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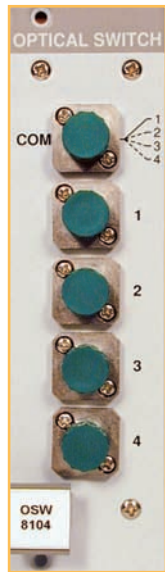
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Optical Switch Modules for PRO8 (Page 1 of 2)



PRO8000 Optical Switch Modules: The OSW8000 optical switch modules facilitate distribution of test signals in complex test setups. The modularity of 1 x 2, 1 x 4, 1 x 8, and 2 x 2 switches allows for the flexible construction of routing paths. The bi-directional, ultra-fast, and highly reliable switch modules are designed for low insertion loss with excellent repeatability. The exceptionally low crosstalk between switch channels ensures the integrity of high-precision optical measurements.

Introduction - Optical Switch Modules

This family of optical switching modules provides additional building blocks when constructing automated optical test networks. Four different bi-directional switching modules are available, providing highly flexible routing of optical signals.

The OSW8000 series bi-directional optical switches offer a fast switching time (typically, rise times are better than 0.5 ms with a maximum of 1 ms), and a broad wavelength range (1240 nm to 1610 nm), making them ideal companions to our extensive

line of DWDM laser diode sources shown on pages 1267 - 1275. The four different modules offered are 1 x 2, 1 x 4, 1 x 8, and 2 x 2 switches, each of which features low insertion loss and excellent repeatability.

Features

- Wavelength Range: 1240 - 1610 nm
- Very Fast Response Time: 0.5 ms Typical, 1 ms Max
- Low Insertion Loss: 0.7 dB (1 x 2) Typical, 2.6 dB (1 x 8) Max
- Excellent Repeatability: ± 0.01 dB
- MEMS Technology for Long Life: $>10^9$ Cycles
- Four Modules: 1 x 2, 1 x 4, 1 x 8, and 2 x 2
- Up to Eight Switch Modules per Chassis
- LabVIEW™ and LabWindows™/CVI Drivers Included
- Efficient Test Signal Routing in Branching Test Beds

MEMS Technology:**Provides Billions of Switch Cycles**

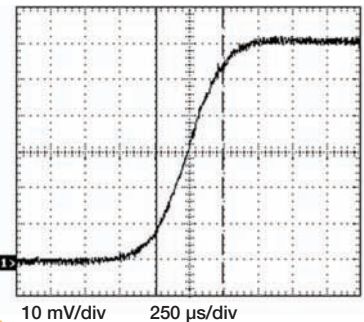
The switching mechanism is based on silicon MEMS (Micro-Electro-Mechanical Systems) technology, which ensures a long lifetime and fast operation (see Figure 1). This technology also provides very low crosstalk between channels; the 1 x 4 and 1 x 8 switches have a maximum crosstalk specification of -60 dB, and the 1 x 2 and 2 x 2 are both rated at -50 dB.

IEEE-488 Computer Control of Multiple PRO8s

The PRO8 chassis (2 slot and 8 slot models) are both equipped with an IEEE-488.2 interface supported by a number of free LabVIEW™ and LabWindows™ drivers. The PRO8 can accept an assortment of different modules, allowing the OSW8000 switches to be combined with our high-performance laser sources. All PRO8 series chassis are also equipped with an RS-232C interface.



The IEEE-488.2 interface facilitates complete control of the multiple functions of each module, thus supporting the configuration of complex test routines that utilize different types of modules.

**Figure 1**

Rise time measurement of the MEMS based optical switch; the rise time measured between the 10% and 90% points is 480 μ s.

User Friendly Operation

The PRO8000 series chassis offers a user friendly, menu-driven platform from which a selection of various modules can be operated.

Configuring a system is as simple as inserting the modules; each of the plug-in modules automatically identifies itself to the chassis processor. A brightly lit, 4 x 20 fluorescence display allows the user to scroll through and select any installed module. When selected on the display, all of the control parameters for the individual module are accessible and all functionality is controllable via the front panel. Additional higher level commands are available for operating the system via the IEEE-488 interface (e.g., changing switch settings to automate multi-path testing).

Optical Switch Modules for PRO8 (Page 2 of 2)



OSW8202

Other Connectors
Available upon
Request.

The OSW8000 series of modules requires one of our two PRO8 series chassis. We offer two different chassis versions: the PRO800 two-slot chassis fits perfectly where space is limited, and the PRO8000 eight-slot chassis is ideal for use in building larger test systems. For even larger test systems it is possible to control many of the mainframes simultaneously via the IEEE-488.2 interface. Details on both of these PRO8 chassis can be found on page 1160.

PRO800 with
Two OSW8000
Modules

ITEM #	OSW8102	OSW8104	OSW8108	OSW8202
Switching Configuration	1 x 2	1 x 4	1 x 8	2 x 2
Switching Time Typical	0.5 ms Typical (1 ms Max)			
Wavelength Ranges	1240 - 1610 nm			
Maximum Input Power	17 dBm (CW)			
Insertion Loss (Typical/Max)*	0.7 dB / <1.5 dB	1.2 dB / <2.1 dB	1.6 dB / <2.6 dB	0.7 dB / <1.5 dB
PDL**	<0.1 dB	<0.15 dB	<0.2 dB	<0.15 dB
Crosstalk, Max	<-50 dB	<-60 dB	<-60 dB	<-50 dB
Repeatability	±0.01 dB			
Return Loss	-50 dB	-50 dB	-45 dB	-50 dB
Connectors	FC/APC			
General Data				
Operating Temperature	0 to +35 °C			
Storing Temperature	-10 to +60 °C			
Width	1 Slot			

* Including connectors

** Measured at 1550 nm

ITEM #	\$	£	€	RMB	DESCRIPTION
OSW8102	\$ 3,214.00	£ 2,314.08	€ 2,796.18	¥ 25,615.58	1 x 2 Optical Switch, FC/APC
OSW8104	\$ 4,198.00	£ 3,022.56	€ 3,652.26	¥ 33,458.06	1 x 4 Optical Switch, FC/APC
OSW8108	\$ 8,158.00	£ 5,873.76	€ 7,097.46	¥ 65,019.26	1 x 8 Optical Switch, FC/APC
OSW8202	\$ 3,955.00	£ 2,847.60	€ 3,440.85	¥ 31,521.35	2 x 2 Optical Switch, FC/APC

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NEW
product



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- ◆ Measurement Capabilities from 100 pW to 250 W and 185 nm to 25 μm
- ◆ Power and Energy Measurements
- ◆ 5.7" Auto-Rotating, Color Touch Screen
- ◆ USB Stick Data Storage
- ◆ Optional Plug-In Fiber Inspection Camera

For more details, see pages 1548 - 1551