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Data Sheet

August 2, 2026

KEYSIGHT

Keysight N6701C Low-Profile Modular Power System Mainframe, 600W, 4 Slots

Keysight N6701C Low-Profile Modular Power System Mainframe, 600W, 4 Slots The Keysight N6701C (N6701C) is a 1U low-profile modular DC power system mainframe providing four plug-in module slots and 600 W total output power capacity for hosting Keysight N6700-series DC power modules in automated test and bench applications, with standard GPIB, USB 2.0, and 10/100 Base-T Ethernet LAN remote interfaces and LXI ClassCcompliance. Modular multi-output DC power in rack ATE systems; design validation and production test requiring mix-and-match N6700 power modules; remote-controlled bench supplies via GPIB, LAN, or USB; LXI-compliant power infrastructure in test cells. The Keysight N6701C (N6701C) is a 1U low-profile modular DC power system mainframe providing four plug-in module slots and 600 W total output power capacity for hosting Keysight N6700-series DC power modules in automated test and bench applications, with standard GPIB, USB 2.0, and 10/100 Base-T Ethernet LAN remote interfaces and LXI ClassCcompliance. Modular multi-output DC power in rack ATE systems; design validation and production test requiring mix-and-match N6700 power modules; remote-controlled bench supplies via GPIB, LAN, or USB; LXI-compliant power infrastructure in test cells.



MODEL

Keysight N6701C

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

N6701C

LISTING

<https://aumictechlabs.com/products/n6701c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N6701C is a 600 W, 1U low-profile modular power system mainframe engineered for ATE and benchtop test applications. This four-slot mainframe accepts up to four N6700 series DC power modules, delivering flexible voltage, current, and performance configurations. The N6701C provides GPIB, LAN, and USB connectivity with LXI Class C compliance and integrated web server control. Fast command processing, output sequencing up to 512 settings, and 10 store-recall states accelerate test development and throughput.

Technical Specifications

Total Maximum Output Power: 600 W Form Factor: 1U rack height (44.45 mm H × 432.5 mm W × 585.6 mm D)

Module Slots: 4 (accepts 1 to 4 N6700 series modules) Module Output Range: 20 W to 500 W per module Series Operation (Modules): Up to 240 V Parallel Operation (Modules): Up to 100 A AC Input: 100–240 VAC, 50/60/400 Hz (operating range 86–264 VAC) Power Consumption: 1500 VA typical Power Factor: 0.99 at nominal input and rated power

Key Features

- Programmable voltage slew rate control
- Output sequencing with up to 512 stored settings
- Programmable overvoltage and overcurrent protection
- 5 μ s INH (inhibit) shutdown response time < 10 μ s fault response on coupled outputs
- Updatable firmware via GPIB, LAN, or USB
- Full-featured front panel for manual operation and prototyping
- SCPI command set support

Typical Applications

- Automated test equipment (ATE) power distribution
- Multi-channel bench testing with synchronized outputs
- Device characterization requiring voltage or current sequencing
- Production test environments with network-based control

Compatibility & Integration

Supported Module Categories: Basic Performance, High-Performance/Autoranging, Precision/Autoranging, Source/Measure Units (SMUs), and Application-Specific DC Load Modules

Available Modules: Over 30 N6700 series configurations

Software: BenchVue enabled for PC-based control and automated testing

Drivers: VXIplug&play, IVI-COM, and LabView support

Features & description

From manufacturer datasheet

Features

- 1U low-profile 4-slot mainframe • 600 W total system power capacity • Hosts N6700-series DC power modules (mix and match) • Standard GPIB, USB 2.0, and 10/100 LAN interfaces • LXI ClassCcompliant • Built-in web server for LAN remote control • SCPI-compatible remote programming
- Front-panel module configuration and monitoring

N6701C Characteristics / Specifications

PARAMETER	VALUE
Model	N6701C
Manufacturer	Keysight Technologies
Instrument Type	Low-Profile Modular Power System Mainframe
Form Factor	1U rack height
Module Slots	4
Total Output Power	600 W (mainframe limit; module mix dependent)
Compatible Modules	Keysight N6700-series DC power modules (N673xB–N679xA class)
Remote Interfaces	GPIB (IEEE-488.2, SCPI-1993); USB 2.0; 10/100 Base-T Ethernet LAN
LXI Compliance	ClassCWeb Server: Integrated (LAN)
AC Input	approximately 100 VAC to 240 VAC; 50/60/400 Hz
Power Consumption	1440 VA (mainframe rating)
Power Factor	0.99 at nominal input and rated power
Weight	approximately 11.82 kg (26 lbs) with four power modules (typical)
Related Mainframes	N6700C, N6702C (different power tiers) Standard Operating Conditions Indoor use; installation category II (AC input); pollution degree 2. Operating temperature 0°C to 55°C (output current derated 1% per °C above 40°C ambient). Relative humidity up to 95%. Altitude up to 2000 meters.
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General Specifications & Supplementary Characteristics

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Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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PARAMETER	VALUE
Power Consumption	1440 VA (mainframe rating)
Power Factor	0.99 at nominal input and rated power

Dimensions (H × W × D): 44.45 mm × 432.5 mm × 585.6 mm (1.75 in × 17.03 in × 23.06 in)

Weight: approximately 11.82 kg (26 lbs) with four power modules (typical)

Related Mainframes: N6700C, N6702C (different power tiers)

Standard Operating Conditions

Indoor use; installation category II (AC input); pollution degree 2. Operating temperature 0°C to 55°C (output current derated 1% per °C above 40°C ambient). Relative humidity up to 95%. Altitude up to 2000 meters.

Operational Notes

Module capabilities depend on installed N6700-series cards and mainframe firmware. USB and LAN require Keysight IO Libraries 14.0 or higher for PC control. LAN and USB may be disabled when operating GPIB-only for security. Total available power and per-module limits are governed by mainframe 600 W budget and slot configuration—verify module datasheet compatibility before installation.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.