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Data Sheet

August 3, 2026

KEYSIGHT

Keysight / Agilent B1511B Medium Power Source/Measure Unit (HPSMU)

Keysight / Agilent B1511B Medium Power Source/Measure Unit (MPSMU) The Keysight B1511B isaMedium Power Source/Monitor Unit (MPSMU) plug-in module for the B1500A Semiconductor Device Analyzer. It provides 4-quadrant source/measure to 100 V / 0.1 A with minimum measurement resolution of 10 fA / 0.5 μ V. (Note: B1511B is MPSMU—Medium Power—not HPSMU. HPSMU isaseparate high-power module type such as B1510A.) Device IV characterization; pulsed IV from 500 μ s class; spot/sweep measurements; optional ASU for attoamp resolution and IV/CV path switching. The Keysight B1511B isaMedium Power Source/Monitor Unit (MPSMU) plug-in module for the B1500A Semiconductor Device Analyzer. It provides 4-quadrant source/measure to 100 V / 0.1 A with minimum measurement resolution of 10 fA / 0.5 μ V. (Note: B1511B is MPSMU—Medium Power—not HPSMU. HPSMU isaseparate high-power module type such as B1510A.) Device IV characterization; pulsed IV from 500 μ s class; spot/sweep measurements; optional ASU for attoamp resolution and IV/CV path switching.

No photo

MODEL

Keysight B1511B

CALIBRATION

**N/A — off-catalog
OEM datasheet**

CONDITION

**See OEM
documentation**

STATUS

**Not listed on
Aumictech
inventory**

RFQ / SKU

B1511B

LISTING

**Off-catalog — OEM dat
asheet only**

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

Features & description

From manufacturer datasheet

Features

- Module: B1511B MPSMU for B1500A • Range: up to 100 V / 0.1 A, 4-quadrant • Min measurement resolution: 10 fA / 0.5 μ V • Pulse measurement from 500 μ s (MPSMU/HPSMU/HRSMU class) • Optional ASU: 100 aA resolution and IV/CV switching • High-resolution and high-speed ADC choices per SMU • Up to 10 MPSMUs per B1500A mainframe

B1511B Characteristics / Specifications

PARAMETER	VALUE
Model	B1511B
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Medium Power Source/Measure Unit (MPSMU)
Host	B1500A Semiconductor Device Analyzer
Alias	B1511B; MPSMU; B1511B Medium Power SMU Force / Measure Ranges (MPSMU family)
Voltage	up to ± 100 V (current limited by range: e.g. 100 mA $V_o \leq 20$ V; 50 mA 20–40 V; 20 mA 40–100 V)
Current	up to ± 100 mA (voltage limited correspondingly)
Minimum Measure Resolution	10 fA / 0.5 μ V
With ASU	down to 100 aA class resolution Accuracy Examples (high-resolution ADC context) Voltage force/measure accuracy tables per B1500A datasheet (e.g. ± 100 V range force resolution 5 mV / measure 100 μ V class rows) Current ranges from pA through 100 mA with stated % + offset accuracies
Module	B1511B MPSMU for B1500A
Range	up to 100 V / 0.1 A, 4-quadrant
Min measurement resolution	10 fA / 0.5 μ V
Optional ASU	100 aA resolution and IV/CV switching

B1511B Specifications

PARAMETER	VALUE
Key Features	- Module: B1511B MPSMU for B1500A
Technical Specifications	Model: B1511B
Force / Measure Ranges (MPSMU family)	Voltage: up to ± 100 V (current limited by range: e.g. 100 mA $V_o \leq 20$ V; 50 mA 20–40 V; 20 mA 40–100 V)

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	B1511B
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Medium Power Source/Measure Unit (MPSMU)
Host	B1500A Semiconductor Device Analyzer
Alias	B1511B; MPSMU; B1511B Medium Power SMU

Force / Measure Ranges (MPSMU family)

Specifications

PARAMETER	VALUE
Voltage	up to ± 100 V (current limited by range: e.g. 100 mA $V_{o\leq 20}$ V; 50 mA 20-40 V; 20 mA 40-100 V)
Current	up to ± 100 mA (voltage limited correspondingly)
Minimum Measure Resolution	10 fA / 0.5 μ V
With ASU	down to 100 aA class resolution

Accuracy Examples (high-resolution ADC context)

Voltage force/measure accuracy tables per B1500A datasheet (e.g. ± 100 V range force resolution 5 mV / measure 100 μ V class rows)

Current ranges from pA through 100 mA with stated % + offset accuracies

Operational Notes

User listings sometimes mislabel B1511B as HPSMU; official designation is MPSMU. Prefer Keysight B1500A datasheet MPSMU/B1511B rows for full accuracy tables.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: N/A — off-catalog OEM datasheet. See OEM documentation · Not listed on Aumictech inventory.

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.