## Racal Instruments

http://www.racalinstruments.com

## PRODUCT

 INFORMATION
## Switching Matrix For the VMEbus Model HF4x8

The HF4x8 is a VMEbus compatible 100 MHz switching matrix with comprehensive Built-In-Test Equipment (BITE) capabilities. Multiple modules may be joined in tree fashion via the top edge BNC connectors to create $8 \times 8,8 \times 16,4 \times 16$ or $4 \times 32$ configurations ( 4 signal highways maximum), maintaining the 100 MHz bandwidth. Modules may be connected via the P2 connector to create $8 \times 16,8 \times 24,8 \times 32,8 \times 40$, etc. configurations ( 4 signal highways maximum at P2 with stub disconnect relays), with some decrease in bandwidth. See Application Notes for details.


## SPECIFICATIONS

| Characteristic Impedance $50 \Omega$ | Relay Life Expectancy <br> Rated Load Operations: $>3 \times 10^{8}$ Dry <br> Circuit Operations: >1 $\times 10^{8}$ |
| :---: | :---: |
| Bandwidth |  |
| 100 MHz | BITE |
| Isolation <br> $>40 \mathrm{db}$ @ 100 MHz <br> $>60 \mathrm{db}$ @ 10 MHz | Read-back capability of all relay driver states provides system check of entire board, except for relay contacts. |
| $\begin{aligned} & \text { Insertion Loss } \\ & <1.0 \mathrm{db} @ 100 \mathrm{MHz} \\ & <0.2 \mathrm{db} @ 10 \mathrm{MHz} \end{aligned}$ | Configuration True $4 \times 8$ matrix with 4 highways also switched to P2 |
| Signal Connections BNC | Relay Contacts <br> Max. Current, Resistive Load: 0.25 A |
| Power +5 V @ 1.20 A typical +12 V @ . 12 A typical | Max. Voltage <br> DC Resistive Load: 50 V <br> AC Resistive Load: 120 V <br> Max. VA, Resistive Load: 4 VA Typical Operating Time (including bounce): 1 msec Max. Contact Resistance Initial: $0.2 \Omega$ End of Life: $1.0 \Omega$ |

Relay Life Expectancy
Rated Load Operations: $>3 \times 10^{8}$ Dry
Circuit Operations: $>1 \times 10^{8}$

## BITE

Read-back capability of all relay check of relay contacts.

## Configuration

 also switched to P2Relay Contacts
Max. Current, Resistive Load: 0.25 A

Max. Voltage
DC Resistive Load: 50 V
AC Resistive Load: 120 V Max. VA, Resistive Load: 4 VA Typical Operating Time (including bounce): 1 msec

Initial: $0.2 \Omega$
End of Life: $1.0 \Omega$

## VMEbus Compliance

Complies with ANSI/IEEE Std. 1014-1987
A32/A24/A16:D16 DTB Slave
No SYSFAIL
No Interrupts
IACKIN tied to IACKOUT
BRX tied to BGX
Form Factor: Size B

## Applications

Switching matrix for ATE
Signal switching for data acquisition
Signal switching for simulation
Systems signal control in a lab or development environment

## Ordering Information

Part Number: 11026000-001
Application Notes: 11026005

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