

PXI/cPCI High-Density, 80-Channel, SPST Switching Module

- ◆ **Highest Channel Count of any 2 A PXI SPST Module**
- ◆ **Excellent Signal Integrity, Low Crosstalk, Isolation, and Insertion Loss**
- ◆ **Excellent AC Performance, 100 MHz Bandwidth (-3dB)**
- ◆ **Adapt-a-Switch™ High-Density SPST Switching Module on a Racal Instruments PXI Carrier**

The high 100 MHz bandwidth, low crosstalk, isolation, and insertion loss make the Racal Instruments 1260-1118 ideal to use with function/pulse generators, universal counter/timers, and oscilloscopes. The 80 SPST channels make the module ideal for general switching requirements such as ATE loads. The SPST architecture allows the user to interconnect the relays externally to create custom multiplexers and matrices.

Each channel can switch up to 2A, which is ideal for high current applications such as DC loads and AC line power control. The 250 VDC/250 VAC switching voltage is 100% greater than typical 150 VDC/125 VAC ratings and is ideal for switching power supply applications or low-to-medium power applications.

Racal Instruments 1260-1118, a PXI SPST switch, is an innovative seamless integration of an off-the-shelf Adapt-a-Switch® SPST Switching Module on a Racal Instruments PXI carrier. The module installs in any PXI/cPCI chassis without the need for user supplied software or hardware to install or operate.

The 12.1 inch module length has market-leading performance that utilizes the available service area between the front of a chassis and a cable/connector receiver. Model 1260-1118 has 85% greater component density than a typical PXI switch module, providing higher switch performance. Its 80 channels provide 400% more channel capacity than the typical 16-channel PXI module.

The electromechanical relays are interchangeable inputs/outputs that are able to meet the most demanding of test requirements. Interface connectors are not provided with the 1260-1118 and must be ordered separately. A six-foot unterminated cable assembly is available as a standard option.

In keeping with cPCI requirements, the module can be ordered either as a 5 V or 3.3 V PXI bus voltage module.

The module includes drivers for LabWindows/CVI 5.1 and LabVIEW 7.0.

1260-1118 PRODUCT SPECIFICATIONS

INPUT

Maximum Switching Voltage

220 V DC or 250 V AC

Maximum Switching Current

2 A

Maximum Switching Power

60 W, 125 VA

DC PERFORMANCE

Path Resistance

<500 m Ω

Insulation Resistance

> 10⁹ Ω

Thermal EMF

< 10⁰ μ V

AC PERFORMANCE

Bandwidth (-3 dB)

100 MHz

Insertion Loss

100 kHz: <0.5 dB

1 MHz: < 1.0 Db

Isolation (50 Ω)

100 kHz: > 80 dB

1 MHz: > 40 dB

Crosstalk (50 Ω)

100 kHz: < 80 dB

1 MHz: < -40 dB

Capacitance

Channel-Chassis: <200 pF

Open Channel: < 20 pF

INTERFACE DATA

Cooling

Airflow: 3.0 l/s

Back Pressure: 0.7 mm H₂O

Power Requirements

+5 VDC at 150 mA plus 30 mA per energized relay (730 mA max.)

ENVIRONMENTAL DATA

(All Environmental Conditions Tested to MIL-PRF-28800F, Class 3)

Temperature

Operating: 0° C to 55° C

Storage: -40° C to 71° C

Relative Humidity

5% to 95% RH non-condensing <30° C

5% to 75% RH above 30° C

5% to 45% RH above 40° C

Altitude

Operating: 10,000 ft.

Non-Operating: 15,000 ft.

Shock

30 g peak, ½ sine, 11 ms pulse

Random Vibration

Operating: 5 to 500 Hz, 0.3 Grms

Non-Operating: 5 to 500 Hz, 2.1 Grms

Bench Handling

4-inch drop at 45°

EMC

Emissions/Immunity

EN61326: 1997 + A1: 1998, Class A

Safety

EN61010-1: 1993 + A2: 1995

RELIABILITY

Switching Time

< 3 ms (includes settling time)

Rated Switch Operation

Mechanical: 1x10⁸

Electrical: 1x10⁶ @ 50 V, 0.1 A

1x10⁶ @ 10 V, 10 mA

MTBF

783,668 hrs. (MIL-STD-217E) relays not included

MTTR

< 5 minutes

MECHANICAL

Weight

44.8 oz. (1.27 kg)

Dimensions

4.44" H x 0.85"

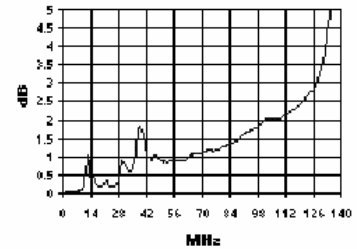
Front Panel I/O Interface Connector

1260-1118: 160-Pin DIN Connector

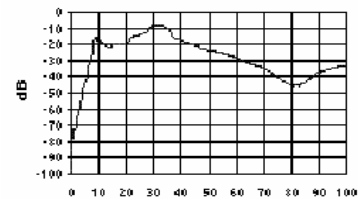
1260-1118A: 64-Pin DIN Connector

TYPICAL CHANNEL

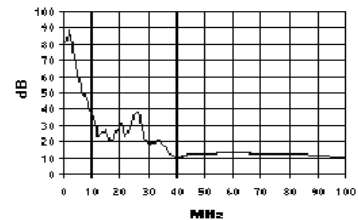
Insertion Loss



Crosstalk



Isolation



CE 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 PXI AaS, High-Density 80 Channel SPST, 2A, 3.3V Bus Voltage

Racal Instruments PXI to Aas Carrier/Enclosure 3.3 V Kit

Racal Instruments PXI to Aas Carrier/Enclosure 5 V Kit

Racal Instruments 160-pin Cable Assembly, 6ft., 24 AWG

Racal Instruments 160-pin Connector Kit w/Strain Relief

64-pin DIN Connector, EDC (1A)*

*Use of this Connector May Limit Maximum Current to 1 A

PART NUMBER

1260-1118-001

408000-001

408000-002

407408-001

407664

602004

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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