



VXIbus Optical Attenuator Module

- ◆ **Ideal for SONET Testing**
- ◆ **High Repeatability for Accurate Testing**
- ◆ **Modular VXIbus Architecture**
- ◆ **Optional Overnight Depot Spare**
- ◆ **Special Configurations Readily Available**

Racal Instruments™ 8800 optical attenuator module brings the advantages of the modular VXIbus architecture to optical systems test. Modules can quickly and easily be removed and replaced for maximum system uptime. In addition, Racal offers overnight depot spares contracts to free you from stocking spares.

These optical attenuator modules are ideal for SONET test, fiber-optic component test, and fiber network monitoring. The Option 01T interface controls the 1260-39, using both register-based and message-based operation. Refer to the applicable Option 01T data sheet for specifications and product features such as include, exclude, and scan lists, relay coil-current monitoring, and user-defined path names and reset states.

The 8800 modules feature a linear absorbing glass prism to achieve precise attenuation of optical channels. This implementation provides highly repeatable attenuation, low polarization sensitivity, low distortion, and high linearity facilitating the construction of highly accurate optical test systems. These attenuators are optically passive and operate independently of data rate, data format, and optical signal direction.

The model 8800 provides message-based operation for ease of use.

The 8800 series line includes *VXIplug&play* support of Win95/NT frameworks including drivers for LabWindows/CVI and LabView.

8800 PRODUCT SPECIFICATIONS

PERFORMANCE

Optical Fiber Type

9/125µm, single-mode fiber
(Other fiber types available upon request)

Wavelength Range

1200-1700nm

Attenuation Range

>60dB

Resolution

.01dB

Insertion Loss

≤2.5dB maximum
1.9dB typical

Back Reflection

≤-45dB maximum
≤-50dB typical

Polarization Dependant Loss

(See Note 2)
0.15dB maximum
0.05dB typical

Repeatability

(See Note 3)
+/- 0.05dB maximum
+/- 0.01dB typical

Accuracy

1310nm +/- 0.15dB (typically .05dB)
1550nm +/- 0.15dB (typically .05dB)

Maximum Optical input power

≤ 200mW

Isolation

>100dB minimum, with shutter closed

Adjustment Time

<4 sec maximum, 0 to 60dB

INTERFACE DATA

Cooling Requirements

1.2 liters/second @
0.01mm H₂O

Power Requirements

+5VDC @ 1.0Amps
+24VDC @ 0.5Amps

ENVIRONMENTAL DATA

Temperature

Operating: 0°C to 50°C
Storage: -40°C to 70°C

Relative Humidity

95% non-condensing to 30°C

Shock

30g, 11msec, ½ sinewave

Vibration

0.013" peak-to-peak, 5-55Hz

Bench Handling

4-inch 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

MTBF

>100,000 hours, minimum

MECHANICAL

Weight

3.6lbs. (1.63kg)

Dimensions

2-Slot, C-size, VXIbus module

Front Panel Interface Connector


(See Note 4)

FC Style

(Other style interface connectors
available upon request)

Notes:

1. All specifications are referenced with connectors and measured at 25°C ±5°C.
2. Measured at 1550nm and 1310nm.
3. 100 cycles measured at constant temperature after 1-hour warm-up.
4. Interface cables are not supplied with the module(s).

 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 8800, Optical Attenuator Module
Additional 8800 User Manual
8800 Maintenance Manual

PART NUMBER

407715
980845
980846

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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