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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 66319D DC Power Supply

The Keysight/Agilent 66319D is a mobile communications DC source for wireless and battery-powered device test. OEM overview rates main output 0 to 15 V / 0 to 3 A with auxiliary 0 to 12 V / 1.5 A. Handset/WLAN/Bluetooth manufacturing test, battery drain analysis, and charger simulation. Fast output response for pulsed digital loads Dynamic measurement digitizer for battery current drain Agilent Keysight 66319D Mobile Communications DC Source 0 to 15 V 0 to 3 A The Keysight/Agilent 66319D is a mobile communications DC source for wireless and battery-powered device test. OEM overview rates main output 0 to 15 V / 0 to 3 A with auxiliary 0 to 12 V / 1.5 A. Handset/WLAN/Bluetooth manufacturing test, battery drain analysis, and charger simulation. Fast output response for pulsed digital loads



MODEL

**Agilent / Keysight
66319D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

66319D

LISTING

<https://aumictechlabs.com/products/66319d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 66319D is a dual-output DC power supply engineered for mobile communications testing, battery emulation, and charger circuit validation. This half-rack instrument consolidates two independent outputs Output 1 rated 0–15 V / 0–3 A (5 A peak for up to 7 ms) and Output 2 rated 0–12 V / 0–1.5 A (2.5 A peak for up to 1 ms) - reducing the need for multiple power sources in R&D and production environments. The 66319D delivers precise voltage and current programming with 0.05% + 10 mV accuracy and equally rigorous readback measurement down to ±0.03% + 5 mV on voltage. Current measurement scales from microampere-level sensitivity (0.1%

+ 2.5 μ A in the ± 20 mA range) to full-scale accuracy (0.2% + 0.5 mA across ± 3 A to +5 A). Transient response is fast - under 20 μ s for 40 mV steps and under 6 ms settling time from zero to rated voltage (2 ms in fast mode). Output ripple and noise remain tight at 1 mV rms / 6 mV peak-peak across 20 Hz to 20 MHz, with load and line regulation at 5 mV and 0.5 mV respectively. Integrated battery emulation with adjustable internal resistance enables realistic power condition simulation essential for battery life determination and failure identification. The built-in digital voltmeter (DVM) and dynamic measurement system quantify current drain across device operating modes. GPIB and SCPI interfaces enable remote control and integration into automated test systems.

Technical Specifications
Output 1: 0–15 V, 0–3 A continuous (5 A peak, 7 ms max)
Output 2: 0–12 V, 0–1.5 A continuous (2.5 A peak, 1 ms max)
Programming Accuracy: 0.05% + 10 mV (voltage), 0.05% + 1.33 mA (current), 0.5% + 2 m Ω (resistance)
Readback Accuracy: 0.03% + 5 mV (voltage); current varies by range - 0.1% + 2.5 μ A (± 20 mA), 0.1% + 0.2 mA (± 1 A), 0.2% + 0.5 mA (-3 A to +5 A)
Transient Response: <20 μ s (40 mV drop), <200 μ s rise/fall time (10/90%), <6 ms settling (2 ms fast mode)
Ripple/Noise: 1 mV rms / 6 mV peak-peak (voltage, 20 Hz–20 MHz); 2 mA rms (current)
Load Regulation: 5 mV (voltage), 0.75 mA (current);
Line Regulation: 0.5 mV (voltage), 0.75 mA (current)
Operating Temperature: 0–55°C; Humidity: 95% max; Altitude: 2000 m max
Form Factor: 1/2 RU width $\times$ 2 RU height; 212.8 $\times$ 88.1 $\times$ 435 mm; 9.7 kg

Key Features
Battery emulation with internal resistance modeling
Integrated DVM for independent voltage monitoring
Dynamic measurement system for multi-mode current drain analysis
GPIB and SCPI command support
VXI plug&play drivers available

Typical Applications
Mobile device battery and charger circuit testing
Battery life simulation and validation
Power supply transient response characterization
Device failure mode identification under realistic power conditions

Compatibility & Integration
Keysight 14565B Device Characterization Software provides data logging (up to 1000 hours), CCDF statistical analysis, and waveform capture for comprehensive battery performance and reliability assessment.

66319D Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Mobile communications DC source
Series Family	Keysight 66300 Mobile Communications DC Sources
Number of Outputs	2
Main Output Voltage	0 to 15 V
Main Output Current	0 to 3 A
Peak Current Up To 7 ms	5 A
Programming Accuracy Voltage 25 C	0.05 percent plus 10 mV
Programming Accuracy Current	0.05 percent plus 1.33 mA
Ripple Noise Voltage RMS	1 mV
Ripple Noise Voltage Peak Peak	6 mV
Ripple Noise Current RMS	2 mA
DC Measurement Accuracy Voltage	0.03 percent plus 5 mV
Low Current Measurement Range	minus 20 mA to plus 20 mA at 0.1 percent plus 2.5 uA
Dynamic Measurement Buffer	4096 points
Sampling Interval	15 us to 31200 s
Transient Response Time	less than 20 us
Command Processing Time	4 ms average
Output Programming Rise Fall	less than 200 us on 15 V models
Measurement Time	50 ms average
GPIOB	IEEE-488.2 SCPI
DC Floating Voltage	plus or minus 50 Vdc from chassis
Remote Sensing Drop	up to 3 to 4 V total by model
Auxiliary Output Voltage	0 to 12 V
Auxiliary Output Current	0 to 1.5 A
Auxiliary Programming Accuracy Voltage	0.2 percent plus 40 mV

PARAMETER	VALUE
Auxiliary Ripple Noise Voltage	1 mV rms / 6 mV p-p
Programmable Output Resistance Range	minus 40 mOhm to plus 1 Ohm
Programmable Output Resistance Accuracy	0.5 percent plus 2 mOhm
Voltmeter Input Range	minus 25 to plus 25 Vdc
Input Power	2 A, 170 W at 100 Vac worst case

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.

performance models	
GPIB SCPI with VXI drivers	
Technical Specifications	
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PARAMETER	VALUE
Auxiliary Ripple Noise Voltage	1 mV rms / 6 mV p-p
Programmable Output Resistance Range	minus 40 mOhm to plus 1 Ohm
Programmable Output Resistance Accuracy	0.5 percent plus 2 mOhm
Voltmeter Input Range	minus 25 to plus 25 Vdc
Input Power	2 A, 170 W at 100 Vac worst case

Notes
From Keysight Mobile Communications DC Sources table column 66319B/D including aux output and DVM onDmodels.

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 ·
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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.