



Racal Instruments™

1260-112

High-Density DPDT Switch Plug-in

The Racal Instruments™ 1260-112 is a high-density, 20-channel double-pole, double-throw (DPDT) switch plug-in designed for use in a Racal Instruments™ 1260-100 or 1260-101 VXI Adapt-a-Switch™ carriers and the Racal Instruments™ 1256 GPIB/Ethernet switching mainframe. It quickly and easily plugs into the front of both Adapt-a-Switch™ carriers or the 1256 mainframe.

Key Features

- Ideal for switching digital communication signals
- Ideal for switching differential analog communication signals
- 120 MHz bandwidth
- Ideal for general-purpose high-performance signal routing
- High density
- Standard Adapt-a-Switch™ plug-in design for ease of replacement

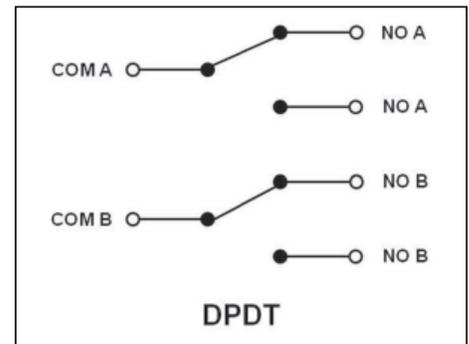
Product Information

This DPDT switch plug-in is designed to switch high-speed differential signals. Its architecture is ideal for switching bi-directional buses and for configuring flexible, interchangeable solutions to varying test requirements.

The 1260-112 provides 20 DPDT relays that can be actuated individually or in groups using the “Include” feature. This feature permits multi-line buses such as RS-232 to be routed with a single command. This simplifies use of the switching system, reducing overall test development time and cost.

The Racal Instruments™ Option 01T interface (for VXI) controls the 1260-112 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 for frameworks based on Microsoft Win32® application programming interface, including drivers for LabWindows™/CVI and LabVIEW™.



1260-112 Block Diagram

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 AAC

Maximum Switching Power

- 60 W, 125 VA

DC Performance

Path Resistance

- <500 mΩ

Insulation Resistance

- 10⁹ Ω

Thermal EMF

- <10 μV

AC Performance (Into 50 Ω)

Bandwidth (-3 dB)

- 120 MHz

Insertion Loss

- 10 MHz: <0.05 dB
- 10 MHz: <2.0 dB

Isolation

- 300 kHz: <70 dB
- 1 MHz: <65 dB
- 10 MHz: <50 dB

Crosstalk

- 300 kHz: <-75 dB
- 1 MHz: <-70 dB
- 1 MHz: <-45 dB

Capacitance

- Channel-to-Chassis: <100 pF
- Channel-to-Channel: <50 pF

Interface

Power Requirements

- +5 VDC at 150 mA plus 28 mA per energized relay (560 mA max.)

Environmental

(MIL-T-28800E, Type III, Class 5)

Temperature

- Operating: 0° C to 55° C
- Storage: -40° C to 75° C

Relative Humidity

- 85% ±5% non-condensing, ≤35° C

Altitude

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

Shock

- 30 g, 11 ms, ½ sine wave

Vibration

- 0.013 in: (pk-pk), 5 to 55 Hz

Bench Handling

- 4-inch drop at 45°

Emissions

- EN55-11A with limits in accordance with EN50081-1

Safety

- EN61010-1

Rated Switch Operations

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

MTBF

- >100,000 hrs

MTTR

- <5 min

Switching Time

- <3 ms (includes settling time)

Mechanical

Weight

- 9 oz (0.26 kg)

Dimensions

- 4.5" H x 0.75" W x 9.5" D

Cooling

- See 1260-100 cooling data



Ordering Information

Note: When the 1260-112 is used in a VXI mainframe other than a 1256, a Racal Instruments™ Option 01T Smart Control Module must be installed in the mainframe's left-most slot.

407696 : Racal Instruments™ 1260-112

Adapt-a-Switch™ plug-in, 20 channels of DPDT

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

407664 : 160-Pin Connector Kit with Strain Relief

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

407409-001 : 160-Pin Cable Assembly, 12 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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