

# SelfAlign™ Series of 1xN Fiber Optic Switch Module (bidirectional)

(Protected by U.S. patents 7224860, 6757101, 6577430 and pending patents)

## Product Description

The SelfAlign Series 1xN Series optical fiber switch is based on patent pending self-groove alignment mechanism without the need for AR coating and lenses. It offers unparalleled advantages of very low loss and cost, amicable to any fiber core size, and broad wavelength operation from 300nm-2300nm. The 1xN series optical fiber switch is compliant with the Telcordia 1209 and 1221 reliability standards. The driving circuit is embedded in the package and is connected to computer through RS232, USB or RJ45 interface.

The SelfAlign 1xN optical fiber switch is suitable for multiple channel signal monitoring and signal management. The switch is bidirectional. It is not designed to maintain optical connections after electrical power is removed.



## Performance Specifications

| SelfAlign 1xN Switch                     | Min             | Typical                          | Max                | Unit  |
|--|-----------------|----------------------------------|--------------------|-------|
| Operation Wavelength                     | 400             |                                  | 1800               | nm    |
| Insertion Loss <sup>[1]</sup>            |                 | 0.6                              | 1.5                | dB    |
| Cross Talk                               | 50              |                                  |                    | dB    |
| Switch Speed (Rise, Fall) <sup>[2]</sup> |                 | 100                              |                    | ms    |
| Durability                               | 10 <sup>7</sup> |                                  |                    | cycle |
| Polarization Dependent Loss              |                 | 0.02                             | 0.1                | dB    |
| Wavelength Dependence Loss               |                 | 0.1                              | 0.2                | dB    |
| Return Loss                              | 45              |                                  |                    | dB    |
| Repeatability                            |                 |                                  | 0.3                | dB    |
| Power Consumption <sup>[3]</sup>         | 0.7             | 3.6                              | 5                  | W     |
| Operating Temperature <sup>[4]</sup>     | -5              |                                  | 65                 | °C    |
| Optical Power Handling <sup>[5]</sup>    |                 | 300                              | 500 <sup>[6]</sup> | mW    |
| Storage Temperature                      | -40             |                                  | 85                 | °C    |
| Power supply                             |                 | 100 -240                         |                    | VAC   |
| Fiber Type                               |                 | SMF-28 or 50/125um or 62.5/125um |                    |       |
| Package Dimension                        |                 | 2RU 19" Mount rack or similar    |                    |       |

[1]. Measured without connectors

[2]. Switching between adjacent channels

[3]. Consume minimum power during sleep time

[4]. -25 °C -75°C version is also available.

[5]. High power version available

## Features

- Low Cost
- High Reliability
- Low Insertion Loss
- Broad Band
- Compact Design
- Low Power Switching

## Applications

- Optical Signal Routing
- Network Protection
- Wavelength Management
- Signal Monitoring
- Instrumentation

# SelfAlign™ Series 1xN Fiber Optic Switch Module

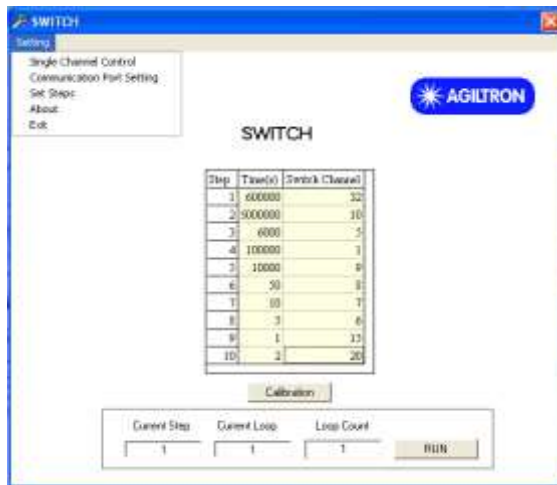
## Module Mechanical Dimensions

2RU 19” mount rack typically. The input and output connectors are on the front panel, while the control interface and power supplier are on the rear panel.

## Control Interface and Power Supply

- RS 232
- Ethernet 10/100 with definable IP address
- USB
- GUI
- 120-220V (0.6 A) Power Input

## Typical Graphic User Interface



## Ordering Information

| LBSC-  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>         | <input type="checkbox"/> | x                            | <input type="checkbox"/>                               | <input type="checkbox"/>                  | 0  | <input type="checkbox"/> |
|--|---|--------------------------|------------------------------|--|---|--|--------------------------|
| Type   | Wavelength  | Switch Type              | Package                      | Fiber Type   | Connector                                 |  |                          |
| 1x8=008<br>1x16=016<br>1x32=032<br>1x64=064<br>1x128=128<br>1x256 = 256<br>Special=000 | 1060nm=1<br>1310nm=3<br>1410nm=4<br>1550nm=5<br>1310/1550nm=2<br>650nm=6<br>780nm=7<br>850nm=8<br>Special=0 |                          | Standard 2RU =1<br>Special=0 | SMF-28 =1<br>MM 50/125=2<br>MM 62.5/125=3<br>Special=0 | Bare fiber=1<br>loose tube=2<br>Special=0 | None=1<br>FC/PC=2<br>FC/APC=3<br>SC/PC=4<br>SC/APC=5<br>ST/PC=6<br>LC=7<br>Duplex LC=8<br>Quad LC=9<br>Special=0 |                          |