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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 66311B DC Source 0-15V 0-3A

HP / Agilent 66311B Mobile Communications DC Source The Agilent/HP 66311B is the single-output 15 V / 3 A (5 A peak for 7 ms) mobile-communications DC source without the auxiliary DVM of the 66311D. It provides fast transient recovery for wireless handset DC substitution, two current-measure ranges including a 20 mA leakage range, and a 4096-point digitizer. Programmable battery resistance is not available (that feature is on 66319/66321). Single-port wireless-device DC substitution; digitized talk/standby current; legacy ATE needing 66311B-compatible sourcing without rear DVM. The Agilent/HP 66311B is the single-output 15 V / 3 A (5 A peak for 7 ms) mobile-communications DC source without the auxiliary DVM of the 66311D. It provides fast transient recovery for wireless handset DC substitution, two current-measure ranges including a 20 mA leakage range, and a 4096-point digitizer. Programmable battery resistance is not available (that feature is on 66319/66321). Single-port wireless-device DC substitution; digitized talk/standby current; legacy ATE needing 66311B-compatible sourcing without rear DVM.



MODEL

**HP / Agilent
66311B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

66311B

LISTING

<https://aumictechlabs.com/products/66311b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 66311B is a DC power source engineered for testing wireless and battery-powered devices in R&D, manufacturing, and repair environments. It delivers 0–15 V at 0–3 A continuous output, with peak current capability of 5 A for up to 7 ms, supporting dynamic current pulses

typical of digital communications equipment. The unit combines precise voltage and current programming with battery emulation, making it ideal for validating device performance under simulated battery conditions and measuring current drain across multiple operating modes.

Technical Specifications

Output Ratings Voltage: 0–15 V Current: 0–3 A continuous, 5 A peak (≤ 7 ms) Maximum Power: 45 W Single output channel

Programming and Readback Accuracy Voltage programming: $\pm(0.05\% + 10 \text{ mV})$ Current programming: $\pm(0.05\% + 1.33 \text{ mA})$ Voltage readback: $\pm(0.03\% + 5 \text{ mV})$ Current readback: $\pm(0.2\% + 0.5 \text{ mA})$ typical range; $\pm(0.1\% + 2.5 \mu\text{A})$ at $\pm 20 \text{ mA}$

Transient Performance Voltage drop: 70 mV Response time: $< 35 \mu\text{s}$ - critical for devices with low-voltage shutdown thresholds

Key Features

Dynamic Measurement System Built-in current measurement captures battery drain across talk, active, standby, and sleep modes with high resolution across multiple current ranges. Battery Emulation Simulates internal resistance effects, enabling validation against various battery types and charge states without requiring physical cells. Open-Sense Detection Identifies permanent and intermittent sense-lead faults, preventing test errors from compromised feedback paths. High-Speed Programming Command processing $< 4 \text{ ms}$ and output response $< 200 \mu\text{s}$ enable rapid test cycles and increased throughput. Overvoltage Protection Programmable protection limits device exposure during fault conditions.

Typical Applications Battery-powered device validation and life-cycle testing Wireless handset current-drain characterization Portable electronics manufacturing test Component and subsystem evaluation under battery-like supply conditions

Compatibility & Integration Program via GPIB using SCPI or COMP (compatibility mode). Supports command syntax compatible with HP/Agilent 6632A, 6633A, and 6634A supplies. Operates to 2000 m altitude, 95% relative humidity maximum, Category II installation, Pollution Degree 2. Safety Class I with protective earth terminal.

Features & description

From manufacturer datasheet

Features

- 15 V / 3 A main output; 5 A peak for 7 ms
- Two current-measure ranges including 20 mA leakage
- Open-sense detection; programmable wiring compensation
- 4096-point digitizer
- GPIB SCPI; VXI plug and play drivers
- No auxiliary DVM (see 66311D)

66311B Characteristics / Specifications

PARAMETER	VALUE
Model	66311B
Manufacturer	Agilent / Hewlett Packard (Keysight lineage)
Instrument Type	Single output mobile communications DC source
Family	66300 Mobile Communications DC Sources
Alias	HP 66311B; Agilent 66311B; Keysight 66311B
Number Of Outputs	1
Main Output Voltage	0 to 15 V
Main Output Current	0 to 3 A
Main Peak Current	5 A for up to 7 ms
Programming Accuracy Voltage	0.05 percent plus 10 mV at 25 plus/minus 5 C
Programming Accuracy Plus Current	0.05 percent plus 1.33 mA at 25 plus/minus 5 C
Ripple Voltage RMS	1 mV (20 Hz to 20 MHz)
Ripple Voltage PP	6 mV
Ripple Current RMS	2 mA
DC Measurement Voltage	0.03 percent plus 5 mV
DC Measurement Plus 20 mA To Rated	0.2 percent plus 0.5 mA (dc detector)
DC Measurement Minus 20 mA To Rated	0.2 percent plus 1.1 mA
DC Measurement Minus 20 mA To Plus 20 mA	0.1 percent plus 2.5 uA
Dynamic Buffer Size	4096 points
Sampling Interval	15 us to 31200 s
Transient Response Time	less than 35 us to within 20 mV after 0.1 to 1.5 A step
Transient Voltage Dip Typical	70 mV (up to 15 ft 22 AWG)
Programmable Resistance	not available (66311 versus 66319/66321)
Output Programming Rise Fall	less than 200 us (10/90 percent)
Command Processing Time	4 ms average (display disabled)

PARAMETER	VALUE
Measurement Time Average	50 ms
DC Floating Voltage	plus/minus 50 Vdc maximum from chassis
Remote Sense Drop	up to 4 V in each load lead
Load Regulation Add	2 mV per 1 V drop in the positive output lead
Input Power Worst Case	1.7 A, 125 W at 100 Vac full load
Size	212.8 mmWx 88.1 mmHx 435 mmDNet Weight: 9.1 kg (20 lb)
Line Options	100 87-106 Vac; 120 104-127 Vac; 220 191-233 Vac; 230 207-253 Vac; 47-63 Hz
Related With DVM	66311D
Related With Battery R	66321B / 66321D
Related Dual Output	66309B / 66309D

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.

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Notes

Output, ripple, and transient rows from Agilent/Keysight 66300 mobile source literature 66311B column (5988-6569EN class). Do not quote 66319/66321 programmable-resistance or D-model DVM rows on this 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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.