

7022

Matrix-Digital I/O Card

with 5x6 Matrix, 10 Digital Inputs, 10 Digital Outputs, & 96-Pin DIN Connector

The Model 7022 Matrix-Digital I/O Card combines high-density signal switching with digital control on a single card. This space-saving design is well-suited for configuring compact automated production test applications. The Model 7022 card offers a 5 row x 6 column configuration for a total of 30 2-pole switches, with each switch acting as a matrix crosspoint. In addition to the Model 7022's signal routing capabilities, it can also sense the state of ten digital inputs and generate ten digital output states.



- 20 control bits – 10 in/10 out
- Matrix rows connect to 7001/7002 backplane for easy expandability
- 250mA digital output sink capacity
- Digital input and output protection built in

Ordering Information

7022 5x6, 2-Pole Matrix with Digital I/O

Accessories Supplied

7011-KIT-R 96-Pin Female Connector Kit

ANALOG MATRIX SPECIFICATIONS

CONNECTOR TYPE: 96-pin male DIN connector (7011-KIT-R mating connector included).

MATRIX CONFIGURATION: 5 rows x 6 columns. Jumpers can be removed to isolate any row from the backplane. Rows A–D are connected to the backplane.

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

MAXIMUM SIGNAL: 110V DC, 110V rms, 155V peak between any two inputs or chassis, 1A switched, 30VA (resistive loads).

CONTACT LIFE:

Cold Switching: 10⁸ closures.

Maximum Signal Levels: 10⁵ closures.

CHANNEL RESISTANCE (per conductor): <1.25Ω.

CONTACT POTENTIAL:

<3μV per channel contact pair

<9μV per single contact

OFFSET CURRENT: <100pA.

ACTUATION TIME: <3ms.

ISOLATION¹: Path: >10⁹Ω, <50pF
 Differential: >10⁹Ω, <70pF
 Common Mode: >10⁹Ω, <200pF

CROSSTALK¹ (1MHz, 50Ω Load): <-40dB.

INSERTION LOSS¹ (50Ω Source, 50Ω Load): <0.25dB below 1MHz, <3dB below 10MHz.

RELAY DRIVE CURRENT (per relay): 16mA.

¹ Specifications apply with no more than one crosspoint closed.

DIGITAL I/O SPECIFICATIONS

DIGITAL I/O CAPABILITY: 10 independent inputs. 10 independent outputs.

OUTPUT:

Configuration: 10 open-collector drivers with factory installed 10kΩ pull-up resistors. Each driver has an internal flyback diode.

Pull-Up Voltage: 5V internally supplied, external connection provided for user supplied voltage up to 42V max. Outputs short circuit protected up to 25V

Maximum Sink Current: Per Channel: 250mA. Per Card: 1A.

Logic: Hardware user configurable for negative or positive true logic levels.

INPUT:

Configuration: 10 inputs with internal 10kΩ pull-up resistors provided. Input resistors can be set for pull-up or pull-down configuration.

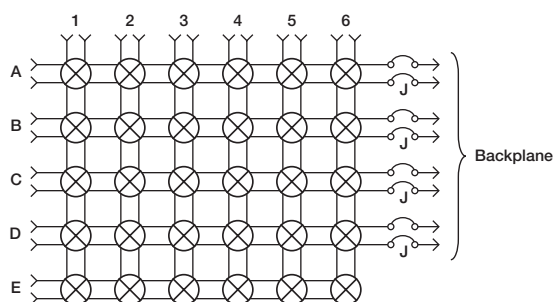
Maximum Voltage Level: 42V peak.

Logic: Positive true.

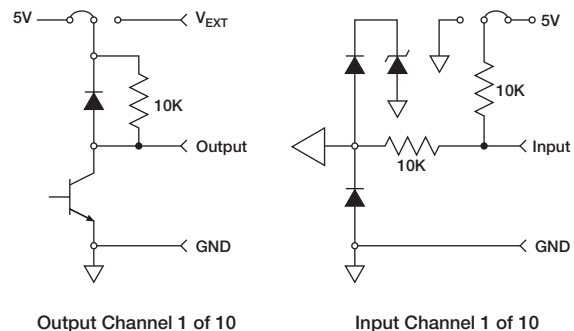
ACCESSORIES AVAILABLE

7011-KIT-R	96-Pin Female Connector Kit
7011-MTR	96-Pin Male Connector Kit

Matrix Configuration



Digital I/O Configuration



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