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Data Sheet

August 12, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) B1513A

Keysight / Agilent B1513A High Voltage Source/Measure Unit (HVSMU) The B1513A is a high-voltage SMU plug-in module for Keysight B1505A Power Device Analyzer / Curve Tracer systems. Integrates HV voltage/current force and measure for power-device IV characterization (DC and pulsed). The B1513A is a high-voltage SMU plug-in module for Keysight B1505A Power Device Analyzer / Curve Tracer systems. Integrates HV voltage/current force and measure for power-device IV characterization (DC and pulsed).



MODEL

**Keysight / Agilent
B1513A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

B1513A

LISTING

<https://aumictechlabs.com/products/b1513a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight (Agilent) B1513A is a single-channel high-voltage source-measure unit (HVSMU) engineered for precision DC and pulsed characterization of power devices and high-voltage semiconductors. This module integrates voltage and current sourcing with simultaneous measurement capability, delivering sub-picoamp leakage detection at voltages up to 3000 V and supporting power levels to 20 W. The B1513A functions as a core component within the Keysight B1505A Power Device Analyzer/Curve Tracer, enabling advanced device modeling and high-power electronics testing without thermal stress. Technical Specifications Voltage Source: ± 200 V (DC & pulsed); extended range to 1500 V @ 8 mA or 3000 V @ 4 mA Current Source: ± 1 A (DC & pulsed); measurement range 10 fA to 1 A Measurement Resolution: 6.5 digits Voltage Measurement: 2 μ V to 200 V Current Noise: < 1 nA RMS (typical) Voltage Noise: < 10 μ V RMS

(typical) Load Regulation: $< 0.01\% + 1 \text{ mV}$ Line Regulation: $< 0.01\% + 1 \text{ mV}$ Pulse Width Range: 500 μs to 2 s Power Output: Up to 20 W Operating Temperature: 0°C to $+40^{\circ}\text{C}$

Key Features

- Single-box high-voltage and high-power integration eliminates external component scaling
- Sub-picoamp leakage measurement capability at 3000 V enables precise characterization of reverse-bias currents
- Dual voltage/current measurement modes support both precision analysis and power device validation
- Pulsed and DC operation modes with programmable pulse durations minimize thermal drift in temperature-sensitive applications
- 6.5-digit resolution with tight load and line regulation ensures consistency across parameter sweeps

Typical Applications

- Power MOSFET and IGBT device characterization
- High-voltage diode leakage and reverse-bias testing
- Semiconductor material analysis requiring sub-nanoamp sensitivity
- Thermal stress testing of power electronics at controlled voltage and current levels

Compatibility & Integration

The B1513A integrates into the Keysight B1505A Power Device Analyzer/Curve Tracer platform via GPIB, USB, and LAN connectivity. Note: The N1267A accessory is not compatible with the B1513A HVSMU.

Features & description

From manufacturer datasheet

Features

• Module type: HVSMU (High Voltage Source Measure Unit) • Host: B1505A Power Device Analyzer / Curve Tracer • Voltage/current class: 1500 V / 8 mA; 3000 V / 4 mA (pulsed and DC) per reseller OEM summaries • Function: integrated V/I source and measurement • Use: accurate DC IV of high-voltage power devices

Applications

• Power MOSFET / IGBT / diode high-voltage IV • Curve-tracer style characterization in B1505A • Pulsed and DC high-voltage semiconductor test

B1513A Characteristics / Specifications

PARAMETER	VALUE
Model	B1513A
Manufacturer	Keysight / Agilent
Instrument Type	High Voltage Source/Measure Unit Module
Alias	B1513A; Agilent B1513A; Keysight B1513A HVSMU
Host	B1505A Power Device Analyzer / Curve Tracer
Range class	1500 V / 8 mA
Modes	pulsed and DC Notes Headline ranges from Keysight/Agilent B1513A HVSMU product descriptions for B1505A. Confirm exact option/firmware and interlock cabling on the module.
Module type	HVSMU (High Voltage Source Measure Unit)
Voltage/current class	1500 V / 8 mA; 3000 V / 4 mA (pulsed and DC) per reseller OEM summaries
Function	integrated V/I source and measurement
Use	accurate DC IV of high-voltage power devices

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	B1513A
Manufacturer	Keysight / Agilent
Instrument Type	High Voltage Source/Measure Unit Module
Alias	B1513A; Agilent B1513A; Keysight B1513A HVSMU

Specifications

PARAMETER	VALUE
Host	B1505A
Range class 1	1500 V / 8 mA
Range class 2	3000 V / 4 mA
Modes	pulsed and DC

Notes
Headline ranges from Keysight/Agilent B1513A HVSMU product descriptions for B1505A. Confirm exact option/firmware and interlock cabling on the module.

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