

## Prism Switch Module: 1x12

This document summarizes the performance specifications of a 1x12 Prism Switch Module with SMF-28 fiber operated at 1550 nm (+/-40). Target parameters are referenced without any connector.

### Features

- Fast Switching Speed
- Low Insertion Loss, Low Cross Talk, and High Return Loss
- Wide Wavelength Range
- Status Feedback of Optical State
- Energy Efficient with Latching Operation
- Excellent Repeatability and Mechanical Stability
- Long Life Cycles
- High Optical Power
- Optional Electronic Interface Driver

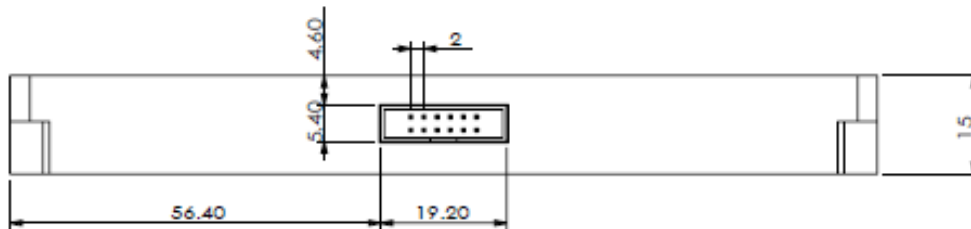
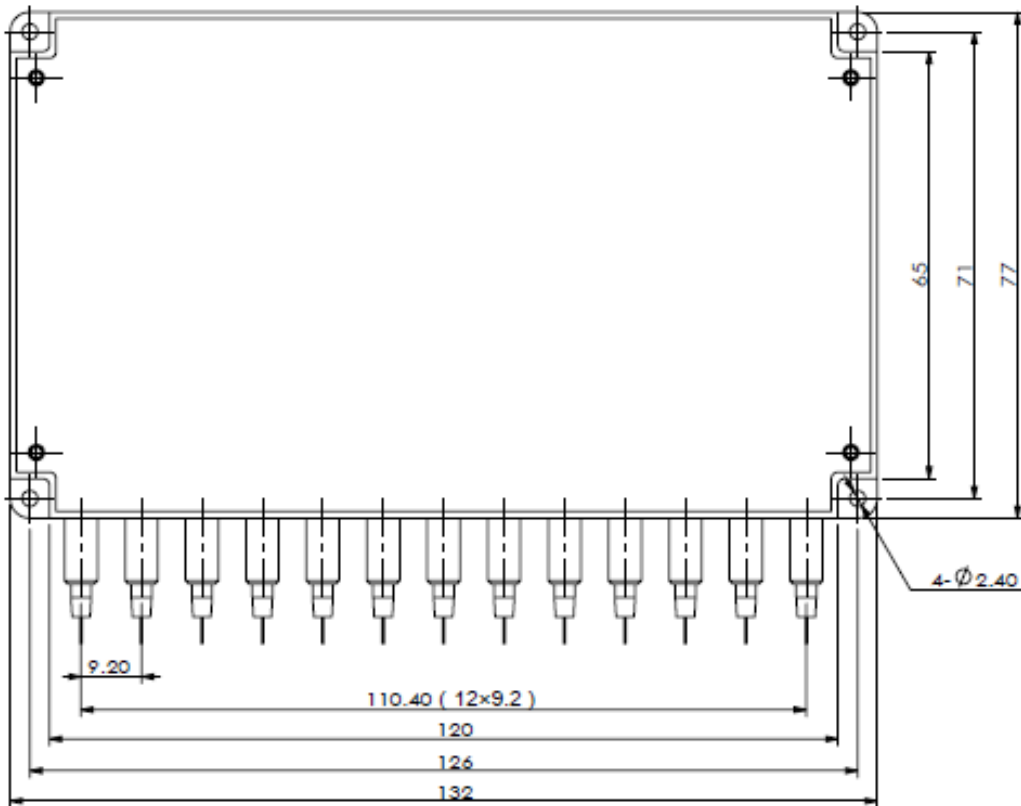
### Applications

- Active Optical Add/Drop Multiplexing
- Network Route Switching
- Laboratory R&D

| Optical Switch Lightrack Series*              | Symbol          | Performance Specifications                   |   | Unit |
|---|-----------------|--|---|------|
| Wavelength Range                              | C <sub>L</sub>  | 1550+/-40                                    |   | nm   |
| Switching Time (95%)                          | T <sub>sw</sub> | Typical                                      | 15  | ms   |
|   |                 | Maximum                                      | 20  |      |
| Insertion Loss(without connector;<br>23±3 °C) | IL              | Typical                                      | 1.2   | dB   |
|   |                 | Maximum                                      | 1.5   |      |
| Insertion Loss(with connector)                | IL              | Maximum                                      | 2.4 ( Out Port MPO IL 0.75dB,<br>IN Port FC/UPC or SC/UPC IL 0.15<br>dB ) | dB   |
| Cross Talk                                    | CT              | Minimum                                      | 50  | dB   |
| Repeatability                                 | RP              | Typical                                      | +/-0.03   | dB   |
|   |                 | Maximum                                      | +/-0.05   |      |
| Optical Return Loss                           | RL              | Minimum                                      | 50  | dB   |
| Out Ports Connectors type                     |                 |  | (MPO/3mm )  |      |
| In Port Connector type                        |                 |  | FC/UPC or SC/UPC and 900 loose<br>tube                                    |      |
| Input Optical Power                           |                 | Maximum                                      | 500   | mW   |
| Fiber Type                                    |                 | Corning SMF-28e+                             |   |      |
| Fiber Jacket                                  |                 | NA   |   |      |
| Switch Type                                   |                 | Latching                                     |   |      |
| Life Cycles (Durability)                      |                 | 10 Millions                                  |   |      |
| Operating Temperature                         | T <sub>OP</sub> | -5 ~ +70                                     |   | °C   |
| Storage Temperature                           | T <sub>ST</sub> | -40 ~ +85                                    |   | °C   |
| Switching Voltage                             | V               | 4.5 to 5.5                                   |   | V    |
| Switching Current                             | I               | Maximum                                      | 400   | mA   |
| Control Driver connector                      |                 | DC3-2.0-2X6 male                             |   |      |
| Dimension                                     | PKG             | Preliminary Estimate :132(L) x 77(W) x 15(H) |   | mm   |

\* Patent pending technology

## Standard Package Dimensions: 1x2



S

Units: mm