# **RACAL INSTRUMENTS 1260-54**



# 1.3 GHz RF Multiplexer Module

- Configurable as Six 1x4 Tree Multiplexers
- Excellent Crosstalk, Isolation and VSWR
  Performance to 1.3GHz
- Low Noise Performance Supports Switching of Low-level RF Signals
- Ideal for VHF/UNF Matrix Building Block
- Optional Termination of Input Signals
- Excellent for Oscilloscope or Time Interval Counter Measurements

Racal Instruments 1260-54 is ideal for high performance RF applications. The tree configuration eliminates the effect of unterminated stubs which would otherwise severely limit bandwidth performance. Unused inputs may be terminated into optional on-board  $50\Omega$  impedances.

The 1260-54 can be used for switching signals from oscilloscopes, spectrum, network or distortion analyzers to a unit under test. The module consists of six independent banks of channels configured as 1x4 multiplexers.

Only one connection at a time can be made to each common bus. Unused inputs may be terminated into optional terminators (purchased separately). There is also a fifth, no connect, position for each bank for situations when no signal is desired on the common bus.

Relay coil current monitoring is available to provide confidence checking. This gives the user assurance of proper relay operation.

The 1260-54 is controlled by Racal Instruments Option 01 messagebased interface.



# **1260-54 PRODUCT SPECIFICATIONS**

#### Maximum Switchable Voltage

(Signal-Ground) 30VDC or 100VACrms DC to 100 MHz (200 mV p-p)

# Maximum Switchable Current

Per Channel: 1.5ADC or ACrms

# Maximum Switchable Power

Per Channel: 60W DC, 60VA, 150W@100MHz, 70W @ 500MHz, 40W @ 1GHz

#### DC PERFORMANCE

Path Resistance

1.0Ω

Thermal EMF <40μV

DC Isolation  $>10^{-8}\Omega$ 

#### AC PERFORMANCE (into 50Ω)

Bandwidth (-3dB) 1.3GHz

#### Insertion Loss

100MHz: <0.5dB 500MHz: <1.5dB 1GHz: <2.0dB

#### **Crosstalk Across Groups**

100MHz: <-100dB 500MHz: <-80dB 1GHz: <-60dB 1.3GHz: <-50dB

#### **Isolation Between Channels**

100MHz: <-80dB 500MHz: <-65dB 1GHz: <-55dB 1.3GHz: <-40dB **VSWR** 100MHz: 1.1:1

100MHz: 1.1:1 500MHz: 1.25:1 1GHz: 1.75:1 1.3GHz: 1.75:1

## VXIBUS INTERFACE DATA

#### Cooling Requirements

Airflow: 1.0 liters/sec Backpressure: 0.05mm H<sub>2</sub>0 With Option 01S/T Airflow: 2.0 liters/sec Backpressure: 0.2mm H<sub>2</sub>0

#### **Power Requirements**

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

+12V: 10mA per relay (energized) Weight

2.59 lb (1.17 kg) without Option 01 2.87 lb (1.29 kg) with Option 01

#### Dimensions

C-size, Single-slot VXIbus Module

# User Connector

SMC (not supplied)

## Terminations

SMB (not supplied)

#### **Typical Programming Syntax**

Programming Syntax is in the "<module address> . <channel>" Example: CLOSE 3.02. This CLOSE statement will close channel number 2 on the 1260-54 at card address 3.



Model 1260-54 consists of six of the above 1x4 tree multiplexers. Each channel has the capability of being terminated to an optional  $50\Omega$  terminator. One tree is shown.

# **ORDERING INFORMATION**

#### **MODEL/DESCRIPTION**

Racal Instruments 1260-54, 64x64 Six 1x4 Trees 1.3GHz can be terminated Racal Instruments 50 ohm terminator (kit of 4) order separately Racal Instruments Option O1T, Smart Card Module (installed)

### PART NUMBER

404768 404664 OPT-401901-005

> The CE Mark indicates completed and passed rigorous testing in the area of RF Emissions, Immunity to Electromagnetic Disturbances and complies with European electrical safety standards.

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

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