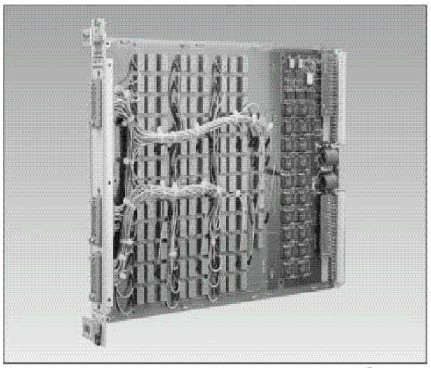
# RACAL INSTRUMENTS™ 1260-51



## 400 MHz RF Matrix

- **Configurable as 2x6, 2x12 or 2x36 RF Matrix**
- **400MHz Bandwidth**
- **Software Configurable—No Jumpers!**
- **Switches 30 Watts, 0.5 Amps and 125VAC**
- **High Density Coaxial Interfaces**
- **Excellent for Oscilloscope or Time Interval Counter Measurements**

Racal Instruments™ 1260-51 is ideal for high performance RF switching. Its 400MHz bandwidth makes the 1260-51 an excellent switch module for medium-speed digital, datacomm and most analog signals.

The 1260-51 is an excellent choice for switching high frequency signals to an oscilloscope or counter/timer. Its wide bandwidth ensures that the test equipment sees fast, transient signals. The1260-51 is also ideal for switching high frequency signal sources, such as the Racal family of waveform synthesizers and signal generators, to the unit under test.

The 1260-51 consists of six, 2x6 matrices that may be combined into three, 2x12 or one, 2x36 matrix. The module automatically configures interconnection relays to achieve the path desired.

The 1260-51 provides a low noise switch path with excellent crosstalk and isolation. This performance allows the 1260-51 to switch signals in critical tests of amplifiers, receivers and other active devices.

Relay coil-current monitoring is available to provide confidence checking by assuring the user of proper relay operation.

The 1260-51 is controlled by the Option 01 Smart Control Module which is explained in detail on a separate data sheet. All 1260 series control features are available on the 1260-51.

EADS NORTH AMERICA DEFENSE

# 1260-51 PRODUCT SPECIFICATIONS

**Maximum Switching Power**
62.5 VA, 30W
**Maximum Switching Voltage**
125VAC, 110VDC
**Maximum Switching Current**
0.5A AC
0.5A DC
**Thermal EMF**
<20uV
**Insulation Resistance**
High to Low >100 MΩ
High to Chassis >100 MΩ
Low to Chassis >100 MΩ

## DC PERFORMANCE

**Path Resistance**
<1.5Ω

## AC PERFORMANCE (into 50Ω)

**Capacitance**
Open Channel, Input to Ground
<150pF (typical)
Closed Channel, Input to Ground
<200pF (typical)
**Bandwidth** (-3dB, 50Ohms)
400MHz ( 2x6 Basic cell)
(typical 2x36 cell, 325MHz)
**Insertion Loss**
<3dB @ 400MHz
(2x6 Basic Cell)
**Return Loss / VSWR**
14dB @ 100MHz
12dB @ 200MHz (typical)

**Crosstalk**
<-40dB to 100MHz
**Isolation**
>60dB to 100MHz, Minimum
>80dB to 100MHz, Typical
**Switching Time** (Including Settling)
5msec max.
**Temperature**
Operating: 0° C to +55° C
Non-Operating: -40° C to +75° C
**Humidity**
95 ± 5% RH non-condensing <30° C
75 ± 5% RH >30° C
45 ±99 5% RH >40° C
**Altitude**
Operating: 10,000ft
Non-Operating: 15,000ft
**Shock** (Functional)
30g, 11msec, ½ Sine Wave
**Vibration, Non Operating**
0.013 inch double amplitude, 5-55Hz

## VXIBUS INTERFACE DATA

**Cooling Requirements**
Airflow: 2.0 l/s
Backpressure: 0.05 mm $H_2O$
With Option 01S/T
Airflow: 3.0 l/s
Backpressure: 0.2 mm $H_2O$

**Peak and Dynamic Current**

| | +24V | +5V | +5V w/Option 01 |
|---|---|---|---|
| $I_{Pm}$ | 6mA* | 400mA | 2.8A |
| $I_{Dm}$ | 0mA | 75mA | 225mA |

** per energized relay*

**Weight**
3.2 lb (1.45 kg) without Opt. 01
3.5 lb (1.60 kg) with Opt. 01
**Dimensions**
C-size, Single-slot, VXIbus Module
**MTBF**
Without relays: ≥240,000 hours
**Life Expectancy**
>500,000 operations at 30VDC, 1A
>100 million mechanical operations
**Typical Programming Syntax**
Programming syntax is in the form:
"<module address>.<channel>"
Example: CLOSE 1.0020,0030
This CLOSE statement will close channel number 1 on the 1260-51 module at card address 2.

*Note*: Module is supplied with one set of mating connectors. Additional connectors can be ordered using the part numbers shown below.

**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 | PART NUMBER |
|---|---|
| Racal Instruments 1260-51, 400MHz RF Matrix | 407612 |
| Option 01, Smart Card Module (installed) | OPT-401901-005 |
| Option 01T, Smart Card Module (installed) | OPT-407531-001 |
| Coax Pin for Model 1260-51 | 602220-900 |
| Coax Cable Assembly, 1GHz Cables, with Pins at Each End, 2ft. (-003, 6ft, -006, 12ft) | 407368-001 |
| Crimp Tool for Coaxial Pin - Order Directly from Burndy Corp. | Order Direct |

*One Option 01 must be ordered with switch card(s). Please specify the card on which Option 01 will be installed



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