AGILTRON INC

NanoSpeed™ 1x4 Solid-State Fiberoptic PM Switch
(Bidirectional)

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

Product Description

The NS Series 1x4 solid-state fiber optic PM switch connects optical channels by redirecting an incoming optical signal into a selected output optical fiber. 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 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.

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.

Features

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

Applications

- Optical blocking
- Configurable light path
- Instrumentation

Performance Specifications

NS Series 1x4 PM Switch	Min	Typical	Max	Unit
Central Wavelength	760		2000	nm
Insertion Loss [1]	0.7	1.0	1.3	dB
IL Temperature Dependency		0.25	0.5	dB
Cross Talk	20	25	35	dB
Extinction ratio	18	25	30	dB
Return Loss	45	50	60	dB
Response Time (Rise, Fall)			300	ns
Repetition Rate [2]	DC	5		kHz
Operating Temperature	-5		70	°C
Optical Power Handling [3]		300	500	mW
Storage Temperature	-40		85	°C
Fiber Type		Panda PM fiber		
Package Dimension		97.2x31.6x8.6		mm

[1] Excluding connectors.
[2] Standard driver. High repetition rate (up to 500 KHz) is available with special circuit, please call us.
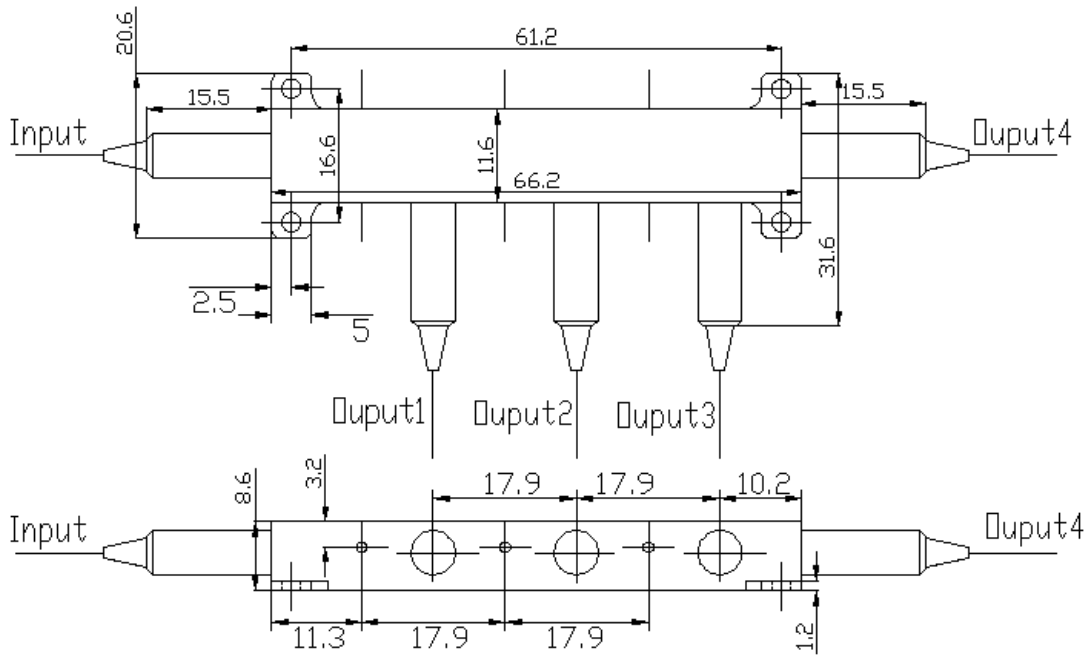[3] Defined at 1550nm. For the shorter wavelength, the handling power may be reduced.

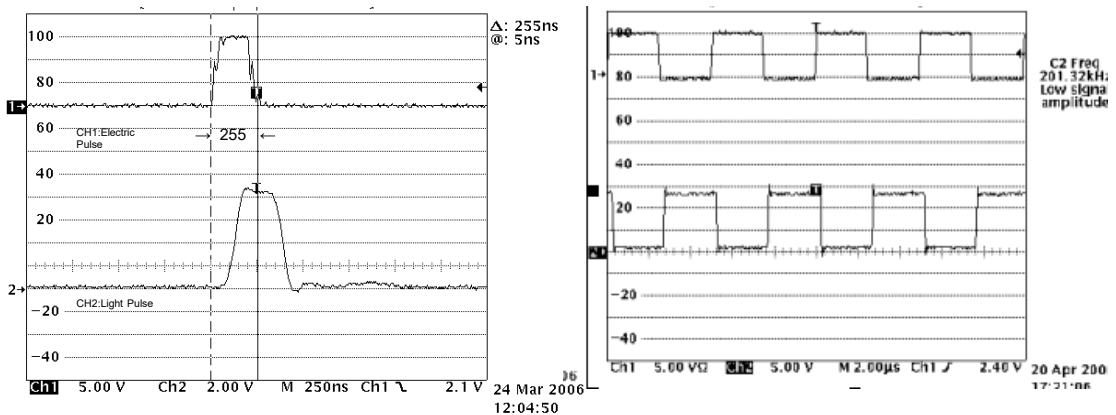# NanoSpeed™ 1x4 Solid-State Fiberoptic PM Switch

Mechanical Dimensions (mm)

Speed and Repetition Measurement

NanoSpeed™ 1x4 Solid-State Fiberoptic PM Switch

Bandwidth Measurement

Typical Cross Talk versus Wavelength
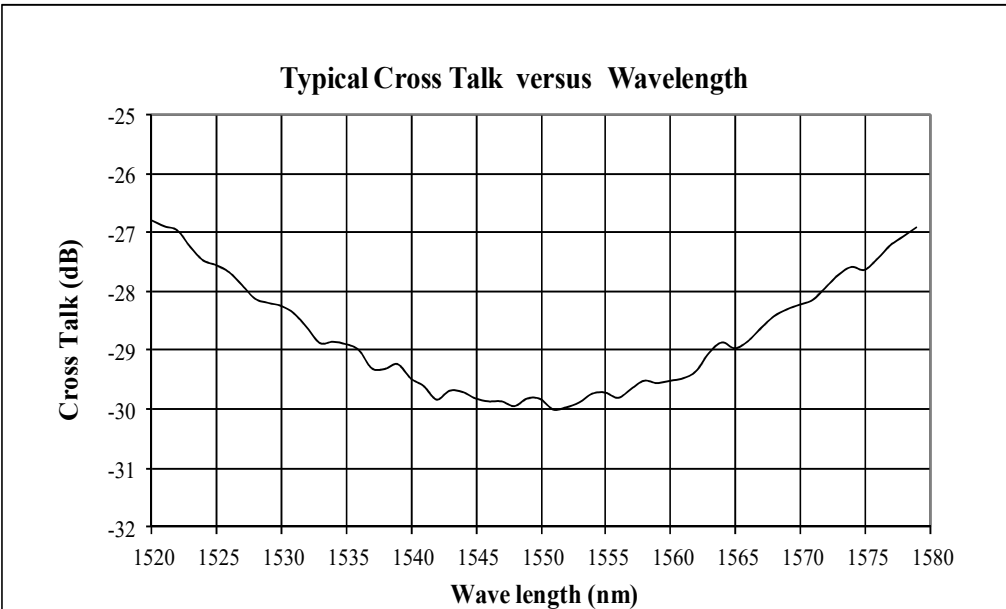
Ordering Information

NSSW-	1 4		☐	1	1	☐		☐	☐	☐
	Type	Wavelength	Configuration	Package		Fiber Type		Fiber Length	Connector	
	1X4=14	1060=1 L Band=2 1310=3 1410=4 1550=5 780=7 850=8 980=9 Special=0				PM 1550/400=4 PM 1550250=5 PM850=8 PM980=9 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	