1X1/1X2/2X2 Nanosecond Fiber optic Switch

Product Description

This is achieved using patented electro-optical configuration featuring clean fast response without ripples and temperature compensation for outdoor operation. The NSP fiber optic switch is designed to meet the most demanding switching requirements of continuous operations over 20 years and non-mechanical ultra-high reliability.
switch is controlled by 5V TTL signals with a specially designed electronic driver having performance optimized for various repetition rate.

Features

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

Applications

- Optical blocking
- Configurable operation
- Instrumentation

Performance Specifications

Nanosecond Switches		Min	Typical	Max	Unit
Insertion Loss [1]	1900-2200nm		0.8	1.8	dB
	1260-1650nm		0.6	1.0	
	960-1100nm	0.9	1.2	1.8	
	780-960nm	1.2[1b]	1.6	2.5	
	520–780nm	1.5[1b]	2.5	3.5	
Cross Talk [2]	Single stage	18	25	35	dB
	Dual stage	30	36	45	
PDL (SMF Switch only)			0.15	0.3	dB
PMD (SMF Switch only)			0.1	0.3	ps
ER (PMF Switch only)		18	25		dB
IL Temperature Dependency			0.25	0.5	dB
Return Loss		45	50	60	dB
Optical transition time [3]		40	90		ns
Driver Repeat Rate	200kHz driver	DC	200		kHz
	1000kHz driver	DC	1000		
Optic power Handling [4]	Normal power version		300		mW
	High power version			5	W
Operating Temperature	Standard	-5		75	℃
	Large range version	-30		85	℃
Storage Temperature		-40		100	

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

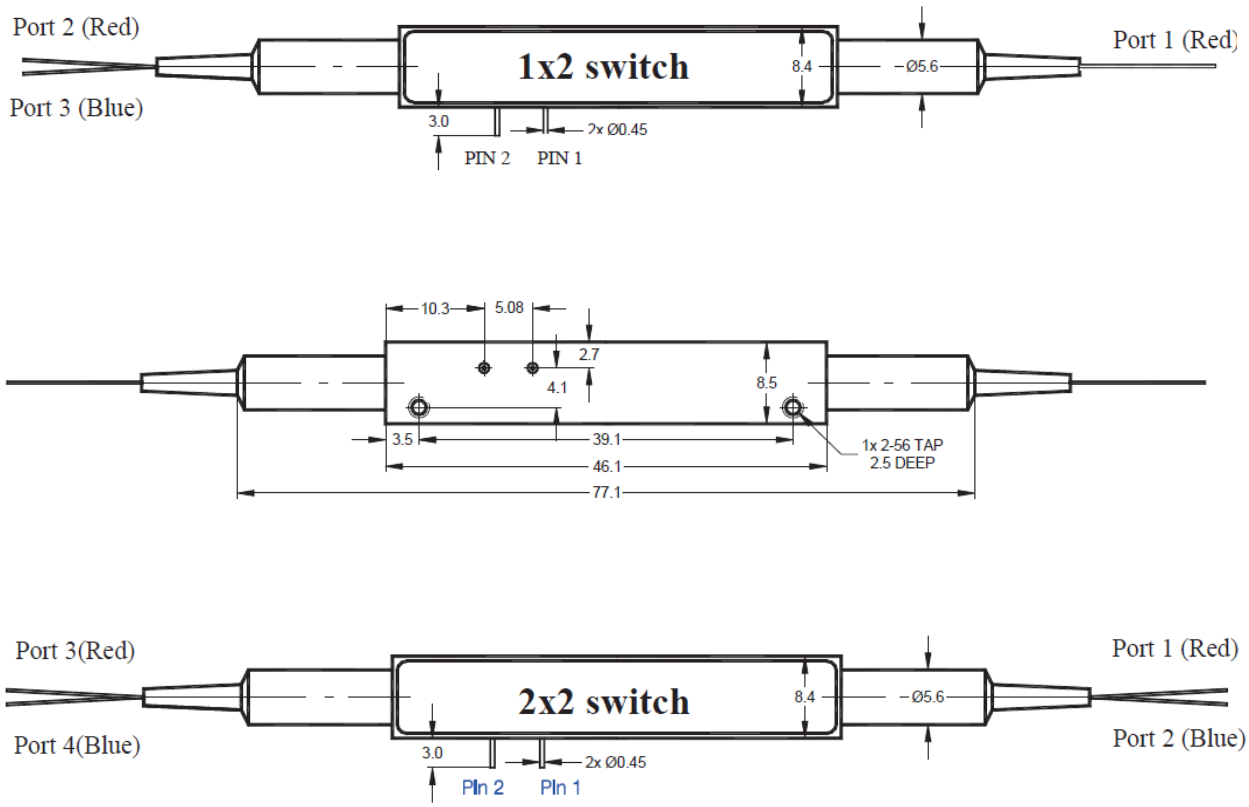
[2] Cross talk is measured at 500kHz, which may be degraded at the higher repeat rate.

[3] It is defined as the rising or fall time between 10% and 90% of optical intensities.

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

[1b] NPLC version available for high power and low loss that incorporating fiber core enlargement (expensive).

Mechanical Dimensions (Unit: mm)



Optical Path Driving Table

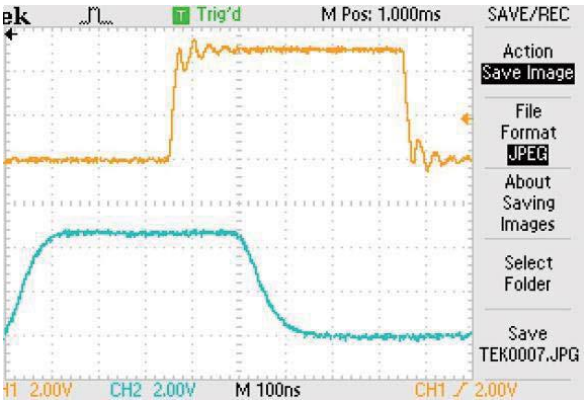
1x1 Optical Path	TTL Signal
ON for normally-open, OFF for normally-close	L(< 0.8V)
OFF for normally-open, ON for normally-close	H(> 3.5V)

1x2 Optical Path	TTL Signal
Port 1→ Port 2	L(< 0.8V)
Port 1→Port 3	H(>3.5V)

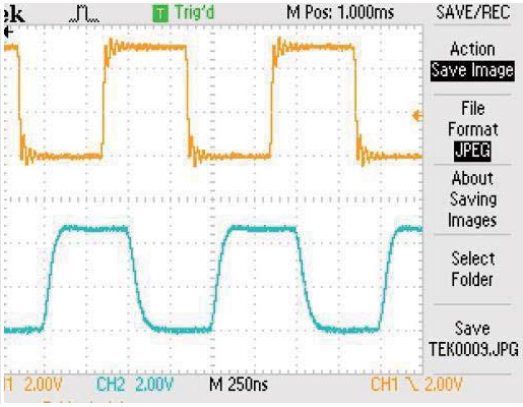
2x2 Optical Path	TTL Signal
Port 1→Port 3，Port 2→Port 4	L(< 0.8V)
Port 1→Port 4，Port 2→Port 3	H(> 3.5V)

Typical Speed and Repetition Measurement

1MHz Response

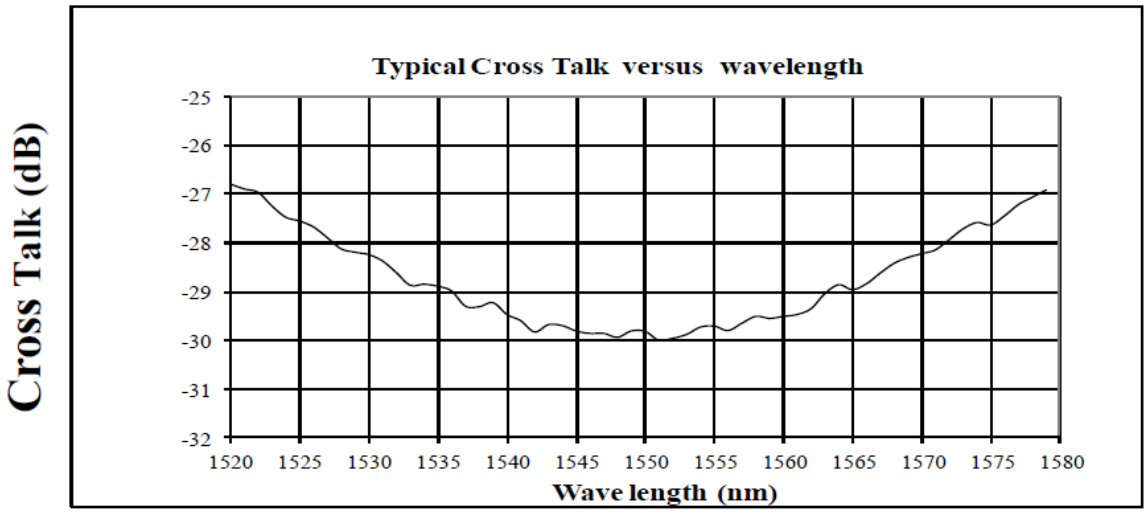


1MHz Response



Note: Top Traces are electrical; Bottom traces are optical

Typical Bandwidth Measurement



订购信息:A—B—C—D—E—F—G—H—I

A	B	C	D	E	F	G	H	I
	Type	Wavelength	Grade	Repetition Rate	Fiber Type		Fiber Length	Connector [1]
NPSW = Normal power version NPHW = High Power version NPLC[2] = Large Core version for high power and low loss	11=1x1 12=1x2 22=2x2	1=1060 2=2000 3=1310 4=1480 5=1550 6=1625 7=780 8=850 E=650 F=550 G=400 L=1565-620 0= Special	1= Single stage 2= Dual stage	1=200kHz 2=1MHz	1=SMF-28 2=HI1060 3=HI780 4=PM1550/400 5=PM1550/250 8=PM850 9=PM980 0= Special	1= Bare fiber 3= 900um loose tube 0= Special	1=0.25m 2=0.5m 3=1.0m 0= Special	1=无 2=FC/PC 3=FC/APC 4=SC/PC 5=SC/APC 6=ST/PC 7=LC/PC 8=LC/APC 0= Special

[1]: Please contact the sale about the high power connector for NPHW version.
[2]: NPLC version is available only for wavelength shorter than 780nm.