

NanoSpeed™ 2X2 Series Fiber Optical Switch (SM, PM)

(Protected by U.S. patents 7,403,677B1; 6,757,101B2; and pending patents)

Product Description

The NS Series 2x2 solid-state fiber optic switch 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 design, 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 signal.

Performance Specifications

NanoSpeed Series 2x2 Switch	Min	Typical	Max	Unit
Insertion Loss ^[1]	1260-1650nm	0.8	1.2	dB
	960-1260nm	1.0	1.3	dB
	780-960nm	1.2	1.5	dB
Cross Talk	20	25	35	dB
PDL (SMF Switch only)		0.15	0.3	dB
ER (PMF Switch only)	18	25		dB
IL Temperature Dependency		0.25	0.5	dB
Return Loss	45	50	60	dB
Response Time (Rise, Fall)			300	ns
Fiber Type	SMF-28, Panda PM, or equivalent			
Repeat Rate	5kHz driver	DC	5	kHz
	100kHz driver	DC	100	kHz
	500kHz driver	DC	500	kHz
Optic power Handling ^[2]		300		mW
Operating Temperature	-5		70	°C
Storage Temperature	-40		85	°C

[1] Measured without connectors. For other wavelength, please contact us.

[2] Defined at 1310nm/1550nm. For the shorter wavelength, the handling power may be reduced, please contact us for more information.

Features

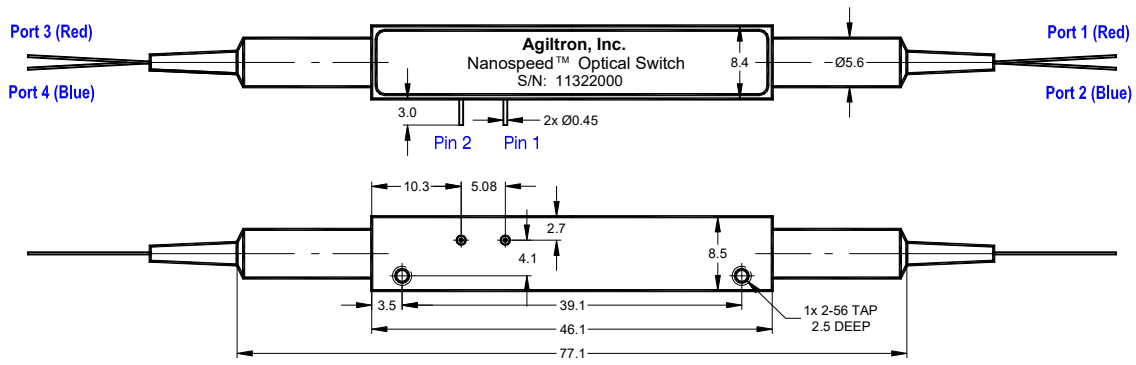
- Solid-State
- High speed
- Ultra-high reliability
- Low insertion loss
- Compact

Applications

- Optical blocking
- Configurable operation
- Instrumentation

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Mechanical Dimensions (Unit: mm)

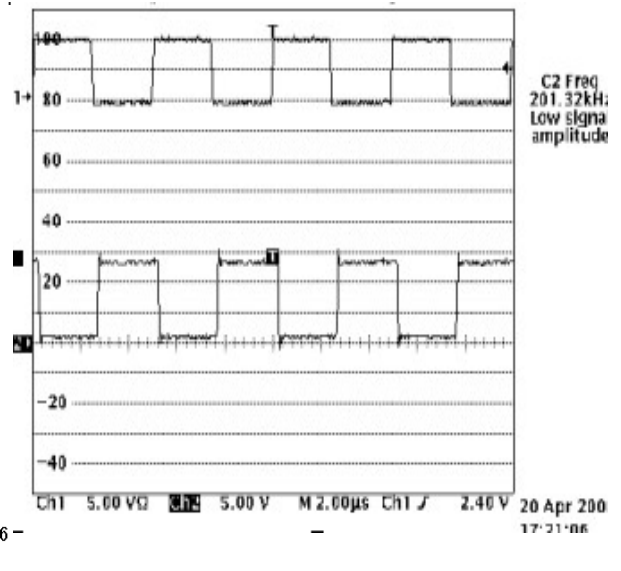
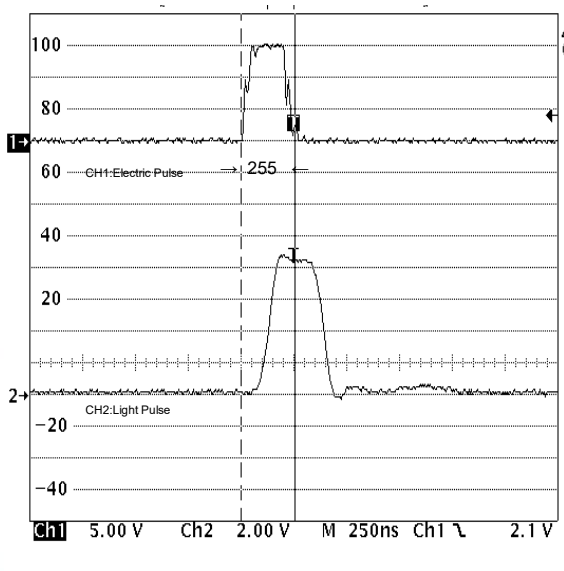


Optical Path Driving Table

Optical Path	Pin 1	Pin 2
Port 1→Port 3 Port 2→Port 4	No Power	
Port 1→Port 4 Port 2→Port 3	H	GND

H: 360 ~ 420V

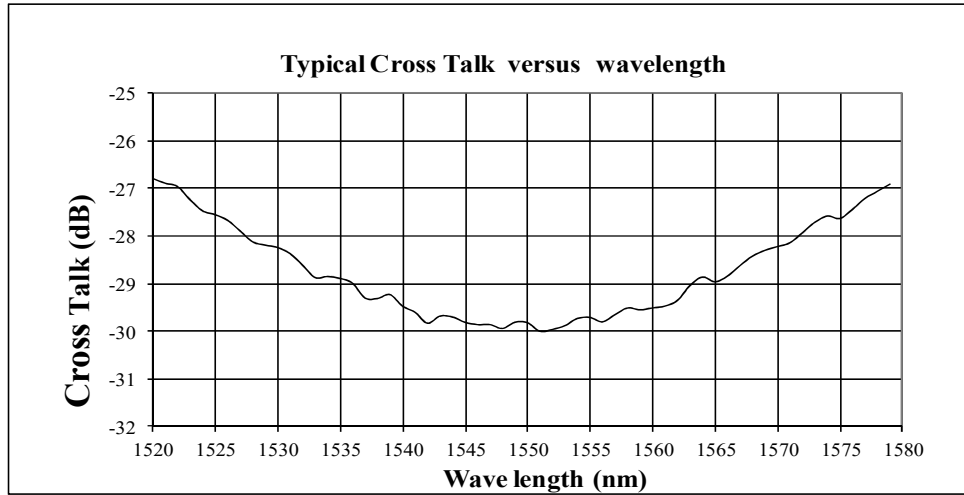
Typical Speed and Repetition Measurement



Revised on 12-27-17

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Typical Bandwidth Measurement



Ordering Information

NSSW -	2 2	<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	
	2x 2=22	1060nm=1 L Band=2 1310nm=3 1410nm=4 1550nm=5 780nm=7 850nm=8 Special=0	Single stage = 1 Normal package = 1	SMF-28=1 HI1060=2 HI780=3 PM 1550/400=4 PM 1550/250=5 PM980=9 PM850=8 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	