



# Racal Instruments™ 1260-38

## High-Density Multiplexer Module

The Racal Instruments™ 1260-38 is a high-density scanner and multiplexer, ideal for applications with large switch requirements such as continuity testing and audio or telephone line switching.

### Key Features

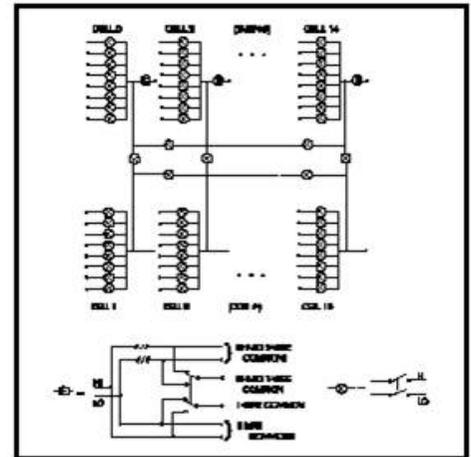
- Program configurable as 1, 2 or 4-wire muxes
- Muxes are configurable as 1x8, 1x16, 1x32, 1x64, 1x128 and 1x256
- 30 MHz bandwidth (1x8 configuration)
- Switches signals up to 2 A or 250 VAC
- Onboard series components available

### Product Information

The 1260-38 can be user-configured in many ways, from one 1x128 to sixteen 1x8 2-wire multiplexers, switching up to 250 VDC or 2 A per channel. Configuration is programmable using interconnecting relays. An additional relay that selects between the high and low sides of the two-wire mode allows the 1260-38 to act as a 1-wire scanner over 256 points. Four-wire switching is also possible by connecting two-wire sections in parallel using internal relays.

Relay coil current monitoring is available to provide confidence checking which gives the user assurance of proper relay operation. Built-in 100 Ω resistors may be placed in series with common connections to attenuate current and voltage spikes.

The 1260-38 is controlled by the Racal Instruments™ Option 01 message-based interface, or the Option 01T message-based and register-based interface.



## 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.

### DC Performance

#### Maximum Switching Voltage

- 220 VDC or 250 VAC

#### Maximum Switching Current

- 2 ADC or 2 AAC

#### Maximum Switching Power

- 60 W, 125 VA

#### Path Resistance

- 1x64 (2-wire): < 0.5  $\Omega$
- 1x128 (2-wire): <0.75  $\Omega$

#### Thermal EMF

- 1x8 (2-wire): <15  $\mu$ V
- 1x128 (2-wire): <20  $\mu$ V

### AC Performance (Into 50 $\Omega$ )

#### Bandwidth (-3 dB)

- 1x8, 1x16 (2-wire): 30 MHz (35 MHz typ)
- 1x128 (2-wire): 2 MHz (2.3 MHz typ)

#### Crosstalk

- 100 kHz: <-55 dB
- 1 MHz: <-50 dB

### Insertion Loss

	100 kHz	1 MHz	10 MHz
1x8 (2-wire)	<0.1 dB	<0.25 dB	<1.7 dB
1x16 (2-wire)	<0.1 dB	<0.25 dB	<2.0 dB
1x128 (2-wire)	<0.2 dB	<1.0 dB	

#### Isolation (1x8)

- 100 kHz: >40 dB
- 1 MHz: >35 dB

#### Capacitance

- 1x8 (closed Chan.-Chassis): <5 pF
- 1x8 (closed Chan. Hi-Lo): <120 pF (50 pF typ)
- 1x8 (Open Chan. Hi-Lo): <50 pF (20 pF typ)
- 1x128 (Closed Chan. Hi-Lo): <600 pF (480 pF typ)

### Interface

#### Peak and Dynamic Current

	$I_{PM}$	$I_{DM}$
+24 V	6 mA*	0 mA
+5 V	400 mA	75 mA
+5 V w/ Option 01	2.8 A	225 mA

\* per energized relay

### Environmental

#### Temperature

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

### Humidity

- <30° C: 95%,  $\pm$ 5%, non-condensing
- 30° C to 40° C: 75%,  $\pm$ 5%
- >40° C: 45%,  $\pm$ 5%

### Altitude

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

### Vibration

- 0.013 inch: double amplitude, 5 to 55 Hz

### Rated Switch Operations

- No load: 100,000,000
- 2 A @ 50 VDC: 100,000

### Mechanical

#### Weight

- Slave: 3.2 lb (1.45 kg)
- With Option 01: 3.5 lb (1.60 kg)

#### Dimensions

- C-size, Single-slot VXIbus Module

### Cooling Requirements

- Without Option 01/01T
  - Airflow: 1.0 l/s
  - Backpressure: 0.05 mm H<sub>2</sub>O
- With Option 01/01T
  - Airflow: 2.0 l/s
  - Backpressure: 0.2 mm H<sub>2</sub>O

 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 complies with European electrical safety standards.

## Ordering Information

Notes: Compatible smart controllers: A smart card must be installed in the left-most slot of a set of 1260-xx series switch cards. There are two options:

- Option 01: Native command set. For use in previously designed switching systems that used the Option 01.
- Option 01T: SCPI command set. For use in new systems and previously designed systems that used the Option 01T.

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High Density Multiplexer

#### Options and Accessories:

OPT-401901-005 : Racal Instruments™ Option 01, Smart Control Module installed (manual must be ordered separately; see below)

404820-005 : Racal Instruments™ Option 01, Smart Control Module (not installed) with manual

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

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

407407 : 160 Pin Mating Connector Kit w/ Backshell and Pins (1260-38 uses two)

407408 : 160 Pin Cable Assembly, 24 GA, 6 ft (1260-38 uses two)

407409 : 160 Pin Cable Assembly, 24 GA, 12 ft (1260-38 uses two)

990898 : Insertion Tool

990899 : Extraction Tool

991033 : ERNI Took Kit includes Crimper and Extractor



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