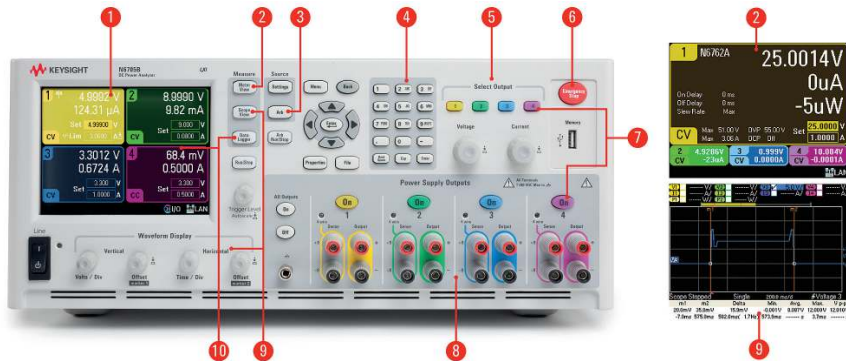


# Keysight N6705B DC Power Analyzer Mainframe and Modules: N6781A, N6782A, N6784A, N6783A-BAT

Get insight into your device's power consumption – in minutes, not hours – without writing a single line of code



1. Color display for fast, simple setup and monitoring
2. Digital voltage and current read back with meter view
3. Arbitrary power waveform generator
4. Easy front-panel controls eliminate the need to develop programs
5. Rear panel computer interfaces: GPIB, USB, LAN (LXI class C compliant)
6. Emergency stop button-stops output of power but measurements continue
7. Connections and controls color-coded to display
8. Up to 4 advanced DC power outputs
9. Oscilloscope-like view of voltage and current with markers and calculated measurements
10. Data logging of voltage, current, and power
11. Data logging of voltage, current, and power

\* The N6705B is a full replacement of the discontinued N6705A.

Save time with this single-box solution

- Unrivaled productivity gains for sourcing and measuring DC voltage and current
- One-box solution that eliminates the need to gather multiple instruments: Up to 4 advanced DC power supplies, DMM, scope, arb and data logger



14585A control and analysis software

The software for the DC power analyzer compliments the front panel of the N6705A/B mainframe, offering advanced functionality and PC control. It is a flexible R&D tool for any application. It can control any of the N6700 family's over 30 DC power modules when installed in a N6705A/B mainframe. When used to control an N6781A SMU, it can be used for advanced battery drain analysis applications.

Key features

- Compliments the N6705A/B DC power analyzer's front panel controls.
- Control and analyze data from up to four N6705A/B DC power analyzer mainframes and any installed modules at once – that's up to 16 power supplies simultaneously.
- Easily create complex waveforms to stimulate or load down a DUT by inputting a formula, choosing from built-in, or importing waveform data.
- Enhanced control and analysis of data with familiar PC controls and large display.
- Data log measurements directly to a PC.
- Perform statistical analysis of power consumption.

**N678X Series of power modules: Source/measure units and application-specific modules**

	Source/Measure Units (SMU) modules			Application-specific modules
	N6781A	N6782A	N6784A	N6783A-BAT
Power	20 W, 2-quadrant	20 W, 2-quadrant	20 W, 4-quadrant	24 W, 2-quadrant
Voltage	20 V, 6 V	20 V, 6 V	± 20 V, ± 6 V	8 V
Current	± 1A, ± 3A	± 1A, ± 3A	± 1A, ± 3A	-2 A to + 3 A
Seamless measurement autoranging	Yes	Yes	No	No
Voltmeter accuracy	0.025% + 50 $\mu$ V	0.025% + 50 $\mu$ V	0.025% + 50 $\mu$ V	0.05% + 5 mV
Ammeter accuracy	0.025% + 8 nA	0.025% + 8 nA	0.025% + 8 nA	0.1% + 75 $\mu$ A
Arb waveforms (V and I)	Sine, step, pulse, ramp, staircase, exponential, user defined			No negative current waveforms
Scope function	Digitizes up to 200 kHz, up to 512 K points			Digitizes up to 50 kHz, up to 512 K points
Data logger	Measurement interval 20 $\mu$ sec to 60 sec, 500 million readings			
Memory (resides in mainframe)	4 GB internal, up to 2 GB from external USB memory device			
Battery emulator/charger	Yes	Yes	Yes	No
Programmable output resistance	Yes, 0 to 1 $\Omega$	No	No	No
External DVM input	Yes	No	No	No
Logging ammeter mode	Yes	Yes	Yes	No
CCDF/histogram (requires 14585A)	Yes	No	No	No
Output disconnect relay	Yes	Yes	Yes	Option 761
Interface	LAN, USB, GPIB (LXI Class C)			

**Ordering information**

Model	Description
N6705B	N6705B DC power analyzer, modular, 600 W max, 4 slots
N6781A	2-quadrant source/measure unit for battery drain analysis
N6782A	2-quadrant source/measure unit for functional test
N6784A	4-quadrant general-purpose source/measure unit
N6783A-BAT	Battery charge/discharge module
14585A control and analysis SW (see below)	Downloadable for free; To communicate to N6705A/B and N67xx modules a license key must be installed in the N6705A/B
N6705B-056	14585A license ordered as option to new N6705B
N6705U-056	14585A license for already owned N6705A [discontinued] or N6705B

Select	Example applications...	Description
N6781A	Battery simulator/charger, current drain analysis, battery run down test	Fast output response, programmable output resistance, seamless measurement (measure $\mu$ A to A in a single sweep)
N6782A	Advanced functional test	Seamless measurement (measure $\mu$ A to A in a single sweep)
N6784A	General purpose discrete component test	4-quadrant operation, bipolar power source, bipolar electronic load
N6783A-BAT	Validate battery performance, battery conditioning, charge/discharge cycling	2-quadrant operation, programmable source/e-load, built-in digitizer



For functional test applications consider the Keysight N6700 low-profile mainframes with similar capabilities in a small 1U footprint.

To find a distributor in your area, go to: [www.keysight.com/find/distributors](http://www.keysight.com/find/distributors)



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