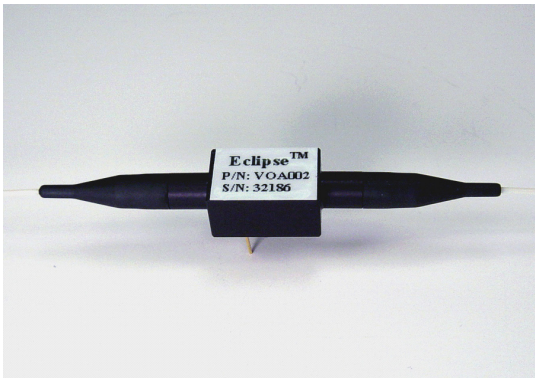
Eclipse™ Variable Optical Attenuators/Modulators

High-speed Attenuation Control with Optional Modulator

Boston Applied Technologies' Eclipse™ Variable Optical Attenuators (VOAs), including dual-function VOA/PIMs (Polarization Independent Modulators), enable all solid-state, high-speed performance in a very compact package. Depending on the specific application, the VOAs may be set to maintain an electronically adjustable value of either attenuation or output power. The VOA/PIMs enable modulation of an optical signal traveling over standard single mode fiber while simultaneously maintaining a specified level of attenuation. All VOAs are electrically controlled, and employ OptoCeramic® electro-optic technology. Evaluation kits with control circuit are available for easy lab bench operation.



Features

- Precise, high-speed attenuation control
- Excellent optical performance
- All solid-state construction in a compact rugged package
- Superb temperature stability
- Meets or exceeds Telcordia GR1221, GR910, and GR1209 specifications
- Optional modulator offers polarization insensitive modulation up to 750KHz
- Enabling hybrid integration for space and cost saving and performance enhancement

Applications

- Channel Equalization/pre-emphasis
- Optical amplification
- Instrumentation
- Metropolitan and long-haul networks
- Wavelength tagging (VOA/modulator only)

BATi
Boston Applied Technologies,Inc.

Key Optical Specifications

	Performance	
Attributes[1,2]	**VOA001**	**VOA002**
Wavelength[3]	1530-1565, 1570-1610 nm	1530-1565, 1570-1610 nm
Insertion Loss	≤ 0.9 dB	≤ 0.6dB(≤ 0.4 dB,A version)
Dynamic Range	≥ 20 dB	≥ 25 dB
Spectral Flatness @ 15 dB Attenuation	0.3 dB typical	0.1 dB typical[4]
Polarization Dependent Loss @ 1550nm and 15dB Attenuation	0.3 dB typical	0.1 dB typical[4]
Response Time (Full Range)[5]	<30 μs	<30 μs
Input Power	≤ 500 mW	≤ 500 mW
Return Loss	≥ 55 dB	≥ 55 dB
Modulation Rate	≤ 1 MHz	≤ 1 MHz
Modulation Depth[6]	5% typical	5% typical
Operating Temperature Range	0°C to 70°C	0°C to 70°C
Storage Temperature Range	-40°C to 85°C	-40°C to 85°C
Dimensions (Approximate)	26 x 10 x 9 mm	26 x 10 x 9 mm

Notes:

1. Unless otherwise specified, all measurements are at 25°C.
2. Normally opaque at zero applied voltage for VOA001, normally transparent at zero applied voltage for VOA002.
3. 1310nm and other wavelength also available.
4. For applications attenuating a single wavelength utilizing BATi's feedback circuit. Contact BATI for special multi-wavelength VOA002.
5. Devices with less than 5μs are also available.
6. Measured at 3 dB attenuation with a sinusoidal signal at 1 MHz.

Contact Information

For more information about BATi's' leadership in variable optical attenuation and modulation technology and other optical networking modules and components, visit our website at www.bostonati.com.

To obtain additional technical information or to place an order for this product, please contact us at:

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