



High-Current, Low Path Resistance Power Switch Card 1260-21

- ◆ **12 Channels of SPDT High-Current Switching**
- ◆ **Switching for Power Supplies and Current Sources**
- ◆ **Switches up to 10 A, AC or DC**
- ◆ **Very Low Path Resistance, Less Than 10 mΩ**

Racal Instruments 1260-21 is a 12-channel, SPDT, 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 1260-21 switches currents up to 10 A, AC or DC, and voltages up to 32 VDC or 130 VAC.

The 1260-21 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 1260-21. 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.

1260-21 PRODUCT SPECIFICATIONS

INPUT PERFORMANCE

Maximum Switching Voltage

130 VAC, 32 VDC

Maximum Switching Current

10 AAC, 10 ADC

Maximum Switching Power

1150 VA, 280 W

DC PERFORMANCE

Path Resistance

<20 mΩ

Insulation Resistance

>10⁹ Ω

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: 1.69 liters/sec

Backpressure: 0.113 mm H₂O

Maximum Overall Power Dissipation

80 W

Peak Current at 30.6 Watts

+5 VDC at 1.81 A

+5 VDC at 2.71 A with Option-01T

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

ENVIRONMENTAL DATA

Temperature Operating:

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: 497,941 hrs (25° C)

With relays: 463,745 hrs (30° C)

(50% rated load, 0.1 cycle / hour)

MECHANICAL

Weight

W/O Option 01T: 3.75 lbs. (1.70 kg)

With Option 01T: 4.06 lbs. (1.84 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 1260-21, 12 Channel, 10 A, SPDT Power Switch

Racal Instruments Option 01T*, Smart Card Module (installed)

Racal Instruments Option 01T, Smart Card Module (spare)

Connector Mating Kit

3 – 16-pin mating connector shells

53 female connecting 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

408004

OPT-405108-001

OPT-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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