


Aumictech

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

KEITHLEY

Keithley 4200A-SCS Parameter Analyzer

The Keithley 4200A-SCS Parameter Analyzer is a modular, fully integrated parameter analyzer that performs electrical characterization of semiconductor devices and materials. It is used for current-voltage (I-V), capacitance-voltage (C-V), and transient measurements.



MODEL

Keithley 4200A-SCS

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

4200A-SCS

LISTING

<https://aumictechlabs.com/products/4200a-scs-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley 4200A-SCS Parameter Analyzer is a modular semiconductor characterization system delivering synchronized DC I-V, capacitance-voltage, and ultra-fast pulsed measurements in a single integrated platform. Built around a 9-slot hardware architecture, the system combines multiple measurement units with an embedded Windows PC and 15.6-inch Full HD touchscreen interface. Clarius GUI software provides direct access to over 450 pre-configured application tests, eliminating custom coding for routine characterization tasks. Technical Specifications

Current-Voltage Measurements SMU modules source and measure up to ± 210 V / 100 mA (medium power) or ± 210 V / 1 A (high power) Four-quadrant source/sink operation with 2-wire and 4-wire Kelvin configurations Measurement resolution down to 100 fA, expandable to 10 aA with optional preamplifier Linear, log, list, and segment sweep modes Capacitance-Voltage Measurements Multi-frequency CVU module covers 1 kHz to 10 MHz with femtofarad to microfarad range DC bias from ± 30 V (60 V differential) or optional ± 210 V (420 V differential) AC

impedance characterization including C-V, C-f, and C-t measurements Very-low frequency C-V option using SMU sourcing Pulsed I-V Measurements Dual-channel PMU with 200 MSa/sec sampling rate and 5 ns resolution Voltage: ± 40 V (80 Vp-p); Current: ± 800 mA Arbitrary waveform generator with 10 ns programmable resolution for multi-level pulse sequences Transient waveform capture mode Key Features Modular 9-slot architecture supports flexible measurement module configuration Clarius software includes embedded measurement expertise with 450+ user-modifiable tests Project Tree interface for test organization and sequencing without programming Multilingual tutorial videos (English, Chinese, Japanese, Korean) Typical Applications Semiconductor device characterization, material electrical properties, reliability studies, failure analysis, and transient response measurement. Compatibility & Integration USB 3.0/2.0, Ethernet, IEEE-488.2 (GPIB), RS-232, SVGA, Display Port, and HDMI connectivity.

Features & description

From manufacturer datasheet

High Power SMU: 4210-SMU and 4211-SMU

SMU Voltage Max: plus/minus 210 V Medium Power Current: 105 mA (2.2 W)

High Power Current: 1.05 A (about 20 W)

SMU Voltage Ranges: 200 V, 20 V, 2 V, 200 mV Voltage Measure Resolution: 0.2 uV on 200 mV range Voltage Measure Accuracy 20 V: 0.01 percent plus 1 mV Voltage Source Accuracy 20 V: 0.02 percent plus 1.5 mV Current Measure Resolution Base: 100 fA (100 nA range) Current Measure Resolution With PA: 10 aA (1 pA range) Preamplifier Model: 4200-PA (adds 10 nA through 1 pA ranges) DC Current Span: 10 aA to 1 A (configuration) Quadrants: 4 quadrant source/measure CVU Frequency: 1 kHz to 10 MHz CVU DC Bias Built In: plus/minus 30 V (60 V differential) Pulse Sample Rate: 200 MSa/s, 5 ns Pulse Amplitude Class: plus/minus 40 V (80 V p-p), plus/minus 800 mA class Software: Clarius Connections: 2-wire or 4-wire Kelvin guarded Notes Specs from Keithley 4200A-SCS Parameter Analyzer datasheet. Installed module mix (SMU type, preamp, CVU, PMU) must be read from the chassis configuration; do not assume a full nine-slot load.

4200ASCS Characteristics / Specifications

PARAMETER	VALUE
Model	4200A-SCS
Manufacturer	Keithley Instruments (Tektronix)
Instrument Type	Semiconductor parameter analyzer
Alias	4200A-SCS; 4200A SCS; Keithley 4200A
Predecessor	4200-SCS
Medium Power SMU	4200-SMU and 4201-SMU
High Power SMU	4210-SMU and 4211-SMU
SMU Voltage Max	plus/minus 210 V
Medium Power Current	105 mA (2.2 W)
High Power Current	1.05 A (about 20 W)
SMU Voltage Ranges	200 V, 20 V, 2 V, 200 mV
Voltage Measure Resolution	0.2 uV on 200 mV range
Voltage Measure Accuracy 20 V	0.01 percent plus 1 mV
Voltage Source Accuracy 20 V	0.02 percent plus 1.5 mV
Current Measure Resolution Base	100 fA (100 nA range)
Current Measure Resolution With PA	10 aA (1 pA range)
Preamplifier Model	4200-PA (adds 10 nA through 1 pA ranges)
DC Current Span	10 aA to 1 A (configuration)
Quadrants	4 quadrant source/measure
CVU Frequency	1 kHz to 10 MHz
CVU DC Bias Built In	plus/minus 30 V (60 V differential)
Pulse Sample Rate	200 MSa/s, 5 ns
Pulse Amplitude Class	plus/minus 40 V (80 V p-p), plus/minus 800 mA class
Software	Clarius
Connections	2-wire or 4-wire Kelvin guarded Notes Specs from Keithley 4200A-SCS Parameter Analyzer datasheet. Installed module mix (SMU type,

PARAMETER	VALUE
-----------	-------

	preamp, CVU, PMU) must be read from the chassis configuration; do not assume a full nine-slot load.
--	---

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	4200A-SCS
Manufacturer	Keithley Instruments (Tektronix)
Instrument Type	Semiconductor parameter analyzer
Specifications	
PARAMETER	VALUE
Alias	4200A-SCS; 4200A SCS; Keithley 4200A
Predecessor	4200-SCS
Medium Power SMU	4200-SMU and 4201-SMU
Specifications	
PARAMETER	VALUE
High Power SMU	4210-SMU and 4211-SMU
SMU Voltage Max	plus/minus 210 V
Medium Power Current	105 mA (2.2 W)
Specifications	
PARAMETER	VALUE
High Power Current	1.05 A (about 20 W)
SMU Voltage Ranges	200 V, 20 V, 2 V, 200 mV
Voltage Measure Resolution	0.2 uV on 200 mV range
Specifications	
PARAMETER	VALUE
Voltage Measure Accuracy 20 V	0.01 percent plus 1 mV
Voltage Source Accuracy 20 V	0.02 percent plus 1.5 mV
Current Measure Resolution Base	100 fA (100 nA range)

Specifications

PARAMETER	VALUE
Current Measure Resolution With PA	10 aA (1 pA range)
Preamplifier Model	4200-PA (adds 10 nA through 1 pA ranges)
DC Current Span	10 aA to 1 A (configuration)

Specifications

PARAMETER	VALUE
Quadrants	4 quadrant source/measure
CVU Frequency	1 kHz to 10 MHz
CVU DC Bias Built In	plus/minus 30 V (60 V differential)

Specifications

PARAMETER	VALUE
Pulse Sample Rate	200 MSa/s, 5 ns
Pulse Amplitude Class	plus/minus 40 V (80 V p-p), plus/minus 800 mA class
Software	Clarius

Connections: 2-wire or 4-wire Kelvin guarded

Notes

Specs from Keithley 4200A-SCS Parameter Analyzer datasheet. Installed module mix (SMU type, preamp, CVU, PMU) must be read from the chassis configuration; do not assume a full nine-slot load.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.