7077

• 2-pole 8x12 matrix

• 10MHz bandwidth

<5µV, <100pA offsets

Isolated BNC connections

42V peak, 1A signal levels

Two-Pole Matrix Card 8×12, BNC Connections



The Model 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 Model 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 Model 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 Model 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 Model 7077 has less than 5μ 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 switchingintensive production test applications.



Ordering Information 7077 8x12 Two-Pole Matrix

Card

Extended warranty, service, and calibration contracts are available.

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): <0.5Ω, <1.5Ω at end of contact life.		
CONTACT POTENTIAL: $<5\mu$ V per crosspoint (HI to LO).		
OFFSET CURRENT: <100pA.		
AC PERFORMANCE:		
$(Z_{\rm L}=Z_{\rm S}=50\Omega)$	<100 kHz	<1 MHz
Insertion Loss ¹	0.05 dB	0.1 dB
Crosstalk	-65 dB	-45 dB
¹ Excludes loss caused by DC path resistance.		
ISOLATION: Path: >10 ¹⁰ Ω <120pF. Common Mode	, <75pF. Differential: e: >10 ⁹ Ω, <200pF.	$>10^{9}\Omega$,
RELAY DRIVE CURRENT (per crosspoint): 28mA.		
RELAY SETTLING TIME: <3ms.		



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