



## High-Current, Low Path Resistance Power Switch Card 1260-23

- ◆ **1 Channel of SPDT, 2 Channels of DPDT, 5 Channels of SP4T, High-Current Switching**
- ◆ **Switching for Power Supplies and Current Sources**
- ◆ **Switches up to 25A, AC or DC**
- ◆ **Very Low Path Resistance, less than 20 mΩ**

Racal Instruments 1260-23 is a 1-channel of SPDT, 2 Channels of DPDT, and 5 Channels of SP4T, high-current switch module.

It was designed for switching and routing high-current, high power sources such as AC and DC power supplies in automated test systems. The 1260-23 switches currents up to 25A, AC or DC, and voltages up to 32 VDC or 130 VAC.

The 1260-23 uses a Military quality hermetically sealed relay to provide the ultimate power switching solution both in terms of performance and reliability. These relays are less susceptible to contact contamination hence; they maintain low contact resistance over a much longer lifetime.

To reduce voltage loss and heating effects, the module was designed to have very low series path resistance. The design uses low resistance connector pins, low resistance relays and heavy gauge wire.

The message-based and register-based Option 01T interface controls the 1260-23. Refer to the 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.

An IVI-COM driver is also available for this module.

# 1260-23 PRODUCT SPECIFICATIONS

## INPUT PERFORMANCE

### Maximum Switching Voltage

130 VAC, 32 VDC

### Maximum Switching Current

25 AAC, 25 ADC

### Maximum Switching Power

2,875 VA, 700 W

## DC PERFORMANCE

### Path Resistance

<20 m $\Omega$

### Insulation Resistance

>10<sup>9</sup>  $\Omega$

## AC PERFORMANCE (into 50 Ohm)

### Bandwidth (-3 db)

>300 kHz

### Isolation

DC to 100 kHz: >60 dB

100 kHz to 300 kHz: >50 dB

### Crosstalk (dB)

DC to 100 kHz: <-60 dB

100 kHz to 300 kHz: <-50 dB

### Capacitance

Channel-Chassis: < 40 pF

Open Channel: < 40 pF

## VXIBUS INTERFACE DATA

### Cooling Requirements (w/o Option 01T)

Airflow: 4.25 liters/sec

Backpressure: 0.394 mm H<sub>2</sub>O

### Maximum Overall Power Dissipation

80 W

## Peak Current at 47.1 Watts

+5 VDC at 1.81 A

+5 VDC at 2.71 A with Option-01T

+12 VDC at 150 mA per energized relay  
(3.0 A max)

## ENVIRONMENTAL DATA

### Temperature

Operating: 0° C to +55° C

Non-operating: -40° C to +75° C

### Humidity (non-condensing)

95 % at <30° C

### Altitude

Operating: 10,000 ft.\*

Non-operating: 15,000 ft.

### Shock

30 g, 11 ms, 1/2 sine wave

### Vibration (non-operating)

0.013" pk-pk, 5-55 Hz

### Bench Handling

4-inch drop at 45°

## EMC

### Emissions\*\*

EN55011A with limits in accordance with  
EN50081-1

### Immunity\*\*

IEC901-2,3,4 with limits in accordance  
with EN50082-1

## SAFETY\*\*

EN61010-1

Impulse Withstand 1000 V

## RELIABILITY

### Switching Time

<25 ms

### Rated Switch Operations

Mechanical: 10,000,000 operations

Electrical: 10,000 operations at full rated  
load

### MTBF (MIL-HDBK-217-FN2)

With relays: 383,962 hrs (25° C)

With relays: 352,367 hrs (30° C)

(50% rated load, 0.1 cycle / hour)

## MECHANICAL

### Weight

W/O Option-01T: 4.40 lbs. (2.00 kg)

With Option-01T: 4.71 lbs. (2.14 kg)

### Dimensions

C-size, single-slot VXIbus module

### Front Panel I/O Interface Connector

3 16-pin Positronic connectors

\* Operation at 15,000 feet requires  
derating of maximum overall power  
dissipation to 65 W.

\*\* Certification Pending

## ORDERING INFORMATION

### MODEL/DESCRIPTION

Racal Instruments 1260-23 Switch Module, 25A Low Path Resistance

Racal Instruments Option 01T Smart Card Module (installed)

Racal Instruments Option 01T Smart Card Module (spare)

Connector Mating Kit contains:

3 16-pin mating connector shells

54 female connector pins

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

### PART NUMBER

408005

OPT-405108-001

407531-001

407917

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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