

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 50Ω 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 message-based 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

1.0 Ω

Thermal EMF

<40 μ V

DC Isolation

>10⁻⁸ Ω

AC PERFORMANCE (into 50 Ω)

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
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 H₂O

With Option 01S/T

Airflow: 2.0 liters/sec
Backpressure: 0.2mm H₂O

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)

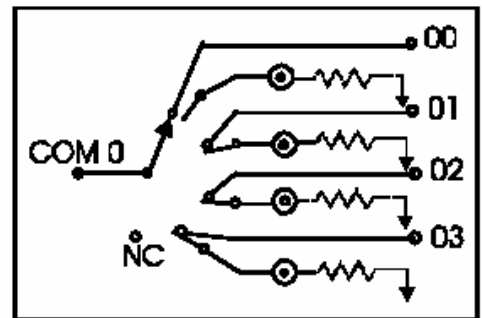
Typical Programming Syntax

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 Ω 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 01T, Smart Card Module (installed)

PART NUMBER

404768
404664
OPT-401901-005

 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.

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