

Racal Instruments™ 1260-131A/B

High-Density Multiplexer Plug-In



The Racal Instruments™ 1260-131A/B is a general-purpose, SP4T binary tree with a 200 MHz bandwidth (-3 dB). The 1-A “A” version is for lower density/cost.

Key Features

- Twenty-six SP4Ts
- 200 MHz bandwidth
- Switches up to 2 A
- Standard Adapt-a-Switch™ plug-in designed for ease of replacement
- Ideal for single-ended audio, video, telecom, or general-purpose switching

Product Information

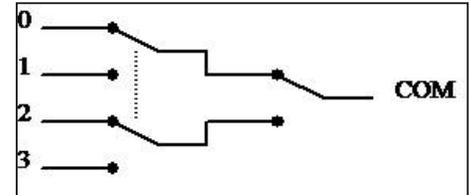
The 1260-131A/B has 10 channels of SP4T and uses a low cost IDC style DIN connector, so the interface cabling can be either crimp and poke or ribbon style. The 2-A “B” version is for higher density applications, and it has 26 channels of SP4T.

Designed for the Racal Instruments™ Adapt-a-Switch™ platform, this plug-in installs easily and directly from the front panel into the Adapt-a-Switch™ VXIbus carrier, the Racal Instruments™ 1260-100 or 1260-101 carriers, or the Racal Instruments™ 1256 GPIB/Ethernet Switching System.

When multiple 1260-131 units are used in the 1260-100, up to 156 SP4T channels are available, and when used in the 1256 switching system up to 208 SP4T channels are available. The 1260-131A/B is ideal for general purpose switching or can be mixed and matched with other cards in the 1260-1XX family to create application specific configurations.

The Racal Instruments™ Option-01T interface (for VXI) controls the 1260-131A/BA 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 lists, exclude lists, and scan lists as well as 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 for VXI applications.



1260-131A: 10 channels
1260-131B: 26 channels
1 channel shown

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

- 1260-131B: 2 ADC or 2 AAC
- 1260-131A : 1 ADC or 1 AAC

Maximum Switching Power

- 1260-131B: 60 W, 125 VA
- 1260-131A: 30 W, 125 VA

DC Performance

Initial Path Resistance

- $\leq 400 \text{ m}\Omega$

Thermal EMF

- $\leq 6 \mu\text{V}$

Insulation Resistance

- $\geq 10^9 \Omega$

AC Performance

Bandwidth (-3 dB, 50 Ω)

- $\geq 200 \text{ MHz}$

Insertion Loss (50 Ω)

- 1 MHz: $\leq 0.1 \text{ dB}$
- 10 MHz: $\leq 0.2 \text{ dB}$

Isolation (50 Ω)

- 1 MHz: $\geq 60 \text{ dB}$
- 10 MHz: $\geq 40 \text{ dB}$

Crosstalk (50 Ω)

- 1 MHz: $\leq -60 \text{ dB}$
- 10 MHz: $\leq -40 \text{ dB}$

Capacitance

- Channel-Ground: $\leq 60 \text{ pF}$
- Open Channel: $\leq 5 \text{ pF}$

Interface

Power Requirements

- +5 VDC at 150 mA plus 30 mA per energized relay (1.7 A max)

Front Panel I/O Interface Connector

- 1260-131B: 1-160 pin DIN
- 1260-131A: 1- 64 pin DIN

Environmental

Temperature

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

Relative Humidity

- $85\% \pm 5\%$ non-condensing, $\leq 30^\circ \text{ C}$

Altitude

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

Shock

- 30 g, 11 ms, 1/2 sine wave

Vibration

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

Bench Handling

- 4-inch drop at 45°

EMC

- EN61326:1997+A1:1998; Class A

Safety

- EN61010-1:1993+A2:1995

Switching Time

- $\leq 3 \text{ ms}$ (includes settling time)

Rated Switch Operations

- Mechanical: 1×10^8
- Electrical: $1 \times 10^6 @ 50 \text{ V}, 0.1 \text{ A};$
 $1 \times 10^6 @ 10 \text{ V}, 10 \text{ mA}$

MTBF (MIL-STD-217E, not including relays)

- 822,885 hrs

MTTR

- $\leq 5 \text{ min}$

Mechanical

Weight

- 1260-131B: 9 oz (0.26 kg)
- 1260-131A: 6 oz (0.17 kg)

Dimensions

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

Cooling

- See 1260-100 or 1256 Cooling data



Ordering Information

Note: When the 1260-131A/B 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.

407812-001 : Racal Instruments™ 1260-131A

Adapt-a-Switch™ Module, 10-1x4 One-wire Muxes, 1 A

407812-002 : Racal Instruments™ 1260-131B

Adapt-a-Switch™ Module, 26-1x4 One-wire Muxes, 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

407664 : 160-Pin Connector Kit with Strain Relief

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



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