

## High-Density Multiplexer Plug-In

## Twenty-Six SP4T's <br> 200 MHz Bandwidth <br> - Switches up to 2 A

- Standard Adapt-a-Switch ${ }^{\circledR}$ Plug-In Designed for Ease of Replacement

Ideal for Single-ended
Audio, Video, Telecom, or General-Purpose Switching

Racal Instruments $1260-131 \mathrm{~A} / \mathrm{B}$ is a general-purpose, SP4T binary tree with a 200 MHz bandwidth ( -3 dB ). The1-Amp " $A$ " version is for lower density/cost. It 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 Amp " $B$ " version is for higher density applications and it has 26 channels of SP4T.

Designed for the Adapt-a-Switch® platform, this plug-in installs easily and directly from the front panel into the Adapt-a-Switch® VXIbus Carrier, Racal Instruments 1260-100 or 1260-101, or Racal Instruments 1256 GPIB/Ethernet Switching System. Please refer to the corresponding literature for specifications and product features.

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.

Racal Instruments Option-01T interface (for VXI) controls the 1260131A/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, exclude scan lists, userdefined path names and reset states

Racal Instruments Adapt-a-Switch® series includes VXIplug\&play support of WIN98/NT/2000/XP frameworks, including drivers for LabWindows/CVI and LabVIEW for VXI applications.

## 1260-131A/B PRODUCT SPECIFICATIONS

## INPUT

Maximum Switching Voltage 300 VDC or 300 VAC
Maximum Switching Current
2 ADC or 2 AAC, 1260-131B
1 ADC or 1 AAC, 1260-131A
Maximum Switching Power 60 W, 125 VA, 1260-131B 30 W, 125 VA, 1260-131A

DC PERFORMANCE
Initial Path Resistance $\leq 400 \mathrm{~m} \Omega$
Thermal EMF
$\leq 6 \mu \mathrm{~V}$
Insulation Resistance $\geq 109 \Omega$

AC PERFORMANCE
Bandwidth ( $-3 \mathrm{~dB}, 50 \Omega$ )
$\geq 200 \mathrm{MHz}$
Insertion Loss ( $50 \Omega$ )
$1 \mathrm{MHz}: \leq 0.1 \mathrm{~dB}$
$10 \mathrm{MHz}: \leq 0.2 \mathrm{~dB}$
Isolation ( $50 \Omega$ )
$1 \mathrm{MHz}: \geq 60 \mathrm{~dB}$
$10 \mathrm{MHz}: \geq 40 \mathrm{~dB}$
Crosstalk ( $50 \Omega$ )
$1 \mathrm{MHz}: \leq-60 \mathrm{~dB}$
$10 \mathrm{MHz}: \leq-40 \mathrm{~dB}$

## Capacitance

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

## INTERFACE DATA

## Cooling

See 1260-100 or 1256 Cooling data

## Power Requirements

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

ENVIRONMENTAL DATA
Temperature
Operating: $0^{\circ} \mathrm{C}$ to $55^{\circ} \mathrm{C}$
Storage: $-40^{\circ} \mathrm{C}$ to $75^{\circ} \mathrm{C}$ :
Relative Humidity
$85 \% \pm 5 \%$ non-condensing, $\leq 30^{\circ} \mathrm{C}$

## Altitude

Operating: 10,000 ft.
Non-Operating: 15,000
Shock
$30 \mathrm{~g}, 11 \mathrm{~ms}, 1 / 2$ sine wave
Vibration
0.013 in.: pk-pk, $5-55 \mathrm{~Hz}$

Bench Handling
4-inch drop at $45^{\circ}$

## EMC

EN61326:1997+A1:1998; Class A

SAFETY
EN61010-1:1993+A2:1995

## RELIABILITY

## Switching Time

$\leq 3 \mathrm{~ms}$ (includes settling time)
Rated Switch Operations
Mechanical: $1 \times 10^{8}$
Electrical: $1 \times 10^{6} @ 50 \mathrm{~V}, 0.1 \mathrm{~A}$
$1 \times 10^{6} @ 10 \mathrm{~V}, 10 \mathrm{~mA}$
MTBF (not including relays)
822,885 hours (MIL-STD-217E)
MTTR
$\leq 5$ 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

Front Panel I/O Interface Connector
1260-131B: 1-160 pin DIN
1260-131A: 1-64 pin DIN


1260-131A: 10 Channels
1260-131B: 26 Channels One Channel Shown.

## MODEL/DESCRIPTION

Racal Instruments 1260-131B, Adapt-a-Switch Module, 26-1x4 One-wire Muxes, 2A
64-pin DIN IDC Connector
64-pin DIN Crimp Connector Body
64-pin DIN Crimp Pins
160-pin Connector Kit w/pins
160-pin Cable Assembly, 6ft., 24 AWG
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.

## PART NUMBER

407812-002
602004
602159-064
602159-900
407664
407408-001

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