

## High-Performance Microwave Switch Module

- ◆ **Five Switch Configurations in a C-size, Single-Slot, VXIbus Module**
- ◆ **48 SPST, 50MHz, 2A General Purpose Relays**
- ◆ **6 (1x2), 50MHz, 2A, 1-wire Multiplexers**
- ◆ **3 (1x4), 40MHz, 2A, 1-wire Multiplexers**
- ◆ **5 (2x8), 40MHz, 2A, 1-wire Matrices**
- ◆ **5 DPST, 10A Power Relays**

Racal Instruments™ 1260-67 is optimized for high-performance, high-density, microwave switching applications. This module uses high-quality sealed Narda relays for the ultimate in signal integrity.

The 1260-67 module was designed to switch signals used in modern communications systems including Cellular, PCS, and Satcom applications. It is also ideal for ATE systems designed for testing Military telecommunications, surveillance, and related equipment.

The 1260-67 provides highly reliable and repeatable operation over a conservatively specified lifetime of >1,000,000 operations. Narda's special microwave relay design includes a self-cleaning wiper that cleans the contacts every time it closes to maintain specifications over its lifetime.

Should relay replacement become required, relays can be removed and replaced in less than five minutes without removing the module from the VXI system. This maximizes system uptime and facilitates field upgrades.

User connections are made directly to the relay SMA connectors at the front panel of the VXI module, eliminating cumulative losses and induced noise.

The module is available in three standard configurations with 2, 4, or 6 six-throw relays, respectively. Custom configurations are available; contact the factory for details. For applications requiring terminations or frequencies up to 40GHz, the Racal Instruments 1260-64M is recommended.

An Option 01T is required to communicate with 1260 series modules, and provides message-based operation for ease of use and register-based operation for maximum speed. The Option 01T mounts on the leftmost 1260 series module and does not consume any VXI slots. The Option 01T provides a single point of software control for the switching system with advanced features such as include, exclude, scan, relay monitoring, user defined path names, and reset states.

The 1260 series line includes VXI *plug&play* support of Win95/NT frameworks including drivers for LabWindows/CVI and LabView. Please refer to the Option 01T data sheet for additional product features and specifications.

# 1260-67 PRODUCT SPECIFICATIONS

## MICROWAVE PERFORMANCE

### Bandwidth (-3dB)

>18GHz

### Impedance

50Ω

### Maximum Power

100MHz: 490W  
1GHz: 180W  
10GHz: 60W  
18GHz: 50W

Frequency Range (GHz)	DC-3	3-8	8-12.4	12.4-18
Insertion Loss (MAX dB)	0.15	0.25	0.35	0.45
Isolation (MIN dB)	85	75	65	65
VSWR (MAX)	1.15:1	1.25:1	1.35:1	1.45:1

### Switching Sequence

Break Before Make

### Operating Mode

Normally Open

## VXIBUS INTERFACE DATA

### Cooling

Airflow: 4.75 liter/sec  
Backpressure: 0.5mm H<sub>2</sub>O

### Power Requirements

+5VDC at 1.4A w/Option 01T  
+5VDC at 0.4A w/o Option 01T  
+12VDC at 365mA per energized relay

## ENVIRONMENTAL DATA

### Temperature

Operating: 0°C to 55°C  
Storage: -40°C to 75°C

### Relative Humidity

85% ±5% non-condensing at <30°C

### Altitude

Operating: 10,000 ft.  
Non-Operating: 15,000 ft.

### Shock

30g, 11ms, ½ sine wave

### Vibration

0.013-inch: P-P, 5-55Hz

### 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

### Switching Time

<15ms (includes settling time)

### Rated Switch Operations

Electrical: 1,000,000 operation at full rated load

## MTBF

295,376 Telcordia (Bellcore)  
324,239 (MIL-STD-211 FN2)

## MTTR

<5 minutes

## MECHANICAL

### Weight

3.4 Lbs. w/ Option 01T  
3 Lbs 2oz w/o Option 01T

### Dimensions

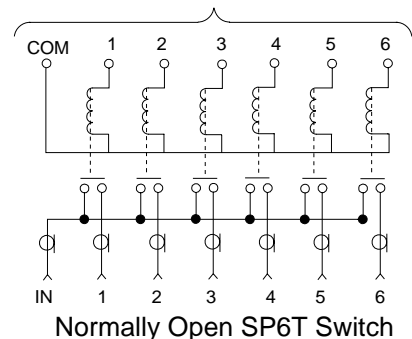
C-size, Single-slot VXibus module

### Front Panel I/O Interface Connector

SMA male (not supplied)

**Note:** Front panel SMA connectors are in close proximity to each other; Racal P/N 991017 is recommended.

## TYPICAL CHANNEL Power Input



**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.

## ORDERING INFORMATION

### MODEL/DESCRIPTION

Racal Instruments 1260-67A, Six SP6T Microwave Switch, 18GHz  
Racal Instruments 1260-67B, Four SP6T Microwave Switch, 18GHz  
Racal Instruments 1260-67C, Two SP6T Microwave Switch, 18GHz  
5/16" Bit (to be used with MA-COM wrench, P/N 2098-5065-54)  
Option 01T, Message-Based and Register-Based Switch Controller (Installed)

\*One Option 01T must be ordered with switch system. Please specify the card on which Option 01T will be installed.

### PART NUMBER

407716-001  
407716-002  
407716-003  
991017  
OPT-405108-001

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.



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