



High-Frequency Coaxial Plug-In Switch Card

- ◆ **1260-152: 1.2 GHz Bandwidth**
- ◆ **1260-172: > 900 MHz Bandwidth**
- ◆ **50 Ω and 75 Ω Versions**
- ◆ **Coaxial Interface**
- ◆ **17 Channels of SPDT Switches**
- ◆ **Ideal for High-Frequency RF Switching**

Racal Instruments 1260-152/172 is a high-frequency coaxial switch card for use in either the Adapt-a-Switch™ 1260-100, VXI carrier, or the 1256, GPIB/RS-232 Switching Mainframe. This switch card is ideal for high-frequency RF switching, as required in the Telecom and Communications markets.

The 1260-152/172 maintains excellent signal integrity as a result of the high-frequency RF relays and the matching coaxial interface. The 1260-152 has a -3 dB bandwidth of 1.2 GHz at 50 Ohms. The 1260-172 has a -3 dB bandwidth of 900 MHz at 75 Ohms. Both are comprised of 17 channels of SPDT switches and are capable of switching up to 30 V.

SPDT switches may be used independently or cascaded externally to make a multi-channel RF multiplexer. For example, 3 SPDTs can be cascaded to configure a 1X4 RF multiplexer.

All relays on the 1260-152/172 are electromechanical, making all inputs/outputs interchangeable to meet test requirements. Coaxial connector housings (shells) are included with each switch card; however, the connector pins must be purchased separately. Cables supplied with the coaxial pins at both ends (tested up to 1 GHz) are optional and may be ordered in 2, 6, or 12-foot lengths. By cutting the cable in half, the user can support 2 channels per cable and alleviate the need for a special crimp tool. See ordering information on the second page of this data sheet.

When used with the Adapt-a-Switch™ carrier, the 1260-152/172 requires an Option 01T to communicate with the switch cards *and* to provide both message-based operation for ease of use and register-based operation for maximum speed. When used with the 1256 Switching Mainframe, no controller is required, and message-based operation is available.

The Adapt-a-Switch™ line includes drivers for LabWindows/CVI and LabView for VXI applications. It also includes VXIplug&play compliant support for WIN95/98/NT/2000 platforms.

1260-152/172 PRODUCT SPECIFICATIONS

INPUT

Maximum Switching Voltage

AC:30 VAC peak
DC: 30 VDC

Switching Current

AC:0.50 AAC peak
DC: 0.50 A

Switching Power

AC:10 VA
DC:10 W

Power Requirements

+5 VDC 150 mA + 40 mA per energized relay (850 mA Max.)

DC PERFORMANCE

Path Resistance

< 1 Ω

Insulation Resistance

> 10⁹ Ω

Thermal EMF

≤ 10 μ V


AC PERFORMANCE

Characteristic Impedance

1260-152: 50 Ω
1260-172: 75 Ω

Bandwidth (-3 dB)

1260-152: ≥ 1.2 GHz
1260-172: ≥ 900 MHz

 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.

Insertion Loss

1260-152: ≤ 0.5 dB to 300 MHz
≤ 0.75 dB to 600 MHz
≤ 0.9 dB to 900 MHz

1260-172: ≤ 0.5 dB to 300 MHz
≤ 1.5 dB to 600 MHz

Isolation

≥ 85 dB to 100 MHz
≥ 55 dB to 600 MHz
≥ 45 dB to 900 MHz

VSWR

1260-152: ≤ 1.1:1 to 100 MHz
≤ 1.6:1 to 500 MHz
≤ 2.0:1 to 900 MHz
1260-172: ≤ 1.5:1 to 100 MHz
≤ 2.1:1 to 500 MHz

Crosstalk

-80 dB to 100 MHz
-55 dB to 600 MHz
-50 dB to 900 MHz

Relay Settling Time

< 10 ms

ENVIRONMENTAL DATA

Cooling

See 1260-100 cooling data

Temperature

Operating: 0° C to +55° C
Non-operating: -40° C to +75° C

Relative Humidity

85% ± 5% non-condensing at < 30° C

Altitude

Operating: 10,000 ft.
Non-operating: 15,000 ft.

EMC

Emissions

EN61326, Class A, Table 3

Immunity

EN61326, Class A, Table 1

Safety

CE, EN61010-1

RELIABILITY

Shock

30 g, 11 ms, ½ sine wave

Vibration

0.013 in. (pk-pk), 5-55 Hz

MTBF

> 300,000 hrs. (MIL-HDBK-217E)

MECHANICAL

Bench Handling

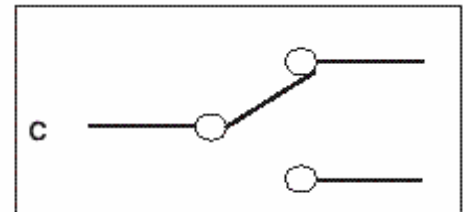
4-inch drop at 45°

Weight

8 oz. (0.23 kg)

Dimensions

4.5" H X 0.75" W X 9.5" D



Model 1260-152/172
17 independent relays; 1 channel shown.

ORDERING INFORMATION

MODEL/DESCRIPTION

Racal Instruments 1260-152 High-Frequency Coaxial Switch Module, 50 Ω
Racal Instruments 1260-172, High-Frequency Coaxial Switch Module, 75 Ω
26-Pin Housing
HV Coaxial Mating Pin
Single Coaxial Cable w/HV pins, 50 Ω , 2 ft
Single Coaxial Cable w/HV pins, 50 Ω , 6 ft.
Single Coaxial Cable w/HV pins, 50 Ω , 12 ft
Single Coaxial Cable w/HV pins, 75 Ω , 2 ft.
Single Coaxial Cable w/HV pins, 75 Ω , 6 ft
Single Coaxial Cable w/HV pins, 75 Ω , 12 ft.

PART NUMBER

407742-003
407742-004
602221-126
407746-001
407746-003
407746-006
407747-001
407747-003
407747-006

Note: The 1260-152/172 is supplied with one set of mating backshells. Coaxial pins or cables must be ordered separately.

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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