## 0507 MEMS Optical Switch

## [1202-S

## 1x4 MEMS Dptical Switch

The $1 \times 4$ fiber optic switch connects optical channels by redirecting incoming optical signals into selected output fibers. It features rugged thermal activated micro-mirror movements instead of rotation, and latches to preserve the selected optical path after the drive signal has been removed. That reduces packaging requirement, simplifies driving electronics, offering high stability as well as low cost.

## FEATURES

- High Reliability
- Intrinsic Tolerance to ESD
- Latching


## USE IN

- Channel Blocking
- Configurable Add/Drop

| Wavelength Range | 1260 nm to 1620 nm |
| :--- | :--- |
| Testing Wavelength | $1310 \mathrm{~nm} / 1490 \mathrm{~nm} / 1550 \mathrm{~nm} / 1625 \mathrm{~nm} / 1650 \mathrm{~nm}$ |
| Insertion Loss | 0.7 dB typ.; 1.2 dB max. |
| Return Loss | 50 dB min. |
| Crosstalk | 50 dB min. |
| PDL | 0.10 dB max. |
| WDL | 0.25 dB max. |
| TDL | 0.20 dB max. |
| Repeatability | $\pm 0.05 \mathrm{~dB}$ max. |
| Repeatability Rate | 20 Hz |
| Lifetime | $10^{9} \mathrm{Cycle} \mathrm{min}.$. |
| Switch Time | $5 \mathrm{~ms} \mathrm{max}$. |
| Transmission Power | 500 mW max. |
| Operation Temperature | $-5^{\circ} \mathrm{C} \mathrm{to}+70^{\circ} \mathrm{C}$ |
| Storage Temperature | $-40^{\circ} \mathrm{C} \mathrm{to}+85^{\circ} \mathrm{C}$ |
| Switching Type | Latching |
| Dimension | $26 \times 22 \times 9.4( \pm 0.2) \mathrm{mm}$ |

Order notes to our customers: The default parameters are as follows. For special needs, please contact sales.

1) Connector FC/APC, 900 um, 1 m by default for all devices except for high power devices.
2) Slow axis working, fast axis blocked, connector key is aligned to slow axis by default for PM devices.

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## [I2O2-S

MECHANICAL DIAGRAM

| Optical Path | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comm $\leftrightarrow$ Port 1 | DP | NC | NC | DP | NC | DP |  |  |
| Comm $\leftrightarrow$ Port 2 | NC | DP | DP | NC | NC | DP | GND |  |
| Comm $\leftrightarrow$ Port 3 | NC | DP | NC | DP | DP | NC |  |  |
| Comm $\leftrightarrow$ Port 4 | NC | DP | NC | DP | NC | DP |  |  |
| * DP: Driving Pulse Voltage. |  |  |  |  |  |  |  |  |


| Driving Pulse Voltage | $9.3 \vee$ typ.; $9 \vee$ min.; 9.5 V max. |
| :--- | :--- |
| Driving Pulse Width | 12.5 ms typ.; 12 ms min.; $13 \mathrm{~ms} \mathrm{max}$. |
| Peak Current | 290 mA typ. |



Unit: mm

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