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Data Sheet
August 8, 2026

KEITHLEY

Keithley 2604B System Sourcemeter SMU Instrument

Keithley 2604B System Sourcemeter SMU Instrument The Keithley 2604B isadual-channel System SourceMeter SMU instrument in the Series 2600B family. Each channel combines precision voltage/current sourcing and measurement. The 2604B provides ±40.4 V / ±3.03 A class capability at up to 40.4 W per channel, with USB, GPIB, and LAN remote interfaces. Unlike the 2602B, the 2604B does not include TSP-Link, digital I/O, or contact check. Semiconductor device characterization; I-V testing; materials research; production test of discrete and IC devices. The Keithley 2604B isadual-channel System SourceMeter SMU instrument in the Series 2600B family. Each channel combines precision voltage/current sourcing and measurement. The 2604B provides ±40.4 V / ±3.03 A class capability at up to 40.4 W per channel, with USB, GPIB, and LAN remote interfaces. Unlike the 2602B, the 2604B does not include TSP-Link, digital I/O, or contact check. Semiconductor device characterization; I-V testing; materials research; production test of discrete and IC devices.

MODEL	CALIBRATION
Keithley 2604B	Available on request
CONDITION	STATUS
Used	In stock
RFQ / SKU	LISTING
2604B	https://aumictechlabs.com/products/2604b-2/

NIST-traceable cal · SAM registered · 30-day returns · NAICS 423690 · 811210 · 541380

This unit

The Keithley 2604B is a dual-channel, 4-quadrant source-measure unit (SMU) that combines power supply, current source, digital multimeter, arbitrary waveform generator, pulse generator,

and electronic load functionality into a single benchtop instrument. With 6½-digit resolution and Test Script Processing (TSP) technology, it executes embedded test programs directly on the device for high-throughput precision testing. The 2604B sources and measures across ±100 mV to ±40 V and ±100 nA to ±10 A (pulse), delivering up to 200 W total output power.It interfaces via USB 2.0, LXI-C (LAN), GPIB, and RS-232, and is compatible with Keithley's IVy mobile app for I/V characterization on Android platforms.Technical Specifications Sourcing and Measurement Voltage source/measure range: ±100 mV, ±1 V, ±6 V, ±40 V Current source/measure range: ±100 nA to ±10 A (DC); 10 A pulse capability Current resolution: 100 fA, 0.1 fA, or 100 pA Voltage resolution: 100 nV or 10 µV Resistance measurement: 500 nΩ to 40 TΩ Output power: 200 W total (40 W per channel) Accuracy and Settling Voltage source accuracy: ±0.02% + 250 µV (100 mV range) Current source accuracy: ±0.02% to ±0.05% (range-dependent) Voltage measurement accuracy: ±0.015% (range-dependent) Current source settling: <±0.1% typical (10%–90% step, resistive load) Pulse Characteristics Minimum width: 100 µs Width resolution: 1 µs Width accuracy: ±5 µs Jitter: 2 µsKey Features Dual-channel, 4-quadrant operation 6½-digit measurement resolution Embedded TSP technology for on-device test program execution Multi-range voltage and current sourcing USB 2.0, LXI-C, GPIB, RS-232 connectivityTypical Applications Semiconductor characterization, device parameter extraction, materials research, power device testing, and production test environments requiring integrated sourcing and measurement.Compatibility & Integration Supports Keithley Model 2400 SourceMeter SMU software emulation. Compatible with Keithley IVy mobile app for Android-based I/V testing. Benchtop configuration excludes TSP-Link, Contact Check, and Digital I/O features found on system variants.

Features & description

From manufacturer datasheet

Features

• Dual independent SMU channels • Voltage: ±40.4 V class per channel • Current: ±3.03 A class per channel • Power: 40.4 W per channel class • Precision source + measure (4-quadrant) • Interfaces: USB, GPIB, LAN • No TSP-Link / digital I/O / contact check (vs 2602B) • TSP scripting / SCPI remote programming • Pulse capability for pulsed I-V characterization

2604B Characteristics / Specifications

PARAMETER	VALUE
Model	2604B
Manufacturer	Keithley Instruments (Tektronix)
Instrument Type	Dual-Channel System SourceMeter SMU
Family	Series 2600B
Alias	Keithley 2604B; 2604B System Sourcemeter Electrical ±40.4 V / ±3.03 A / 40.4 W per channel class; dual SMU Interfaces USB; GPIB; LAN; no TSP-Link / DigIO / contact check Operational Notes Prefer Keithley 2600B Series specifications for 2604B column. Do not assume 2602B TSP-Link features.
Voltage	±40.4 V class per channel
Current	±3.03 A class per channel
Power	40.4 W per channel class
Interfaces	USB, GPIB, LAN

2604B Specifications

PARAMETER	VALUE
Keithley 2604B System Sourcemeter SMU Instrument	Overview
Technical Specifications	Model: 2604B
Electrical	±40.4 V / ±3.03 A / 40.4 W per channel class; dual SMU
Operational Notes	Prefer Keithley 2600B Series specifications for 2604B column. Do not assume 2602B TSP-Link features.

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

Specifications

PARAMETER	VALUE
Model	2604B
Manufacturer	Keithley Instruments (Tektronix)
Instrument Type	Dual-Channel System SourceMeter SMU
Family	Series 2600B
Alias	Keithley 2604B; 2604B System Sourcemeter

Electrical
±40.4 V / ±3.03 A / 40.4 W per channel class; dual SMU

Interfaces
USB; GPIB; LAN; no TSP-Link / DigIO / contact check

Operational Notes
Prefer Keithley 2600B Series specifications for 2604B column. Do not assume 2602B TSP-Link features.

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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