



# NanoSpeed™ High Power 1x1 Fiberoptic Switch/On-Off Shutter (Bidirectional)

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

## Product Description

The NS high power 1x1 fiber optic switch/on-off shutter 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 fiber-optic 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 1x1 Switch/ Shutter	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
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 <sup>[2]</sup>	DC	5		kHz
Operating Temperature	-5		70	°C
Optical Power Handling <sup>[3]</sup>			5	W
Storage Temperature	-40		85	°C
Package Dimension		65.5x25x7		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

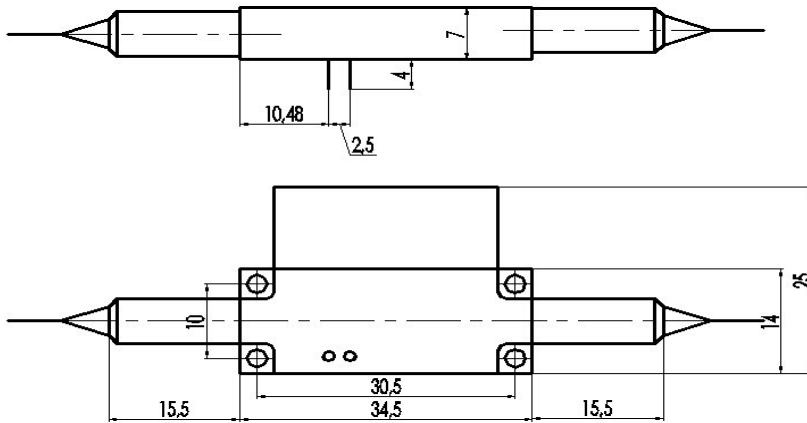
## Applications

- Optical blocking
- Configurable operation
- Instrumentation

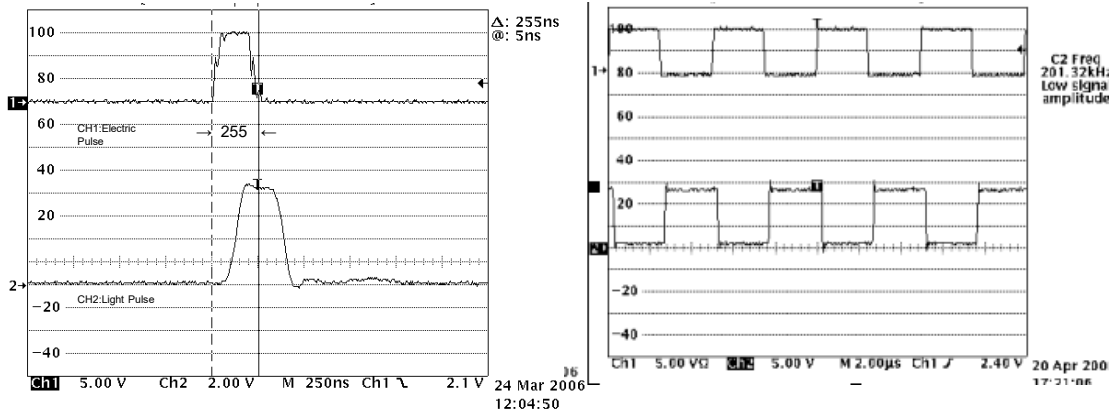


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## Mechanical Dimensions (mm)

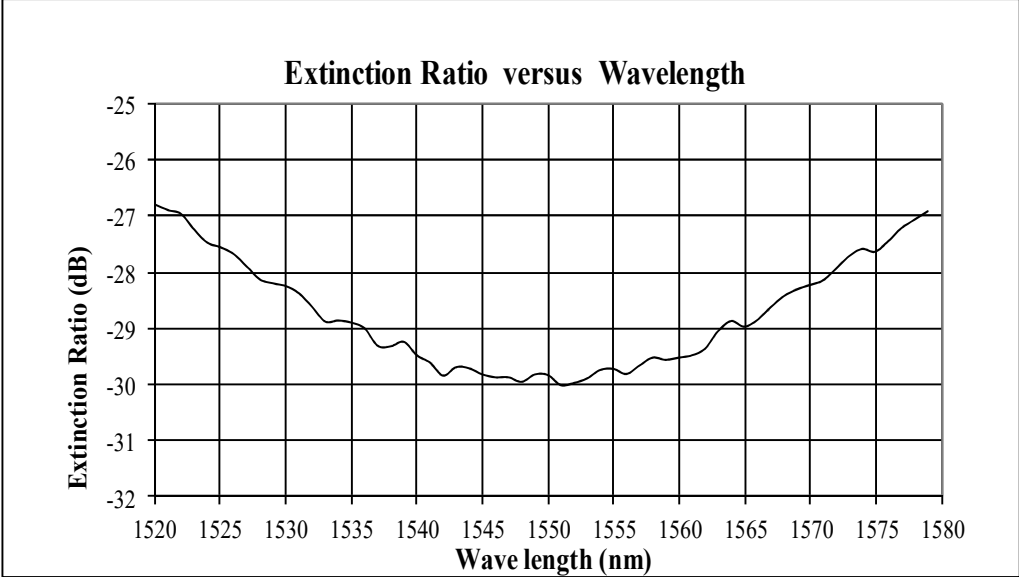


## Speed and Repetition Measurement



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## Bandwidth Measurement



## Ordering Information

NHSW-	1 1	<input type="checkbox"/>	1	1	<input type="checkbox"/>	<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 1550=5 980=9 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	No connector = 1

\* Agiltron provide high power connector, please call.