

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

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

## Product Description

The NS high power 1x1 fiber optic 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 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.



## Performance Specifications

NH 1x1 Switch/ Modulator	Min	Typical	Max	Unit
Operation Wavelength	780		2000	nm
Insertion Loss <sup>1</sup>		0.6	1.0	dB
Isolation	20	25		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		dB
Response Time (Rise, Fall)			300	ns
Repetition Rate**	DC	5		KHz
Operating Temperature	-5		70	°C
Optical Power Handling			5***	W
Storage Temperature	-40		85	°C
Package Dimension		65.5x25x7		mm

\* Driver kit is recommended

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

\*\*\* Continuous operation, for pulse operation call

1. Excluding connectors.

## Features

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

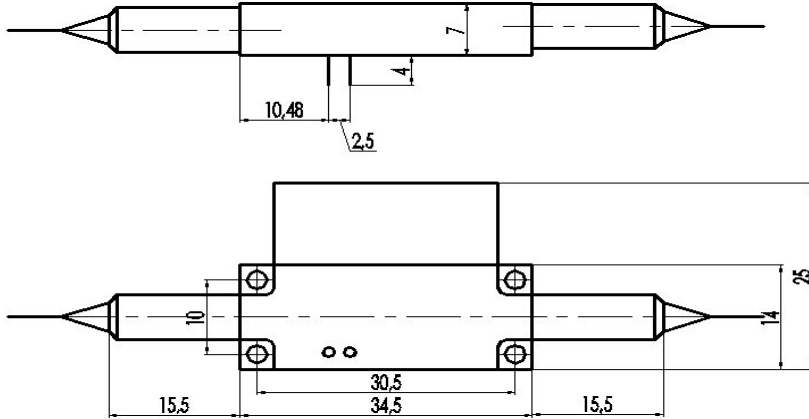
## Applications

- Optical blocking
- Configurable operation
- Instrumentation

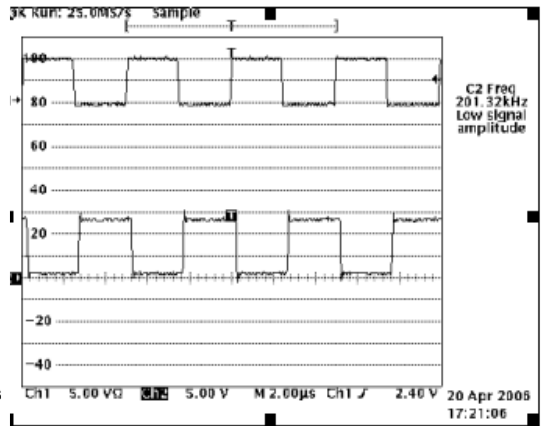
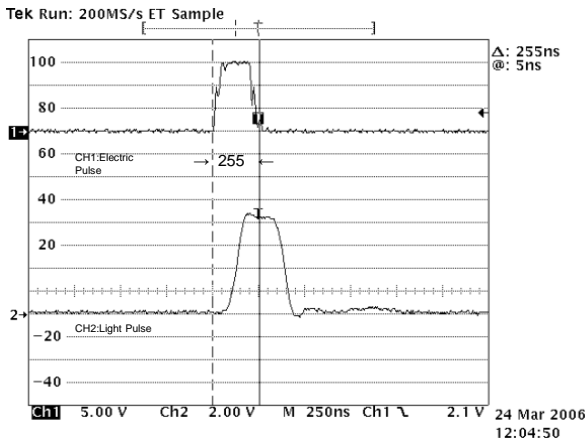


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## Mechanical Dimensions (mm)

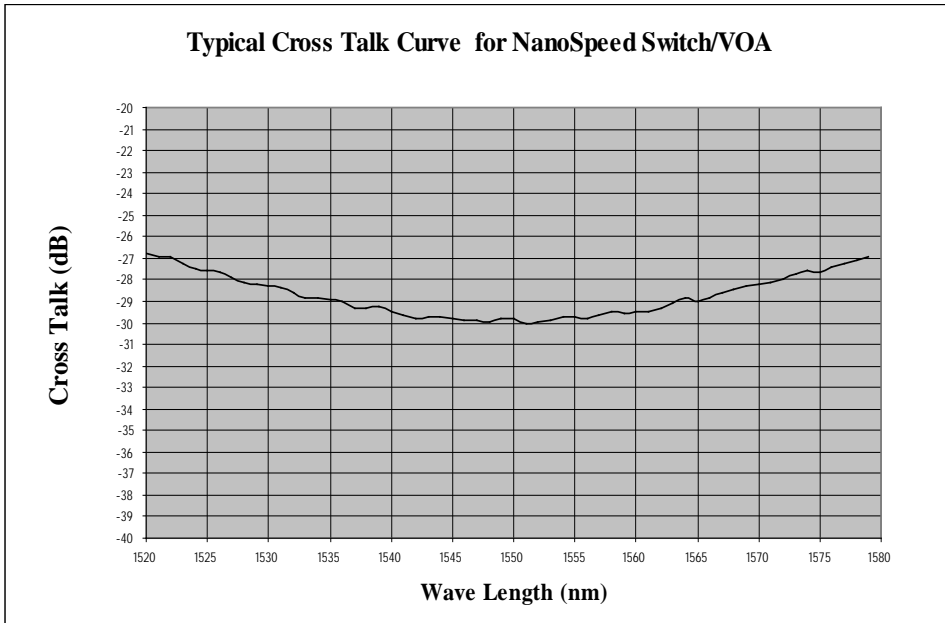


## Speed and Repetition Measurement



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## Bandwidth Measurement



## Ordering Information

NHSW-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	1	1	<input type="checkbox"/>	<input type="checkbox"/>	1*
	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			SMF-28=1 Special=0	Bare fiber=1 900um loose tube=3 Special=0	0.25m=1 0.5m=2 1.0 m=3 Special=0		

\* Agiltron provide high power connector, please call.