**
- **Connections for quarter, half, and full bridge**
- **Requires an input SCP to make strain gage measurements**



Agilent E1507A

Description

The Agilent E1507A 8-Channel 350 Ω Strain Completion & Excitation SCP provides strain completion and excitation voltages for 350 Ω bridges. Connections can be made for quarter-bridge, half-bridge, and full-bridge strain gage measurements.

Two SCPs are required to make strain gage measurements. The E1507A SCP provides the excitation signals and bridge connections and the other SCP, the sense SCP, makes the measurement connections (e.g., E1503A, E1508A, or E1509A).

Use the E1507A with the following VXI modules:

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

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

Agilent Technologies
Innovating the HP Way

Strain Measurements

With the E1507A you can make quarter-bridge, half-bridge, or full bridge strain gage measurements. In the quarter-bridge and half-bridge configuration, the E1507A supplies the strain completion circuitry. The E1507A supplies the bridge excitation voltage for all bridge configurations.

Product Specifications

The following graphs show the strain accuracy for various bridge configurations.

Excitation Voltage

Accuracy:	
(90 day) 23 ± 1 °C with *CAL done after 1 hr warm-up. Measured with the E1501A. Direct Input SCP.	3.9000 V nominal ± 512 μV
Tempco:	39 μV/°C
Noise (3σ):	
A/D filter off:	450 μV
A/D filter on:	366 μV

Completion Resistors

Power:	0.125 W @ 125 °C
Tolerance:	0.05%
TCR:	± 5 ppm/°C

Offsets

Bridge offsets:	
Quarter bridge:	± 1 °C of tare cal
Offset:	± 40 μV

System Strain Accuracies

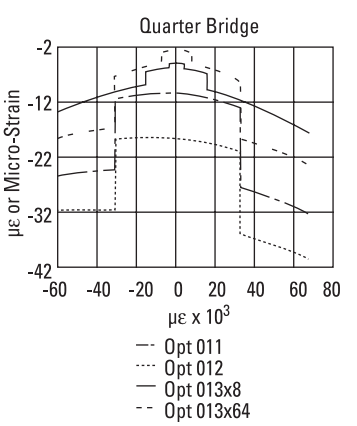
Gain + offset error:	40 με
Noise error:	
A/D filter off:	27 με
A/D filter off:	20 με

Strain Measurement Accuracy

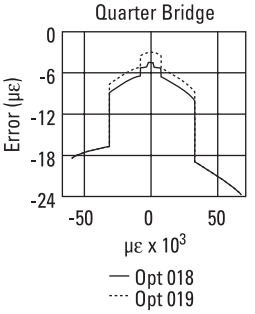
These specifications for the E1507A reflect the combined performance of the scanning A/D and the E1507A SCP.

Conversion Chart

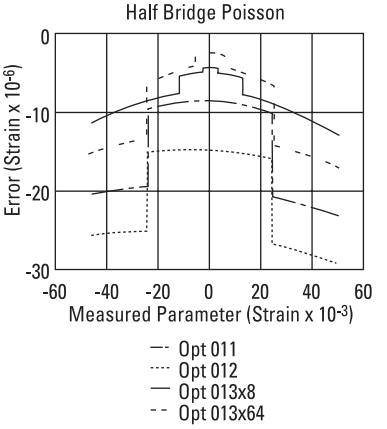
Opt 011	=	E1501A
Opt 012	=	E1502A
Opt 013	=	E1503A
Opt 015	=	E1505A
Opt 016	=	E1506A
Opt 017	=	E1507A
Opt 018	=	E1508A
Opt 019	=	E1509A
Opt 020	=	E1510A
Opt 021	=	E1511A



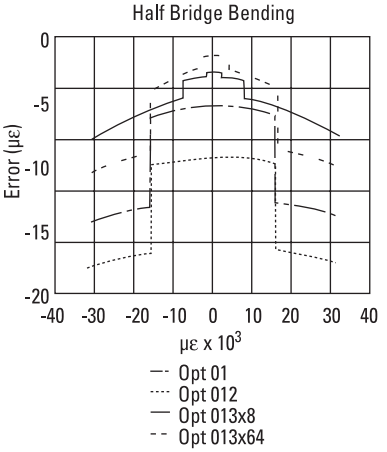
Quarter Bridge



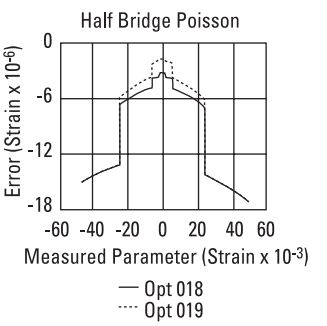
Half Bridge Poisson



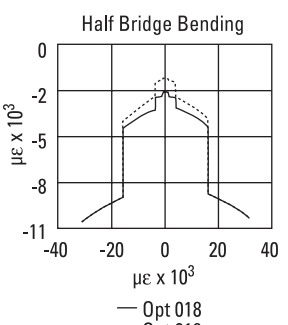
Half Bridge Bending



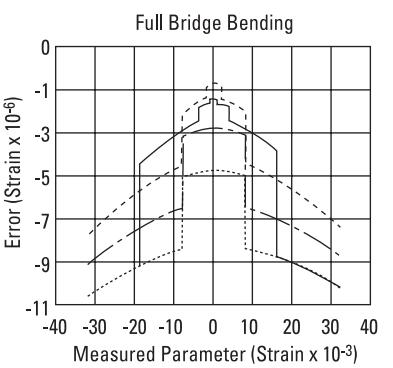
Half Bridge Poisson

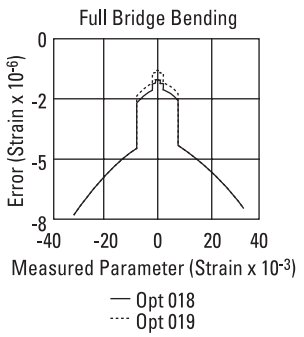


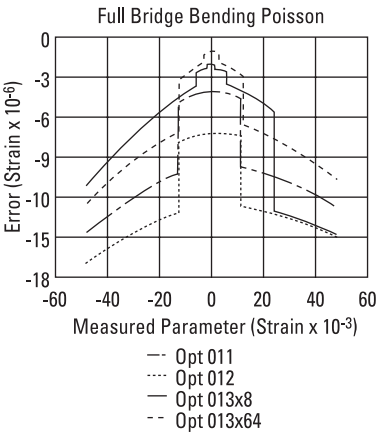
Half Bridge Bending

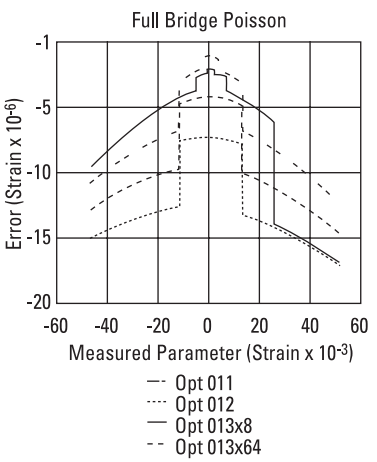


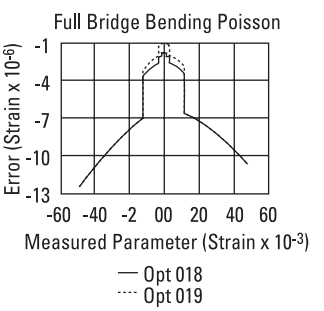
Full Bridge Bending

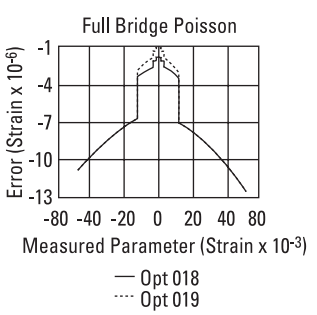












Current Requirements (Amps)

5 V typ	5 V max	24 V typ	24 V max	–24 V typ	–24 V max
0.09	0.09	.026	.032	.023	.027

Ordering Information

Description	Product No.
8-Channel 350 Ω Strain Completion & Excitation SCP	E1507A

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

VXI product information
www.agilent.com/find/vxi

Defense Electronics Applications
www.agilent.com/find/defense_ATE

Agilent Technologies VXI Channel Partners
www.agilent.com/find/vxichanpart

Agilent Technologies' HP VEE Application Website
www.agilent.com/find/vee

Agilent Technologies Data Acquisition and Control Website
www.agilent.com/find/data_acq

Agilent Technologies Instrument Driver Downloads
www.agilent.com/find/inst_drivers

Agilent Technologies Electronics Manufacturing Test Solutions
www.agilent.com/go/manufacturing

Get assistance with all your test and measurement needs at
www.agilent.com/find/assist
or check your local phone book for the Agilent office near you.

Agilent Technologies' test and measurement service/support commitment

Agilent strives to maximize the value our test and measurement products give you, while minimizing your risk and service/support problems. We work to ensure that each product is realistically described in the literature, meets its stated performance and functionality, has a clearly stated global warranty, and is supported at least five years beyond its production life. Our extensive self-help tools include many online resources (www.agilent.com).

Experienced Agilent test engineers throughout the world offer practical recommendations for product evaluation and selection. After you purchase an Agilent product, they can provide no-charge assistance with operation verification and basic measurement setups for advertised capabilities. To enhance the features, performance, and flexibility of your test and measurement products—and to help you solve application challenges—Agilent offers free or extra-cost product options and upgrades, and sell expert engineering, calibration, and other consulting services.

Phone and fax
United States:
Agilent Technologies
(tel) 1 800 452 4844

Canada:
Agilent Technologies Canada Inc.
(tel) 1 877 894 4414

Europe:
Agilent Technologies
Test & Measurement
European Marketing Organisation
(tel) (31 20) 547 2000

Japan:
Agilent Technologies Japan Ltd.
(tel) (81) 426 56 7832
(fax) (81) 426 56 7840

Latin America:
Agilent Technologies
Latin American Region Headquarters, U.S.A.
(tel) (305) 267 4245
(fax) (305) 267 4286

Australia/New Zealand:
Agilent Technologies Australia Pty Ltd.
(tel) 1 800 629 485 (Australia)
(fax) (61 3) 9272 0749
(tel) 0 800 738 378 (New Zealand)
(fax) (64 4) 802 6881

Asia Pacific:
Agilent Technologies, Hong Kong
(tel) (852) 3197-7777
(fax) (852) 2506-9284

Data Subject to Change
© Agilent Technologies 2000
Printed in the U.S.A. 04/2000
Publication No.: 5966-2385E

Agilent Technologies
Innovating the HP Way

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP