Product Fact Sheet
Keysight N6705C DC Power Analyzer and N67XX DC Power Modules

Includes: N673X, N674X, N675X, N676X, N677X, N678X

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

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 Keysight Technologies, Inc. DC power analyzer compliments the front panel of the N6705 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 N6705 mainframe. When used to control an N6781A SMU, it can be used for advanced battery drain analysis applications.

Key 14585A features

– Compliments the N6705 DC power analyzer's front panel controls.
– Control and analyze data from up to four N6705 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.

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

The Keysight N6705C DC Power Analyzer is a modular system consisting of a mainframe and your choice of up to 4 power modules.

	Mainframe	Basic modules	High-performance modules	Precision modules	Source Measure Units (SMUs)
		N673X, 4X, 7X	N675X	N676X	N678X
Power	Up to 600 W total power	50 W, 100 W, 300 W	50 W, 100 W, 300 W, 500 W	50 W, 100 W, 300 W, 500 W	20 W, 80 W
Voltage	Up to 240 V (with multiple modules in series)	Up to 150 V	Up to 60 V	Up to 60 V	Up to 20 V
Current	Up to 100 A (with two 50 A modules in parallel)	Up to 20 A	Up to 50 A	Up to 50 A	Up to 8 A
Voltmeter accuracy [1]	N/A	0.1% + 20 mV	0.05% + 10 mV	0.016% + 1.5 mV	0.025% + 50 µV
Ammeter accuracy [1]	N/A	0.15% + 2 mA	0.1% + 4 mA	0.05% + 100 nA	0.025% + 8 nA
Arbitrary waveform generator function	Sine, step, pulse, ramp, trapezoid, staircase, exponential, user-defined voltage, user-defined current				
Scope function	Digitizes at up to 200 kHz, up to 512 k points, up to 18 bits (module dependent)				
Data logger	Measurement interval from 20 µ to 60 s, max of 500 M readings per data log (module dependent)				
Memory	4 GB internal, up to 2 GB from external USB memory device				
Interface	GPIB, USB, LAN (LXI-C)				
MSRP [2]	$7,788	Starting at $581	Starting at $1,322	Starting at $2,589	Starting at $4,185

1. Module and range dependent; best accuracy shown.
2. Please consult with your distributor for final pricing.

Three-Year Warranty

www.keysight.com/find/ThreeYearWarranty
Keysight's committed to superior product quality and lower total cost of ownership. Keysight is the only test and measurement company with three-year warranty standard on all instruments, worldwide. And, we provide a one-year warranty on many accessories, calibration devices, systems and custom products.

Keysight Assurance Plans

www.keysight.com/find/AssurancePlans
Up to ten years of protection and no budgetary surprises to ensure your instruments are operating to specification, so you can rely on accurate measurements.

For applications where space is critical, consider the Keysight N6700 low-profile mainframes with similar capabilities in a small 1U footprint.

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

Model	Description	MSRP [1]
N6705C-055	Delete data logger	–$1,999
N6705V-AKY/USB	Delete USB interface/Include front and rear panel USB ports	$0
1CP005A	Rack mount kit	$152
14585A control and analysis SW (see below)	Downloadable for free; To communicate to N6705 and N67xx modules a license key must be installed in the N6705	See below
N6705C-056	14585A license ordered as option to new N6705	$2,004
N6705U-056	14585A license for already owned N6705	$1,964

1. Please consult with your distributor for final pricing.

Example applications	Using built-in features
PC motherboard power on/off	Output sequencing for proper turn on/off
Design validation of automotive electronics	User defined arbs to create ISO crank profiles
Sleep-mode current for RF power amps	µA current measurement capabilities
Military radio characterization	Data logger with markers for data analysis
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)
Advanced functional test	Seamless measurement (measure uA to A in a single sweep)
General purpose discrete component test	4-quadrant operation, bipolar power source, bipolar electronic load