

NanoSpeed™ 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

| NS Variable Optical Attenuator | Min | Typical | Max | Unit |
|--------------------------------|-----|----------------|-------|------|
| Wavelength | 780 | | 1800 | nm |
| Insertion Loss ¹ | | 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 | | dB |
| Operating Optical Power | | | 500 | mW |
| Operating Temperature | | -5 ~ 70 | | °C |
| Storage Temperature | | -40 ~ 85 | | °C |
| Fiber Type | | PM Panda fiber | | |
| Package Dimension | | 56x7.35x9.7 | | mm |

* Driver kit is recommended

** Special circuit, 100% depth

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

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

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Features

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

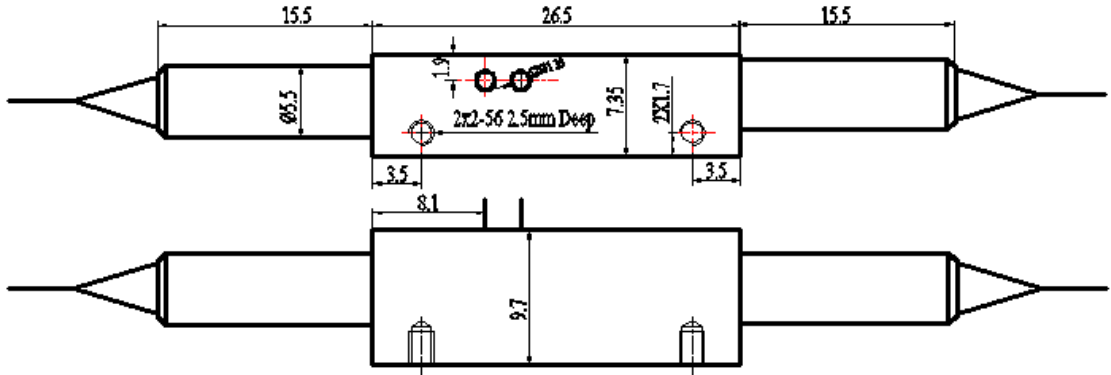
Applications

- Power Control
- Power Regulation
- Power Balance
- Instrumentation

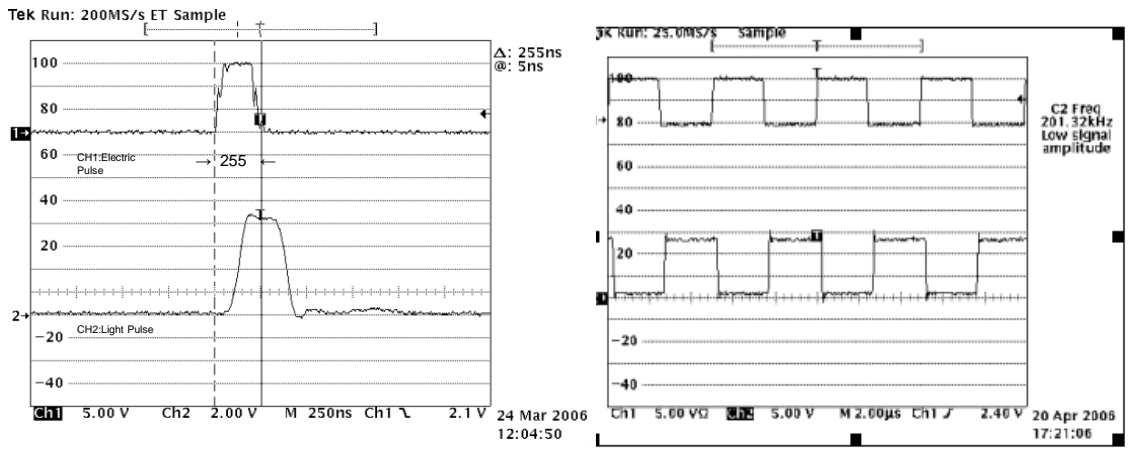


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Mechanical Footprint Dimensions (Unit:mm)

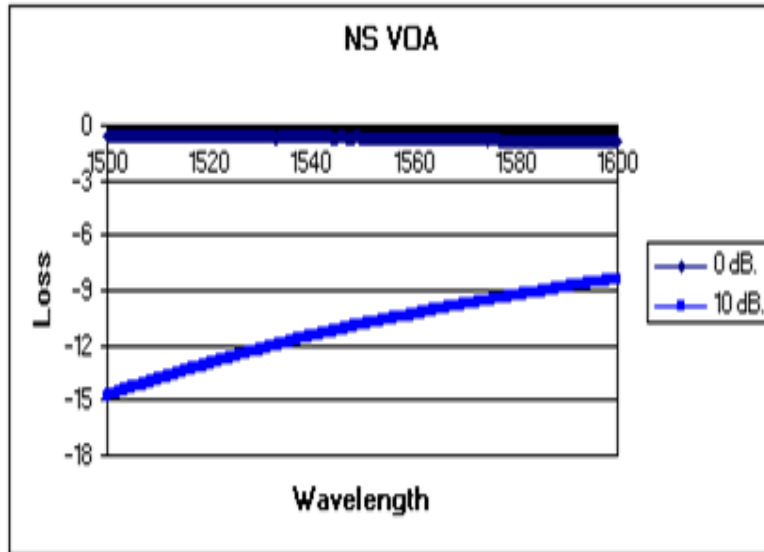


Speed and Repetition Measurement



Nano Speed™ PM fiber Variable Optical Attenuator/Modulator

Specify wavelength dependent loss @ 10dB attenuation



Ordering Information

| NVOA- | <input checked="" type="checkbox"/> | <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 | | |
| Regular Slope=2 | 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 | 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 | |