

# NanoSpeed™ High Power 1x2 Solid-State PM Fiberoptic Switch (Bidirectional)

(Protected by U.S. patent 7,403,677B1 and pending patents)

## Product Description

The NS High Power Series 1x2 solid-state PM fiber optic switch connects optical channels by redirecting an incoming optical signal into a selected output optical fiber. This is achieved using patented non-mechanical configurations with solid-state all-crystal designs, which eliminates the need for mechanical movement and organic materials. The NS high power PM fiberoptic switch is designed to meet the most demanding switching requirements of ultra-high reliability, fast response time, and continuous switching operation. The switch is bidirectional.

Agiltron's PCB driver listed in the web is recommended to operate this device, featuring high efficiency and low cost with 12V DC power and TTL control signal.



## Performance Specifications

| NH Series 1x2 PM Switch               | Min            | Typical | Max  | Unit |
|---------------------------------------|----------------|---------|------|------|
| Central Wavelength                    | 980            |         | 2000 | nm   |
| Insertion Loss <sup>[1]</sup>         | 1260-1650nm    | 0.6     | 1.0  | dB   |
|                                       | 960-1260nm     | 0.8     | 1.3  | dB   |
| IL Temperature Dependency             |                | 0.25    | 0.5  | dB   |
| Cross Talk                            | 20             | 25      |      | dB   |
| Extinction ratio                      | 18             | 25      | 30   | dB   |
| Return Loss                           | 45             | 50      |      | dB   |
| Response Time (Rise, Fall)            |                |         | 300  | ns   |
| Repetition Rate <sup>[2]</sup>        | DC             | 5       |      | KHz  |
| Operating Temperature                 | -5             |         | 70   | °C   |
| Optical Power Handling <sup>[3]</sup> |                |         | 5    | W    |
| Storage Temperature                   | -40            |         | 85   | °C   |
| Fiber Type                            | Panda PM fiber |         |      |      |
| Package Dimension                     | 65.5x23.4x6.5  |         |      | mm   |

[1] Excluding connectors.

[2] Standard driver. High repetition rate (up to 500 KHz) is available with special circuit, please call us.

[3] Defined at 1310/1550nm. For the shorter wavelength, the handling power may be reduced.

## Features

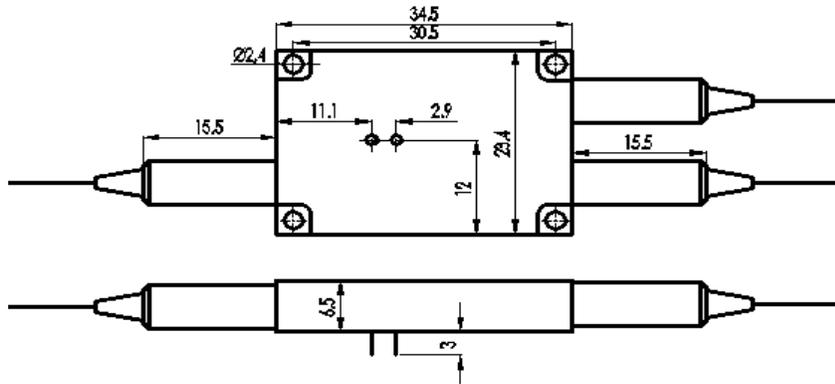
- Solid-State
- High speed
- Ultra-high reliability
- Low insertion loss
- Compact

## Applications

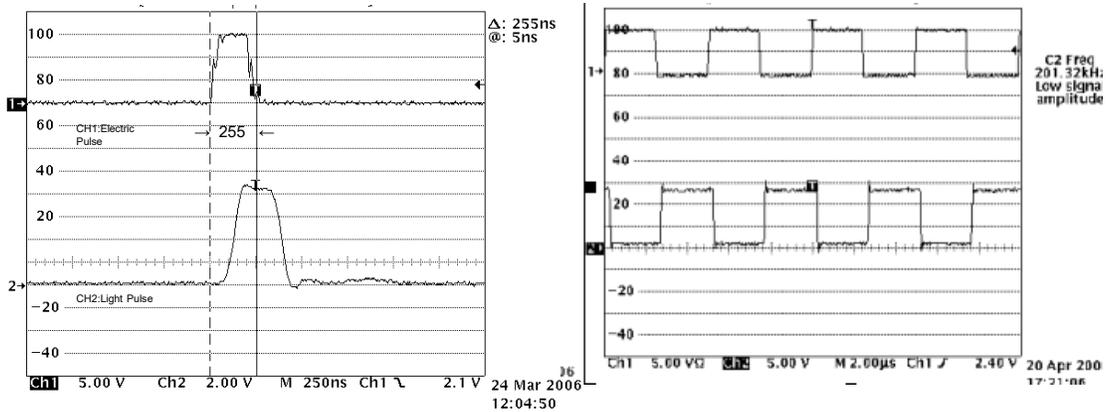
- Optical blocking
- Light path redirecting
- Instrumentation

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## Mechanical Dimensions (mm)

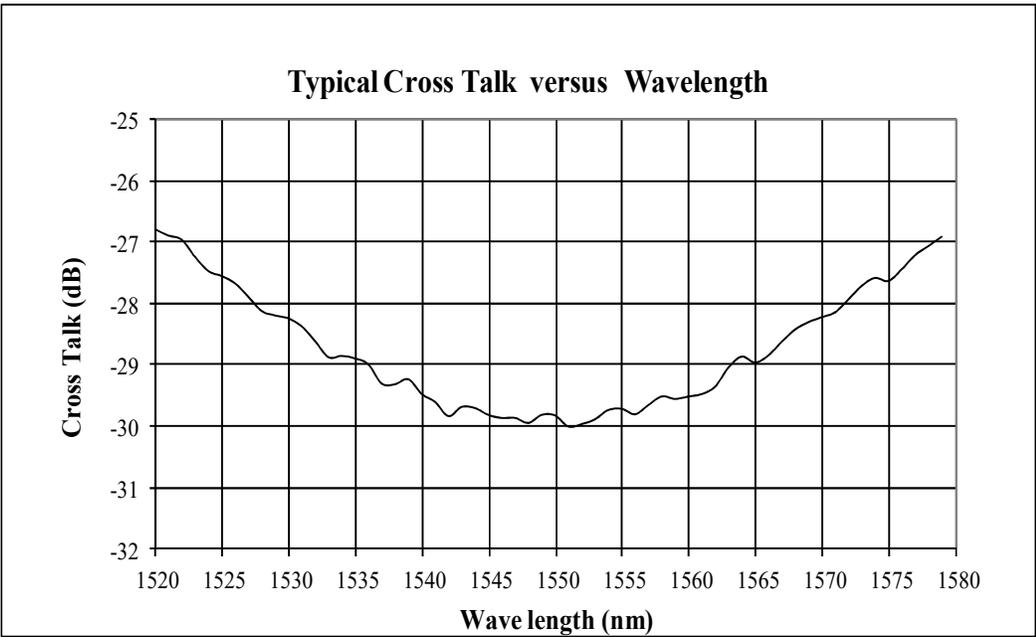


## Speed and Repetition Measurement



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## Bandwidth Measurement



## Ordering Information

|       |        |   |               |         |   |   |   |                     |
|-------|--------|---|---------------|---------|---|---|---|---------------------|
| NHSW- | 1 2    | <input type="checkbox"/>                              | 1             | 1       | <input type="checkbox"/>                                  | <input type="checkbox"/>                            | <input type="checkbox"/>                  | 1*                  |
|       | Type   | Wavelength  | Configuration | Package | Fiber Type  |   | Fiber Length                              | Connector           |
|       | 1X2=12 | 1060=1<br>L Band=2<br>1310=3<br>1550=5<br>Special = 0 |               |         | PM 1550/400=4<br>PM 1550/250=5<br>PM 980 = 9<br>Special=0 | Bare fiber =1<br>900um loose<br>tube=3<br>Special=0 | 0.25m=1<br>0.5m=2<br>1.0 m=3<br>Special=0 | No connector<br>= 1 |

\* Agiltron provide high power connector, please call.