

## MP-OPTSW Series: Optical Switch Modules



### Ruggedized Optical Switch Modules Support RF over Fiber and Delay Line Systems

The MP-OPTSW series of Optical Switch Modules are packaged into a ruggedized enclosure ideal for integration into a users subsystem. The MP-OPTSW is specifically designed to provide optical signal path diversity within photonic based networks.

The MP-OPTSW can be configured with multiple integrated solid state fiber switch configurations that provides the mechanism to direct inbound and outbound optical signals to selected pathways. Optical switch control is provided by either the rear connector pin contacts or through a digital communication protocol.

The MP-OPTSW can switch pathways from one input to another, without impacting other switch traffic. This feature is referred to as "non-blocking".

The MP-OPTSW offers flexible design options that can be tailored to meet a wide array of network infrastructure configurations.

The MP-OPTSW optical switch modules can be specified as a plug-in module which allows for a hot-swap capability within the MPS-1911 and MPS-1914 rack chassis systems. This arrangement allows for the MP-OPTSW to be easily co-located next to any MPS series TX or RX such that a full suite of RF and Photonic modules can be powered and remotely monitored via Ethernet (SNMP options) and locally monitored via the MPS-1911/1914 rack chassis' front panel display.

For additional information and technical discussion on available options, please contact MPS toll-free at 888-868-8967 or email [info@b2bphotonics.com](mailto:info@b2bphotonics.com)

#### Applications:

- Network Operation Centers
- Optical Delay Lines
- Photonic Laboratories
- Network Redundance Switches
- Test and Measurement
- Sensing and Control Systems

#### Standard Features:

- High Optical Pathway Isolation
- Low Optical Insertion Loss
- Ruggedized Construction
- High Density
- Multiple Switch Configurations



Plug-In Style Module

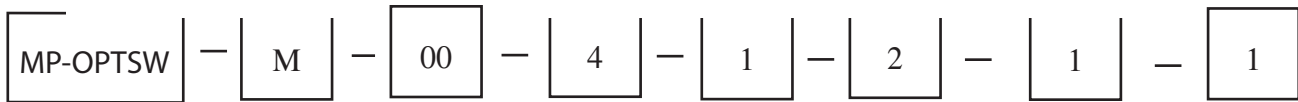
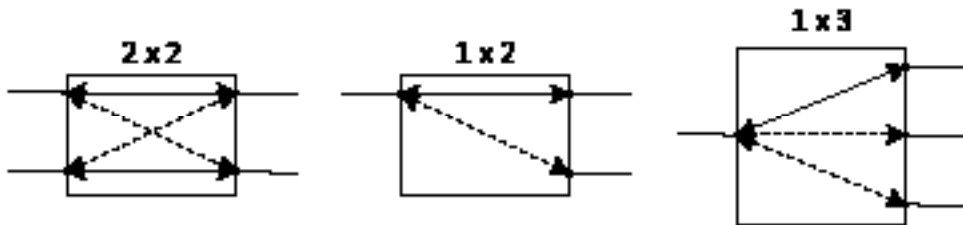
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**Optical Specifications**

|                                  |   |
|----------------------------------|---|
| Optical Wavelength               | 1260 nm to 1620 nm                            |
| Fiber Type                       | Single Mode                                   |
| Switch Configurations            | 1x2, 2x2, 1x3, other configurations available |
| Insertion Loss                   | 0.5 dB (typ), 1.0 dB (max)                    |
| Return Loss                      | > 50 dB                                       |
| Cross Talk Isolation             | > -55 dB                                      |
| Repeatability                    | +/- .05 dB max                                |
| Stability                        | +/- .05 dB max                                |
| Durability                       | 10e9 Switch Cycles                            |
| Transmission Power               | +27 dBm (max)                                 |
| Switch Response Time             | 50 ms, max                                    |
| Input / Output Optical Connector | LC/APC , FC/APC, SC/APC, E2000                |

**Mechanical / Environmental Specifica-**

|                                  |                                 |
|----------------------------------|---------------------------------|
| Power Supply                     | +8.0 to +24 VDC, 5 Watts (max)  |
| Operating Temperature (std)      | -20°C to +50°C                  |
| Operating Temperature (extended) | -40°C to +70°C                  |
| Storage Temperature              | -45°C to +85°C                  |
| Operating Humidity               | 95% Non-condensing              |
| Storage Altitude                 | 50,000 ft                       |
| Dimensions:                      |                                 |
| Flange Mount TX                  | 5.0" x 2.5" x 1.25"             |
| Chassis Mount                    | MPS-1911 or MPS-1914 Compatible |



| Type    | Configuration | # of Switches | Switch Config | Connector      | Case Type        | Temp Range   |
|---------|---------------|---------------|---------------|----------------|------------------|--------------|
| M=MUX   | 00=Standard   | 1 = 1 Switch  | 1 = 2x2       | 2 = FC/APC     | 1 = 1911 Plug-in | 1 = Standard |
| D=DEMUX |               | 2 = 2 Switch  | 2 = 1x2       | 4 = SC/APC     | 2= 1914 Plug-in  | 2= Extended  |
|         |               | 3 = 3 switch  | 3 = 1x3       | 6 = Special    | 3= Flange Mount  |              |
|         |               |               |               | 7 = PC/APC     |                  |              |
|         |               |               |               | 8 = AVIM / APC |                  |              |