Astronics Test Systems Inc.

Racal Instruments™
1260-93A/B
100 MHz RF Multiplexer

OBSOLETE

The Racal Instruments™ 1260-93 is ideal for switching wideband 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 used by the military.

Key Features

- **1260-93A configurable as:**
  - **Eight 1x4**
  - **Four 1x9**
  - **Two 1x19**
  - **One 1x39**
- **1260-93B configurable as:**
  - **Sixteen 1x4**
  - **Eight 1x9**
  - **Four 1x19**
  - **Two 1x39**
  - **One 1x79**
- **100 MHz bandwidth, usable over 200 MHz**
- **Excellent crosstalk and isolation**
- **Software configurable**
- **Coaxial interfaces**

Product Information

The 1260-93A consists of eight 1x4 93 Ω multiplexers and the 1260-93B consists of sixteen 1x4 93 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 1260-93A/B. We also offer coaxial pins and cables for this module. 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 user-selectable confidence checking which gives you additional assurance of proper relay operation.

The 1260-93 is controlled by the Racal Instruments™ Option 01 message-based interface or the Option 01T message-based and register-based interface. All 1260 control features explained on the Option 01 and Option 01T data sheets are available to this module.

ASTRONICS
TEST SYSTEMS

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 A DC, 1 A AC pk

Maximum Switchable Power Per Channel
• 10 W DC, 10 VA, 10 W RF into 93 Ω

DC Performance

Path Resistance
• 2.5 Ω

AC Performance (into 93 Ω)

Impedance
• 93 Ω

Bandwidth (-3 dB)
• 100 MHz

Crosstalk
• 10 MHz: -50 dB
• 100 MHz: -40 dB

Isolation
• 10 MHz: >45 dB
• 100 MHz: >35 dB

VSWR
• Less than 1.5:1 at 100 MHz

Rise/Fall Time (Typical)
• 2.5 ns

Propagation Delay Time (Typical)
• 3 ns

Interface

Power Requirements
• +5 V: 0.4 A (2.5 A with Option 01/01T installed)
• +12 V: 0.5 A

User Connector: GMCT
• Crimp Shielded Contact from Positronics or Available from Astronics Test Systems

Environmental

Life Expectancy
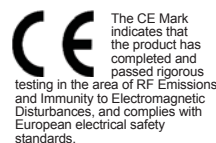• 250 x 10^6 Operations (Signal <1.0 V, .10 mA)

Mechanical

Dimensions
• C-size, Single-slot VXIbus Module

Weight
• 2.59 lb (1.17 kg) without Option 01/01T
• 2.90 lb (1.32 kg) with Option 01/01T

Cooling Requirements
• Airflow: 4.0 l/s
• Backpressure: 0.5 mm H_2O

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

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.

407355-001 : Racal Instruments™ 1260-93A (Obsolete)
100 MHz RF Multiplexer (Eight 1x4)

407355-002 : Racal Instruments™ 1260-93B (Obsolete)
100 MHz RF Multiplexer (Sixteen 1x4)

Accessories:
OPT-401901-005 : Racal Instruments™ Option 01 Smart Card Module (installed)
404820-005 : Racal Instruments™ Option 01 Smart Card Module (not installed), manual included
OPT-405108-001 : Racal Instruments™ Option 01T Smart Card Module (installed)
407531-001 : Racal Instruments™ Option 01T Smart Card Module (not installed)
602220-900 : Mating Coaxial Pin RG316
602220-020 : 20-Pin Connector Body
407364-001 : Single Coaxial Cable with pins at each end, 2ft (-003, 6ft; -006, 12ft)
990922 : Contact Extraction Tool
991040 : Crimp Tool, stop busing, and die set

The crimp tool for the coaxial pin may be ordered directly from Burndy, Norwalk, CT