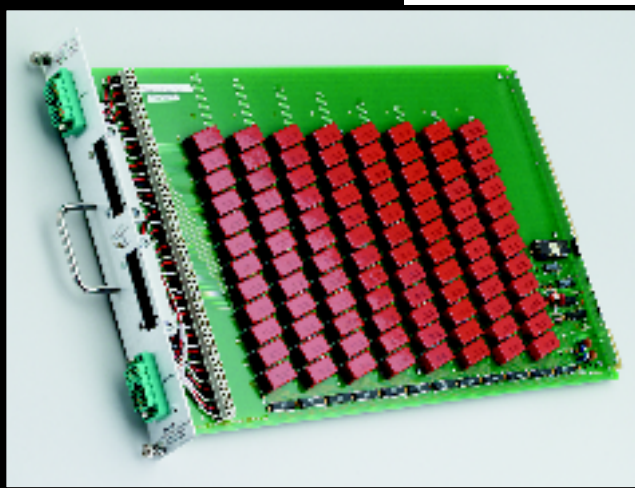


7071

# General Purpose Matrix Card

## 8×12



- 96 3-pole, Form A relay crosspoints
- High, Low, and Guard switched
- $<5\mu\text{V}$  contact potential per crosspoint
- Signals to 200V and 1A

### Ordering Information

7071 8×12 General Purpose Matrix Card

This product is available with an Extended Warranty.

### ACCESSORIES AVAILABLE:

|             |   |
|-------------|---|
| 7078-CIT    | Contact Insertion and Extraction Tools      |
| 7078-HCT    | Hand Crimping Tool                          |
| 7078-KIT    | Connector Kit                               |
| 7078-MTC-5  | Mass Terminated Cable Assembly, 1.5m (5 ft) |
| 7078-MTC-20 | Mass Terminated Cable Assembly, 6m (20 ft)  |
| 7078-MTR    | Bulkhead Mount Receptacle with contacts     |

The Model 7071 General Purpose Matrix Card is an 8×12 configuration that switches High, Low, and Guard at each of the 96 relay crosspoints. The eight rows are connected automatically to the general purpose analog backplane when the matrix card is installed into the 707A and 708A mainframe. This allows for easy expansion in 12 column increments and eliminates the requirement for wiring between cards.

The matrix card will handle voltages up to 200V and currents up to 0.5A switched or 1A unswitched. A  $5\mu\text{V}$  contact potential assures that the switch does not adversely affect low voltage sensitivity. The 3dB signal bandwidth is 5MHz. Guard inputs improve isolation between signals and assure  $<100\text{pA}$  off-set currents into any electrical path.

Connection to the Model 7071 is made to either the matrix columns or the matrix rows through one of two convenient 38-pin connectors. A 20 ft pre-assembled cable accessory is available, Model 7078-MTC Mass Terminated Cable Assembly. This cable may be used as is with mating connector or cut to length and routed to various termination points within the system. Or, mating cables may be assembled using the Model 7078-KIT Connector Kit, 7078-CIT Contact Insertion and Extraction Tool, and 7078-HCT Hand Crimp Tool.

**MATRIX CONFIGURATION:** 8 rows by 12 columns.

**CROSSPOINT CONFIGURATION:** 3-pole Form A (HI, LO, GUARD).

**CONNECTOR TYPE:** Quick disconnect using 38-pin connectors or screw terminals.

**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:  $10^8$  closures. At Maximum Signal Level:  $10^6$  closures.

**PATH RESISTANCE (per conductor):**  $<0.6\Omega$  initial,  $<1.5\Omega$  at end of contact life.

**CONTACT POTENTIAL:**  $<5\mu\text{V}$  per crosspoint (HI to LO  $<1$  minute after actuation).

**OFFSET CURRENT:**  $<100\text{pA}$ .

**ISOLATION:** Path:  $>10^{10}\Omega$ ,  $<10\text{pF}$ . Differential:  $10^9\Omega$ , 45pF nominal. Common Mode:  $10^9\Omega$ , 165pF nominal.

**CROSSTALK:**  $<-50\text{dB}$  at 1MHz, 50 $\Omega$  load.

**INSERTION LOSS (1MHz, 50 $\Omega$  source, 50 $\Omega$  load):** 0.1dB typical.

**3dB BANDWIDTH (50 $\Omega$  load):** 5MHz typical.

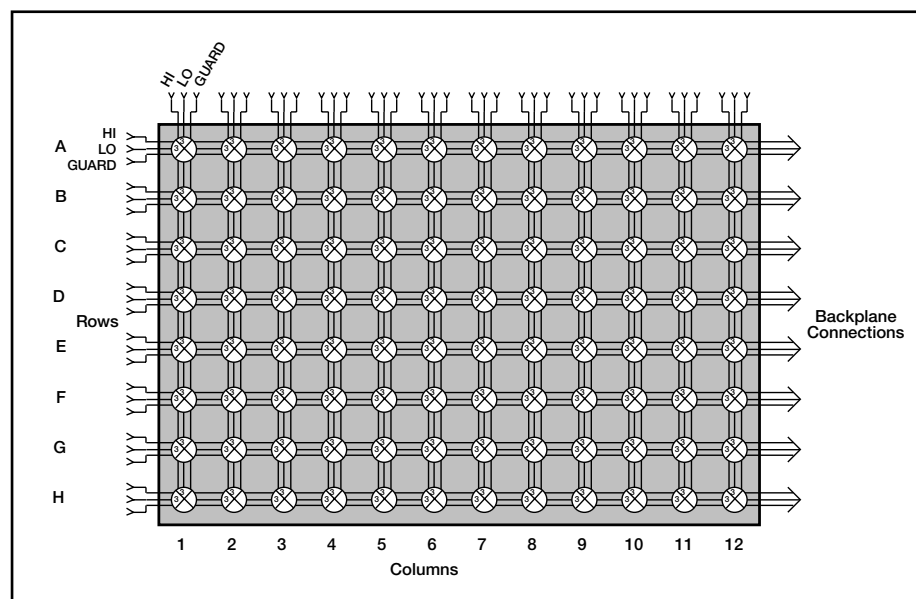
**RELAY DRIVE CURRENT (per crosspoint):** 15mA.

**RELAY SETTLING TIME:**  $<3\text{ms}$ .

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

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

**ENVIRONMENT:** Operating:  $0^\circ$  to  $50^\circ\text{C}$ , up to  $35^\circ\text{C}$  at 70% R.H. Storage:  $-25$  to  $+65^\circ\text{C}$ .



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