

## 500 MHz RF Multiplexer Plug-In Card

- ◆ **Ten 1x4 Switch Trees**
- ◆ **500MHz Bandwidth**
- ◆ **Excellent Crosstalk and Isolation**
- ◆ **50 Ohm Coaxial Interfaces**
- ◆ **Standard Adapt-a-Switch™ Plug-in Design for Ease of Replacement**

Racal Instruments 1260-150 is an RF multiplexer plug-in relay card for the Adapt-a-Switch™ carrier. It installs, easily and directly from the front panel, into the Adapt-a-Switch VXIbus Carrier, Model 1260-100. Please refer to the 1260-100 data sheet for specifications and product features..

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 electromechanical, 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 1GHz, are an option and may be ordered in 2, 6 or 12 foot lengths. By cutting the cable in half, the user 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 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™ includes VXI plug&play support of WIN95/NT frameworks, including drivers for LabWindows/CVI and LabVIEW.

# 1260-150 PRODUCT SPECIFICATIONS

## INPUT

**Maximum Switching Voltage**  
100VDC or 100VAC

**Maximum Switching Current**  
0.25ADC or 0.25AAC

**Maximum Switching Power**  
RF: 2W

## DC PERFORMANCE

**Path Resistance**  
<1.0Ω

**Insulation Resistance**  
10<sup>9</sup>Ω

**Thermal EMF**  
<50μV

## AC PERFORMANCE (into 50W)

**Bandwidth (-3dB)**  
500MHz

**Insertion Loss**  
500MHz: <3dB  
800MHz: <6dB  
1GHz: <9dB

**Isolation**  
>35dB to 250MHz  
>20dB to 800MHz  
>10dB to 1000MHz

**Crosstalk**  
<-70 dB to 500 MHz

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

**VSWR**  
<1.5 to 1 at 250MHz  
<2.0 to 1 at 1GHz

## Adapt-a-Switch™ Plug-in

## INTERFACE DATA

**Cooling**  
See 1260-100 cooling data.

## Power Requirements

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

## ENVIRONMENTAL DATA

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

**Relative Humidity**  
85% ±5%, non-condensing at <30° C

**Altitude**  
Operating: 10,000 ft.  
Non-Operating: 15,000 ft.

**Shock**  
30g, 11ms, ½ sine wave

**Vibration**  
0.013 inch: double amplitude 5-55Hz

**Bench Handling**  
4-inch drop at 45°

## EMC

**Emissions**  
EN55011A with limits in accordance with EN50081-1

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

**Safety**  
EN61010-1

## RELIABILITY

**Switching Time**  
<10ms (includes settling time)

**Rated Switch Operations**  
>100,000,000 operations at 1mW

**MTBF**  
559,408 hours (MIL-HDBK-217E)

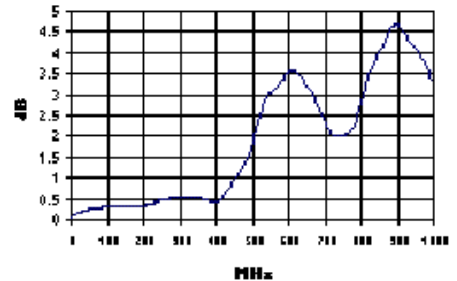
**MTTR**  
< 5 Minutes

## MECHANICAL

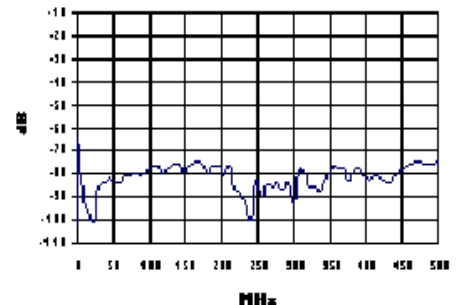
**Weight**  
14oz (0.45kg)

**Dimensions**  
4.5" H x 0.75" W x 9.5" D

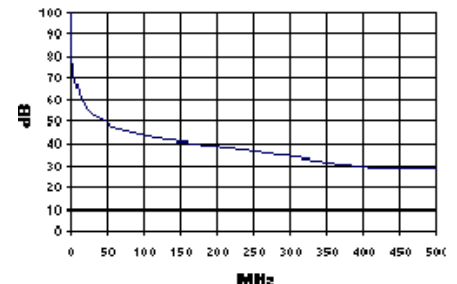
### Insertion Loss



### Crosstalk



### Isolation



**CE** 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.

## ORDERING INFORMATION

### MODEL/DESCRIPTION

Racal Instruments 1260-150, Adapt-a-Switch, 10-channel SP4T, 500 MHz

Mating Connector Backshell

Mating Coaxial Pins

Single Coaxial Cable, w/Connectors, 2 ft.

Single Coaxial Cable, w/Connectors, 6 ft

Single Coaxial Cable, w/Connectors, 12 ft.

### PART NUMBER

407656

602221-126

602220-900

407368-001

407368-003

407368-006

The EADS North America Defense Test and Services policy is one of continuous development, consequently the equipment may vary in detail from the description and specification in this publication.



**EADS North America Defense Test and Services**  
1.800.722.2528/1.949.859.8999 sales@eads-nadefense.com