

# Eclipse™ High Speed Variable Optical Attenuator

*Ultra-high Speed, High Precision Optical Power Control*

Boston Applied Technologies' high speed variable optical attenuator (HVOA) has nano-second response speed and low insertion loss. It provides an ultimate solution for optical power stabilizing and limiting based on the high performance, high precision control circuits. HVOA can be set to maintain the output optical power at a constant level, countering the power fluctuations caused by PDL, channel add/drop, and other sources. The output power fluctuation level can be reduced to less than 0.01 dB. HVOA can also be used as an optical power limiter to protect the down streams. It can be offered either as a stand-alone optical power regulator (OPR) unit or as a module (as shown) for system integration.



## Features

- Precise optical power control better than 0.01 dB
- Fast response (**<250 ns**)
- Excellent optical performance
- All solid-state construction
- Superb temperature stability

## Applications

- Optical power limiting
- Optical power stabilization
- Noise filtering
- Optical spark suppression
- Network protection

## Key Optical Specifications

| Attributes                           | Performance          |
|--------------------------------------|----------------------|
| <b>Wavelength Range</b>              | 1550nm (S,C,L)       |
| <b>Insertion Loss</b>                | < 1.2 dB             |
| <b>Polarization Dependent Loss</b>   | < 0.1dB              |
| <b>Dynamic Range</b>                 | > 20 dB <sup>1</sup> |
| <b>Polarization Extinction Ratio</b> | > 20 dB              |
| <b>Response Time</b>                 | < 250 ns             |
| <b>Input Power Range</b>             | < 500 mW             |
| <b>Return Loss</b>                   | ≥ 55 dB              |
| <b>Modulation Rate<sup>2</sup></b>   | ≤ 1MHz               |
| <b>Operating Temperature Range</b>   | 0 to 70°C            |
| <b>Storage Temperature Range</b>     | -40 to 85°C          |
| <b>Dimensions (Approximate)</b>      | 46 X 12 X 9 mm       |

### Notes:

1. Higher dynamic range available upon request.
2. Measured with square wave 100% modulated at 1 MHz.

## Contact Information

For more information about Boston Applied Technologies' leadership in optical power control technology and other electro-optical modules and components, visit our website at [www.bostonati.com](http://www.bostonati.com).

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

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