

Key Features

- 80 or 24 channels of SPST switching
- 100 MHz bandwidth (-3 dB)
- 1260-118A version accommodates a low-cost ribbon cable interface
- Switches up to 2 A
- Can be used in VXI, GPIB/RS-232, and LXI switching systems
- Easily configured to meet userdefined network requirements
- Standard Adapt-a-Switch™ plug-in design for ease of replacement

Racal Instruments™ **1260-118/118A** 80/24 Channel SPST Switch Plug-in

The Racal Instruments[™] 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 Racal Instruments[™] 1260-100 and 1260-101 Adapt-a-Switch[™] carriers or Racal Instruments[™] 1256 GPIB/Ethernet and 1256L (LXI Core 2011 Compliant) switching mainframes.

Product Information

Each channel of the 1260-118/118A can switch up to 2 A. 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 Racal Instruments™ Option-01T interface (for VXI) controls the 1260-118/118A using either register-based or messagebased commands. The Racal Instruments™ 1256 (for GPIB/Ethernet) and 1256L (for LXI) support messagebased 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 Racal Instruments[™] Adapt-a-Switch[™] series includes VXI*plug&play* support for frameworks based on Microsoft Win32[®] application programming interface, including drivers for LabWindows[™]/CVI and LabVIEW[™].

| | Applet Viewer: MainForm.class | × |
|---|---|---|
| | pols Help | |
| | Relay Control | |
| | COM 00 -0 0 NO 00 COM 20 -0 NO 20 COM 40 -0 0 NO 40 COM 60 -0 0 NO 60 | |
| | COM 01-0/0-NO 01 COM 21-0/0-NO 21 COM 41-0/0-NO 41 COM 61-0/0-NO 61 | |
| | COM 02 -0 / 0- NO 02 COM 22 -0 / 0- NO 22 COM 42 -0 / 0- NO 42 COM 62 -0 / 0- NO 62 | |
| | COM 03 -0 / 0- NO 03 COM 23 -0 / 0- NO 23 COM 43 -0 / 0- NO 43 COM 63 -0 / 0- NO 63 | |
| | COM 04-0/0-NO 04 COM 24-0/0-NO 24 COM 44-0/0-NO 44 COM 64-0/0-NO 64 | |
| | COM 05-0/ 0-NO 05 COM 25-0/ 0-NO 25 COM 45-0/ 0-NO 45 COM 85-0/ 0-NO 85 | |
| | COM 08-0/ 0-NO 08 COM 28-0/ 0-NO 28 COM 48-0/ 0-NO 48 COM 88-0/ 0-NO 88 | |
| | COM 07-0/0-NO 07 COM 27-0/0-NO 27 COM 47-0/0-NO 47 COM 87-0/0-NO 67 | |
| | COM 08-0/0-NO 08 COM 28-0/0-NO 28 COM 48-0/0-NO 48 COM 68-0/0-NO 68 | |
| | COM 09-0/ 0- NO 09 COM 29-0/ 0- NO 29 COM 49-0/ 0- NO 49 COM 69-0/ 0- NO 69 | |
| | COM 10 -0 0- NO 10 COM 30 -0 0- NO 30 COM 50 -0 0- NO 50 COM 70 -0 0- NO 70 | |
| | COM 11-0/0-NO 11 COM 31-0/0-NO 31 COM 51-0/0-NO 51 COM 71-0/0-NO 71 | |
| | COM 12-0/0-NO 12 COM 32-0/0-NO 32 COM 52-0/0-NO 52 COM 72-0/0-NO 72 | |
| | COM 13-0/0-NO 13 COM 33-0/0-NO 33 COM 53-0/0-NO 53 COM 73-0/0-NO 73 | |
| | COM 14-0/0-NO 14 COM 34-0/0-NO 34 COM 54-0/0-NO 54 COM 74-0/0-NO 74 | |
| | COM 15-0/0-NO 15 COM 35-0/0-NO 35 COM 55-0/0-NO 55 COM 75-0/0-NO 75 | |
| | COM 18-0/0-NO 18 COM 38-0/0-NO 38 COM 58-0/0-NO 58 COM 78-0/0-NO 78 | |
| | COM 17-0/0-NO 17 COM 37-0/0-NO 37 COM 57-0/0-NO 57 COM 77-0/0-NO 77 | |
| | COM 18 -0 0-NO 18 COM 38 -0 0-NO 38 COM 58 -0 0-NO 58 COM 78 -0 0-NO 78 | |
| L | COM 19-0/ 0-NO 19 COM 39-0/ 0-NO 39 COM 59-0/ 0-NO 59 COM 79-0/ 0-NO 79 | |
| | | - |
| | | |
| p | oplet started. | |

1260-118/118A LXI Web Control



Specifications

Note: The Astronics Test Systems policy is one of continuous development and improvement. Consequently, the equipment may vary in detail from the description and specifications in this publication.

Input

Maximum Switching Voltage

• 300 VDC or 300 VAC

Maximum Switching Current

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

Maximum Switching Power

• 60 W, 125 VA

DC Performance

Path Resistance

< >500 mΩ (Initial)

Insulation Resistance

• >10⁹ Ω

Thermal EMF

• <10 µV

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

Power Requirements

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

Front Panel I/O Interface Connector

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

Environmental

(All environmental conditions designed to meet 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 to 500 Hz, 0.3 G_{ms}
- Non-Operating: 5 to 500 Hz, 2.1 G_{ms}

Bench Handling

4-inch drop at 45°

Emissions/Immunity

• EN61326: 1997 + A1: 1998, Class A

Safety

• EN61010-1; 1993 + A2: 1995

Switching Time

• <3 ms (includes settling time)</p>

Rated Switch Operation

- Mechanical: 1 x 10⁸
- Electrical: 1 x 10⁶ @ 50 V, 0.1 A; 1 x 10⁶ @ 10 V, 10 mA

MTBF (MIL-STD-217E)

• ≥783,668 hrs

MTTR

• <5 min

Software

Drivers

 LabVIEW[™], LabWindows[™]/CVI, VXI*plug&play* support for frameworks based on Microsoft Win32[®] application programming interface

Web Controls

 When used with a Racal Instruments™ 1256L

Mechanical

Weight

• 12,8 oz (0.36 kg)

Dimensions

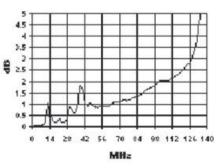
• 4.5" H x 0.75" W x 9.5" D

Cooling

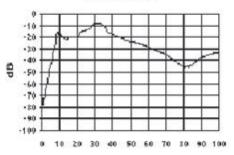
See 1260-100 cooling data

Typical Channel

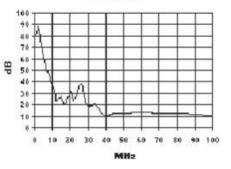
Insertion Loss



Crosstalk



Isolation



The CE Mark indicates that the product has completed and passed rigorous testing in the area of RF Emissions and Immunity to Electromagnetic Disturbances, and compiles with European electrical safety standards.

Ordering Information

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

If the 1260-118/118A is used in a VXI mainframe other than a 1256 or 1256L, a Racal Instruments™ Option 01T Smart Control Module must be installed in the mainframe's leftmost slot.

407632 : Racal Instruments ™ 1260-118

Adapt-a-Switch™ Module, 80 Channel SPST, 2 A

407632-001 : Racal Instruments™ 1260-118A

Adapt-a-Switch™ Module, 24 Channel SPST, 2 A

Accessories:

OPT-405108-001 : Racal Instruments™ Option 01T Smart Card Module installed (manual must be ordered separately; see below)

407531-001 : Racal Instruments™ Option 01T Smart Card Module (not installed) with manual

407408-001 : 160-Pin Cable Assembly, 6 ft, 24 AWG

407409-001 : 160-Pin Cable Assembly, 12 ft, 24 AWG

407664 : 160-Pin Connector Kit with Strain Relief

407809-001 : 160-Pin Cable Assembly, 6 ft, 24 AWG

602258-116 : 160-Pin Backshell

602258-900 : Extra 24 Gauge contact

990898 : Insertion Tool

990899 : Extraction Tool

991020 : Crimp Tool



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