



## SLD-based broadband light sources (all standard products)

### Description

These series of SLD-based broadband light sources are designed for OEM applications. The light sources are ready-to-use compact devices that combine an optical part and its driving electronics in a single unit. The optical part of these light sources consists of a cooled SLD-module (or, depending on a part number, of up to three broadband SLD-modules with slightly shifted spectra, the emission of which is combined) and, optionally, an optical isolator. The driving electronics comprise a single or, depending on a part number, multiple high-precision, low-noise current and temperature controllers.

We offer a broad range of products, six device series, which can meet any specific requirements:

- **Interfaces for Remote Operation:** analogue or digital (USB) interfaces are available;
- **Optical performance:** single-, double-, or triple-channel optical output featuring ultra-broadband and high-power performance;
- **Optional isolation** of the optical output;
- **Dimensions.**

The table below contains a short description of six device series.

<i>Analogue interface for Remote Operation</i>			
	<i>LS series</i>	<i>MS series</i>	<i>US series</i>
Dimensions / weight <sup>1</sup>	190 x 110 x 31mm / 950g	80 x 110 x 26mm / 250g	60 x 79 x 24mm / 150g
Number of channels	Single	Single	Single
Optical isolation	Yes	No	No
Pulse modulation of the optical output	50kHz (up to 100kHz on request)	50kHz (up to 100kHz on request)	10kHz
DC power (voltage / peak current)	12V (9-30V) DC / 1.2A	12V (9-30V) DC / 1.2A	12V (9-30V) DC / 1.2A
Optical output type	Socket / pigtail	Pigtail	Pigtail

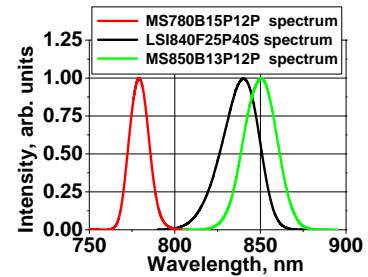
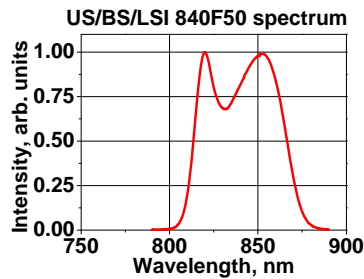
<i>Digital (USB) interface for Remote Operation</i>			
	<i>BS series</i>	<i>DD series</i>	<i>CD series</i>
Dimensions / weight <sup>1</sup>	60 x 45 x 21.5mm / 100g	100 x 120 x 31mm / 400g	190 x 110 x 31mm / 950g
Number of channels	Single	Double	1-, 2-, or 3- channels
Optical isolation	No	No	On request
Pulse modulation of the optical output	10kHz	No	No
DC power (voltage / peak current)	5 ± 0.25V DC / 1.5A	5 ± 0.25V DC / 3.5A	12V (9-15V) DC / 2.5A
Optical output type	Pigtail	Socket	Socket / pigtail

<sup>1</sup> – weight without an optical isolator.

The table below contains standard light sources for different applications.

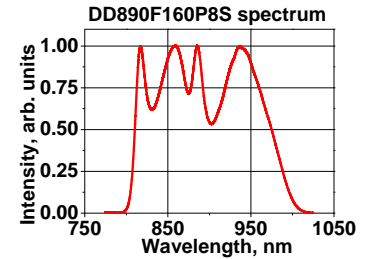
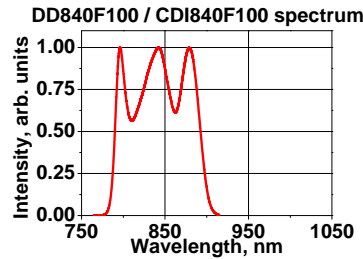
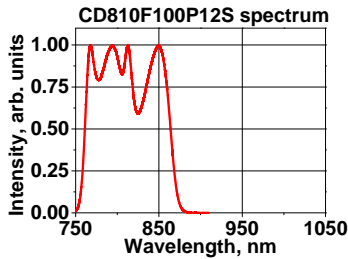
Part number	Product series	Optical isolation	Fiber type	Fiber optical power, mW	Central wavelength, nm	Spectral FWHM (-3dB width), nm	
MS780B15P13P	MS	No	PM	13	780 ± 5	15 ± 3	Optimized for 24/7 applications
LSI795B15P20S	LS	Yes	SM	20	795 ± 5	15 ± 3	Most high-power device @ 795 nm
US840F50P9S	US	No	SM	9 ± 3	840 ± 10	50 ± 5	Cost optimized and most compact designs for industrial OCT
BS840F50P9S	BS	No	SM	9 ± 3	840 ± 10	50 ± 5	
US840F50P15S	US	No	SM	15 ± 5	840 ± 10	50 ± 5	
LSI840F50P20S	LS	Yes	SM	20 ± 5	840 ± 10	50 ± 5	OCT inspired
LSI840F25P40S	LS	Yes	SM	40 ± 5	840 ± 10	25 ± 5	Welding OCT inspired
MS840B30P20S	MS	No	SM	20	840 ± 5	30 ± 5	
MS850B25P13P	MS	No	PM	13	850 ± 5	25 ± 5	Optimized for 24/7 applications

Single channel sources



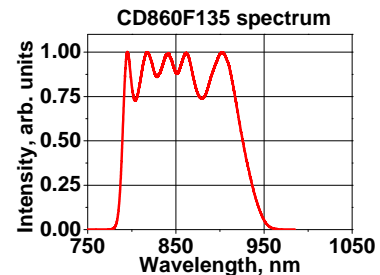
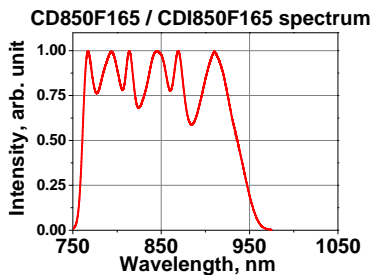
Double-channel sources

CD810F100P12S	CD	No	SM	12 ± 2	810 ± 10	100 ± 10	
DD845F100P15S	DD	No	SM	15 ± 5	845 ± 10	100 ± 10	OCT inspired
CDI845F100P12S	CD	Yes	SM	12 ± 3	845 ± 10	100 ± 10	
DD890F160P8S	DD	No	SM	8 ± 2	890 ± 10	160 ± 10	UHR OCT inspired



Triple channel sources

CD850F165P7S	CD	No	SM	7 ± 2	850 ± 10	165 ± 10	
CD850F165P15S	CD	No	SM	15 ± 3	850 ± 10	165 ± 10	OCT inspired
CDI850F165P11S	CD	Yes	SM	11 ± 3	850 ± 10	165 ± 10	
CD860F135P15S	CD	No	SM	15 ± 3	860 ± 10	135 ± 10	



For more detailed specification on the above part numbers please contact [support@sldsources.com](mailto:support@sldsources.com)

## Product customization

We are capable to customize our products to meet any specific requirements:

- **optical performance specifications.** Other wavelengths are available (670 nm and the range from 900 to 1100 nm), output optical power can be fine tailored to a specific requirement, and so on.
- **optical isolation.** Optical isolation can be added to selected device series.
- **Device series.** The products series designed for a certain number of channels are generally interchangeable.
- **Fiber connectors.** The standard type of fiber connectors and sockets is FC/APC. Other types of fiber connectors are available on request, including SC/APC, LC/APC, E2000, as well as PC-type connectors (for optically isolated sources only).
- **Optical fiber.** Single-channel sources can be assembled with any type of fiber listed below. Double- and triple-channel sources are assembled with SM fibers.

### SM and PM fibers:

Spectral range	Singlemode (SM) isotropic fiber	Polarization maintain (PM) fiber
650-700nm	FiberCore SM600 fiber	Corning PANDA PM63-U25D
750-950nm	Corning HI 780	Corning PANDA PM 85-U25D
950-1100nm	Corning HI1060	Corning PANDA PM980

**MM fibers:** Corning 50/125/250  $\mu\text{m}$ , Corning 62.5/125/250  $\mu\text{m}$ , ThorLabs GIF 625-100.

