



High-Performance Microwave SPDT Switch Plug-In

- ◆ **DC to 18 GHz Frequency Range**
- ◆ **1- and 2-Slot Plug-Ins**
- ◆ **Extremely Long-Life Switches: Five Million Operations**
- ◆ **MTTR of Five Minutes**
- ◆ **Ideal for Switching Cellular, PCS, and Military Communications Signals**

Racal Instruments 1260-160B/E is a 1- or 2-slot microwave switch plug-in for use in either the Adapt-a-Switch™ 1260-100, VXI carrier, or the 1256, GPIB/RS-232 Switching Mainframe. It is optimized for high-performance, high-density microwave switching applications. The 1260-160B/E uses high-quality, long-life Aromat switches for the ultimate in signal integrity. These switches are highly reliable with a minimum specified lifetime of 5,000,000 operations.

The 1260-160B/E is ideally suited for switching signals in modern communications systems, including Cellular, PCS, and Satcom applications. It additionally operates superbly in automatic test equipment systems designed for the testing of military telecommunications, surveillance, and related equipment.

The 1260-160B/E is designed in two standard configurations, with either two or five SPDT switches. The 1260-160B occupies one slot, and the 1260-160E occupies two slots. A 26.5 GHz frequency range version and other configurations are possible; contact the factory for availability.

Users make connections directly to the switch SMA connectors at the front panel of the plug-in, eliminating cumulative losses and induced noise. A specially-designed, deep-slotted socket for use with a 1/4" socket drive is available to connect/disconnect the SMA interface connectors quickly and easily.

When used with the 1260-100 Adapt-a-Switch™ carrier, the 1260-160B/E requires an Option 01T to communicate with the switch plug-ins and to provide message-based operation for both ease of use and register-based operation for maximum speeds. When used with the 1256 mainframe, no additional controller is required.

Our 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.

1260-160B/E PRODUCT SPECIFICATIONS

MICROWAVE PERFORMANCE

Frequency Range

Standard: DC to 18 GHz

Optional: DC to 26.5 GHz

Impedance

50 Ω

Frequency Range (GHz)	DC-4	4-8	8-12.4	12.4-18
RF Input Power ¹ (CW)	120	80	60	50
Insertion Loss (MAX dB)	0.2	0.3	0.4	0.5
Isolation (MIN dB)	80	70	65	60
VSWR (MAX)	1.15:1	1.25:1	1.35:1	1.5:1

¹ Input power specified under following conditions: System VSWR 1.1 max.
(When VSWR 1.5, input power x 0.95)
No contact switching
Ambient temperature 40° C

VXIBUS INTERFACE DATA

Cooling (1260-100 Adapt-a-Switch Carrier)

Airflow: 3.0 liters/sec.

Backpressure: 0.5 mm H₂O

RELIABILITY

Switching Time

<15 ms (includes settling time)

Rated Switch Operations (min.)

Mechanical: 5,000,000 operations at 180 cpm per position

Electrical: 5,000,000 operations at 18 GHz, VSWR 1.2 max.

MTBF (MIL-HBK-217E, excluding switches)

860,000 hrs.

MTRR

<-5 min.

MECHANICAL

Weight

1260-160B: 6.1 oz. (173 g)

1260-160E: 11.3 oz. (320 g)

Dimensions

4.5" H x 0.75" W x 9.5" D

(Single-Slot Plug-In)

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)

ENVIRONMENTAL DATA

Temperature

Operating: -20° C to 60° C

Storage: -40° C to 75° C

Relative Humidity

95% \pm 5% non-condensing at 30o C

75% \pm 5% above 30° C

45% \pm 5% above 40° C

Altitude

Operating: 10,000 ft.

Non-Operating: 15,000 ft.

Shock

30 g, 11 ms, 1/2 sine wave

Vibration

0.013 in. (pk-pk), 5-55 Hz

Bench Handling

4-inch drop at 45°

Power Requirements

+5 VDC

1260-160B: 0.42 A max.

1260-160E: 0.94 A max.

EMC

Emissions

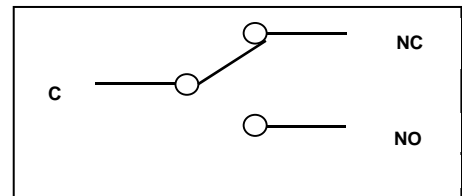
EN61326, Class A, Table 3

Immunity

EN61326, Class A, Table 1


Safety

CE, EN61010-1



Racal Instruments 1260-160B/E

Two or Five Independent Switches;
One Channel Shown

 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 1260-160B, Two SPDT Microwave Switches, 18 GHz

Racal Instruments 1260-160E, Five SPDT Microwave Switches, 18 GHz

Deep Slotted Socket, 5 /16"

PART NUMBER

407766-002

407766-005

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.



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