

# Keysight N6700 Low-Profile Modular Power System (MPS), N67XX DC Power Modules and Electronic Load

Small, flexible and fast power supplies for ATE applications

**DRAFT**



## Key features

- 50 W, 100 W, 300 W and 500 W DC power modules
- 3 mainframes: 400 W, 600 W, 1200 W
- True 1-rack unit height (1U)
- Mix-and-match over 30 DC power modules of 4 different performance levels: Basic, hi-performance, precision, source/measure units (SMU) and electronic load
- Stable, reliable DC outputs up to 150 V and up to 50 A
- USB, LAN (LXI Core) and GPIB standard
- Simultaneous voltage and current measurements with N6760 series, N6780 series SMUs and N6790 electronic load
- List mode software sequencer (arb mode)
- Built-in digitizer (scope mode)<sup>1</sup>
- Over-voltage, current and temperature protection
- Multiple-output front panel display and controls
- Virtual channels for easy parallel up to 100 A

1. All modules except N6760 series and N6780 series SMUs require Option 054.

1. N6700C Low-profile MPS, 400W
2. N6701C Low-profile MPS, 600W
3. N6702C Low-profile MPS, 1200W
4. Bright LCD display, view status indicators and settings for all 4 outputs
5. System keys for easy access to front panel menus and settings
6. Navigation keys
7. Output keys
8. Numeric entry keys

Learn more at: [www.keysight.com](http://www.keysight.com)

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	Mainframe	Basic modules	High performance	Precision modules	Source Measure Units (SMUs)	Electronic Load
	N6700C, N6701C, N6702C	N673X, N674X, N677X	N675X	N676X	N678X	N679X
Power	300 W, 600 W, 1200 W	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 20A	Up to 50A	Up to 50 A	Up to 8 A	Up to 20A (100W), Up to 40A (200W)
Voltmeter accuracy <sup>1</sup>	N/A	0.1% + 20 mV	0.05% + 10 mV	0.016% + 1.5 mV	0.025% + 50 μV	0.03% + 7.2mV
Ammeter accuracy <sup>1</sup>	N/A	0.15% + 2 mA	0.1% + 4 mA	0.05% + 100 nA	0.025% + 8 nA	0.04% + 400uA
Arbitrary waveform <sup>2</sup> generator function	Create waveforms up to 512 points					
Scope function <sup>2</sup>	Digitizes at up to 200 kHz, up to 512 k points, up to 18-bits (module dependent)					
Interface	GPIB, USB, LAN (LXI Core)					

1. Module and range dependent; best accuracy shown.  
 2. Code must be written by the user. Examples available online.

### For R&D applications. consider the N6705C DC Power Analyzer

Option	Option Description
N6709A	Special rack mount kit
N6708A	Filler module kit

Example Applications	Using Built-in Features
PC motherboard power on/off	Output sequencing for proper turn on/off
Sleep-mode current for RF power amps	μA current measurement capabilities
Military/police radio	High-power (up to 500 W) with low-level (mA) measurement accuracy
Base station power amps	High-power (up to 500 W) with low-level (mA) measurement accuracy
Automotive “crank” test	Built-in arbitrary waveform generator
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

Please consult with your distributor for final pricing.

Learn more at: [www.keysight.com](http://www.keysight.com)



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

Includes: N673X, N674X, N675X, N676X, N677X, N678X, N679X

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



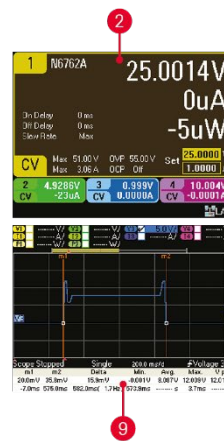
1. Color display for fast, simple setup and monitoring
2. Digital voltage and current read back with meter view
3. Arbitrary power waveform generator
4. Easy front-panel controls eliminate the need to develop programs
5. Rear panel computer interfaces: GPIB, USB, LAN (LXI class C compliant)
6. Emergency 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

## 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 complements 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

- Complements 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.



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

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	N6700C,N6701C,N6702C	N673X, N674X, N677X	N675X	N676X	N678X	N679X
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Current	Up to 100 A (with two 50A modules in parallel)	Up to 20A	Up to 50A	Up to 50 A	Up to 8 A	Up to 20A (100W),Up to 40A (200W)
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Scope function <sup>2</sup>	Digitizes at up to 200 kHz, up to 512 k points, up to 18-bits (module dependent)					
Interface	GPIB, USB, LAN (LXI Core)					

1. Module and range dependent; best accuracy shown.
2. Code must be written by the user. Examples available online.

Model	Description
N6705C-055	Delete data logger
N6705C-AKY/USB	Delete USB interface/Include front and rear panel USB ports
1CP005A	Rack mount kit
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
N6705C-056	14585A license ordered as option to new N6705
N6705U-056	14585A license for already owned N6705

Example Applications	Using Built-in Features
PC motherboard power on/off	Output sequencing for proper turn on/off
Sleep-mode current for RF power amps	μA current measurement capabilities
Military/police radio	High-power (up to 500 W) with low-level (mA) measurement accuracy
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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



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](http://www.keysight.com/find/distributors)

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