

Racal Instruments™

1260-75A/B

100 MHz RF Multiplexer

The Racal Instruments™ 1260-75 is ideal for switching wide-band signals up to 200 MHz. It is intended for use with function/pulse generators, universal counter/timers, oscilloscopes and other instruments where high frequency or fast pulse signals are switched. A major application is in the switching of video signals.

Key Features

- **1260-75A configurable as:**
 - Eight 1x4
 - Four 1x9
 - Two 1x19
 - One 1x39
- **1260-75B configurable as:**
 - Sixteen 1x4
 - Eight 1x9
 - Four 1x19
 - Two 1x39
 - One 1x79
- **100 Mhz bandwidth, usable over 200 MHz with excellent crosstalk and isolation specs**
- **Software configurable**
- **Coaxial interfaces**

Product Information

The 1260-75A consists of eight 1x4 75 Ω multiplexers and the 1260-75B consists of sixteen 1x4 75 Ω multiplexers. These multiplexers are bi-directional and configurable via software. This makes reconfiguration very easy and eliminates the need to disassemble the module.

The coaxial connector housing (shell) is supplied with the 1260 75A/B. Coaxial pins and cables for this module are also offered. Coaxial cables have been tested up to a 1 GHz bandwidth and are available in 2, 6 and 12 foot lengths with a coaxial pin at each end.

Relay coil currents are monitored to provide selectable confidence checking which gives the user additional assurance of proper relay operation.

The 1260-75 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.

Maximum Switchable Voltage (Signal-Signal Ground, Resistive Load)

- 200 VDC or VAC_{pk}

Maximum Switchable Current Per Channel

- 0.5 A DC, 0.5 A AC_{pk}

Maximum Carry Current

- 1 ADC, 1 A AC_{pk}

Maximum Switchable Power Per Channel

- 10 WDC, 10 VA, 10 W RF into 75 Ω

DC Performance

Path Resistance

- ≤2 Ω

AC Performance (Into 75 Ω)

Insulation Resistance

- 2 x 10⁹ Ω

Thermal EMF

- <75 μV

Bandwidth (-3 dB)

- 100 MHz

Crosstalk

- 10 MHz: -50 dB
- 100 MHz: -35 dB

Isolation

- 10 MHz: >40 dB
- 100 MHz: >35 dB

VSWR

- Less than 1.5:1 at 100 MHz

Rise/Fall Time (Typical)

- 3.5 ns

Capacitance

- <50 pF

Propagation Delay Time (Typical)

- 5 ns (within group)

Interface

Power Requirements

- +5 V: 0.4 A (2.8 A with Option 01 installed)
- +12 V: 0.34 A

User Connector: GMCT

- Crimp Shielded Contact from Positronics Industries, or available from our facility; see ordering information below

Mechanical

Weight

- 2.49 lb (1.17 kg) without Option 01
- 2.87 lb (1.29 kg) with Option 01

Dimensions

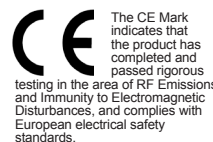
- C-size, Single-slot VXIbus Module

Life Expectancy

- 250 x 10⁶ Operations (Signal <1.0 V, 10 mA)

Cooling Requirements

- Without Option 01/01T
 - Airflow: 1.0 l/s
 - Backpressure: 0.05 mm H₂O
- With Option 01/01T
 - Airflow: 2.0 l/s
 - Backpressure: 0.2 mm H₂O



Ordering Information

Note: 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.

407354-001 : Racal Instruments™ 1260-75A (Obsolete)

100 MHz RF Multiplexer (Eight 1x4)

407354-002 : Racal Instruments™ 1260-75B (Obsolete)

100 MHz RF Multiplexer (Sixteen 1x4)

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

602220-020 : 20-Pin Connector Body

602220-900 : Mating Coaxial Pin RG316

602220-901 : Coaxial Pin thinner gauge alternative

407363-001 : Single Coaxial Cable with pins at each end, 2 ft (-003, 6 ft; -006, 12 ft)

990922 : Contact Extraction Tool

991040 : Crimp Tool, stop bushing, and die set

Crimp Tool for Coaxial Pin : Order directly through Burndy, or contact the factory



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