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Data Sheet
August 12, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) N6705A DC Power Analyzer, Modular, 600 W, 4 Slots

Keysight / Agilent N6705A DC Power Analyzer Mainframe The N6705A is a 4-slot modular DC Power Analyzer mainframe (600 W total) that integrates multi-output DC sourcing with built-in meter, scope, arb, and data logger functions. Accepts the same N6700-family DC power modules as the N6700 MPS (modules ordered separately). Replaced by N6705B. The N6705A is a 4-slot modular DC Power Analyzer mainframe (600 W total) that integrates multi-output DC sourcing with built-in meter, scope, arb, and data logger functions. Accepts the same N6700-family DC power modules as the N6700 MPS (modules ordered separately). Replaced by N6705B.

MODEL **Keysight / Agilent N6705A**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **N6705A**	LISTING **https://aumictechlabs.com/products/n6705a-2/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N6705A DC Power Analyzer is a modular 600 W mainframe that integrates four DC power supply slots with integrated Digital Multimeter, oscilloscope, arbitrary waveform generator, and data logger functions. Accepts up to four N6700 family DC power modules - 23 options ranging from 50 W to 300 W with voltage ratings to 100 V and current ratings to 20 A. Delivers voltmeter accuracy to 0.016% + 1.5 mV and ammeter accuracy to 0.03% + 15 µA, both at 18-bit resolution.The onboard oscilloscope digitizes voltage and current at up to 100 kHz with 512 kpts

memory and 18-bit resolution. Arbitrary waveform generator operates to 4500 Hz with 300 W output capability. Data logger captures up to 500 million readings at intervals from 20 µs to 60 s, with 512 MB non-volatile storage for logs, traces, and settings.Step voltage changes execute in 160 microseconds. Programmable via GPIB (SCPI-1993, IEEE 488.2), USB, and LAN with LXI Class C compliance. Operates 0°C to 55°C (current derated 1% per °C above 40°C), up to 95% relative humidity, and 2000 m altitude.Accepts 100–240 VAC, 50/60/400 Hz input; 1440 VA consumption. Dimensions 194.7 × 425.6 × 313 mm; 16 kg. Note: N6705A is discontinued; N6705B is the compatible replacement.Technical Specifications Mainframe: 4-slot configuration, 600 W total output power DC Power Modules: 23 compatible N6700 family options; basic sources 50/100/300 W to 100 V, 20 A; 50/100/300 W to 60 V, 20 A; precision 50/100 W to 50 V, 3 A Voltmeter: 0.016% + 1.5 mV accuracy, 18-bit resolution Ammeter: 0.03% + 15 µA accuracy, 18-bit resolution Arbitrary Waveform Generator: 4500 Hz bandwidth, 300 W output Oscilloscope: 100 kHz digitization, 512 kpts memory, 18-bit resolution Data Logger: 20 µs to 60 s interval, 500 million readings maximum, 512 MB storage Voltage Settling: 160 µs step time AC Input: 100–240 VAC, 50/60/400 Hz; 1440 VA Temperature Range: 0°C to 55°C (current derating 1% per °C above 40°C) Interfaces: GPIB, USB, LAN; LXI Class C Dimensions: 194.7 × 425.6 × 313 mm; 16 kgKey Features Four independent power supply slots with 23 module options Integrated measurement suite eliminates external instrumentation 18-bit resolution across voltage, current, and waveform capture 512 MB internal storage for extended logging and archival Multi-protocol control: GPIB/SCPI, USB, LANTypical Applications Multi-rail power supply characterization and validation Dynamic load transient testing with synchronized measurement Long-duration data logging for reliability assessment Arbitrary waveform injection for stress testingCompatibility & Integration Full compatibility with N6700 Modular Power System family. Operates as standalone instrument or networked via LXI Class C. Direct front-panel access to all sourcing and measurement functions. Predecessor to N6705B model.

Features & description

From manufacturer datasheet

Features

• Slots: 4 module slots • Total available output power: 600 W • Modules: up to 4 DC power modules (N6700 family; ≥300 W N675x/N676x occupy 2 slots) • Basic module class: 50/100/300 W; up to 100 V / 20 A • High-performance class: 50/100/300 W; up to 60 V / 20 A • Precision class: 50/100 W; up to 50 V / 3 A • Output step speed: up to 160 µs per step voltage change • Voltmeter accuracy: up to 0.016% + 1.5 mV, up to 18 bits • Ammeter accuracy: up to 0.03% + 15 µA, up to 18 bits • Scope: digitizesVandIup to 100 kHz, 512 kpts, up to 18 bits • Arb: bandwidth up to 4500 Hz; output power up to 300 W • Data logger: interval 20 µs to 60 s; up to 500 M readings per log • Non-volatile storage: 512 MB (logs, scope traces, settings) • Interfaces: GPIB, USB, LAN; LXI Class C • Optional software: 14585A Control and Analysis Software

Applications

• R&D DUT power consumption analysis without separate DMM/scope/shunts • Multi-rail DC source + measurement from the front panel • Automated bench setups over GPIB/USB/LAN (LXI Class C)

N6705A Characteristics / Specifications

PARAMETER	VALUE
Model	N6705A
Manufacturer	Keysight / Agilent
Instrument Type	DC Power Analyzer Mainframe
Alias	N6705A; Agilent N6705A; Keysight N6705A
Slots	4 module slots
Total power	600 W
Scope sample rate	up to 100 kHz
Scope memory	512 kpts
Arb bandwidth	up to 4500 Hz
Data logger interval	20 µs to 60 s
Storage	512 MB
Interfaces	GPIB / USB / LAN LXI-C Notes Mainframe specs from Keysight/Agilent N6705A literature and N6700 family datasheets. Per-channel V/I ratings depend on installed modules–confirm module mix on the unit.
Total available output power	600 W
Modules	up to 4 DC power modules (N6700 family; ≥300 W N675x/N676x occupy 2 slots)
Basic module class	50/100/300 W; up to 100 V / 20 A
High-performance class	50/100/300 W; up to 60 V / 20 A
Precision class	50/100 W; up to 50 V / 3 A
Output step speed	up to 160 µs per step voltage change
Voltmeter accuracy	up to 0.016% + 1.5 mV, up to 18 bits
Ammeter accuracy	up to 0.03% + 15 µA, up to 18 bits
Scope	digitizesVandIup to 100 kHz, 512 kpts, up to 18 bits
Arb	bandwidth up to 4500 Hz; output power up to 300 W
Data logger	interval 20 µs to 60 s; up to 500 M readings per log
Non-volatile storage	512 MB (logs, scope traces, settings)

PARAMETER	VALUE
Optional software	14585A Control and Analysis Software
Bandwidth	up to 4500 Hz; output power up to 300 W - Data logger: interval 20 µs to 60 s; up to 500 M readings per log - Non-volatile storage: 512 MB (logs, scope traces, settings) - Interfaces: GPIB, USB, LAN; LXI Class C - Optional software: 14585A Control an

N6705A Specifications

PARAMETER	VALUE
Keysight / Agilent N6705A DC Power Analyzer Mainframe	Overview
Key Features	- Slots: 4 module slots
Technical Specifications	Model: N6705A

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.

performance class: 50/100/300 W; up to 60 V / 20 A
- Precision class: 50/100 W; up to 50 V / 3 A
- Output step speed: up to 160 µs per step voltage change
- Voltmeter accuracy: up to 0.016% + 1.5 mV, up to 18 bits
- Ammeter accuracy: up to 0.03% + 15 µA, up to 18 bits
- Scope: digitizesVandIup to 100 kHz, 512 kpts, up to 18 bits
- Arb: bandwidth up to 4500 Hz; output power up to 300 W
- Data logger: interval 20 µs to 60 s; up to 500 M readings per log
- Non-volatile storage: 512 MB (logs, scope traces, settings)
- Interfaces: GPIB, USB, LAN; LXI Class C
- Optional software: 14585A Control and Analysis Software

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	N6705A
Manufacturer	Keysight / Agilent
Instrument Type	DC Power Analyzer Mainframe
Alias	N6705A; Agilent N6705A; Keysight N6705A

Specifications

PARAMETER	VALUE
Slots	4
Total power	600 W
Scope sample rate	up to 100 kHz
Scope memory	512 kpts
Arb bandwidth	up to 4500 Hz
Data logger interval	20 µs to 60 s
Storage	512 MB
Interfaces	GPIB / USB / LAN LXI-C

Notes
Mainframe specs from Keysight/Agilent N6705A literature and N6700 family datasheets. Per-channel V/I ratings depend on installed modules—confirm module mix on the unit.

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

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