

Features:

- **3 power categories: SLDs with an output power of up to 25 mW ex SM-fiber and a 3-dB spectrum width of 62 – 65 nm**
- centered at about 830, 850 and 865 nm
- very short coherence length
- negligible residual Fabry-Perot modulation depth; <1% (<0.05 dB) upon request

Packages:

- **fiber coupled** – Butterfly, DIL
- **free space** – TOW

Special versions:

- **modules with reduced sensitivity to optical feedback**

Applications

- ultra-high resolution OCT
- Bragg grating sensors
- fiber sensors
- optical measurements
- others

Specifications (nominal emitter stabilization temperature is +25 °C)

Parameter	Cat.	Min	Typ.	Max
Output power ex SM fiber, mW, SLD-351	HP1	5	7.5	
	HP2	10	15	
	HP3	20	25	
Free space output power, mW, in a cone N.A.=0.71, SLD-350*	HP1	10	15	
	HP2	20	30	
	HP3	40	50	
Forward current**, mA	HP1,2		250	300
	HP3		300	400
Forward voltage, V	All			3.0
Central wavelength, nm	HP1		830	
	HP2		850	
	HP3		865	
Spectrum width, FWHM, nm	All	57	62	
Residual spectral modulation depth, %	All		2.0	5.0
Secondary coherence subpeaks (Reflectivity), dB (10 log)	All		-25	
Spectral flatness***, dB	All		2.7	<3.0
Slow/fast polarization ratio (PM-fiber coupled polarized modules), dB	All		7.0	
Operating temperature****, °C		-55		+80
Storage temperature, °C	All	-55		+85
Cooler current, A				1.2
Cooler voltage, V				3.5

* - TOW-packaged SLDs;

** - current is specially adjusted to get the highest output power with equal intensity of spectral humps; different for different modules;

*** - describes spectral intensity dropout between spectral humps

**** - HP1-rated butterfly-packaged SLDs; more details upon request

The following part numbers should be used when **ordering**:

SLD-35(a)-(b)-(c)-(d)-(e)-XXX,

where:

(a) – 0 (free space) or 1 (fiber pigtailed),

(b) – power category, HP1, HP2 or HP3,

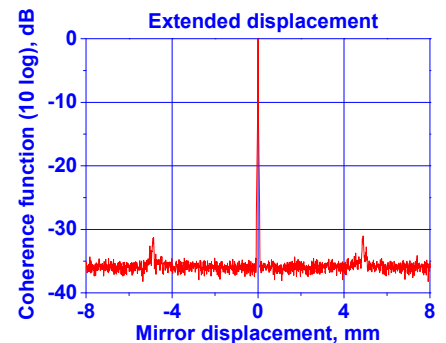
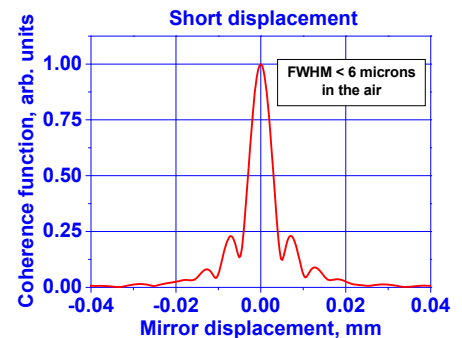
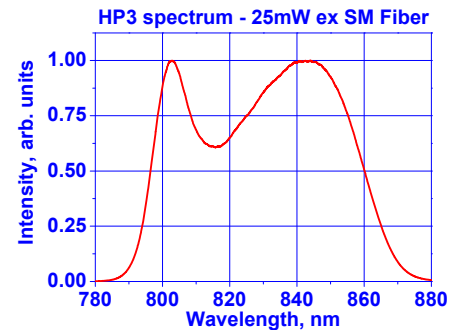
(c) – package type, (d) – SM or PM (for fiber coupled modules),

(e) – PD (if PD monitor is required),

XXX – wavelength (830, 850, 865; a ±10-nm tolerance is guaranteed).

Example: SLD-351-HP1-DIL-SM-PD-855.

PERFORMANCE EXAMPLES

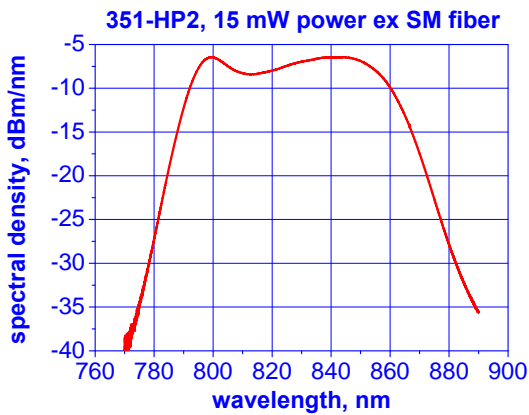


Mirror displacement = Optical path difference / 2

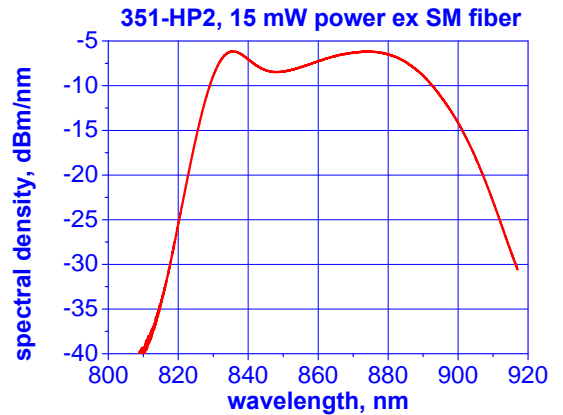
A maximum feedback of 10^{-3} is allowed to run HP series SLDs safely at full power. Models with reduced sensitivity to optical feedback are available upon request.

See the next page for more examples →

MORE PERFORMANCE EXAMPLES

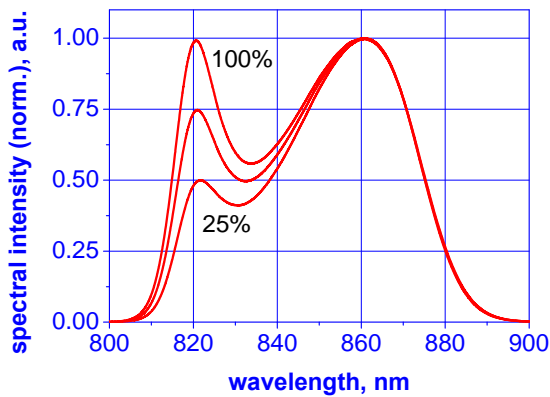


65 nm wide SLD at 830 nm – spectral density

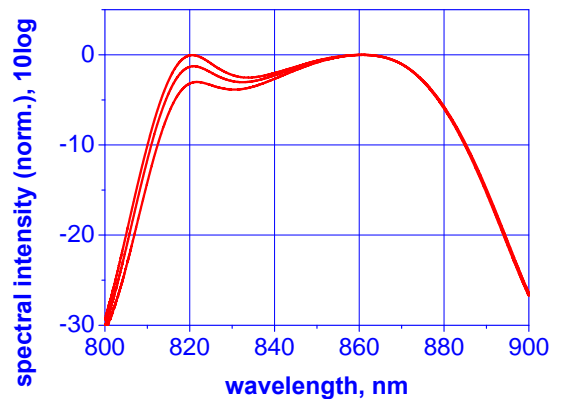


60 nm wide SLD at 860 nm – spectral density

Spectrum of SLD-351 depends on output power/drive current. The figure below shows a typical example of SLD spectrum at full power, 50% of full power, and 25 % of full power



Spectrum at 25%, 50% and 100% optical power (linear plot)



Spectrum at 25%, 50% and 100% optical power (log plot)

All specifications are subject to change without notice.