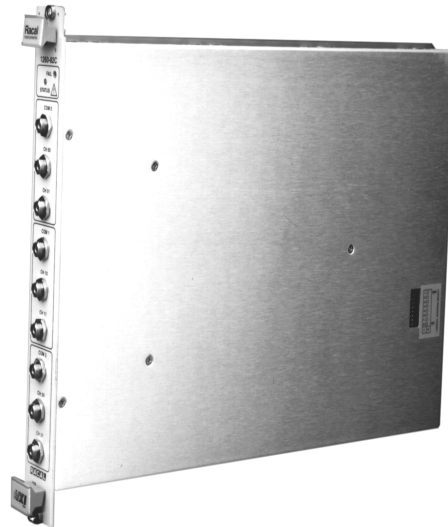# Racal Instruments

PRODUCT INFORMATION

VXIbus 1X2 Optical Switch Module Model 1260-82

- ◆ **Ideal for SONET Testing**

- ◆ **High Repeatability for Accurate Testing**

- ◆ **Modular Commercial VXIbus Architecture**

- ◆ **Quick Delivery from Stock**

- ◆ **Optional Overnight Depot Spares**

- ◆ **Special Configurations Readily Available**

The 1260-82 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 and 24X7 global support.

These optical switch modules are ideal for SONET test, fiber-optic component test, and fiber network monitoring. They are commonly used for dual-source or dual-receiver selection in automated test systems.

The 1260-82, 1x2 topology can be used for simplex or duplex switching. The 1260 series' "include" command permits simultaneous closure of both switches with a single software command when a duplex scheme is required.

The 1260-82 switch modules utilize a moving prism between fixed collimator lenses to provide fast switching speeds, ultra-low insertion loss, and highly repeatable operation. 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 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.

1260-82 SPECIFICATIONS

PERFORMANCE

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

Wavelength Range
1290-1570nm

Insertion Loss (See Note 2)
<1.1dB maximum, 0.6dB typical

Back Reflection (See Note 2)
<-55dB maximum, -60dB typical

Polarization Dependent Loss
(See Note 3)
0.05dB maximum

Repeatability (See Note 4)
+/- 0.01dB max

Isolation
>80dB minimum, 90dB typical

INTERFACE DATA

Cooling Requirements
1.0 liters/second @
0.025mm H_2O

Power Requirements
+5VDC @ 0.65A
+5VDC @ 1.65A w/Option 01T

ENVIRONMENTAL DATA

Temperature
Operating: 0°C to 50°C
Storage: -20°C to 70°C

Relative Humidity
90% non-condensing to 40°C for 5 days

Shock
30g, 11msec, ½ sinewave

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

Bench Handling
4", 45°

EMC

Emissions
EN55011A with limits in accordance with EN50081-1

Immunity
EN61000-4-2, 3, 4 with limits in accordance with EN50082-1

Safety
EN61010-1

RELIABILITY

Switching Time
10msec typ., 15msec max
Rated Switch Operations
>10^7 operations minimum

MTBF
>100,000 hours,
minimum optical switch rating:
10^7 cycles

MECHANICAL

Weight
1260-82C   2.70lbs.   (1.23kg)
1260-82D   2.82lbs.   (1.28kg)
1260-82F   3.06lbs.   (1.39kg)
Add 0.25lbs (0.11kg) when
Option 01T is installed

**Dimensions**
One slot C-size, VXIbus module

Front Panel Interface Connector
FC Style

(Other style interface connectors available upon request)

Notes:
1. **All specifications are referenced without connectors and measured at 23°C +/- 5°C.**
2. **Connectors have typically less than 0.25dB insertion loss and -45dB back reflection.**
3. **Measured at 1550nm. PDL typically less than 0.02dB per mated connector pair.**
4. **100 cycles measured at constant temperature after 1-hour warm-up.**
5. **Interface cables are not supplied with the module(s).**
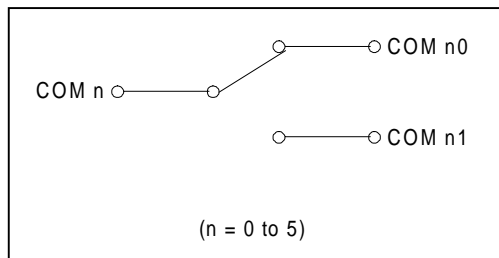
1260-82 Block Diagram

ORDERING INFORMATION		
Model	**Description**	**Part Number**
1260-82C	Three 1X2 Optical Switch Module	407705-003
1260-82D	Four 1X2 Optical Switch Module	407705-004
1260-82F	Six 1X2 Optical Switch Module	407705-006
980673-059	Additional User Manual	980673-059
*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.