

VXIbus 2x2 Optical Switch Module Model 1260-822



- ◆ Ideal for SONET Testing
- ◆ High Repeatability for Accurate Testing
- ◆ Modular VXIbus Architecture
- ◆ Quick Delivery from Stock
- ◆ Optional Overnight Depot Spares
- ◆ Special Configurations Readily Available

The 1260-822 optical switch modules bring 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 switch modules are ideal for SONET test, fiber-optic component test, and fiber network monitoring. They are commonly used in terminal equipment and transceiver testing to simulate loopback and bypass conditions.

The 1260-822 optical switch module uses 2x2 prism switches to provide

channel selection from two input fibers to two output fibers using a moving prism between fixed collimator pairs. Its 2x2 topology can be used to insert or bypass signal paths (see diagram on following page).

This implementation provides very fast switching speeds with ultra-low insertion loss and repeatable switch paths, facilitating the construction of highly accurate optical test systems. These switches are optically passive, and operate independently of data rate, data format, and optical signal direction.

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.

1260-822 SPECIFICATIONS

PERFORMANCE

Optical Fiber Type

9/125µm

(Other fiber types available upon request)

Wavelength Range

1290-1570nm

Insertion Loss (See note 2)

<1.9dB maximum, 1.1dB typical

Back Reflection (See note 2)

<55dB minimum

Polarization Dependent Loss

(See note 3)

0.1dB max. (with connectors)

0.05dB max (switch only)

Repeatability (See note 4)

± 0.01dB maximum

± 0.005dB typical

Isolation

80dB maximum

INTERFACE DATA

Cooling Requirements

0.14 liter/sec @ 0.008mm H₂O

0.58 liter/sec @ 0.035mm H₂O

w/Option 01T

Power Requirements

+5VDC @ 0.31A

+5VDC @ 1.31A w/Option 01T

ENVIRONMENTAL DATA

Temperature

Operating: 0°C to 50°C

Storage: -40°C to 71°C

Relative Humidity

90% RH non-condensing at <30°C
for 5 days

Altitude

0.013" _{Pk-Pk}, 5-55Hz

Shock

30g, 11 ms, ½ sine wave

Vibration

0.013inch _{Pk-Pk}, 5-55Hz

Bench Handling

4 in. 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

15msec maximum

Rated Switch Operations

>10⁷ operations minimum

MTBF

>100,000hrs.

MECHANICAL

Weight

3.30lbs (1.50kg)

3.355lbs (1.61kg) w/Option 01T

Dimensions

Single-slot, C-size, VXIbus module

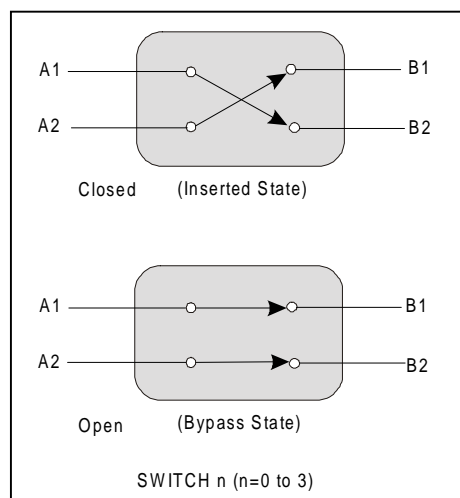
Front Panel Interface Connector

FC/SPC

(Other style interface connectors
available upon request)

Notes:

1. Unless indicated all specifications are referenced with connectors.
2. Measured at 23°C ±5°C.
3. Drift of any channel to a reference channel at ±3°C temperature deviation over 7 day period.
4. Measured at 1550nm.
5. 50 cycles measured at constant temperature after 1 hour warm-up.



1260-822 Block Diagram

ORDERING INFORMATION

Model	Description	Part Number
1260-822B	Dual 2X2 Optical Switch	407709-002
1260-822D	Quad 2X2 Optical Switch	407709-004
980673-060	Additional User Manual	980673-060

*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 and consequently the equipment may vary in detail from the description and specification in this publication.

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