

Single-Channel Superluminescent Diode Light Source (Single-SLED) Integrated Spectral Bench (ISB1)

The Single-SLED Integrated Spectral Bench (ISB1) product is a compact Superluminescent Diode (SLED) solution that employs DAYY’s high-performance Optical Spectral Engine (OSE1) module. The ISB1 is a broadband light source that operates in the near infrared range. It is a turn-key product that can easily be integrated into existing devices that require light power.



The Single-SLED ISB1 includes an integrated isolator and a proprietary driver and controller, each of which enable the light power to easily be adjusted. A Graphical User Interface (GUI) with a USB or RS232 connection allows for external monitoring and adjustment capabilities.

The Single-SLED ISB1’s light output is powered by a standard FC/APC connector (FC/PC or SMA available upon request). The central wavelength of the light-output ranges from 770nm to 1680nm, thereby delivering high-power densities across the spectral range of the SLED.

KEY FEATURES

- User-controlled box with one SLED enclosed
- Compact and user-friendly
- Centre wavelength (CW) options: 770nm, 830nm, 850nm, 880nm, 930nm, 970nm, 1050nm, 1300nm, 1340nm, 1390nm, 1430nm, 1480nm, 1550nm, 1615nm, 1680nm
- SLED can be run from 0% to 100% of maximum rating
- Bandwidth FWHM: 15nm-70nm
- Some models include a broadband dual stage isolator
- Some models include a monitor photodiode
- Light output connector: FC/APC (optional: FC/PC or SMA)
- Multiple communication interfaces: USB and RS-232
- TTL interface for external monitoring
- Low Degree of Polarization (DOP) outputs available
- User-friendly GUI and custom API available for test automation

APPLICATIONS

- Optical Component Testing
- Telecom Test Equipment
- Medical Optical Coherence Tomography
- Industrial Optical Coherence Tomography
- Metrology
- Fiber Optic Gyroscopes
- Industrial and Biomedical Imaging Systems
- Optical Sensing
- Test and Measurement
- Research and Development

LASER TYPE ORDERING OPTION

- **Low-Degree of Polarization (DOP):** the ISB1 can provide under 5% DOP across spectrum. This minimizes polarization sensitivity of fiber sensors, and reduces the effects of polarization dependent loss



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