

NanoSpeed™ Cascaded 1x4 Fiberoptic Switch (Bidirectional)

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

Features

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

Product Description

The NS Series 1x4 solid-state fiber optic switch is made of cascaded three 1X2 switches. It connects optical channels by redirecting an incoming optical signal into a selected output optical fiber. This is achieved using patent pending 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.

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 signals.

Performance Specifications

NS Series 1x4 Switch	Min	Typical	Max	Unit
Central Wavelength	780		2000	nm
Insertion Loss ^[1]	1260-1650nm	1.4	2.0	dB
	960-1260nm	2.0	2.6	dB
	760-960nm	2.2	2.8	dB
Cross Talk	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 ^[2]	DC	5		kHz
Operating Temperature	-5		70	°C
Optical Power Handling ^[3]		300		mW
Storage Temperature	-40		85	°C
Package Dimension ²		184x170		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 1550nm. For the shorter wavelength, the handling power may be reduced. High power version (up to 5W) for 1310nm/1550nm is available; please call us for more information.

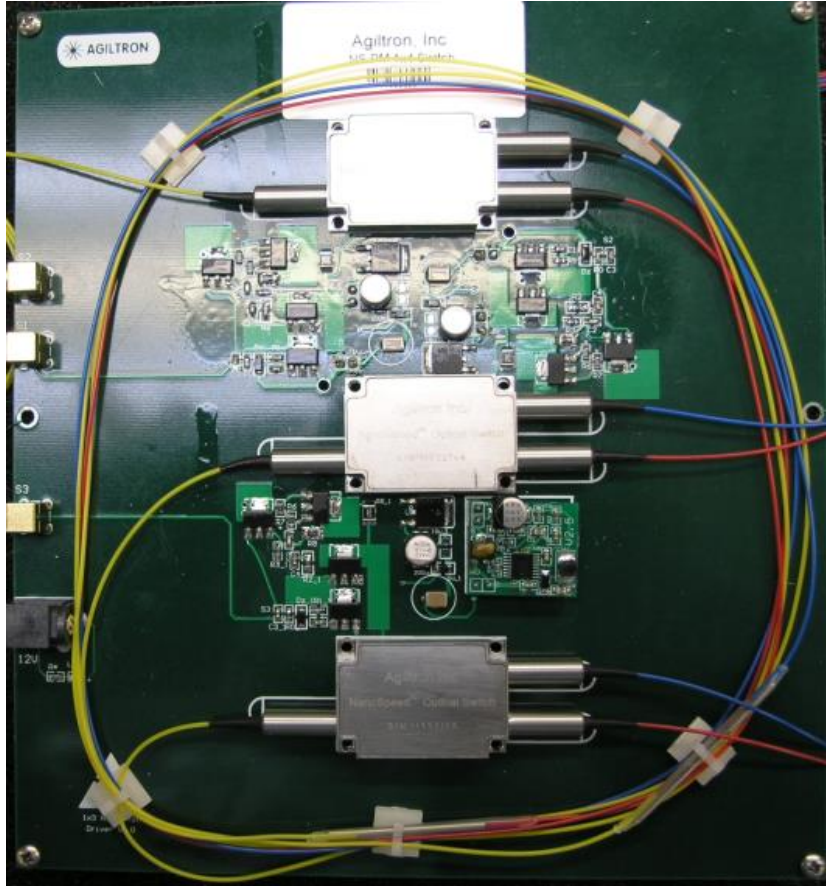
Applications

- Optical blocking
- Configurable operation
- Instrumentation

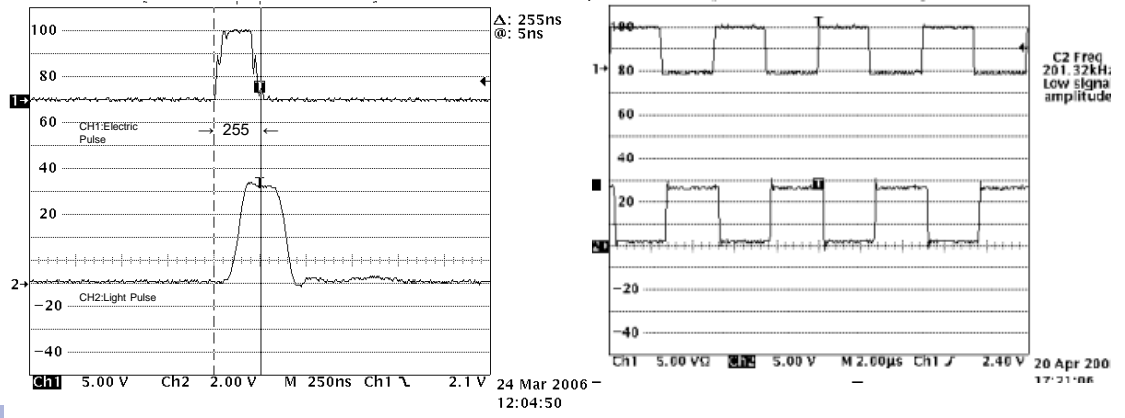


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Assembly on PCB driver

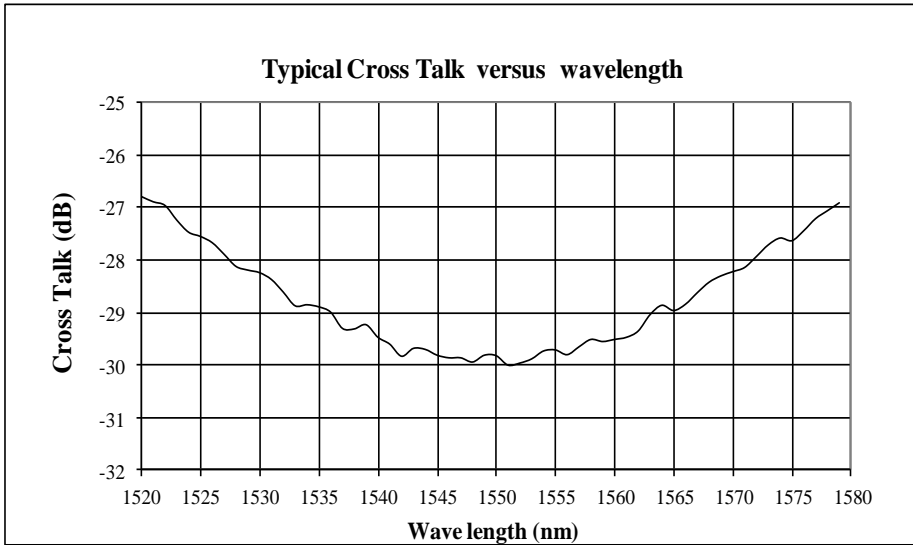


Speed and Repetition Measurement



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Bandwidth Measurement



Ordering Information

NSSW-	1 4	<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		
1x4=14	1060=1 L Band=2 1310=3 1550=5 780=7 850=8 980=9			SMF-28=1 HI1060=2 HI780=3 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/PC=7 Duplex LC=8 LC/APC=9 Special=0	