

## Programmable Superluminescent LED Source



Note: Shown in picture with optional integrated return signal port.

### FEATURES

- Wavelength from 1200 to 1700 nm
- Optical output power up to 50mW
- Wide 3dB spectral bandwidth of up to 80nm
- USB interface for controllable output power and internal modulation frequency
- CW operation base on ACC or APC operating mode
- Internal or external direct-modulation (digital inputs)
- Operating temperature from -20 to 70°C
- Telcordia certification

### APPLICATIONS

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|-------------------------------|---|
| <b>Communications</b>         | – Affordable gigabit bandwidth fiber-link to homes and business (FTTX), test & measurement for telecom networks   |
| <b>Medical applications</b>   | – OCT (biopsies-less medical cell imaging, diagnostic imaging), point of use/handheld/ non-invasive diagnosis (blood analysis)  |
| <b>Energy, oil and gas</b>    | – Sensing in gas & oil production, telemetry in electrical distribution   |
| <b>Industrial controls</b>    | – In-line production process monitoring, 3D metrology and surface metrology, semiconductor fabrication (solar cells), chemical and gas sensing – safety, emission control, security |
| <b>Environmental sensing</b>  | – Physical (temp, pressure, strain, vibrations), structural and civil engineering, smart structures, intelligent distributed sensing  |
| <b>Defense &amp; security</b> | – Perimeter defense, navigation and guidance – inertia sensing (gyroscope), infrared illumination for surveillance and speckle-free military imaging.                               |

## Superluminescent Light Emitting Diode Integrated Box Form Factor with complete Driver and Controller

### Greater Convenience for You

We have packaged our DL-CS series of 14-pin butterfly SLEDs into a complete solution that incorporates a high precision controller for high output level and excellent stability of the superluminescent diodes output. It also features controllable optical output power and internal modulation frequency through USB interface on customizable and integratable user interface such as LabView or C programming language.

The DL-BP1 series consists of a temperature controller, a DenseLight standard 14-pin butterfly package CL-CSxxxxA and a built-in drivers capable for ACC or APC CW driving mode, internal and external direct-modulation.

Wavelength Range (nm)	Product Code DL-BX9-CSXXXXA or DL-BX10-CSXXXXA	Min Power (mW)	Typ BW FWHM (nm)	Spectral Typ Ripple (dB)
1260 - 1290	2079A	7	75	0.15
	2184A	18	40	0.15
1290 - 1330	3055A	5	50	0.15
	3089A	8	75	0.2
	3102A	10	30	0.15
	3152A	15	30	0.15
	3159A	15	83	0.25
	3184A	18	42	0.15
	3202A	20	30	0.2
	3207A	20	56	0.15
	3307A	30	58	0.25
	3404A	40	43	0.25
	3452A	40	32	0.35
	3504A	50	38	0.3
1330 - 1370	35H5A	13	48	0.2
1380 - 1420	40H2A	15	35	0.2
1415 - 1445	43H4A	15	45	0.2
1430 - 1470	44H4A	15	45	0.2
1460 - 1500	48H5A	15	50	0.2
	5037A	3	60	0.15
1530 - 1570	5077A	5	60	0.2
	5107A	8	60	0.2
	5103A	10	40	0.15
	5153A	15	40	0.2
	5169A	16	80	0.3
	5203A	20	40	0.25
	5254A	25	40	0.25
	5403A	35	40	0.35
1560 - 1600	58M7A	5	58	0.15
1580 - 1620	6055A	5	55	0.15
	6107A	8	60	0.15
1600 - 1630	62M7A	8	60	0.15
1635 - 1690	65M5A	10	50	0.2
	69M5A	10	50	0.2

### PHYSICAL & MECHANICAL SPECIFICATIONS

- Dimension: L120 x W90 x H30 mm
- Enclosure: Metal Case
- Cooling: Air-cooled
- Optical Output: FC/APC receptacle
- Electrical Interface: 4-pin terminal block
- Control Interface: USB Mini-B receptacle
- External Modulation: SMA Socket

### FEATURES

- Selectable optical output power and frequency (internal modulation) via USB interface
- CW operation (excellent stability  $< \pm 0.03\text{dB}$ )
- Pulse or digital modulation up to 10MHz
- Integrated optical circulator and return signal port (optional)
- Over-temperature protection and internal PCB temperature monitor
- Active-Low optical power enabled function
- Built-in current driver and temperature controller
- Single +5.0V power supply
- High wall-plug efficiency

