

# Keysight 14565B Software and 66319B/D and 66321B/D Mobile Communications DC Sources

## Innovative Solution for Validating and Optimizing Battery Run-time of Mobile Devices

Get your next wireless device to market more quickly!

- Ready-to-run solution for measuring, visualizing, and analyzing current drain eliminates enormous effort to create a less effective solution on your own.
- Built-in programming interface allows you to integrate battery current drain measurement and analysis with a test executive program for automated testing, reducing design validation and regression tests from weeks to hours of effort!

1. Power button

2. Display

3. Knob

4. Function buttons

5. Output ports

6. Waveform plot

7. Measurement data

8. Statistical analysis

9. Logging interface

10. Automation control

### Key features

1. Fast response battery emulator DC output
2. DVM input (D suffi x models)
3. Aux / charger power DC output (66319x)
4. Multiple current measurement ranges
5. High speed digitizing measurement
6. High speed waveform capture mode
7. Calculated numeric results
8. Long-term data logging mode
9. Long-term CCDF statistical capture mode
10. Automation control from other programs

### Options and accessories

Example application	Built-in feature
Turn-on current drain timing/profile	Triggered waveform capture
Battery run-down testing	Logging V / A / W meter mode
Optimize power savings modes like DRX	CCDF statistical profiling and analysis
Battery charge management testing	Battery emulator output with current sinking

## 66319B/D and 66321B/D DC Sources

		Main (battery emulator) output	Aux output (66319 only)
Output ratings	Voltage	0 to 15 V	0 to 12 V
	Current	0 to 3 A	0 to 1.5 A
	Peak current	5 A for 7 msec	2.5 A for 1 msec
	Resistance	-0.04 to 1 $\Omega$	NA
	Sink current	-2 A @ 7.5 V	-0.03 A @ 7.5V
Programming accuracy	Voltage	0.05% + 10 mV	0.2% + 40 mV
	Current	0.05% + 1.33 mA	0.2% + 4.5 mA
	Resistance	0.5% + 2 m $\Omega$	NA
DC measurement	Voltage	0.03% + 5 mV	0.2% + 15 mV
	Current, high range	0.2% + 0.5 mA	0.2% + 3 mA
	Current, -1 A to +1 A	0.1% + 0.2 mA	NA
	Current, -20 mA to +20 mA	0.1% + 2.5 $\mu$ A	NA
Output digitizer	Captures output voltage and current waveforms in 4,096 point buffer at up to 64 KSa/sec rate, 16 bit resolution. Advanced triggering subsystem.		
DVM input (D-suffix models)	Independent input for voltage measurement up to $\pm$ 25 volts with 0.04% + 5 mV DC accuracy		

## 14565B Software for Battery Drain Analysis

Waveform capture and analysis mode	Scope-like capture and display of output voltage or current with advanced triggering. Zoom, markers, calculated values, save, recall, & compare waveforms provided for analysis		
	Sample rate	Up to 64 KSa/sec	
	Buffer size	Up to 4,096 points	
	Capture time	600 $\mu$ sec to 24 sec	
Long term data logging and analysis mode	Real-time sample integration for meaningful and manageable results. Scroll, markers, calculated values inc. mAHrs and WHrs, save and recall files for analysis. Data reduction and export utility for Excel and text files. Logging meter mode for battery run-down test.		
	Sample rate	64 KSa/sec continuous	
	Integration period	~5 msec to 1 sec	
	Buffer size	Up to 36 M point sets (min, average and peak returned for each integration period)	
	Capture time	Up to 1,000 hours	
Complementary Cumulative Distribution Function (CCDF) long term capture and analysis mode	Real-time histogram compilation for concise display of long-term captures. Zoom, markers, save, recall and compare CCDF profiles to analyze and optimize performance of power savings algorithms		
	Sample rate	64 KSa/sec continuous	
	Buffer size	2,048 point histogram	
	Capture time	Up to 1,000 hours	
Program automation	Program interface automates 14565B operation from other programs and programming languages to integrate battery current drain measurement and analysis with other types of DUT control, stimulus and measurement.		

## Options and accessories

Model No.	Description
66319B	DC source; 2 outputs
66319D	DC source; 2 outputs with DVM option
66321B	DC source; 1 output
66321D	DC source; 1 output with DVM option
Option 521	Solid state output relays (66319 only)
Option ICM	Rack mount kit
Option AXS	Rack mount kit, side by side
14565B	Device characterization software
14565U	Upgrade for 14565A to 14565B
82350B	PCI high performance GPIB card
82357B	USB/GP-IB interface

### Three-Year Warranty

[www.keysight.com/find/ThreeYearWarranty](http://www.keysight.com/find/ThreeYearWarranty)

Keysight's commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.

### Keysight Assurance Plans

[www.keysight.com/find/AssurancePlans](http://www.keysight.com/find/AssurancePlans)

Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.

