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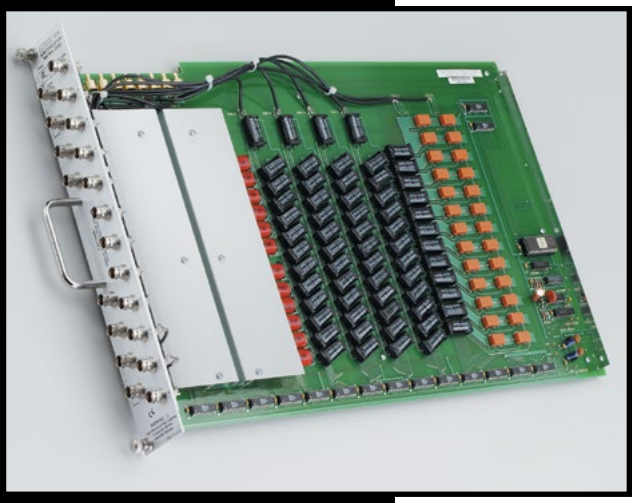
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Find the *Keithley 7072* at our website: ***Click HERE***

7072

Semiconductor Matrix Card

8×12



- **Two sub-picoamp current paths**
- **Two DC to 1MHz C-V paths**
- **Four high isolation signal paths**
- **3-lug triaxial connection**
- **Compatible with Models 707A, 707B, 708A, and 708B**

Ordering Information

7072 **8×12 Semiconductor Matrix Card**

Accessories Supplied

Instruction manual and four SMB expansion cables (CA-54-1)

The Model 7072 Semiconductor Matrix Card is designed specifically to handle low-level and high-impedance measurements encountered in semiconductor parametric tests on wafers and devices. This unique design provides two low-current circuits with specified 1pA maximum offset current for sensitive sub-picoamp measurement resolution and two C-V paths for measurement of Capacitance Voltage characteristics from DC to 1MHz. Four additional high-quality signal paths with <20pA offset current provide for general-purpose signal switching up to 100nA or 200V.

Connections are 3-lug triax with the outer shell connected to chassis for safety and noise shielding. The center conductor is fully surrounded by the inner conducting shield, so that fully guarded measurements can be made to achieve higher isolation and to improve measurement speed and accuracy.

Isolation relays on the low-current and C-V paths automatically disconnect unused circuits to achieve minimum interference and peak performance. The 707A or 708A mainframe allows each row (signal path) to be programmed for Break-Before-Make or Make-Before-Break operation.

For applications requiring connections to a large number of devices or test points, the 7072 matrix can be expanded with additional cards. The low-current and C-V rows can be extended to other cards with coaxial jumpers. The other four high-quality signal paths connect directly to the 707A backplane for expansion.

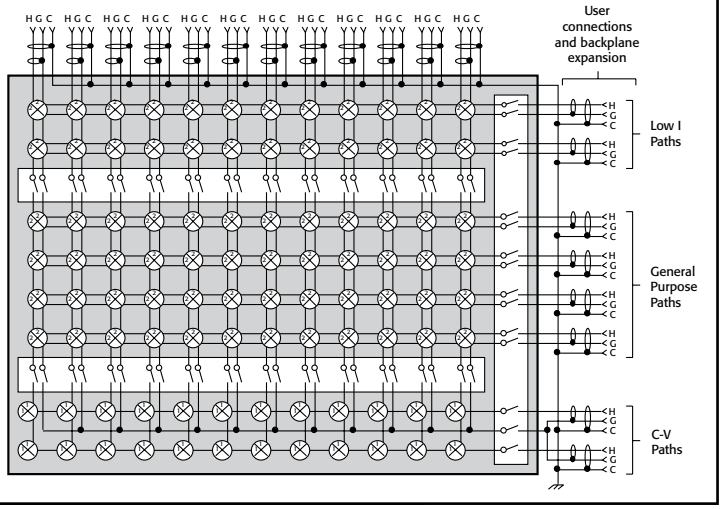
ACCESSORIES AVAILABLE

237-TRX-T	3-Lug Triax Tee Adapter
7078-TRX-BNC	3-Lug Triax to BNC Adapter
7078-TRX-3	3-Lug Triax Cable, 0.9m (3 ft)
7078-TRX-10	3-Lug Triax Cable, 3m (10 ft)
7078-TRX-TBC	3-Lug Female Triax Bulkhead Connector with Cap

SERVICES AVAILABLE

7072-3Y-EW	1-year factory warranty extended to 3 years from date of shipment

	Low-Current (Rows A - B)	General-Purpose (Rows C - F)	C-V (Rows G - H)
CROSSPOINT CONFIGURATION:	2-pole Form A	2-pole Form A	1-pole Form A, Common Guard
OFFSET CURRENT:	<1 pA	<20 pA	<20 pA
PATH ISOLATION: Resistance:	$>10^{13}$ Ω	$>10^{12}$ Ω	$>10^{12}$ Ω
Capacitance (nominal):	0.4 pF	1 pF	0.6 pF
CROSSTALK			
1 MHz, 50Ω load (typical):	<–50 dB	<–40 dB	<–50 dB
3dB BANDWIDTH (typical), 50Ω Load:	15 MHz	8 MHz	5 MHz



MATRIX CONFIGURATION: 8 rows by 12 columns.

CONNECTOR TYPE: 3-lug triaxial (Signal, Guard, Chassis).

MAXIMUM SIGNAL LEVEL: 200V, 1A carry/0.5A switched, 10VA peak (resistive load).

COMMON MODE VOLTAGE: 200V maximum between any 2 pins or chassis.

CONTACT LIFE:
Cold Switching: 10^7 closures.
At Maximum Signal Level: 10^5 closures.

PATH RESISTANCE (per conductor): <1Ω initial, <3.5Ω at end of contact life.

CONTACT POTENTIAL: <40μV per crosspoint (Signal to Guard).

RELAY SETTLING TIME: <15ms.

INSERTION LOSS (1MHz, 50Ω source, 50Ω load): 0.1dB typical.

EMC: Conforms to European Union Directive 89/336/EEC.

SAFETY: Conforms to European Union Directive 73/23/EEC (meets EN61010-1/IEC 1010).

ENVIRONMENT:
OFFSET CURRENT and PATH ISOLATION Specifications: 23°C, <60% R.H.
Operating: 0° to 50°C, up to 35°C at 70% R.H.
Storage: –25° to +65°C.

Use with Models 707B, 708B, 707A, and 708A switching matrix mainframes

SWITCHING AND CONTROL

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