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.

EADS
NORTH AMERICA
DEFENSE

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
$<40\mu V$

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
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_2O
With Option 01S/T
Airflow: 2.0 liters/sec
Backpressure: 0.2mm H_2O

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
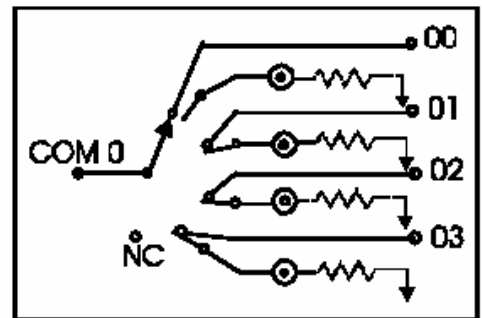SMB (not supplied)

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 50Ω terminator. One tree is shown.

ORDERING INFORMATION

MODEL/DESCRIPTION	PART NUMBER
Racal Instruments 1260-54, 64x64 Six 1x4 Trees 1.3GHz can be terminated	404768
Racal Instruments 50 ohm terminator (kit of 4) order separately	404664
Racal Instruments Option O1T, Smart Card Module (installed)	OPT-401901-005

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.