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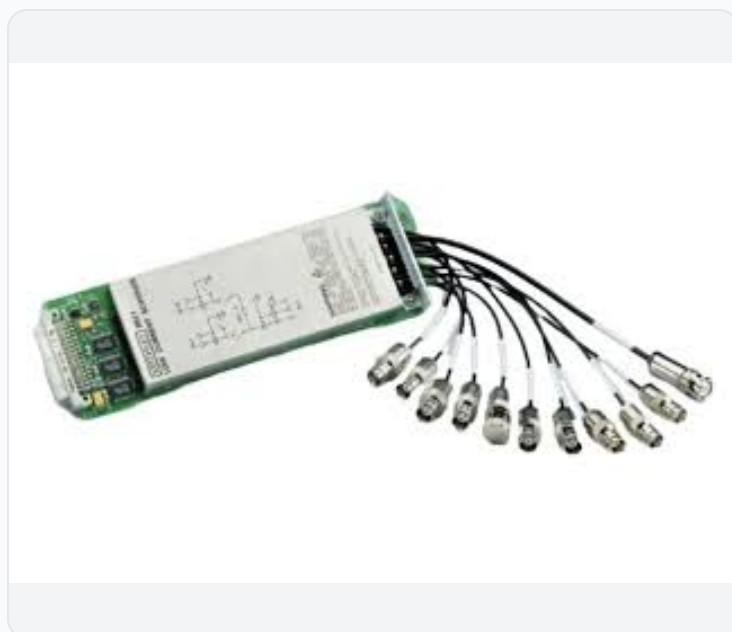
Data Sheet

August 13, 2026

KEITHLEY

Keithley 6521 Scanner Card

Keithley 6521 Low Current Scanner Card for 6517 Electrometer The 6521 is a 10-channel single-pole low-current scanner for the Model 6517/6517A/6517B electrometer option slot. It is intended for the amps function: when a channel is off, signal HI is connected to LO so the current path is never left open. Inputs are BNC; the output is triax. Offset current is less than 1 pA (typically less than 30 fA at 23 C). Maximum 30 V, 500 mA, 10 VA. Multi-DUT picoamp scanning with a 6517 electrometer; guarded current measurements via triax output; make-before-break current switching so the source is never open-circuited; 10-channel leakage and photodiode current. The 6521 is a 10-channel single-pole low-current scanner for the Model 6517/6517A/6517B electrometer option slot. It is intended for the amps function: when a channel is off, signal HI is connected to LO so the current path is never left open. Inputs are BNC; the output is triax. Offset current is less than 1 pA (typically less than 30 fA at 23 C). Maximum 30 V, 500 mA, 10 VA. Multi-DUT picoamp scanning with a 6517 electrometer; guarded current measurements via triax output; make-before-break current switching so the source is never open-circuited; 10-channel leakage and photodiode current.



MODEL

Keithley 6521

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

6521

LISTING

<https://aumictechlabs.com/products/6521-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keithley 6521 Scanner Card is a 10-channel multiplexer accessory that expands the measurement capacity of compatible Keithley electrometers by routing multiple low-current

signals to a single instrument. Designed specifically for sensitive current measurements, it delivers offset current below 1 pA (typically <30 fA at 23°C, <60% RH) with inter-channel isolation exceeding $10^{13} \Omega$. The card uses break-before-make switching with contact resistance <1 Ω and contact potential <200 μ V, making it ideal for precision low-current applications where signal integrity is critical. BNC input connectors and triaxial outputs accommodate shielded measurement configurations. Signal routing is sequential and deterministic - when a channel is deselected, its signal path connects to the common return, functioning as a true current switch rather than an open circuit. Actuation time is 2 ms per channel transition. Contact life exceeds 10^6 closures at full signal level (30 V, 500 mA) and 10^7 at low signal levels. The card integrates directly into the 6517B Electrometer/High Resistance Meter and compatible models, automating multipoint test sequences without manual reconfiguration.

Technical Specifications

Channels:	10 per card
Signal Level:	30 V, 500 mA, 10 VA (resistive load)
Contact Resistance:	<1 Ω
Contact Potential:	<200 μ V
Offset Current:	<1 pA (typically <30 fA at 23°C, $10^{13} \Omega$, $10^{10} \Omega$, <125 pF (HI to LO))
Common Mode Voltage:	10^6 closures (maximum signal), $>10^7$ closures (low signal)
Operating Temperature:	0°C to 50°C (up to 35°C at 70% RH)
Storage Temperature:	-25°C to 65°C
Dimensions:	38 mm H $\times$ 70 mm W $\times$ 242 mm D
Weight:	623 g

Key Features

- Break-before-make switching on signal HI; common signal LO for all channels
- Triaxial output connectors for low-noise measurement paths
- Sub-picoampere offset current for ultra-low leakage detection
- High inter-channel isolation minimizes crosstalk and parasitic coupling

Typical Applications

- Semiconductor reverse leakage testing on junctions
- FET gate leakage characterization
- Automated multipoint current scanning
- Low-level current measurements requiring frequent test configuration changes

Compatibility & Integration

Primary compatibility: Keithley Model 6517B Electrometer/High Resistance Meter (requires firmware A12 or later). Also compatible with Models 6517A and 6517 Electrometers.

Features & description

From manufacturer datasheet

Features

- True current switching (HI shorted to LO when off)

6521 Characteristics / Specifications

PARAMETER	VALUE
Model	6521
Manufacturer	Keithley Instruments
Instrument Type	Low current scanner card
Alias	6521
Host instrument	6517 / 6517A / 6517B option slot
Channels per card	10
Functions	amps
Contact configuration	single pole break before make on signal HI
Off state	signal HI connected to signal LO via relay
Interchannel current path	make before break so current is never interrupted
Power off	all relays open
Scan speed default	1.5 channels/s with 6517 default settings
Scan speed maximum	43 channels/s (fixed range 200 V and 20 mA into buffer, filter off, settle 0 s)
Connector inputs	BNC
Connector output	triaxial
Signal level	30 V, 500 mA, 10 VA resistive
Contact life max signal	greater than 1E6 closures
Contact life low level	greater than 1E7 closures
Contact resistance	less than 1 ohm
Contact potential	less than 200 uV
Offset current	less than 1 pA (less than 30 fA typical at 23 C, less than 60% RH)
Actuation time	2 ms
Common mode voltage	less than 30 V peak
Operating	0 C to 50 C, 70% RH to 35 C
Storage	-25 C to 65 C

PARAMETER	VALUE
Dimensions	38 mm × 70 mm × 242 mm
Net weight	623 g
Related 65	10-channel V/I scanner, 200 V, triax in and out Notes Specs from Keithley 6521/6522 instruction manual specification pages. 6521 is current-only with BNC inputs; use 6522 for volts/ohms/coulombs. Offset excludes the 6517 electrometer itself.

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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Common mode voltage	less than 30 V peak
Operating	0 C to 50 C, 70% RH to 35 C

Specifications

PARAMETER	VALUE
Storage	-25 C to 65 C
Dimensions	38 mm × 70 mm × 242 mm
Net weight	623 g

Related 6522: 10-channel V/I scanner, 200 V, triax in and out

Notes

Specs from Keithley 6521/6522 instruction manual specification pages. 6521 is current-only with BNC inputs; use 6522 for volts/ohms/coulombs. Offset excludes the 6517 electrometer itself.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.