

NanoSpeed™ Variable Optical Attenuator/Modulator (Bidirectional)

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

Product Description

The NS Miniature 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 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 minimum mechanical footprint. The device is bidirectional.

The NS Series VOA is available in either normally-transparent or normally-opaque configurations.

Agiltron's PCB driver listed in the web is recommended to operate this device, featuring high efficiency and low cost with 12VDC power and 0-5V control input.

Performance Specifications

NS Variable Optical Attenuator	Min	Typical	Max	Unit
Central Wavelength	780		1800	nm
Insertion Loss ^[1]	1260~1800nm	0.6	1.0	dB
	960~1260nm	0.8	1.3	dB
	760~960nm	1.0	1.5	dB
Polarization Dependent Loss		0.1	0.3	dB
Return Loss	45	50		dB
Attenuation Range	20	28	36	dB
Response Time (Rise, Fall)			300	ns
Repetition Rate ^[2]	DC	5	100	kHz
Modulation Rate ^[3]	0.1		5	MHz
Resolution		Continuous		dB
Operating Optical Power ^[4]			500	mW
Operating Temperature	-5	-	70	°C
Storage Temperature	-40	-	85	°C
Package Dimension			51.9X8.2X5.95	mm

[1] Excluding connectors.

[2] 5kHz repeat rate is in the standard Agiltron's driver. High repetition rate of 100 kHz with 100% modulation depth is available with special circuit, please call us.

[3] Special circuit for narrow frequency range, maximum modulation depth is 5-10%

[4] It is defined at 1550nm. Please call us for other wavelength.

Features

- Solid state
- High Speed
- High Reliability
- Low Insertion Loss
- Compact

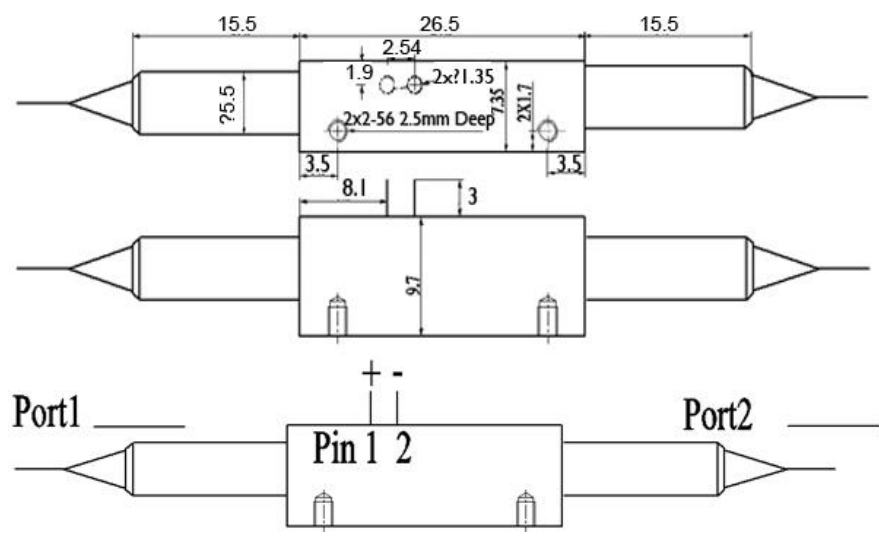
Applications

- Power Control
- Power Regulation
- Power Balance
- Instrumentation

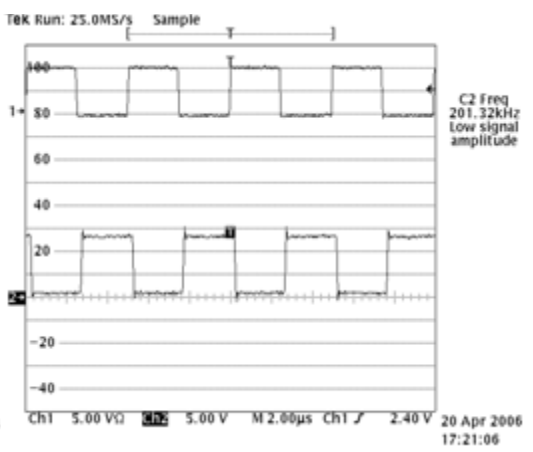
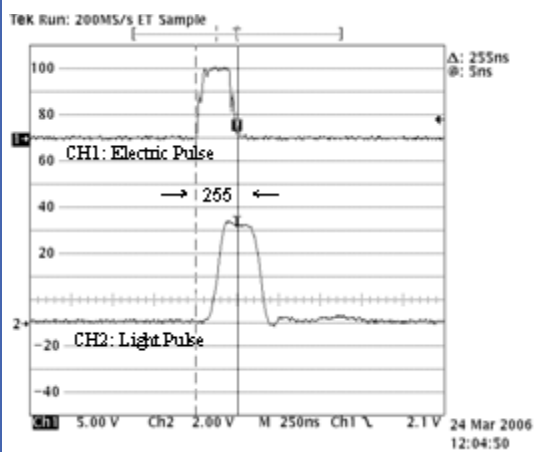


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Mechanical Footprint Dimensions (Unit:mm)

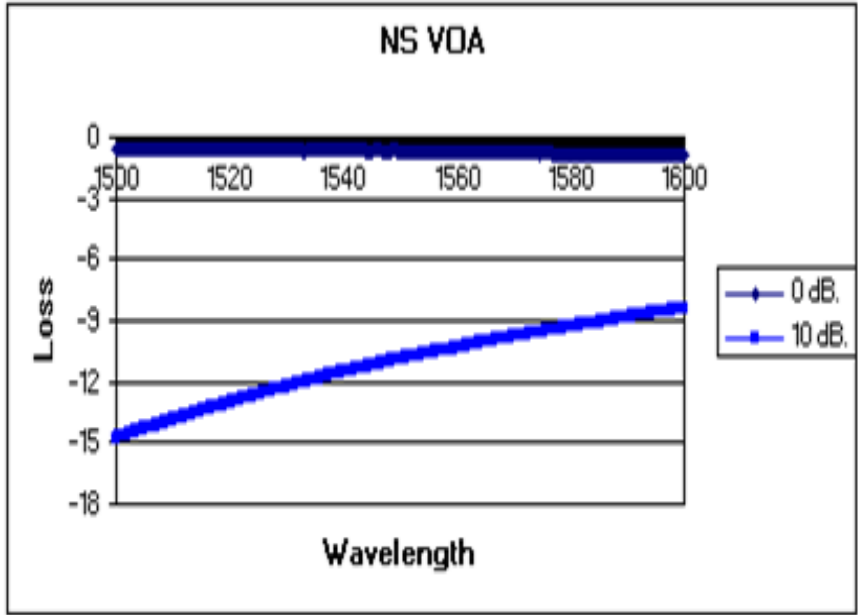


Speed and Repetition Measurement

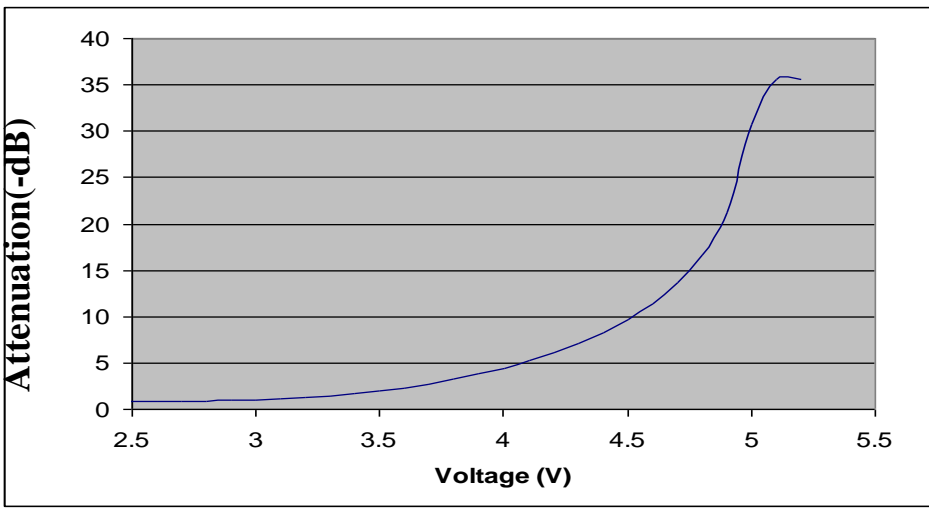


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Specify wavelength dependent loss @10dB attenuation



Typical curve of Attenuation versus Voltage



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Ordering Information

NVOA-	3 2	<input type="checkbox"/>	<input type="checkbox"/>	1	1	<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 1550=5 780=7 850=8	Transparent = 1 Opaque = 2		SMF-28 =1 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 = 7 Special = 0	

