

### 80/24 Channel SPST Plug-in Switch Model 1260-118/118A



- ◆ 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

The 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, model 1260-100 or 1260-101, or the Model 1256 GPIB/Ethernet Switching System. Please refer to the corresponding literature for specifications and product features.

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.

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

Refer to the 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.

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

# Model 1260-118/118A 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**  
> 10<sup>9</sup>  $\Omega$

**Thermal EMF**  
< 10  $\mu$ V

## AC PERFORMANCE

**Bandwidth** (-3 dB)  
100 MHz

**Insertion Loss**  
100 kHz: < 0.5 dB  
1 MHz: < 1.0 dB

**Isolation** (50 $\Omega$ )  
100 kHz: > 80 dB  
1 MHz: > 40 dB

**Crosstalk** (50  $\Omega$ )  
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 10<sup>8</sup>  
Electrical: 1 x 10<sup>6</sup> @ 50 V, 0.1 A  
1 x 10<sup>6</sup> @ 10 V, 10 mA

## MTBF

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

## MTTR

< 5 minutes

## MECHANICAL

**Weight**  
12,8 oz. (0.36 kg)

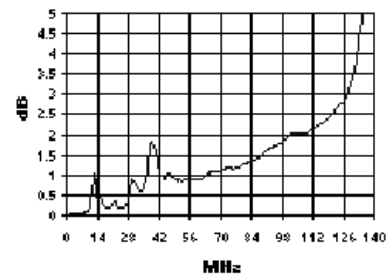
**Dimensions**  
4.5" H x 0.75" W x 9.5" D

## Front Panel I/O Interface Connector

1260-118: 160 Pin DIN Connector  
1260-118A: 64 Pin DIN Connector

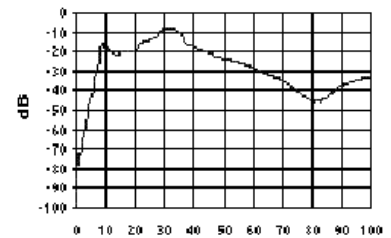
## TYPICAL CHANNEL

Insertion Loss



MHz

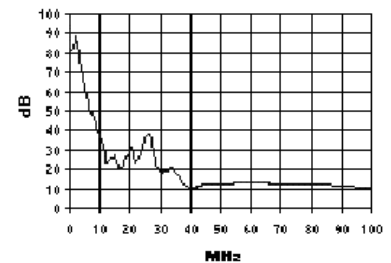
Crosstalk



dB

MHz

Isolation



dB

MHz

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

**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	Part Number
1260-118	Adapt-a-Switch Module, 80 Channel SPST, 2A	407632
407408-001	1260-118 160-pin Cable Assembly, 6ft. 24 AWG	407408-001
407664	1260-118 160-pin Mating Connector with Pins	407664
456673	1260-118 Connector Bracket, Strain Relief	456673
1260-118A	Adapt-a-Switch Module, 24 Channel SPST, 2A	407632-001
602004	1260-118A 64-pin DIN Connector, EDC (1A)*	602004
602159-064	1260-118A 64-pin DIN Crimp Body (2A)	602159-064
602159-900	1260-118A 64-pin DIN Crimp Pin (2A)	602159-900

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

The Racal 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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