



Racal Instruments™

1260-150

500 MHz RF Multiplexer Plug-In

The Racal Instruments™ 1260-150 is an RF multiplexer relay plug-in. It quickly and easily plugs into the front of Racal Instruments™ 1260-100 and 1260-101 Adapt-a-Switch™ carriers or Racal Instruments™ 1256 GPIB/Ethernet and 1256L (LXI Core 2011 Compliant) switching mainframes.

Key Features

- Ten 1x4 switch trees
- 500 MHz bandwidth
- Excellent crosstalk and isolation
- 50 Ω coaxial interfaces
- Can be used in VXI, GPIB/RS-232, and LXI switching systems
- Standard Adapt-a-Switch™ plug-in design for ease of replacement

Product Information

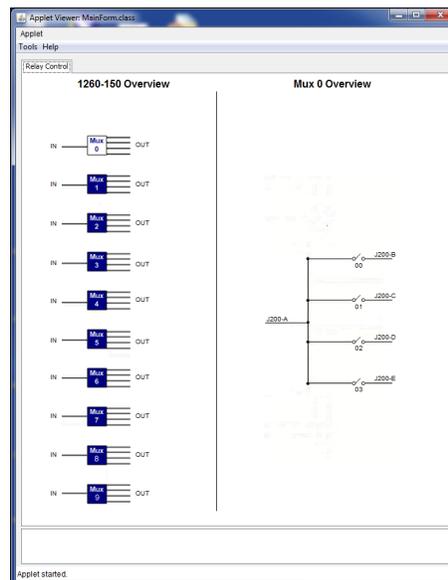
The 1260-150 is intended for use with function/pulse generators, universal counter/timers, oscilloscopes, high-speed digital test units and other instruments involving high-frequency or fast-pulse signals.

As all relays on the 1260-150 are electro-mechanical, all inputs/outputs are interchangeable to meet the test requirements. The coaxial connector housing (shell) is included with each 1260-150; however, the connector pins must be purchased separately. Cables that are supplied with coaxial pins at both ends, and that have been tested up to 1 GHz, are an option and may be ordered in 2, 6 or 12 foot lengths. With the cable cut in half, you can support two channels per cable and alleviate the

need for a special crimp tool. See ordering information on the last page of this data sheet.

The Racal Instruments™ Option 01T interface controls the 1260-150, using both register-based and message-based operation. Refer to the Option 01T data sheet for product specifications and features such as include, exclude, and scan lists; relay coil-current monitoring; and user-defined path names and reset states.

Adapt-a-Switch™ provides *VXIplug&play* support for frameworks based on Microsoft Win32® application programming interface, including drivers for LabWindows™/CVI and LabVIEW™.



1260-150 LXI Web Control

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

- 100 VDC or 100 VAC

Maximum Switching Current

- 0.25 ADC or 0.25 AAC

Maximum Switching Power

- RF: 2 W

DC Performance

Path Resistance

- <1.0 Ω (Initial)

Insulation Resistance

- $10^9 \Omega$

Thermal EMF

- <50 μ V

AC Performance (Into 50 W)

Bandwidth (-3 dB)

- 500 MHz

Insertion Loss

- 500 MHz: <3 dB
- 800 MHz: <6 dB
- 1 GHz: <9 dB

Isolation

- >35 dB to 250 MHz
- >20 dB to 800 MHz
- >10 dB to 1000 MHz

Crosstalk

- <-70 dB to 500 MHz

Capacitance

- Channel-Chassis: 100 pF
- Open Channel: 10 pF

VSWR

- <1.5 to 1 at 250 MHz
- <2.0 to 1 at 1 GHz

Plug-In Interface

Power Requirements

- +5 VDC at 150 mA plus 30 mA per energized relay (1.5 A max)

Front Panel I/O Connectors

- Two 26-Pin GMCT connectors (from Souriau)

Environmental

(All environmental conditions designed to meet MIL-PRF-28800F, Class 3)

Temperature

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

Relative Humidity

- 85% \pm 5%, non-condensing at <30° C

Altitude

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

Shock

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

Vibration

- 0.013 in: double amplitude, 5 to 55 Hz

Bench Handling

- 4-inch drop at 45°

Emissions

- EN55011A with limits in accordance with EN50081-1

Immunity

- IEC801-2, 3, 4 with limits in accordance with EN50082-1

Safety

- EN61010-1

Switching Time

- <10 ms (includes settling time)

Rated Switch Operations

- >100,000,000 operations at 1 mW

MTBF (MIL-HDBK-217E)

- 559,408 hrs

MTRR

- <5 min

Software

Drivers

- LabVIEW™, LabWindows™/CVI, VXIplug&play support for frameworks based on Microsoft Win32® application programming interface

Web Controls

- When used with a Racal Instruments™ 1256L

Mechanical

Weight

- 14 oz (0.45 kg)

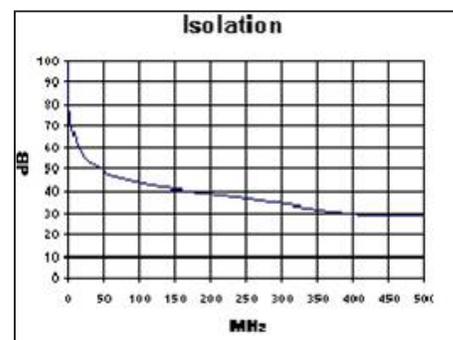
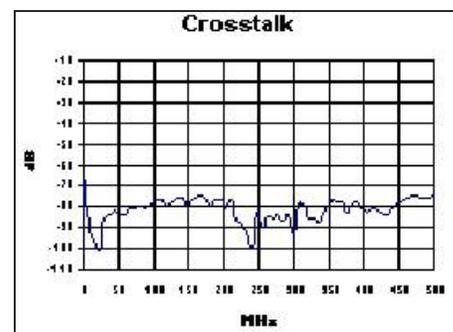
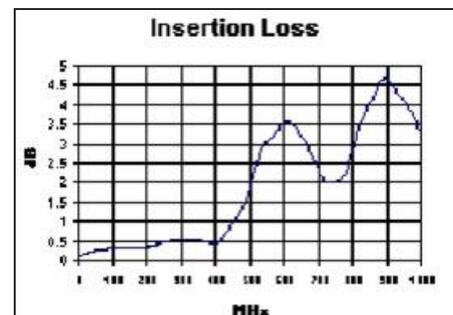
Dimensions

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

Cooling

- See 1260-100 cooling data

Typical Channel



CE 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

Note: Includes two mating connector housings with cable and strain relief. Pins not included. Pins can be ordered separately, either un-crimped or attached to a cable.

Note: When the 1260-150 is used in a VXI mainframe other than a 1256 or 1256L, a Racal Instruments™ Option 01T Smart Control Module must be installed in the mainframe's left-most slot.

407656 : Racal Instruments™ 1260-150

Adapt-a-Switch™ Plug-In, 10-Channel SP4T, 500 MHz

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

407368-001 : Single Coaxial Cable, with pins at each end, 2 ft

407368-003 : Single Coaxial Cable, with pins at each end, 6 ft

407368-006 : Single Coaxial Cable, with pins at each end, 12 Ft

407663 : Includes one 602221-126 connector (one spare 26-Pin mating connector housing with cable and strain relief) and twenty-eight 602220-900 RG316 connector pins

602220-900 : Mating Coaxial Pin RG316 (requires 52 pins for 2 sets of 26 pins)

990922 : Contact Extraction Tool

991040 : Crimp Tool, stop bushing, and die set

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