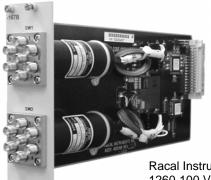
# RACAL INSTRUMENTS™ 1260-167A/B



# High-Performance Microwave Plug-In Switch Card

- Ideal for Switching Cellular, PCS, and Military Communications Signals
- Self-Cleaning Relays for High Repeatability and Accurate System Calibration
- 18 GHz Bandwidth (26 GHz typical)
- Relays Replaceable in Under 5 Minutes
- High-Reliability Relays:
  >10<sup>6</sup> Operations

Racal Instruments 1260-167A/B is a 2-slot microwave switch card for use in either the 1260-100 VXI Carrier or the Model 1256 GPIB/RS-232 Switching Mainframe. It's optimized for high-performance, high-density, microwave switching applications. The 1260-167A/B uses high quality sealed Narda relays for the ultimate in signal integrity.

The microwave plug-in is 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 1260-167A/B 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 the relay closes, which ensures the specifications are met over the lifetime of the switch.

If replacement is required, relays are replaceable in under 5 minutes. This maximizes system uptime and facilitates field upgrades. For the part number of the spare Single-Pole 6-Throw (SP6T) microwave relay, see the Ordering Information included on this data sheet.

User connections are made directly to the relay SMA connectors at the front panel of the plug-in, eliminating cumulative losses and induced noise. A specially designed, deep-slotted socket for a ¼" drive socket is available to connect/disconnect the SMA interface connectors guickly and easily.

The 1260-167A/B is available in two standard configurations with either one or two relays, each being 1-pole, 6-throw. Custom configurations are available; contact the factory for details.

The 1260-167A/B occupies two slots; therefore, when using it in an Adapt-a Switch® carrier, the inter-module shield must be removed to allow room for the switch card.

If the 1260-167A/B is used with the 1260-100 Adapt-a-Switch platform, an Option 01T is required to communicate with the switch cards, and to provide message-based operation for ease of use and register-based operation for maximum speeds. If the switch card is used with the 1256 mainframe, no additional controller is required.

Racal's Adapt-a-Switch line includes drivers for LabWindows/CVI and LabView for VXI applications. It also includes VXIplug&play compliant support for WIN95/98/NT/2000 platforms.



# 1260-167A/B PRODUCT SPECIFICATIONS

# **MICROWAVE PERFORMANCE**

Bandwidth (-3 dB)

> 18 GHz

#### **Impedance**

 $50 \Omega$ 

## **Maximum Power**

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

Frequency Range (GHz)	DC-3	3-8	8-12.4	12.4-18	18-26*
Insertion Loss (MAX dB)	0.2	0.3	0.4	0.5	1.0
Isolation (MIN dB)	85	75	60	60	45

#### **Switching Sequence**

**Break Before Make** 

# **Operating Mode**

Normally Open

## **VXIBUS INTERFACE DATA**

Cooling (in 1260-100 Adapt-a Switch carrier)

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

### **Power Requirements**

+5 VDC at 0.4 A

Plus 1 A per energized relay

# **ENVIRONMENTAL DATA**

#### **Temperature**

Operating: -200 C to 600 C Storage: -400 C to 750 C

#### **Relative Humidity**

90% non-condensing at < 30° C

#### Altitude

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

#### Shock

30 g, 11 ms, 1/2 sine wave

# **Vibration**

0.013 in.: (p-p), 5-55 Hz

#### **Bench Handling**

4-inch drop at 45°

#### **EMC**

#### **Emissions**

EN61326, Class A, Table 3

# **Immunity**

EN61326, Class A, Table 1

#### Safety

CE, EN61010-1

#### RELIABILITY

# **Switching Time**

<15 ms (includes settling time)

### **Rated Switch Operations**

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

#### **MTBF**

1260-167A: 860,000 hrs 1260-167B: 560,000 hrs

#### **MTTR**

< 5 min.

# **MECHANICAL**

# Weight

1260-167A: 7.4 ounces 1260-167B: 10.6 ounces

#### **Dimensions**

4.5" H x 1.5" W x 9.5" D (Dual-Slot Plug-In)

# Front Panel I/O Interface Connector

SMA male (not supplied)

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 1260-167A, 1 SP6T Microwave Switch, 18 GHz Racal Instruments 1260-167B, 2 SP6T Microwave Switches, 18 GHz Spare SP6T Microwave Switch Deep-Slotted Socket,  $^5/_{16}$ "

#### **PART NUMBER**

407773-001 407713-002 310284 456890

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.



