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Data Sheet

August 5, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) N6751A

Keysight (Agilent) N6751A High-Performance Autoranging DC Power Module, 50 V, 5 A, 50 W

The Keysight N6751A is an N6750 Series high-performance autoranging DC power module rated 50 V / 5 A / 50 W for N6700 modular power systems and N6705 DC Power Analyzer mainframes. Low noise, high accuracy, and programming speeds typically 10–50× faster than basic modules. Autoranging output; optional high-speed test extensions (Option 054) add digitizer/ARB capability. High-speed ATE power rails; precise low-noise DUT power; modular multi-rail systems. The Keysight N6751A is an N6750 Series high-performance autoranging DC power module rated 50 V / 5 A / 50 W for N6700 modular power systems and N6705 DC Power Analyzer mainframes. Low noise, high accuracy, and programming speeds typically 10–50× faster than basic modules. Autoranging output; optional high-speed test extensions (Option 054) add digitizer/ARB capability. High-speed ATE power rails; precise low-noise DUT power; modular multi-rail systems.



MODEL

**Keysight / Agilent
N6751A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N6751A

LISTING

<https://aumictechlabs.com/products/n6751a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N6751A is a 50 W autoranging DC power module engineered for integration into N6700 Series modular power system mainframes. It delivers 0–50 V and 0–5 A with exceptional programming accuracy and low noise, enabling rapid device testing across a wide voltage and current envelope. The autoranging architecture eliminates the need for multiple fixed-range

supplies, reducing test complexity while maintaining high-speed transient response and stable output characteristics.

Technical Specifications

Output Ratings Voltage: 0 to 50 V Current: 0 to 5 A Power: 50 W maximum (Volts × Amps cannot exceed this rating) Programming Accuracy (23°C ±5°C) Voltage: 0.06% + 19 mV Current: 0.1% + 20 mA Ripple and Noise (20 Hz to 20 MHz) Voltage peak-to-peak: 4.5 mV or 5 mV Voltage RMS: 350 µV Current RMS: 2 mA

Key Features

Autoranging topology provides extended voltage and current combinations, effectively multiplying test coverage without additional hardware Series operation capability (identically rated modules, maximum 240 V per chain) for elevated voltage and power requirements Parallel operation capability (identically rated modules) for increased current delivery Fast programming speeds: 10 to 50 times faster than conventional programmable power supplies Over-voltage, over-current, and over-temperature protection on all outputs Optional High-Speed Test Extensions (HSTE) for precision measurements during transient and pulse events Optional output disconnect and polarity reversal relays (Option 760) or output disconnect relays (Option 761)

Typical Applications

Automated test equipment (ATE) systems, semiconductor validation, power conversion design verification, and manufacturing test environments requiring multi-point voltage and current characterization.

Compatibility & Integration Designed for N6700A, N6700B, N6705A, and N6705B mainframes. Supports GPIB, LAN, USB, and LXI protocols when integrated with compatible systems. Module form factor fits 1U high N6700 Low-Profile Modular Power System chassis.

Features & description

From manufacturer datasheet

Features

- 50 V / 5 A / 50 W autoranging
- One-slot high-performance module
- Ripple: 4.5 mV p-p / 0.35 mV rms
- Programming accuracy: 0.06% + 19 mV (V); 0.1% + 20 mA (I)
- Measurement accuracy: 0.05% + 20 mV (V); 0.1% + 4 mA (I)
- Active down-programming; 4-wire sense
- Optional Option 054 high-speed extensions

N6751A Characteristics / Specifications

PARAMETER	VALUE
Model	N6751A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	High-Performance Autoranging DC Power Module
Family	N6700 / N6750 Series
Alias	N6751A DC Output Ratings
Voltage	0.05% + 20 mV; Current: 0.1% + 4 mA Host Requires N6700C/N6701C/N6702C or N6705C mainframe Operational Notes N6752A is the 100 W sibling (50 V / 10 A). Prefer Keysight N6700 Modular Power System Family datasheet.
Autoranging	many V/I combinations within 50 W envelope Ripple and Noise (20 Hz–20 MHz)
Ripple	4.5 mV p-p / 0.35 mV rms
Programming accuracy	0.06% + 19 mV (V); 0.1% + 20 mA (I)
Measurement accuracy	0.05% + 20 mV (V); 0.1% + 4 mA (I)

N6751A Specifications

PARAMETER	VALUE
Applications	High-speed ATE power rails; precise low-noise DUT power; modular multi-rail systems.
Key Features	- 50 V / 5 A / 50 W autoranging
Technical Specifications	Model: N6751A
DC Output Ratings	Voltage: 0 to 50 V; Current: 0 to 5 A (derated 1%/°C above 40 °C); Power: 50 W
Host	Requires N6700C/N6701C/N6702C or N6705C mainframe
Operational Notes	N6752A is the 100 W sibling (50 V / 10 A). Prefer Keysight N6700 Modular Power System Family datasheet.

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 Autoranging DC Power Module, 50 V, 5 A, 50 W

Overview

The Keysight N6751A is an N6750 Series high-performance autoranging DC power module rated 50 V / 5 A / 50 W for N6700 modular power systems and N6705 DC Power Analyzer mainframes. Low noise, high accuracy, and programming speeds typically 10-50× faster than basic modules. Autoranging output; optional high-speed test extensions (Option 054) add digitizer/ARB capability.

Applications

High-speed ATE power rails; precise low-noise DUT power; modular multi-rail systems.

Key Features

- 50 V / 5 A / 50 W autoranging
- One-slot high-performance module
- Ripple: 4.5 mV p-p / 0.35 mV rms
- Programming accuracy: 0.06% + 19 mV (V); 0.1% + 20 mA (I)
- Measurement accuracy: 0.05% + 20 mV (V); 0.1% + 4 mA (I)
- Active down-programming; 4-wire sense
- Optional Option 054 high-speed extensions

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	N6751A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	High-Performance Autoranging DC Power Module
Family	N6700 / N6750 Series
Alias	N6751A

DC Output Ratings

Voltage: 0 to 50 V; Current: 0 to 5 A (derated 1%/°C above 40 °C); Power: 50 W

Autoranging: many V/I combinations within 50 W envelope

Ripple and Noise (20 Hz-20 MHz)

CV peak-to-peak: 4.5 mV; CV rms: 0.35 mV; CC rms: 2 mA

Programming Accuracy (23 °C ±5 °C class)

Voltage: 0.06% + 19 mV; Current: 0.1% + 20 mA

Measurement Accuracy

Voltage: 0.05% + 20 mV; Current: 0.1% + 4 mA

Host

Requires N6700C/N6701C/N6702C or N6705C mainframe

Operational Notes

N6752A is the 100 W sibling (50 V / 10 A). Prefer Keysight N6700 Modular Power System Family datasheet.

Ordering Information

OPTION	DESCRIPTION
Option 054	high-speed extensions

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.