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Data Sheet

August 13, 2026

KEITHLEY

Keithley 7011C

Keithley 7011C Quad 1×10 Multiplexer Card Mass Terminated The 7011-C (7011C) is a 40-channel multiplexer card for 7001/7002 mainframes. Four independent 1×10 two-pole FormAbanks (or two 1×10 four-pole banks) connect to the analog backplane; jumpers isolate banks. TheCversion uses a 96-pin male DIN mass-terminated connector rather than the 7011-S screw terminals. Maximum 110 V DC / 1 A / 60 VA, less than 1 uV contact potential per pair, less than 100 pA offset, 2 MHz insertion-loss class. 40-channel two-pole scanning in 7001/7002; four independent 10-channel mux banks; backplane interconnection to other 70xx cards; production harnesses using 7011-MTC cables and 7011-KIT-R. The 7011-C (7011C) is a 40-channel multiplexer card for 7001/7002 mainframes. Four independent 1×10 two-pole FormAbanks (or two 1×10 four-pole banks) connect to the analog backplane; jumpers isolate banks. TheCversion uses a 96-pin male DIN mass-terminated connector rather than the 7011-S screw terminals. Maximum 110 V DC / 1 A / 60 VA, less than 1 uV contact potential per pair, less than 100 pA offset, 2 MHz insertion-loss class. 40-channel two-pole scanning in 7001/7002; four independent 10-channel mux banks; backplane interconnection to other 70xx cards; production harnesses using 7011-MTC cables and 7011-KIT-R.



MODEL

Keithley 7011C

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

7011C

LISTING

<https://aumictechlabs.com/products/7011c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley 7011-C is a quad 1×10 multiplexer switch card engineered for integration with Keithley 7001 and 7002 mainframes. It delivers 40 channels organized as four independent 1×10 2-pole banks, with configurable architectures ranging from dual 1×20 to single 1×40 2-pole multiplexers, or dual 1×10 to single 1×20 4-pole setups. Two 7011-C cards cascade to form a 1×80 multiplexer via mainframe backplane routing. The card connects to external circuits through a 96-pin male DIN mass-terminated connector and supports row expansion via integration with Keithley 7012 cards. Removable jumpers provide flexible bank isolation from the mainframe backplane.

Technical Specifications
Switching Architecture Four independent 1×10 2-pole multiplexer banks
Configurable as dual 1×20, 1×10 + 1×30, single 1×40, or dual/single 4-pole multiplexers
Two-card configuration yields 1×80 multiplexer capacity
Per-conductor channel resistance: < 1 Ω
Contact potential: < 1 μV per channel contact pair; < 3 μV typical single contact
Actuation time: 3 ms

Electrical Performance
DC: 110 V maximum between any two pins, 1 A switched, 30 VA resistive load
AC: 125 V rms / 175 V peak between any two pins, 1 A switched, 60 VA resistive load

Common mode voltage: 175 V peak (any pin to chassis)
Offset current: 10^{-9} Ω, 10^{-9} Ω, < 50 pF

Key Features
Flexible architecture - combine banks into multiple multiplexer configurations without hardware changes
Low contact resistance and minimal contact potential for precision measurement integrity
Fast 3 ms actuation supports high-speed automated test sequences
Dual-card scaling enables 80-channel multiplexing on a single mainframe
Bank jumpers allow selective isolation for complex routing schemes
96-pin DIN connector simplifies external circuit termination

Compatibility & Integration
The 7011-C integrates directly with Keithley 7001 and 7002 switch mainframes via the analog backplane. Outputs interface with Keithley 7012 cards for row expansion in larger matrix configurations. Intercard connections utilize the mainframe backplane, eliminating external wiring complexity.

Features & description

From manufacturer datasheet

Features

- Four independent 1×10 banks combinable to 1×40

7011C Characteristics / Specifications

PARAMETER	VALUE
Model	7011-C
Manufacturer	Keithley Instruments
Instrument Type	Quad 1×10 multiplexer card
Alias	7011C; 7011-C
Host mainframes	7001 and 7002
Channel count	40
Mux configuration	four independent 1×10 two pole banks or two 1×10 four pole banks
Contact configuration	2 pole Form A (Hi, Lo)
Connector	96-pin male DIN mass terminated
Maximum DC signal	110 V DC between any two pins, 1 A switched, 30 VA resistive
Maximum AC signal	125 V RMS or 175 V AC peak, 1 A switched, 60 VA resistive
Common mode voltage	175 V peak any pin to chassis
Contact life cold	1E8 closures
Contact life max signal	1E5 closures
Channel resistance	less than 1 ohm per conductor
Contact potential pair	less than 1 uV per Hi/Lo pair (typically less than 1 uV)
Contact potential single	less than 3 uV typical
Offset current	less than 100 pA
Actuation time	3 ms
Isolation bank	greater than 1E9 ohm, less than 25 pF
Crosstalk 1 MHz 50 ohm	less than -40 dB channel
Insertion loss	less than 0.1 dB below 1 MHz, less than 3 dB below 2 MHz
Relay drive current	16 mA per relay
Operating	0 C to 50 C, up to 35 C less than 80% RH
Storage	-25 C to 65 C

PARAMETER	VALUE
Related screw terminal	7011-S (less than 500 nV pair potential)
Related FormCmux	7111-S
Accessories	7011-MTC-1, 7011-MTC-2, 7011-KIT-R Notes Specs from Keithley Models 7011-S and 7011-C instruction manual. Confirm C (DIN) versus S (screw) before ordering cables. Jumpers determine backplane isolation.

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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Related FormCmux	7111-S

Accessories: 7011-MTC-1, 7011-MTC-2, 7011-KIT-R

Notes

Specs from Keithley Models 7011-S and 7011-C instruction manual. Confirm C (DIN) versus S (screw) before ordering cables. Jumpers determine backplane isolation.

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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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
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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.