



80/24 Channel SPST Plug-in Switch

- ◆ **80 or 24 Channels of SPST Switching**
- ◆ **100 MHz Bandwidth (-3dB)**
- ◆ **118A Version Accommodates a Low-Cost Ribbon Cable Interface**
- ◆ **Switches Up to 2 A**
- ◆ **Easily Configured to Meet User-defined Network Requirements**
- ◆ **Standard Adapt-a-Switch® Plug-in Design for Ease of Replacement**

Racal Instrument™s 1260-118/118A is an 80/24 channel. SPST (Form A) plug-in relay card for the Adapt-a-Switch® platform. It quickly and easily plugs into the front of an Adapt-a-Switch Carrier, Racal Instruments 1260-100 or 1260-101, or Racal Instruments 1256 GPIB/Ethernet Switching System

Each channel to the 1260-118/118A can switch up to 2A. Its bandwidth and current/voltage switching capability make it the ideal general-purpose switch card. In addition, the SPST architecture allows the user to interconnect the relays externally to create custom multiplexers and matrices.

Since all relays on the 1260-118/118A are electromechanical, all inputs/outputs are interchangeable to meet the test requirements. Interface connectors are not provided with the 1260-118 and must be ordered separately. However, a six-foot unterminated cable assembly is available as a standard option. For the 1260-118A, 2 A DIN crimp-style connectors or low-cost 1 A IDC ribbon cable connectors are also available as options.

Racal Instruments Option-01T interface (for VXI) controls the 1260-118/1260-118A using either register-based or message-based commands. Racal Instruments 1256 (for GPIB/Ethernet) supports message-based operations.

Refer to Racal Instruments Option-01T/1256 literature for more information about product specifications and features such as include, exclude, scan lists, user-defined path names, and reset states.

Racal Instruments Adapt-a-Switch series includes VXI *plug&play* support of WIN98/NT/2000/XP frameworks, including drivers for LabWindows/CVI and LabVIEW.

1260-118/118A PRODUCT SPECIFICATIONS

INPUT

Maximum Switching Voltage

300 VDC or 300 VAC

Maximum Switching Current

2 ADC or 2A AC 1 ADC/AC with IDC mating connector

Maximum Switching Power

60 W, 125 VA

DC PERFORMANCE

Path Resistance

< 500 $\mu\Omega$

Insulation Resistance

> 10⁹ Ω

Thermal EMF

< 10 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

See 1260-100 cooling data

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 \leq 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, half sine, 11 ms pulse

Random Vibration

Operating: 5-500 Hz, 0.3 Grms

Non-Operating: 5-500 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: 1 x 10⁸

Electrical: 1 x 10⁶ @ 50 V, 0.1 A

1 x 10⁶ @ 10 V, 10 mA

Note: Each 1260-118/118A requires one mating connector.

MTBF

\geq 783,668 hrs. (MIL-STD-217E)

MTTR

< 5 minutes

MECHANICAL

Weight

12.8 oz. (0.36 kg)

Dimensions

4.5" H x 0.75" W x 9.5" D

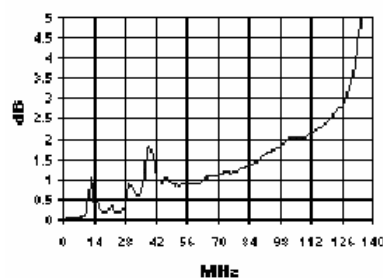
Front Panel I/O Interface Connector

1260-118: 160 Pin DIN Connector

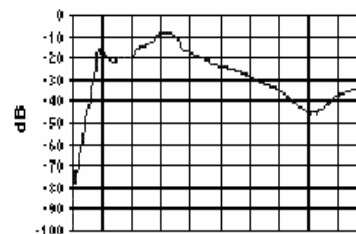
1260-118A: 64 Pin DIN Connector

TYPICAL CHANNEL

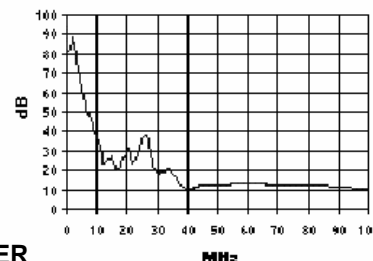
Insertion Loss



Crosstalk



Isolation



ORDERING INFORMATION

MODEL/DESCRIPTION

Racal Instruments 1260-118, Adapt-a-Switch Module, 80 Channel SPST, 2A

Racal Instruments 1260-118 160-pin Cable Assembly, 6ft. 24 AWG

Racal Instruments 1260-118 160-pin Mating Connector with Pins

Racal Instruments 1260-118 Connector Bracket, Strain Relief

Racal Instruments 1260-118A, Adapt-a-Switch Module, 24 Channel SPST, 2A

Racal Instruments 1260-118A 64-pin DIN Connector, EDC (1A)*

Racal Instruments 1260-118A 64-pin DIN Crimp Body (2A)

Racal Instruments 1260-118A 64-pin DIN Crimp Pin (2A)

PART NUMBER

407632

407408-001

407664

456673

407632-001

602004

602159-064

602159-900

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.

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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