

### 1 GHz RF Switch Module Model 1260-58



- ◆ Four 1x8 Coaxial Trees
- ◆ 1 GHz Bandwidth
- ◆ Excellent Crosstalk and Isolation Characteristics
- ◆ Single-Slot, C-Size, VXIbus Module
- ◆ High-Quality 50  $\Omega$  SMB Coaxial Interface Connectors
- ◆ Ideal for Switching High-Frequency Signals in ATE Systems

The model 1260-58 is a high-density switch module with four 1x8 coaxial trees. It is designed for high-frequency, 50  $\Omega$  signals, making it ideal for switching source or measurement signals in an ATE environment or modern communication system.

The 1260-58 is intended for use with function/pulse generators, universal timer/counters, oscilloscopes, high-speed digital test units, and other instruments involving high-frequency or fast rise-times.

This switch module has excellent AC performance, with a bandwidth greater than 1 GHz. All relays are bi-directional, making inputs and outputs interchangeable to meet different test requirements.

Larger switching systems can be configured by using external jumpers with easy-to-interface SMB connectors. This method configures large multiplexers as well as large matrices.

The 1260-58 requires an Option 01T to communicate with 1260-series modules. This option provides message-based operation for ease-of-use and register-based operation for maximum speeds.

The 1260-series includes VXI *plug&play* support of Win95/98/2000/NT platforms including drivers for LabWindows/CVI and LabView.

# MODEL 1260-58 SPECIFICATIONS

## Input

### Maximum Switching Voltage

30 VDC or 30 VAC pk

### Maximum Switching Current

0.5 ADC, 0.5 AAC pk

### Maximum Switching Power

10 WDC, 10 VA, 10 WRF  
into 50  $\Omega$

## DC Performance

### Path Resistance

$\leq 1.0 \Omega$

### Insulation Resistance

$> 10^9 \Omega$

### Thermal EMF

$< 20 \mu V$

## AC Performance (into 50 $\Omega$ )

### Bandwidth (-3 dB)

$> 1 \text{ GHz}$

### Insertion Loss

100 MHz:  $< 0.6 \text{ dB}$   
500 MHz:  $< 1.0 \text{ dB}$   
1 GHz:  $< 1.5 \text{ dB}$

### Isolation

100 MHz:  $> 70 \text{ dB}$   
500 MHz:  $> 55 \text{ dB}$   
1 GHz:  $> 35 \text{ dB}$

### Crosstalk

100 MHz:  $< -60 \text{ dB}$   
500 MHz:  $< -43 \text{ dB}$   
1 GHz:  $< -35 \text{ dB}$

### VSWR

100 MHz:  $< 1.1:1$   
500 MHz:  $< 1.3:1$   
1 GHz:  $< 1.9:1$

## Capacitance

Closed Channel to Input Ground:

$< 200 \text{ pF}$

Open Channel to Input Ground:

$< 150 \text{ pF}$

## VXIbus Interface Data

### Cooling Requirements

Airflow: 1.0 liters/sec

### Backpressure:

0.05 mm H<sub>2</sub>O

(Airflow: 2.0 liters/sec with  
Option 01T installed)

### Backpressure:

0.2 mm H<sub>2</sub>O

### Power Requirements (I<sub>pm</sub>)

+5 V: 0.4 A

(+5 V: 2.5 A with Option  
01T installed)

+12 V: 0.5 A

## Environmental Data

### Temperature

Operating: 0° C to 55° C

Storage: -40° C to 71° C

### Relative Humidity

95%  $\pm 5\%$ ,  
non-condensing at  $< 30^\circ \text{C}$

### Altitude

Operating: 10,000 ft.

Non-operating: 15,000 ft.

### Shock

30 g, 11 ms, 1/2 sine wave

## Vibration

0.013 in.: double amplitude

5-55 Hz

## 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

### Switch Time

$< 10 \text{ ms}$  (includes settling time)

### Rated Switch Operations

$> 100,000,000$  operations

### MTBF (MIL-HDBK-217E, includes relays)

312,218 hrs.

## Mechanical

### Dimensions

C-Size, Single-Slot VXIbus Module

### Weight

2.49 lb. (1.17 kg) w/o Option 01T

2.87 lb. (1.29 kg) w/ Option 01T

### User Connector:

SMB (interface connectors not  
supplied, 36 maximum required)

## ORDERING INFORMATION

Model	Description	Part Number
1260-58	1 GHz RF Switch Module	407512
*Option 01T	Message-Based and Register-Based Switch Controller (Installed)	OPT-405108-001
*One Option 01T must be ordered with switch system. Please specify the card on which Option 01T will be installed.		

**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.

The Racal 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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