

Multi-Purpose Switch Card

- ◆ **Five Switch Configurations in a C-size, Single-Slot, VXIbus Module**
- ◆ **48 SPST, 50MHz, 2A General Purpose Relays**
- ◆ **6 (1x2), 50MHz, 2A, 1-wire Multiplexers**
- ◆ **3 (1x4), 40MHz, 2A, 1-wire Multiplexers**
- ◆ **5 (2x8), 40MHz, 2A, 1-wire Matrices**
- ◆ **5 DPST, 10A Power Relays**

Racal Instruments 1260-39 is a high-density, multi-purpose, switch module. The combination of relay, multiplexer, and matrix switch functions, in addition to multiple user-defined configurations, offers a single-module solution for low-to-medium switch count applications.

The SPST relays provide the necessary bandwidth and current/voltage switch capability to make it the ideal general-purpose switch. Each channel is software configurable to operate as SPST, 2PST, 3PST, etc., without the use of hardware jumpers. The 1x2 and 1x4 multiplexers can be externally configured to provide up to six 1x4s or two 1x12s. Each matrix directs two inputs to any of eight outputs. All switches are electromechanical relays; therefore, the inputs and outputs are interchangeable.

The Option 01T interface controls the 1260-39, using both register-based and message-based operation. Refer to the applicable Option 01T data sheet for specifications and product features such as include, exclude, and scan lists, relay coil-current monitoring, and user-defined path names and reset states.

The Racal Instruments' Adapt-a-Switch® Series includes VXIplug&play support for WIN95/NT frameworks, including drivers for LabWindows/CVI and LabVIEW.

1260-39 PRODUCT SPECIFICATIONS

INPUT

(SPST, Multiplexers & Matrices)

Maximum Switching Voltage

250VAC, 220VDC

Maximum Switching Current

2AAC, 2ADC

Maximum Switching Power

125VA, 60W

DC PERFORMANCE

(SPST, Multiplexers & Matrices)

Path Resistance

< 0.5 Ω

Insulation Resistance

10⁹ Ω

Thermal EMF

< 20 μV

INPUT (DPST)

Maximum Switching Voltage

220VAC, 220VDC

Maximum Switching Current

10AAC, 10ADC

Maximum Switching Power

2000VA, 150W

DC PERFORMANCE (DPST)

Path Resistance

< 0.1 Ω

Insulation Resistance

10⁹ Ω

Thermal EMF

< 20μV

AC PERFORMANCE (INTO 50Ω)

(SPST, Multiplexers & Matrices)

Bandwidth (-3db)

SPST, 1x2: > 50MHz

1x4, 2x8: > 40MHz

Insertion Loss (dB)

| | | |
|-------------|--------------|--------------|
| <u>1MHz</u> | <u>10MHz</u> | <u>30MHz</u> |
| < 0.2 | < 0.3 | < 0.5 |

Isolation

> 45dB to 10MHz

Crosstalk (dB)

| | | |
|-------------|--------------|--------------|
| <u>1MHz</u> | <u>10MHz</u> | <u>30MHz</u> |
| < -70 | < -50 | < -20 |

Capacitance

Closed Channel Hi-Lo: < 5pf

Open Channel Hi-Lo: < 50pf

VXIBUS INTERFACE DATA

Cooling Requirements (w/o Opt 01T)

Airflow: 2.0 liters/sec

Backpressure: 0.10mm H₂O

Cooling Requirements (with Opt 01T)

Airflow: 2.5 liters/sec

Backpressure: 0.15mm H₂O

Peak and Dynamic Current

| | | | |
|-----------------------|-------------|------------|------------------------|
| | <u>+24V</u> | <u>+5V</u> | <u>+5V (w/Opt 01T)</u> |
| <i>I_{PM}</i> | 6mA* | 400mA | 2.4A |
| <i>I_{DM}</i> | 0mA | 75mA | 575mA |

* per energized relay

ENVIRONMENTAL DATA

Temperature

Operating: 0° C to +55° C

Storage: -40° C to +71° C

Relative Humidity (non-condensing)

11° C-30° C: 95% ± 5%

31° C-40° C: 75% ± 5%

41° C-55° C: 45% ± 5%

Altitude

Operating: 10,000 ft.

Storage: 15,000 ft.

Shock

30g, 11ms, 1/2 sine wave

Vibration (non-operating)

0.013" P-P, 5-55Hz

Bench Handling

4-inch drop at 45°

EMC

Emissions

EN55011A with limits in accordance with EN50081-1

Immunity

IEC801-2, 3, 4 with limits in accordance with EN50082-1

Safety

EN61010-1

RELIABILITY

Switching Time

<10ms (includes settling time)

Rated Switch Operations

Mechanical: 100,000,000 operations

Electrical: 100,000 operation at full rated load

MTBF

243,515 hrs. (MIL-STD-217E)

MECHANICAL


Weight

w/o Option- 01T: 3.2lbs. (1.45kg)

with Option-01T: 3.5lbs. (1.60kg)

Dimensions

C-size, Single-slot VXIbus Module

 The CE Mark indicates that the product has completed and passed rigorous testing in the area of RF Emissions, Immunity to Electromagnetic Disturbances and complies with European electrical safety standards.

ORDERING INFORMATION

MODEL/DESCRIPTION

Racal Instruments 1260-39, Multi-Purpose Switch Card

Option 01, Smart Module (Installed)

Option 01T Smart Module (Installed)

*One Option 01/01T must be ordered with switch card(s). Please specify the card on which Option 01/01T will be installed

PART NUMBER

407505

Opt-401901-005

Opt-407531-001

The EADS North America Defense Test and Services policy is one of continuous development, consequently the equipment may vary in detail from the description and specification in this publication.



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