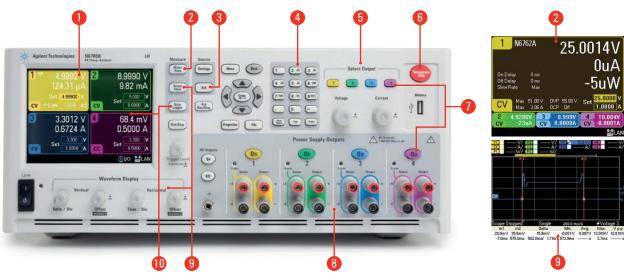
Agilent N6705B DC Power Analyzer Mainframe and Modules: N6781A, N6782A, N6784A, N6783A-BAT

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
- Easy front-panel controls eliminate the need to develop programs
- 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
- Oscilloscope-like view of voltage and current with markers and calculated measurements
- 10. 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 builtin, 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.





Product Fact Sheet

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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% +	0.025% +	0.025% +	0.05% +
	50 uV	50 uV	50 uV	5 mV
Ammeter accuracy	0.025% +	0.025% +	0.025% +	0.1% +
	8 nA	8 nA	8 nA	75 uA
Arb waveforms	Sine, step, pulse, ramp, staircase, No negative			
(V and I)	exponential, user defined current waveforms			
Scope function	Digitizes up to Digitizes up to 200 kHz, up to 512 K points 50 kHz, up to 512 K points			
Data logger	Measurement interval 20 usec 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 Ω	No	No	No
External DVM input	Yes	No	No	No
Logging ammeter mode	Yes	Yes	Yes	No
CCDF/histogram				N.I.
(requires 14585A)	Yes	No	No	No
· ·	Yes	No Yes	Yes	Option 761

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 uA to A in a single sweep)
N6782A	Advanced functional test	Seamless measurement (measure uA 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 Agilent N6700 low-profile mainframes with similar capabilities in a small 1U footprint.

Recommended service options

Additional two years of Return-to-Agilent warranty
Additional two years of Return-to-Agilent calibrations
For more information go to www.agilent.com/find/removealIdoubt

To find a distributor go to: www.agilent.com/find/distributors



Three-Year Warranty

www.agilent.com/find/ThreeYearWarranty

Agilent's combination of product reliability and three-year warranty coverage is another way we help you achieve your business goals: increased confidence in uptime, reduced cost of ownership and greater convenience.



