## Nano SpeedTM High Power 1x2 Solid-State Fiberoptic Switch

## Product Description

The NS Series $1 \times 2$ solid-state fiber optic switch connects optical channels by redirecting an incoming optical signal into a selected output optical fiber. This is achieved using a patent pending non-mechanical configurations with solid-state all-crystal design which eliminates the need for mechanical movement and organic materials. The NS fiberoptic switch is designed to meet the most demanding switching requirement of ultrahigh reliability, fast response time, and continuous switching operation.
The device can be driven by a cost effective circuit with 12 V input voltage and $0-5 \mathrm{~V}$ control signal

## Features

- Solid-State high speed
- Ultra-high reliability
- Low insertion loss
- Compact size
- Low cost
- Low power consumption
- Simple driver


## Applications

- Optical blocking
- Configurable operation
- Instrumentation


## Performance Specifications

| NH Series 1x2 Switch | Min | Typical | Max | Unit |
| :--- | :---: | :---: | :---: | :---: |
| Operation Wavelength | 400 |  | 1800 | nm |
| Insertion Loss | 0.4 | 0.6 | 1.0 | dB |
| Cross Talk | 20 | 25 | 35 | dB |
| Polarization Dependent Loss |  | 0.15 | 0.35 | dB |
| IL Temperature Dependency |  | 0.25 | 0.5 | dB |
| Polarization Mode Dispersion |  | 0.1 | 0.3 | ps |
| Return Loss | 45 | 50 | 60 | dB |
| Response Time (Rise, Fall) |  |  | 300 | ns |
| Repetition Rate | DC | 5 | $300^{* *}$ | KHz |
| Operating Temperature | -5 |  | 70 | ${ }^{\circ} \mathrm{C}$ |
| Optical Power Handling |  |  | $5^{* * *}$ | W |
| Storage Temperature | -40 |  | 85 | ${ }^{\circ} \mathrm{C}$ |
| Package Dimension |  | $65.5 \times 23.5 \times 6.5$ | mm |  |

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## Mechanical Dimensions (mm)



## Speed and Repetition Measurement



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## Bandwidth Measurement



Ordering Information

| NHSW- | $\Gamma$ | $\square$ | 1 | 1 | 1 | $\square$ | $\square$ | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Type | Wavelength | Configuration | Package | Fiber Type |  | Fiber Length | Connector |
|  | $1 \times 2=12$ | $\begin{aligned} & 1550=5 \\ & 1310=3 \\ & \text { Special }=0 \end{aligned}$ |  |  | $\begin{aligned} & \text { SMF-28 }=1 \\ & \text { Special }=0 \end{aligned}$ | Bare fiber $=1$ $900 u m$ loose tube $=3$ Special $=0$ | $\begin{aligned} & 0.25 \mathrm{~m}=1 \\ & 0.5 \mathrm{~m}=2 \\ & 1.0 \mathrm{~m}=3 \\ & \text { Special }=0 \end{aligned}$ | None $=1$ $F C / P C=2$ $F C / / P C=3$ $S C=3 C=4$ $S C / A P C=5$ $S T / P C=6$ $L C=7$ Special $=0$ |


[^0]:    * Driver kit is recommended
    ** Special circuit
    ** Continuous operation, for pulse operation call

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