

## 1040±50nm Broadband SM MEMS VOA

1040±50nm Broadband SM MEMS VOA (Variable Optical Attenuator) is an optoelectronic products designed for attenuating the optical power, it integrates with a MEMS chip inside to adjust the angle of the reflection prism to achieve the optical power attenuation function, it's widely used in Quantum Communication system, OCT and Optical Testing System. High power version is also available.

### Application:

Quantum Communication  
OCT  
Testing System  
Lab & Research

### Features:

Compact Package  
High attenuation  
High responsivity  
High Reliability

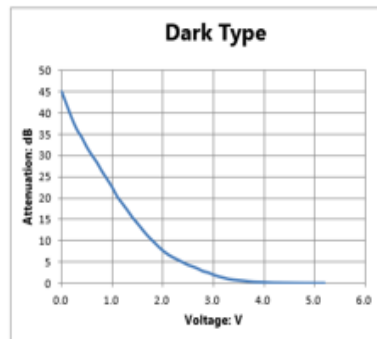
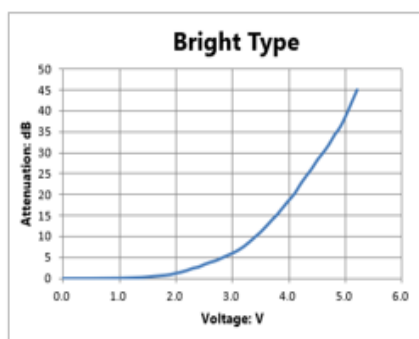


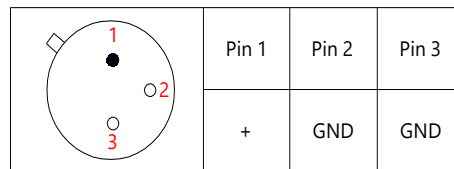
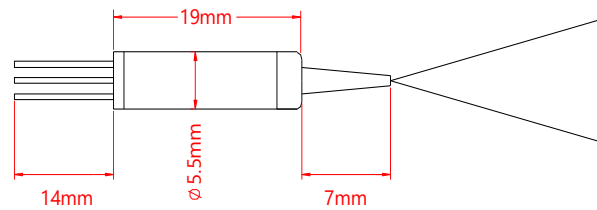
### Specifications:

| Parameter                        | Symbol    | Value                   | Unit |
|----------------------------------|-----------|-------------------------|------|
| Center Wavelength                | $\lambda$ | 1040                    | nm   |
| Bandwidth                        | BW        | ±50                     | nm   |
| Max. Attenuation Range           | Att.      | 45                      | dB   |
| Typ. Original Loss               | IL        | 0.9                     | dB   |
| Max. Original Loss               | IL        | 1.2                     | dB   |
| Max. Wavelength Dependent Loss   | WDL       | 0.3 (@0dB), 1.5 (@20dB) | dB   |
| Max. Wavelength Ripple           |           | 0.05                    | dB   |
| Max. Polarization Dependent Loss | PDL       | 0.15                    | dB   |
| Max. Temperature Dependent Loss  | TDL       | 0.2 (@0dB), 1.0 (@20dB) | dB   |
| Max. Response Time               |           | 3                       | ms   |
| Driving Voltage                  | V         | 6                       | V    |
| Min. Return Loss                 | RL        | 45                      | dB   |
| Max. Optical Power (CW)          | P         | 500                     | mW   |
| Max. Tensile Load                |           | 5                       | N    |
| Fiber Type                       |           | HI 1060 fiber           | -    |
| Operating Temperature            | T         | -5~70                   | °C   |
| Storage Temperature              | T         | -40~85                  | °C   |

Notice: Above specifications are tested at center wavelength without connector in room temperature @23 °C.

For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower.



**Drawing and Pin Information:****Ordering Information (Part Number):****SMBEV-WWW-T-DD-J-LL-CC**

| <span style="color: red;">WWW</span>            | <span style="color: red;">T</span>          | <span style="color: red;">DD</span>      | <span style="color: red;">J</span>                    | <span style="color: red;">LL</span>           | <span style="color: red;">CC</span>           |
|-------------------------------------------------|---------------------------------------------|------------------------------------------|-------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Wavelength                                      | Attenuation Type                            | Driving Voltage                          | Fiber Jacket                                          | Fiber Length                                  | Connector                                     |
| <span style="color: red;">1030</span> - 1030nm  | <span style="color: red;">B</span> - Bright | <span style="color: red;">06</span> - 6V | <span style="color: red;">B</span> - 250um Bare Fiber | <span style="color: red;">05</span> - 0.5m    | <span style="color: red;">NE</span> - None    |
| <span style="color: red;">1040</span> - 1040nm  | <span style="color: red;">D</span> - Dark   |                                          | <span style="color: red;">9</span> - 900um Loose Tube | <span style="color: red;">10</span> - 1.0m    | <span style="color: red;">FA</span> - FC/APC  |
| <span style="color: red;">1050</span> - 1050nm  |                                             |                                          |                                                       | <span style="color: red;">15</span> - 1.5m    | <span style="color: red;">FU</span> - FC/UPC  |
| <span style="color: red;">1060</span> - 1060nm  |                                             |                                          |                                                       | <span style="color: red;">20</span> - 2.0m    | <span style="color: red;">LA</span> - LC/APC  |
| <span style="color: red;">SSSS</span> - Specify |                                             |                                          |                                                       | <span style="color: red;">SS</span> - Specify | <span style="color: red;">LU</span> - LC/UPC  |
|                                                 |                                             |                                          |                                                       |                                               | <span style="color: red;">SA</span> - SC/APC  |
|                                                 |                                             |                                          |                                                       |                                               | <span style="color: red;">SU</span> - SC/UPC  |
|                                                 |                                             |                                          |                                                       |                                               | <span style="color: red;">SS</span> - Specify |

**Notification:**

1. The MEMS products are particularly sensitive of ESD (electro-static discharge), it's recommended to use grounded anti-static wrist straps and grounded anti-static mats before handling the products.
2. Make sure the driving voltage is 0V before and after operating.
3. when switching on the circuit, connect ' GND ' first, then ' + ' (pin 1) and upgrade voltage slowly. when switch off the circuit, power off '+ ' (pin 1) first, then ' GND '.
4. Always take anti-static measures to storage the products when not in use.

