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Data Sheet

August 13, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E4351B Solar Array Simulator

Overvoltage/overcurrent protection: programmable independent Operating temperature accuracy: 25 C plus or minus 5 C Related lower voltage model: E4350B 65 V 8 A Specs from Agilent E4351B SAS datasheet and operating guide 9018-01168. Confirm firmware revision, installed interface options, and parallel configuration on the unit. Operating temperature accuracy: 25 C plus or minus 5 C Related lower voltage model: E4350B 65 V 8 A Specs from Agilent E4351B SAS datasheet and operating guide 9018-01168. Confirm firmware revision, installed interface options, and parallel configuration on the unit.



MODEL

**Agilent / Keysight
E4351B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E4351B

LISTING

<https://aumictechlabs.com/products/e4351b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight E4351B Solar Array Simulator is a one-box DC power source engineered to emulate solar array output characteristics with high fidelity. Operating as a current source with less than 100 nF output capacitance, it delivers precise I-V curve simulation across varying temperature and operating conditions. The instrument supports three distinct modes: Simulator Mode using four-parameter algorithms (Voc, Isc, Imp, Vmp), Table Mode with user-defined point arrays up to 4000 points per table, and Fixed Mode for standard rectangular power supply operation. Technical Specifications Output Ratings: Maximum Power: 480 W Maximum Open Circuit Voltage (Voc): 130 V Maximum Short Circuit Current (Isc): 4 A Rated Voltage Range: 0-120 V Rated Current Range: 0-4 A Programming Accuracy (25°C ±5°C): Voltage (Fixed Mode): 0.075% + 20 mV Current

(Simulator and Fixed Mode): 0.2% + 10 mA Load Regulation: $\pm 0.01\%$ + 0.1 mV Line Regulation: $\pm 0.01\%$ + 0.1 mV Ripple and Noise (20 Hz to 20 MHz): Voltage RMS: 24 mV; Peak-to-Peak: 195 mV Current RMS: 4 mA; Ripple < 10 mArms Voltage Ripple: < 5 mVrms Dynamic Performance: Output Capacitance: < 100 nF Load Switching Recovery Time: < 5 μ s Maximum Capacitive Load (Fixed Mode): 2000 μ F Key Features Table Mode stores up to 30,000 points in volatile memory; 3,500 points non-volatile Programmable current and voltage offsets for condition simulation IEEE-488.2 bus control with GPIB, RS-232, and LAN interfaces Serial linking supports up to 16 outputs on a single IEEE-488.2 address Unconditional stability in Simulator and Table Modes at all capacitive loads Overvoltage protection integrated Typical Applications Photovoltaic system development, array validation testing, quality control in solar energy manufacturing, and research environments requiring dynamic I-V characteristic emulation. Compatibility & Integration GPIB, RS-232, and LAN connectivity enable integration into automated test systems. IEEE-488.2 programmability supports scripted array simulation workflows.

Features & description

From manufacturer datasheet

Features

- 480 W maximum output power
- Voc maximum 130 V Isc maximum 4 A
- Simulator table and fixed operating modes
- Up to 60 volatile/non-volatile I-V tables
- Switching recovery time less than 5 μ s
- Auto-parallel capability for higher power

Applications

- Solar array and PV converter I-V curve emulation
- MPPT inverter and charge-controller development test
- Satellite power subsystem SAS testing to 130 V
- Automated SAS table playback up to 4000 points per table

E4351B Characteristics / Specifications

PARAMETER	VALUE
Model	E4351B
Manufacturer	Keysight / Agilent
Instrument Type	Solar Array Simulator
Alias	E4351B; Agilent E4351B; Keysight E4351B
Maximum power	480 W
Voc maximum simulator/table	130 V
Isc maximum simulator/table	4 A
Mixed modeVrated	0 to 120 V
Mixed modelrated	0 to 4 A
Minimum deltaVover delta I	1 ohm for E4351B
Number of outputs	1
Remote interface	IEEE-488.2 GPIB SCPI
Voltage accuracy fixed mode 25 C	0.075 percent plus 20 mV
Current accuracy simulator/fixed 25 C	0.2 percent plus 10 mA
Voltage ripple rms 20 Hz to 20 MHz	24 mV
Voltage ripple peak to peak	195 mV
Current ripple rms	4 mA
Load switching recovery time	less than 5 us
Table storage total points	up to 33500 (60 tables)
Maximum points per table	4000
Fixed mode max load capacitance	2000 uF
Simulator/table mode capacitive load	unconditionally stable
External control input range	0 to -4.0 V
External control input impedance	20 kohm nominal
Overvoltage/overcurrent protection	programmable independent

PARAMETER	VALUE
Operating temperature accuracy	25 C plus or minus 5 C
Related lower voltage model	E4350B 65 V 8 A Notes Specs from Agilent E4351B SAS datasheet and operating guide 9018-01168. Confirm firmware revision, installed interface options, and parallel configuration on the unit.
Maximum output power	Voc maximum 130 V Isc maximum 4 A - Simulator table and fixed operating modes - Up to 60 volatile/non-volatile I-V tables - Switching recovery time less than 5 us - Auto-parallel capability for higher power
Operating temperature	accuracy: 25 C plus or minus 5 C

General Specifications & Supplementary Characteristics

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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

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Model	E4351B
Manufacturer	Keysight / Agilent
Instrument Type	Solar Array Simulator
Alias	E4351B; Agilent E4351B; Keysight E4351B
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Voltage ripple rms 20 Hz to 20 MHz: 24 mV

Specifications

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Voltage ripple peak to peak	195 mV
Current ripple rms	4 mA
Load switching recovery time	less than 5 us
Table storage total points	up to 33500 (60 tables)
Maximum points per table	4000

Non-volatile table storage: 30 tables 3500 points retained

Specifications

PARAMETER	VALUE
Fixed mode max load capacitance	2000 uF
Simulator/table mode capacitive load	unconditionally stable
External control input range	0 to -4.0 V
External control input impedance	20 kohm nominal
Overvoltage/overcurrent protection	programmable independent
Operating temperature accuracy	25 C plus or minus 5 C
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Notes

Specs from Agilent E4351B SAS datasheet and operating guide 9018-01168. Confirm firmware revision, installed interface options, and parallel configuration on the unit.

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

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.