

7077 8×12 Isolated Coaxial Matrix Card

The 7077 Isolated Coaxial Matrix Card combines 2-pole Form A switching of signal HI and LO with BNC connections. It's well suited for applications that involve making differential measurements and require the isolation of BNC coaxial interconnects and cabling. The 7077 is compatible with both the Model 707A and 708A Switch Mainframes, so it offers the flexibility needed when designing an economical test set-up.

The 7077's isolated coaxial connectors make it possible to "float" instruments (limited to 42V peak) when necessary, rather than grounding them. This allows users to make differential measurements and perform a wider range of tests because it simplifies combining a variety of measurement instruments with differing types of connectors into a single test system.

With a 10MHz bandwidth, the 7077 is useful for high-speed production testing applications, such as testing the audio ranges of a variety of telecommunications devices. Its insertion loss and crosstalk specifications make it especially appropriate for AC measurement applications that involve frequencies of less than 10MHz.

The 7077 has less than 5 μ V contact potential per crosspoint (HI to LO) and less than 100pA offset current, which help ensure greater accuracy when configuring an automated test and measurement system.

While typical matrix cards require 40 to 60mA of relay drive current to open or close a single crosspoint, the 7077's relays require just 28mA of current per crosspoint. The low drive current required makes it possible to create more complex switch set-ups involving more crosspoints simultaneously. In addition, the 7077's relays settle in less than three milliseconds, ensuring higher throughput in switching-intensive production test applications.

MATRIX CONFIGURATION: 8 rows by 12 columns.

CROSSPOINT CONFIGURATION: 2-pole Form A (HI, LO).

CONNECTOR TYPE: BNC (HI, LO).

MAXIMUM SIGNAL LEVEL:

Any center or shield to any other center or shield:
42V peak, 1A switched.

DC Signals: 30VA resistive load.

AC Signals: 42VA resistive load.

COMMON MODE VOLTAGE: 42V peak, any terminal to chassis.

CONTACT LIFE: Cold Switching: 10⁸ closures.

At Maximum Signal Level: 10⁵ closures.

PATH RESISTANCE (per conductor): < 0.5 Ω , <1.5 Ω at end of contact life.

CONTACT POTENTIAL: <5 μ V per crosspoint (HI to LO).

OFFSET CURRENT: <100pA.

AC PERFORMANCE:

($Z_L = Z_S = 50\Omega$) <100 kHz <1 MHz

Insertion Loss¹ 0.05 dB 0.1 dB

Crosstalk -65 dB -45 dB

¹Excludes loss caused by DC path resistance.

ISOLATION: Path: >10¹⁰ Ω , <75pF.

Differential: >10⁹ Ω , <120pF.

Common Mode: >10⁹ Ω , <200pF.

RELAY DRIVE CURRENT (per crosspoint): 28mA.

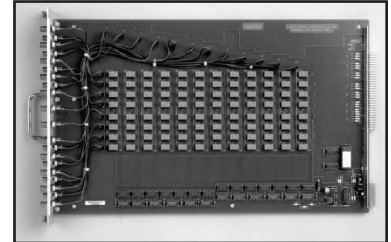
RELAY SETTTLING TIME: <3ms.

ENVIRONMENT:

Operating: 0°-50°C, up to 35°C at 70% RH.

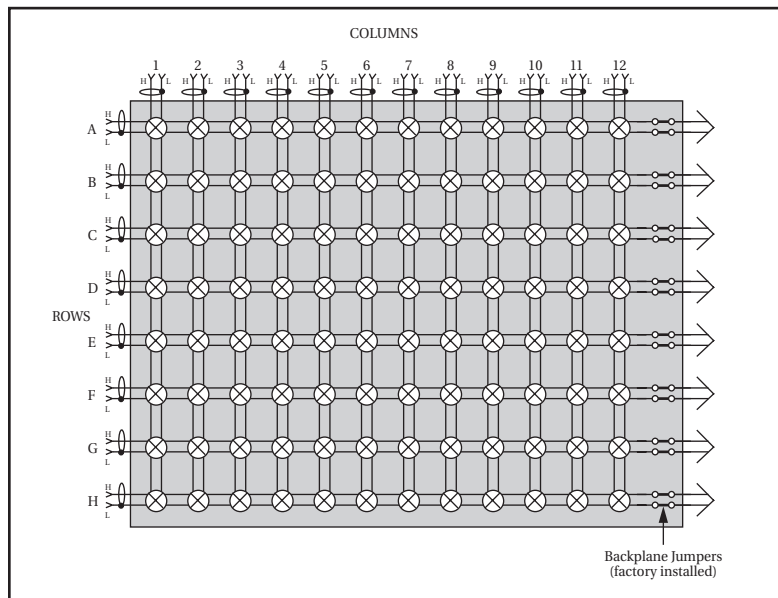
Storage: -25° to 65°C.

- 2-pole 8×12 matrix
- Isolated BNC connections
- 10MHz bandwidth
- <5 μ V, <100pA offsets
- 42V peak, 1A signal levels



USE WITH MODELS 707A AND 708A SWITCHING MATRIX MAINFRAMES

This product is available with an **Extended Warranty**. See **section C** for complete ordering information.



QUESTIONS?

1-800-552-1115 (U.S. only)

Call toll free for technical assistance, product support or ordering information.