

# NanoSpeed™ High Power PM fiber Variable Optical Attenuator/Modulator (Bidirectional)

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

## Product Description

The NS Series Variable Fiber Optic Attenuator provides electrical control of optical power. This is achieved using a patent pending non-mechanical configuration and activated via a voltage electrical control signal. The solid-state optical crystal design eliminates all mechanical movement and organic materials. The NS Series Variable Optical Attenuators are designed to meet the most demanding operation requirements of ultra-high reliability and fast response time with minimal mechanical footprint. The switch is bidirectional.

The NS Series VOA is available in either normally-transparent or normally-opaque configurations. The device can be driven by a cost effective circuit with 12V input voltage and 0-5V control signal.



## Performance Specifications

NH Variable Optical Attenuator	Min	Typical	Max	Unit
Wavelength	780		1800	nm
Insertion Loss <sup>1</sup>		0.4	1.0	dB
Extinction Ration(ER)	18	25	30	dB
Return Loss	45	50		dB
Attenuation Range	22	28	36	dB
Response Time (Rise, Fall)			300	ns
Repetition Rate	DC	5	100**	KHz
Modulation Depth	DC		5***	MHz
Resolution		Continuous		
Operating Optical Power			5****	W
Operating Temperature		-5 ~ 70		°C
Storage Temperature		-40 ~ 85		°C
Fiber Type		PM Panda fiber		
Package Dimension		65.5x25x7		mm

\* Driver kit is recommended

\*\* Special circuit, 100% depth

\*\*\*Special circuit, Maximum modulation depth is 5%

\*\*\*\*Continuous operation, for pulse operation call

1. Excluding connectors, Max 1dB for 1310nm and 1550nm, 1.4dB for other wavelengths.

## Features

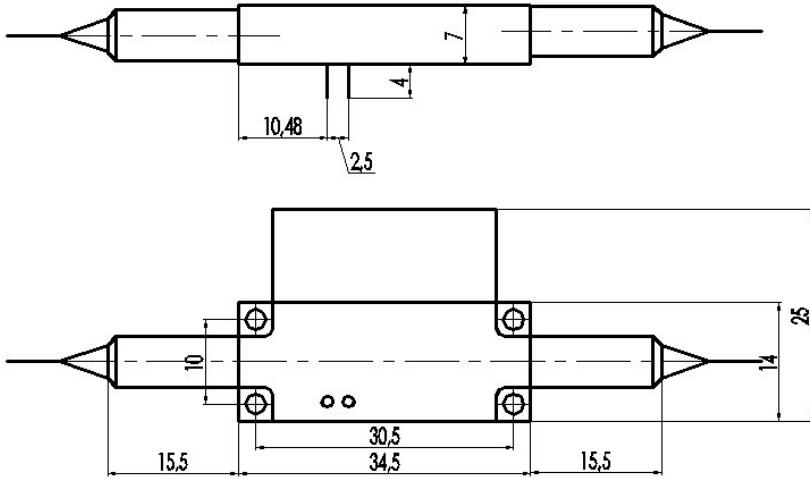
- Solid-State High Speed
- Ultra-High Reliability
- Low Insertion Loss
- Compact Size
- Low Cost
- Simple Driver
- Low Power Consumption

## Applications

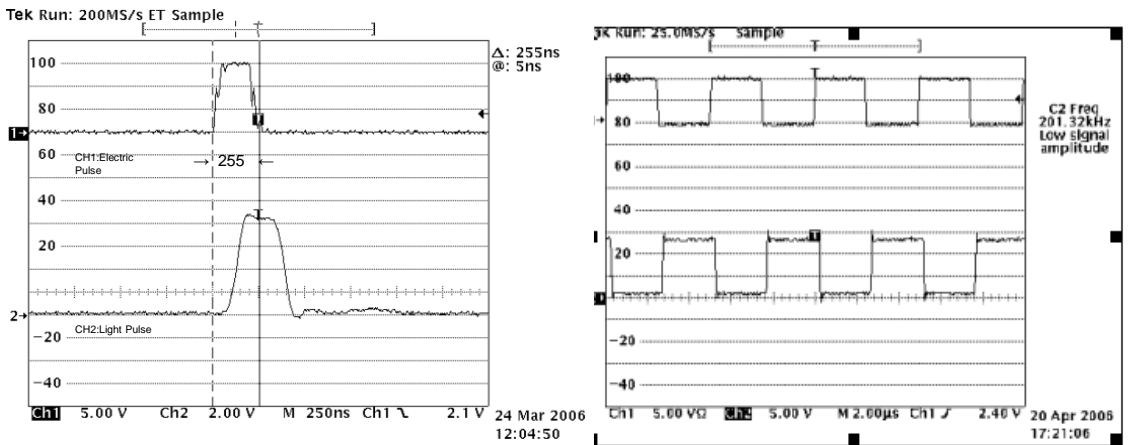
- Power Control
- Power Regulation
- Power Balance
- Instrumentation

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## Mechanical Footprint Dimensions (Unit:mm)

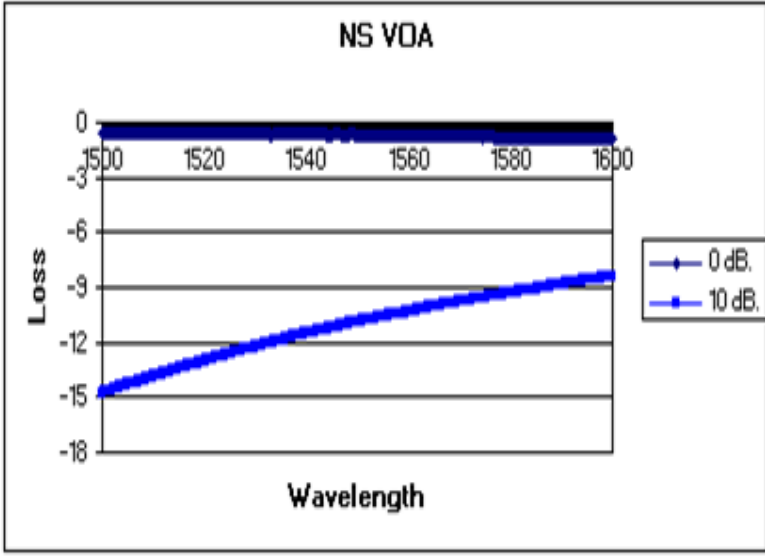


## Speed and Repetition Measurement



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Specify wavelength dependent loss @10dB attenuation



## Ordering Information

NHOA-	3 2	<input type="checkbox"/>	<input type="checkbox"/>	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type	Wavelength	State	Package	Fiber Type	Fiber Length	Connector		
	1060=1 L Band=2 1310=3 1410=4 1550=5 650=6 780=7 850=8 Special=0	Transparent=1 Opaque=2		Panda PM fiber 400=4 Panda PM fiber 250=5 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 = 7 Special = 0		

\* Agiltron provide high power connector, please call.