

# NanoSpeed™ 1x4 Solid-State Fiberoptic PM Switch (Bidirectional)

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

## Product Description

The NS Series 1x4 solid-state fiber optic PM 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 fiberoptic PM 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.

The device can be driven by a cost effective circuit with 12V input voltage and a 0-5 V control signal

## Features

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

## Performance Specifications

NS Series 1x4 PM Switch	Min	Typical	Max	Unit
Operation Wavelength	400		2005	nm
Insertion Loss <sup>1</sup>	0.7	1.0	1.3	dB
IL Temperature Dependency		0.25	0.5	dB
Cross Talk	20	25	35	dB
Extinction ratio	18	25	30	dB
Return Loss	45	50	60	dB
Response Time (Rise, Fall)			300	ns
Repetition Rate	DC	5	500*	KHz
Operating Temperature	-5		70	°C
Optical Power Handling		300	500	mW
Storage Temperature	-40		85	°C
Fiber Type	Panda PM fiber			
Package Dimension	97.2x31.6x8.6			mm

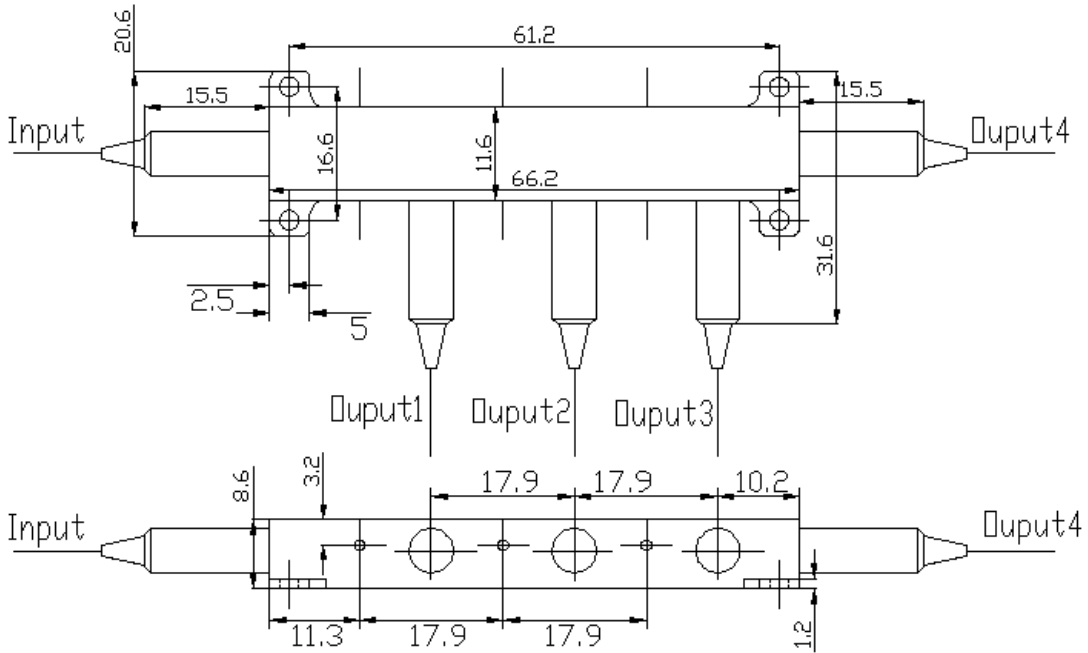
\* Special circuit  
1. Excluding connectors.

## Applications

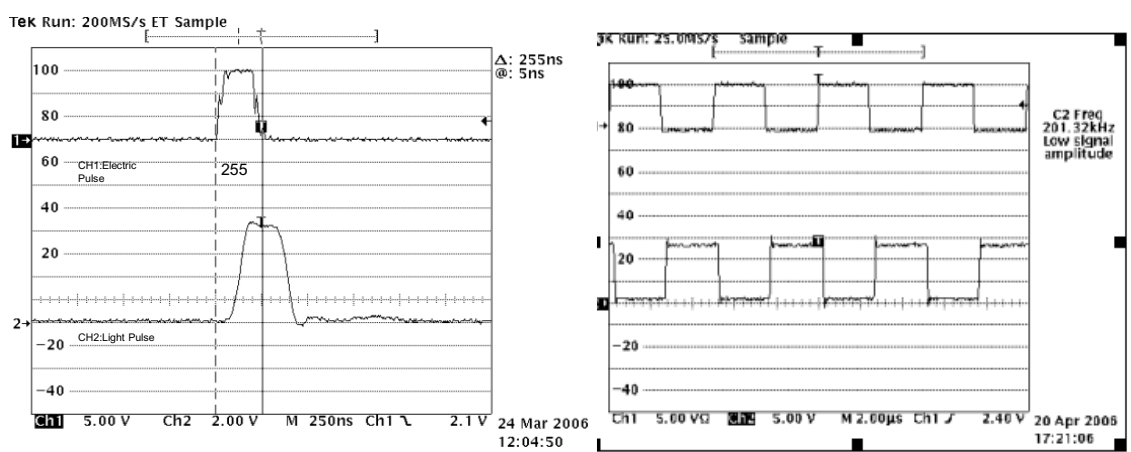
- Optical blocking
- Configurable light path
- Instrumentation

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## Mechanical Dimensions (mm)

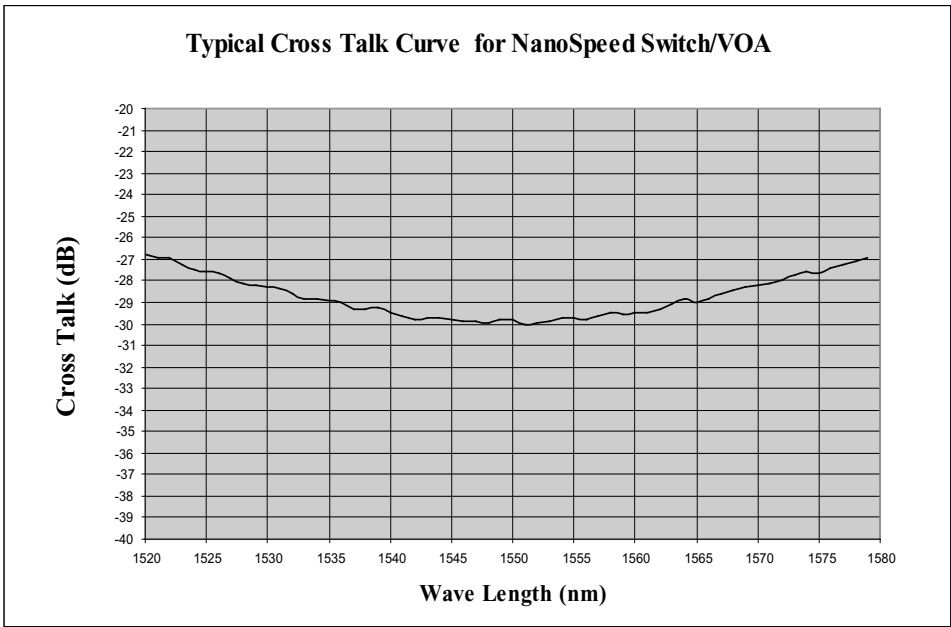


## Speed and Repetition Measurement



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## Bandwidth Measurement



## Ordering Information

NSSW-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type	Wavelength	Configuration	Package	Fiber Type			Fiber Length	Connector	
1X2=14	1060=1 L Band=2 1310=3 1410=4 1550=5 650=6 780=7 850=8 Special=0			Panda PM fiber 400=4 Panda PM fiber 250=5 Special=0	Bare fiber=1 900um loose tube=3 Special=0	0.25m=1 0.5m=2 1.0 m=3 Special=0	None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC=7 Duplex LC=8 Special=0		