

N6705C DC Power Analyzer, N67XX DC Power Modules and Electronic Load

Power Your Next Insight

The N6705C DC Power Analyzer simplifies testing by directly providing all functions and measurements on the front panel, eliminating the need for custom control programs. Get even greater control and analysis functions by incorporating Keysight PathWave PW9252A PathWave Advanced Power Control and Analysis.



Figure 1. Keysight N6705C DC Power Analyzer

	Mainframe	Basic modules	High performance	Precision modules	SMUs	Electronic Load
	N6700C, N6701C, N6702C, N6705C	N673X, N674X, N677X	N675X	N676X	N678X	N679X
Power	400 W - N6700C 600 W - N6701C, N6705C 1200 W - N6702C	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	100W, 200W
Voltage	Up to 350 V (with multiple modules in series)	Up to 150 V	Up to 60 V	Up to 60 V	Up to 20 V	Up to 60V
Current	Up to 100 A (with two 50A modules in parallel)	Up to 20 A	Up to 50 A	Up to 50 A	Up to 8 A	Up to 20A (100W), Up to 40A (200W)
Voltmeter accuracy ¹	N/A	0.1% + 20 mV	0.05% + 10 mV	0.016% + 1.5 mV	0.025% + 50 μ V	0.03% + 7.2mV
Ammeter accuracy ¹	N/A	0.15% + 2 mA	0.1% + 4 mA	0.05% + 100 nA	0.025% + 8 nA	0.04% + 400uA
Arbitrary waveform ² generator function	Create waveforms up to 512 points.					
Scope function ²	Digitizes at up to 200 kHz, up to 512 k points, and up to 18 bits (module dependent)					
Interface	GPIB, USB, LAN (LXI Core)					

1. Module and range dependent, with the best accuracy shown.
2. The user must write code. Example available online.

Example application

PC motherboard power on/off
Sleep-mode current for RF power amps
Military/police radio
Base station power amps
Automotive "crank" test
Battery simulator/charger, current drain analysis, battery run-down test
Advanced functional test
General purpose discrete component test

Using built-in features

Output sequencing for proper turn-on/off
μ A current measurement capabilities
High-power (up to 500 W) with low-level (mA) measurement accuracy
High-power (up to 500 W) with low-level (mA) measurement accuracy
Built-in arbitrary waveform generator
Fast output response, programmable output resistance, seamless measurement (measure μ A to A in a single sweep)
Seamless measurement (measure μ A to A in a single sweep)
4-quadrant operation, bipolar power source, bipolar electronic load

Model

N6705C-055
N6705C-AKY/USB
1CP005A
PW9252A PathWave Advanced Power Control and Analysis

Description

Delete data logger
Delete USB interface/Include front and rear panel USB ports.
Rack mount kit
Each license connects to one instrument and supports up to 10 instruments simultaneously. Download PW9252A here: www.keysight.com/find/PW9252A Get your 30-day trial: www.keysight.com/find/PW9252ATrial

More Information: <https://www.keysight.com/find/N6705C>

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.

PW9252A PathWave Advanced Power Control and Analysis

The software for the Keysight Technologies DC power analyzer complements the front panel of the N6705 mainframe, offering advanced functionality and PC control. It is a flexible R&D tool for any application. When installed in an N6705 mainframe, it can control any of the N6700 family's over 30 DC power modules. When used to control an N6781A SMU, it can be used for advanced battery drain analysis applications.

- 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 simultaneously— 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 are taken directly on a PC.
- Perform statistical analysis of power consumption.



Label	Description
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	The emergency stop button stops the output of power, but measurements continue.
7	Connections and controls are color-coded to display.
8	Up to 4 advanced DC power outputs.

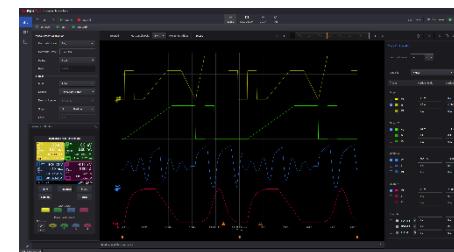


Figure 2. PW9252A PathWave Advanced Power Control and Analysis



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

Keysight enables innovators to push the boundaries of engineering by quickly solving design, emulation, and test challenges to create the best product experiences. Start your innovation journey at www.keysight.com.

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