

7709

6×8 Matrix Module

- Automatic two- or four-wire connection to DMM
- 6 row × 8 column matrix
- Expandable to larger switch configurations by daisy-chaining or cascading multiple modules
- Two female D-sub connectors are standard for secure hook-up and quick teardown
- 300V, 1A capacity
- Relay closures stored in onboard memory

Ordering Information

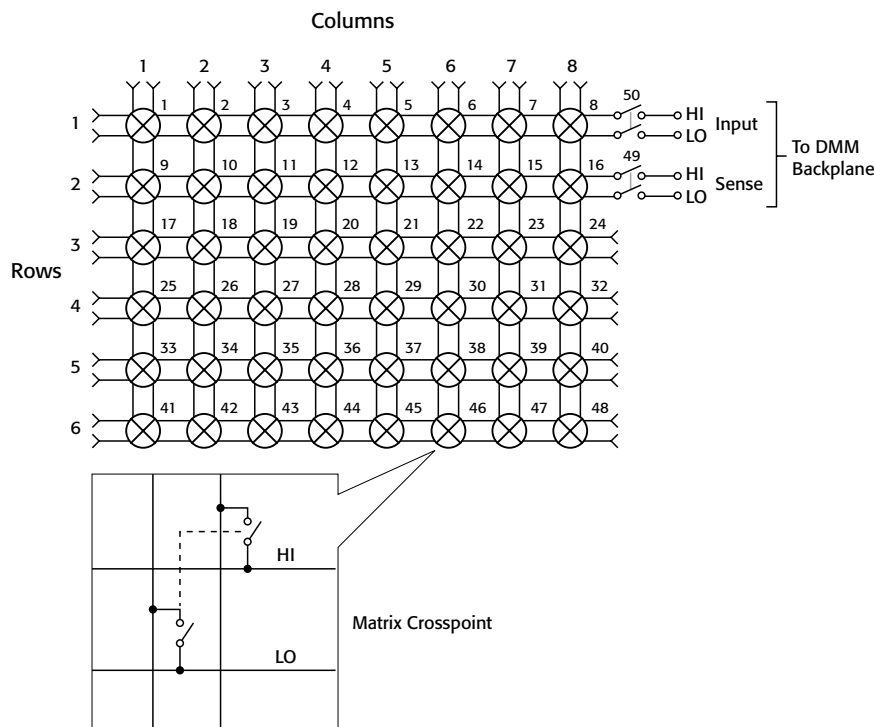
7709 6×8 Matrix Module

Accessories Supplied

Two mating IDC connectors



The Model 7709 plug-in module is a two-pole, 6×8 matrix module. It can connect any combination of six differential channels of instrumentation to any combination of eight differential device-under-test channels. The instrumentation can be AC and DC sources, internal or external meters, oscilloscopes, etc. This matrix configuration allows wide flexibility for complex test systems.



CAPABILITIES

DMM CONNECTION:

2-Wire Functions

Row 1, channels 1–8, through channel 50.

4-Wire Functions

Row 1, channels 1–4 (Source) through channel 50 and
Row 2, channels 13–16 (Sense), through channel 49.

CLOSE CHANNEL: CLOSE command connects channels 1–8 to DMM. For 4-wire, channels 1–4 are automatically paired with channels 13–16. **ROUTE:MULTIPLE** allows any combination of rows and columns to be connected at the same time.

INPUTS

MAXIMUM SIGNAL LEVEL: Any Channel to Any Channel (1–48): 300VDC or 300Vrms (425V peak) for AC waveforms, 1A switched, 60W, 125VA maximum.

SAFETY: Conforms to European Union Directive 73/23/EEC EN61010-1, CAT I.

CONTACT LIFE (typ): >10⁵ operations at max. signal level.
>10⁸ operations no load¹.

¹ Minimum signal level 10mV, 10μA.

CONTACT RESISTANCE: <1Ω any path and additional 1Ω at end of contact life.

CONTACT POTENTIAL: <3μV per contact pair.

OFFSET CURRENT: <100pA.

CONNECTOR TYPE: 50-pin female D-shell for rows and columns.
25-pin female D-shell for “daisy-chain” rows.
Supplied with male IDC ribbon cable connectors.

ISOLATION BETWEEN ANY TWO TERMINALS: >10⁹Ω,
<200pF.

ISOLATION BETWEEN ANY TERMINAL AND EARTH: >10⁹Ω,
<400pF.

CROSS TALK (1MHz, 50Ω Load): <–35dB.

INSERTION LOSS (50Ω Source, 50Ω Load): <0.35dB below
1MHz. <3dB below 2MHz.

COMMON MODE VOLTAGE: 300VDC or 300Vrms (425V peak)
for AC waveforms between any terminal and chassis.

GENERAL

MATRIX CONFIGURATION: 6 rows × 8 columns.

CONTACT CONFIGURATION: 2 pole Form A.

FIRMWARE: Specified for Model 2700 rev. B03, Model 2701 rev. A01, and Model 2750 rev. A01 or higher.

RELAY TYPE: Latching electromechanical.

ACTUATION TIME: <3ms.

ENVIRONMENTAL

OPERATING ENVIRONMENT: Specified for 0°C to 50°C.
Specified to 50% R.H. at 35°C.

STORAGE ENVIRONMENT: –25°C to 65°C.

WEIGHT: <0.52kg (1.16 lb).

ACCESSORIES AVAILABLE

7789	50/25 Pin Male D-Shell Solder Cup Connectors
7790	50/50/25 Pin Female/Male D-Shell IDC Connectors
7705-MTC-2	50 Pin Male to Female D-sub Cable, 2m (6.6 ft).
7707-MTC-2	25 Pin Male to Female D-sub Cable, 2m (6.6 ft).

SERVICES AVAILABLE

7709-3Y-EW	1-year factory warranty extended to 3 years from date of shipment
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