

# Nano Speed™ 1x1 Fiberoptic PM Switch / On-Off Modulator (Bidirectional)

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

## Product Description

The NS 1x1 fiber optic PM switch/on-off modulator is a fast shutter device featuring very low loss, fast response, and high optical power handling. 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 0-5V control signal.



## Performance Specifications

NS 1x1 PM Switch/Modulator	Min	Typical	Max	Unit
Operation Wavelength	780		2000	nm
Insertion Loss <sup>1</sup>		0.6	1.0	dB
IL Temperature Dependency		0.25	0.5	dB
Isolation	20	25		dB
Extinction ratio	18	25	30	dB
Return Loss	45	50		dB
Response Time (Rise, Fall)			300	ns
Repetition Rate**	DC	5		KHz
Operating Temperature	-5		70	°C
Optical Power Handling		300	500	mW
Storage Temperature	-40		85	°C
Fiber Type		Panda PM fiber		
Package Dimension		57.5x7.35x9.7		mm

\* Driver kit is recommended.

\*\* Standard driver. High repetition rate (up to 500 KHz) is available with special circuit.

1. Excluding connectors

## Features

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

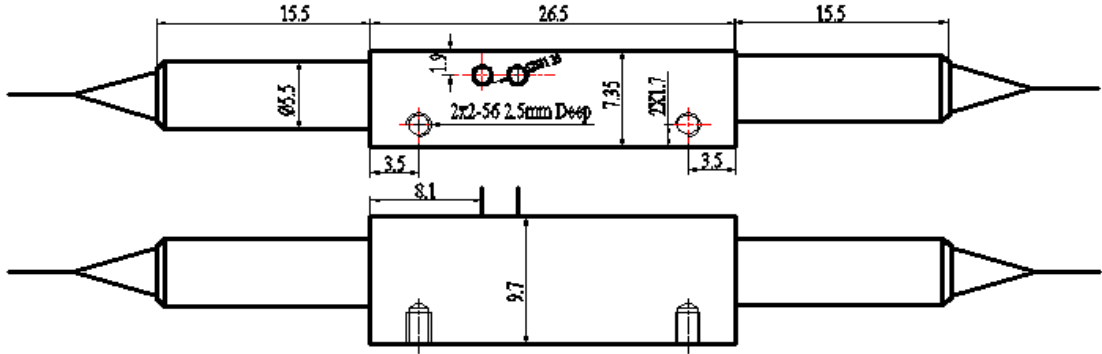
## Applications

- Optical blocking
- Light path re-directing
- Instrumentation

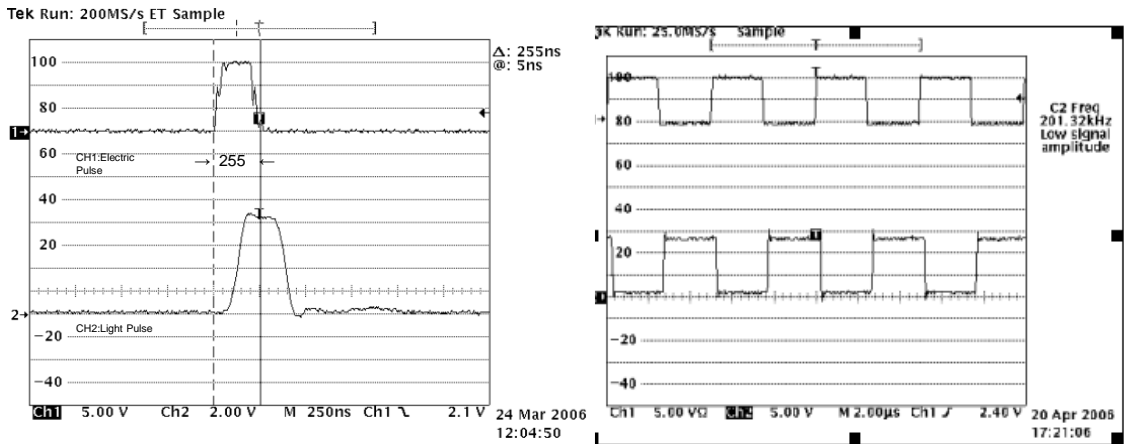


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## Mechanical Dimensions (mm)

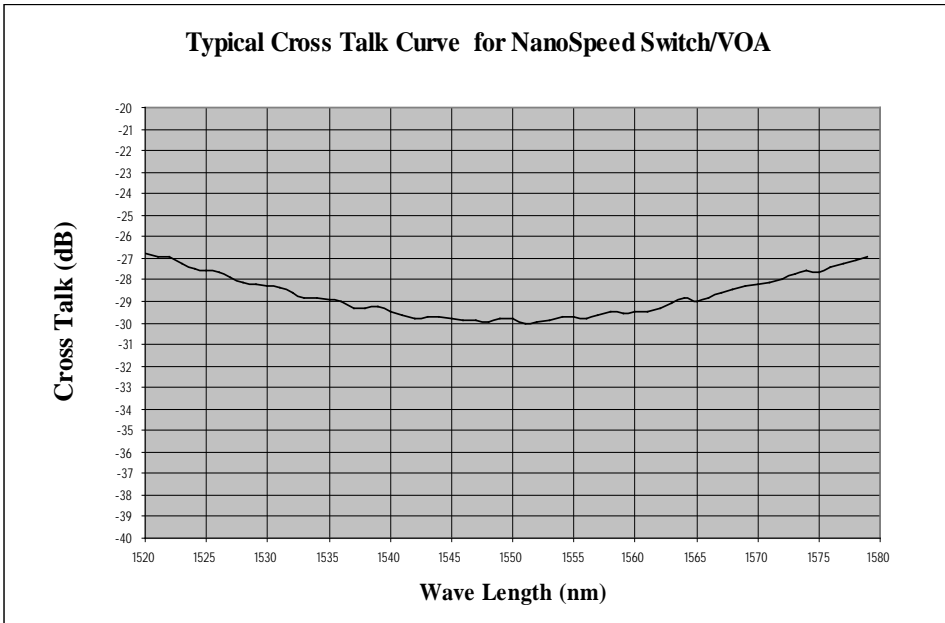


## Speed and Repetition Measurement



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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				
1X1=11	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 Special=0			